

MINUTES OF THE 130<sup>TH</sup> MEETING OF THE  
UNIVERSITY GRANTS COMMISSION ON  
HELD ON 1<sup>ST</sup> DECEMBER 1971

UNIVERSITY GRANTS COMMISSION

UNIVERSITY GRANTS COMMISSION

MINUTES OF THE 130TH MEETING OF THE UNIVERSITY GRANTS  
COMMISSION HELD ON 1ST DECEMBER 1971.

The following were present:

Professor D.S. Kothari	Chairman
Dr. A.S. Adke	Member
Smt. Indumati Chimanlal	"
Professor A.B. Lal	"
Professor Tapas Majumdar	"
Shri T.P. Singh	"
Shri M.R. Yardi	"
Shri R.K. Chhabra	Secretary

SECRETARIAT

Dr. D. Shankar Narayan	Addl. Secretary
Dr. R.C. Gupta	Joint Secretary
Dr. R.D. Deshpande	" "
Dr. S.K. Dasgupta	Dev. Officer
Shri S. Vishwanath	" "
Dr. G.S. Mansukhani	" "
Shri I.C. Menon	" "
Shri P.G.N. Nampoothri	Finance Officer

Item No. 1 : To receive the minutes of the meeting of the Commission held on 6th October 1971.

The minutes of the 129th meeting of the Commission held on 6th October, 1971, already circulated, were confirmed.

Item No. 2 : (a) To approve the action taken on certain matters.  
(b) To receive the items of information.

(a) The Commission approved the action on items listed in Appendix 1\*.

(b) This was noted.

Item No. 3 : To approve the statement of grants released after the last meeting of the Commission held on 6th October 1971.

The Commission approved the grants released after the last meeting held on 6th October 1971 (Appendix II)\*

Item No. 4 : To receive a statement of expenditure incurred by the UGC during 1971-72 (upto 31st October 1971).

This was noted.

\*Not enclosed

(2)

Item No. 5 : To receive a note on the cases of student unrest for the period September - October 1971.

This was noted.

Item No. 6 : To receive a note on the suggestions for practical action by Member States and National Commissions on the 1971-72 programmes of Unesco.

The Commission noted that action has been initiated on some of the items in the 1971-72 programme of UNESCO. The Unesco note would be circulated to the universities for information.

Item No. 7 : To receive the minutes of the meeting of the Committee appointed by the UGC to consider the role and functions of the UGC Advisory Committee of Vice-Chancellors.

This was noted.

Item No. 8 : To receive a note on the construction of Task Forces in the field of education to review past developments and formulate proposals for the Fifth Five Year Plan.

This was noted.

Item No. 9 : To receive a note on the field studies in Geography and other subjects and to consider further the guidelines proposed by Delhi University for purposes of payment of TA & DA to students of BA (Hons.)/BA (Pass) Course in Geography for field work excursion.

The Commission agreed to support "field work" by students and for this purpose to provide assistance at the rate of 3rd class railway (sleeper) fare and a per diem allowance of rupees five which in special cases may be raised to rupees eight. The expenditure incurred on this may be treated as approved expenditure for purposes of determining maintenance grants to the colleges affiliated to the Delhi University.

Item No. 10: To consider further the reference from the Ministry of Education & Social Welfare relating to setting up of a special Institute or a separate University for foreign students.

This was noted.

Item No. 11: To consider a reference from the Government of India, Ministry of Education and Social Welfare relating to cooperation between Oberlin College, USA and Indian Universities.

The Commission desired that the information asked for in this regard by the Ministry of Education & Social Welfare may be awaited.

p. t. o.

Item No. 12 : To receive a report regarding the engagement of Shri R.M. Mehta, Central Government Counsel to pursue the case in the High Court of Delhi in Criminal Appeal Nos. 103 and 104 of 1971 filed by the Accused Directors of the Commercial University Limited, Delhi.

The Commission resolved that Shri R.M. Mehta, Central Government Advocate, High Court of Delhi, may be engaged for appearing on behalf of the Commission in Criminal Appeal Nos. 103 and 104 of 1971 in the High Court of Delhi and that the Secretary, U.G.C. is authorised to sign the "Vakalatnama" to be given to Shri R.M. Mehta.

Item No. 13 : To consider the report of the Committee appointed to examine the proposals of (i) Shri C.N.P.F. Arts and Dabhoi Nagarpalika Science College, Dabhoi and (ii) Bhavan's Arts and Science College, Dakor (Gujarat University) for the development of their postgraduate departments of Chemistry.

The Commission desired that the views of the Gujarat University may be invited, particularly regarding the observations of the committee about the organisation of postgraduate courses.

Item No. 14 : To consider the report of the Committee appointed to examine the proposals received from the P.P.N. College, Kanpur (Kanpur University) for the development of Postgraduate studies in Science subjects.

The Commission desired that the views of the Kanpur University may be invited regarding the observations made by the committee on the development of postgraduate studies in science subjects.

Item No. 15 : To consider further the report of the Committee appointed by the University Grants Commission to examine the proposal of Gujarat Vidyapith for the development of the Department of Education.

The Commission generally accepted the recommendations of the visiting committee and, after taking into account the comments of the Vidyapith, agreed to provide the following grants for the development of Department of Education for the period ending 1973-74:-

a) Tribal Education

<u>Postgraduate Education and Research</u>	<u>Estimated expenditure</u>	<u>UGC Share</u>
Reader (1)		100%
Lecturers (2)		100%

(4)

Field Assistant for Planning field work in Tribal areas (1).		100%
Statistical Assistant (1)		100%
Phonetic equipment for research in tribal dialects and folk lore	Rs. 35,000	Rs. 35,000
b) <u>Craft Education</u>		
One Lecturer in craft Education to teach methodology of teaching craft		50%
Demonstrators for teaching actual crafts (2)		50%
Equipment for craft Education	Rs. 36,000	Rs. 24,000
c) <u>Co-operative Programme</u>		
Field Organiser		50%
Programme expenses	Rs. 15,000	Rs. 15,000

With regard to the construction of additional building, the Commission desired that the Vidyapith may be advised to take this up during the next plan period.

Item No. 16 : To consider a report on the visit of the buildings constructed with UGC grant at Vaish College, Shamli (Meerut University).

The Commission desired that the Vaish Degree College, Shamli (Meerut University) may be asked to complete the projects undertaken with the Commission's assistance before July 1972, and that no grants be paid to the college until these are completed.

Item No. 17 : To consider the recommendations of the Standing Committee on Library Development regarding the proposals from the Universities for additional grants for books and journals during the Fourth Plan period.

The Commission generally accepted the recommendations of the Standing Committee on Library Development for additional grants to the Universities for Books and Journals. It was noted that it would not be possible to provide additional grants to the universities in the current year in view of the budgetary position.

Item No. 18 : To consider further the report of the visiting committee appointed by the Commission to assess the Fourth Plan requirements of the Birla Institute of Technology & Science, Pilani and the proposals for the development of Bio-Science and the Central Instrumentation facility centre.

The Commission agreed that, in addition to the schemes already sanctioned in the Fourth Plan period, the Birla Institute of Technology & Science may be provided funds for the schemes continued from the previous plan, subject to a ceiling of Rs. 48.47 lakhs (for the Third Plan Continuing Schemes). The new proposals recommended by the Visiting Committee may be further examined and brought up before the Commission.

The Commission could not accept the proposal for the development of Biological Sciences at this stage. As regards the setting up of instrumentation service facilities the matter may be further examined.

With regard to the payment of maintenance grant to the Birla Institute of Technology, Pilani, it was suggested that this may be further discussed with the Ministry of Education & Social Welfare and brought up at the next meeting.

Item No. 19 : To consider the recommendations of the AICTE for the development of undergraduate and postgraduate courses in Pharmacy at Jadavpur University.

The Commission accepted the recommendations of the AICTE for the development of undergraduate and postgraduate courses in Pharmacy at the Jadavpur University with a total intake of 15 and agreed to provide the following grants on 100% basis:

Physical facilities

Postgraduate Course in Pharmacy:-

Building - 8000 sqft plinth area		Rs
Equipment (including furniture installation etc.)		4.0 lakhs
	Total NR	3.0 lakhs
		<u>7.0 lakhs</u>

Recurring

Professor (2)	}	
Reader (2)		
Research Asstt. (Rs. 300-600 - (3)		0.92 lakhs
Junior fellowships for additional intake of 9		0.54 lakhs
Maintenance		<u>0.09 lakhs</u>
	Total Recurring	<u>1.55 lakhs</u>
	p. a.	p. t. o.

(6)

It was noted that the recurring grants will be available for a period of five years.

With regard to the proposal for upgrading 8 posts of Associate Lecturers to that of Lecturers, it was agreed that, as in similar cases for other faculties expenditure for these be met by the University from its own resources/grant by the State Government.

Item No. 20 : To consider the recommendations of the AICTE for the provision of students' amenities at the Osmania University as well as Annamalai, Andhra Bangalore, Madras, Sri Venkateswara and Sambalpur Universities.

The Commission desired that consideration of the recommendations of the AICTE for providing students' amenities for the engineering and technological faculties in Osmania, Annamalai, Andhra, Bangalore, Madras, Sri Venkateswara and Sambalpur Universities may be postponed in view of the present budgetary position.

Item No. 21 : To consider the recommendations made by the UGC Advisory Committee on Colleges at its meeting held on 2.9.1971.

The Commission desired that as decided under Item 9 financial support be provided to colleges for "field work" by students and a detailed note in this regard may be placed before the Commission at a later meeting.

With regard to the other recommendations it was suggested that these may be placed before the Advisory Committee of Vice-Chancellors.

p.t.o.

Item No.22 To consider the proposal of People's College, Nanded(Marathwada University) for Commission's assistance towards the development of Postgraduate Studies in the Humanities and Social Sciences.

....

The Commission accepted the proposal of the People's College, Nanded(Marathwada University) and agreed to provide the following grants for the development of postgraduate studies in the Humanities and Social Sciences: .

S.No.	Item	Total Cost.	Commission's Share
1.	4 rooms on the first floor of the building including furniture.	Rs.70,000	Rs. 35,000
2.	4 Lecturers - one each in English, Commerce, Pol. Science and Marathi in the grade of Rs.400-800/300-600	Rs.60,000	Rs.30,000
3.	Books & back volumes of journals for the post-graduate departments of English, Commerce, Pol. Science and Marathi.	Rs.60,000	Rs.45,000
Total:		1, 90,000	1, 10,000

Item No.23: To consider the recommendation of Inter University Board regarding establishment of a Central Examination Unit.

The Commission accepted, in principle, the recommendations to set up an Examination Unit, and desired that the relevant details may be worked out in consultation with the Ministry of Education & Social Welfare and the Inter-University Board of India .

Item No.24: To consider the report of the Committee appointed by the UGC to examine the proposal of H.M. Patel Institute of English alongwith the comments of Sardar Patel University.

The Commission accepted the proposal of the H.M.Patel Institute of English and in the light of the comments received from the Sardar Patel University and agreed to provide



(8)

assistance to the Institute as under:

<u>Item</u>	<u>Estimated cost.</u>	<u>UGC Share</u>
a. Purchase of equipment	Rs. 1,02,000	Rs. 76,500
b. Purchase of books.	Rs. 13,333	Rs. 10,000
	<u>Rs. 1,15,333</u>	<u>Rs. 86,500</u>

The Commission could not agree to the construction of the building at the present stage.

Item No.25: To consider a reference from the Rector, Zogreb University, Yugoslavia, with regard to the establishment of Inter-University Postgraduate Centre in Humanities and Social Science in Dubrovnik.

The Commission desired that the views of the Universities of Bombay and Calcutta may be obtained with regard to the suggestions made by the Zogreb University Yugoslavia.

Item No.26: To consider the following proposals received from the Banaras Hindu University:

- (i) For appointment of a Committee to consider the size of enrolment in the various faculties of the University and to fix the number of places in the Departments/Institutions of the University taking into account the facilities available.
- (ii) For the sale of certain items of equipment to the Magadh University.
- (iii) For assistance from the Ford Foundation for the development of the Bharat Kala Bhawan.

(i) The Commission was of the view that the Banaras Hindu University may prepare a "working paper" with relevant details as regards the numbers of students which could be admitted to the various courses provided by the University, keeping in view the available class-room, laboratory, library, hostel and other essential facilities and their most effective utilization. The Commission further desired that a Committee be appointed in consultation with the University to consider the "working paper" received from the University and other related matters.

p.t.o.

(9)

- (ii) The Commission was of the view that in principle there could not be an objection to the transfer of surplus equipment from one University to another wherever considered appropriate. It was desired that the present proposal may be further discussed with the Banaras Hindu University.
- (iii) The Commission accepted in principle the proposal of the Banaras Hindu University for assistance from the Ford Foundation for strengthening the post-graduate diploma course in Museology and desired that the proposal may be examined in consultation with the University in terms of the guidelines for receiving foreign assistance.

Item No. 27: To consider the following proposals received from Delhi University:-

- i) For financial assistance outside its Fourth Plan allocation for certain schemes of the Departments of Botany and Anthropology.
- ii) Not to insist for the condition of about 20 students in the case of honours courses in Modern Indian Languages, Urdu or Sanskrit or Geography in Delhi Colleges.

i) The Commission regretted its inability to provide additional grants for the Department of Botany outside the Fourth Plan allocation. The Commission, desired that the proposal to convert four low-temperature cabinets into growth chambers may be further examined.

The Commission desired that the proposal of the Delhi University to initiate studies in Human Cytogenetics in the Department of Anthropology may be examined with the help of an expert committee.

ii) The Commission regretted its inability to accept the proposal of the Delhi University for relaxing the condition regarding the minimum number of students for admission to the Honours course.

Item No. 28: To consider the following proposals received from the Bombay University :

- (i) Establishment of a department of Geology;
- (ii) Establishment of departments of Microbiology and Biochemistry in the Biological Science Division
- (iii) For transfer of equipment from ex-Institute of Basic Medical Sciences to University Departments/Colleges.

i) The Commission desired that the proposal of the University of Bombay for setting up a Department of Geology may be examined by a committee.

ii) The Commission desired that the University of Bombay may be requested to formulate its proposals in the light of the recommendations made by the bi-national conference on Life Sciences held at Bangalore in June 1971.

iii) The Commission approved the following action taken by the Bombay University with regard to the Institute of Basic Medical Sciences :

(a) Defering the implementation of the scheme which had already been taken up;

(b) Incurring an expenditure of Rs. 53,673.59 on the recurring items viz., staff, books, contingencies for the period September 1967 to March 1968 including the payment of salaries of staff during the notice period.

(c) Disposal of the unused equipment, apparatus etc., as may be decided by the Syndicate of the University.

It was agreed that the amount received by the University towards the disposal of equipment to non-university institutions may be taken into account while paying grants to it.

Item No. 29: To consider the proposal of the Calcutta University for the construction of an extension to the building of the Institute of Basic Medical Sciences.

The Commission desired that the Calcutta University be advised that the construction of extension to the building of the Institute of Basic Medical Sciences may be postponed. Attention of the University may be drawn to the need for teachers hostel and the staff quarters for which the Commission had earlier agreed to provide assistance.

Item No. 30: To consider the proposal of the Vikram University for financial assistance towards the construction of a Gymnasium..

The Commission accepted the proposal of the Vikram University for the construction of a Gymnasium and agreed to provide assistance to the university on the usual sharing basis - the UGC's share being limited to Rs. 1,87,500 or 75% of the approved cost whichever is less.

Item No. 31: To consider a proposal for establishment of Instrumentation Workshop in the Department of Physics, Andhra University.

The Commission desired that the proposal of the

Andhra University for establishment of Instrumentation Workshop may be examined by an expert committee.

Item No. 32: To consider a proposal from the M.S. University of Baroda for Secretarial assistance under the adult education scheme.

The Commission agreed that assistance may be provided to the M.S. University of Baroda also towards the expenditure incurred on secretarial assistance under the adult education scheme on the usual sharing basis (75 UGC : 25 University) provided that the total grant during the IV Plan period does not exceed the ceiling of Rs. three lakhs.

Item No. 33: To consider the proposal received from Calicut University to organise orientation meetings and workshop on Examination Reforms.

The Commission desired that the proposal of the University may be considered in the light of the recommendations of the Seminar/Workshop - these may be obtained from the University.

Item No. 34: To consider the following proposals received from Burdwan University:

(i) For financial assistance outside the Fourth Plan allocation for the department of Geography.

(ii) For financial assistance for the M.Sc. course in Applied Botany.

(i) The Commission regretted its inability to provide assistance to Burdwan University outside the Fourth Plan allocation for the Department of Geography.

(ii) The Commission accepted the proposal of Burdwan University for starting M.Sc. Course in Applied Botany provided the University could accommodate the expenditure within the Fourth Plan allocation.

----

Item No. 35 To consider a proposal from the Jiwaji University for additional grant for library books and journals for the Department of Physics.

The Commission desired that this may be deferred in view of the budgetary position (See also item No. 17)

Item No. 36: To consider the proposal of the Meerut University, Meerut, regarding the revised allocation in respect of the scheme of the correspondence courses for B.A. degree.

The Commission accepted the revised allocation of funds regarding the correspondence courses at the Meerut University.

-----

Item No. 37. To consider the proposal of the Sri Venkateswara University for financial assistance towards introduction of Correspondence Courses.

The Commission desired that the matter may be further discussed with Sri Venkateswara University keeping in view the decision of the Andhra University (Waltair) to start correspondence courses.

----

Item No. 38: To consider the proposals of the following universities towards the establishment of 'Health Centres':-

(i) Sambalpur University

(ii) Saurashtra University.

(i) and (ii) The Commission agreed that assistance to the Universities under the new scheme of 'Health Centres' for non-recurring expenditure (building and equipment) may be on a sharing basis of 75:25 subject to an upper limit of Rs. 1.5 lakhs as UGC share and for recurring expenditure (for staff) on a 50:50 sharing basis subject to a maximum of Rs. 30,000 per annum as UGC share, for the period ending 1973-74. The Commission further agreed that the proposals of the Sambalpur and Saurashtra Universities for the establishment of Health Centres may be accepted on the above basis.

----

Item No. 39:- To consider a proposal of the Sri Satya Sai Arts and Science College for Women Anantapur (Sri Venkateswara University) for financial assistance for the construction of Women's Hostel.

The Commission desired that this may be examined in the light of the additional information since received from the College.

---

Item No. 40: To consider a request from the Chikitsak Samuha Sir Sitaram and Lady Shantibai Patkar College of Arts and Science, Bombay, (Bombay University) for financial assistance for a Biology Laboratory beyond the normal ceiling of Rs. three lakhs.

The Commission accepted the proposal of the Chikitsak Samuha Sir Sitaram and Lady Shantibai Patkar College of Arts and Science, Bombay (Bombay University) for the construction of a Biology Laboratory at an estimated cost of Rs. 1,64,111 the Commission's grant for the project being limited to Rs. 1,09,407 on the usual sharing basis.

----

(13)

Item No.41: To consider a proposal of St. Mary's College, Tuticorin (Madurai University) for assistance for a Women's Hostel beyond the normal Fourth Plan ceiling of Rs. three lakhs.

The Commission accepted the proposal of St. Mary's College, Tuticorin (Madurai University) for a Women's Hostel at an estimated cost of Rs. 3,65,000 the Commission's grant for the purpose being limited to Rs. 2,50,000 or 75% of the approved expenditure whichever is less.

---

Item No.42: To consider the proposal of Sri Avinashilingam Home Science College, Coimbatore, (Madras University) towards the construction of Gymnasium

The Commission accepted the proposal of the Sri Avinashilingam Home Science College, Coimbatore (Madras University) for the construction of a Gymnasium and agreed that the Commission's assistance for the project will be limited to Rs. 1,12,500 as agreed to earlier.

---

Item No.43: To consider further the payment made by the Jamia Millia Islamia, New Delhi towards the salary of 'Clerk of Works' in respect of the Arts Faculty Building.

The Commission agreed that the expenditure incurred by the Jamia Millia Islamia on the appointment of 'Clerk of Works' appointed for the construction of Arts Faculty building may be treated as an approved expenditure for the purposes of grant due to the Jamia Millia Islamia.

---

Item No.44: To consider the question of nomination of a representative of the UGC on the Governing Board of the Tata Institute of Social Sciences, Bombay.

The Commission desired that Professor V.M. Dandekar, Director, Gokhale Institute of Economics & Politics, Poona be nominated as representative of the UGC on the Governing Board of the Tata Institute of Social Sciences, Bombay.

---

(14)

Item No.45: To consider further the proposal of the Universities for enhancing the allocation of unassigned grant for the year 1971-72.

The Commission felt that in view of the paucity of funds it may not be possible to enhance the allocation of unassigned grant for the current year. The Commission further desired that a committee may be appointed to formulate guidelines for the allocation of unassigned grant for 1972-73.

-- --

Item No.46: To note the date and place for the next meeting of the Commission.

It was agreed that the date and place for the next meeting of the Commission be decided by the Chairman.

---

Item No.47: To receive the calendar of meetings of the University Grants Commission to be held during 1972.

This was noted.

-----

Item No.48: To consider the recommendations of the AICTE for the starting of Diploma Course in Textile Design at the A.C.College of Technology - University of Madras, Madras.

It was agreed that this may be further examined and brought up at a later meeting.

---

Item No.49: To consider the recommendations of the AICTE for the introduction of Postgraduate Diploma Course in Hydrology in the Roorkee University.

The Commission accepted the recommendations of the AICTE for the introduction of Postgraduate Diploma Course in Hydrology in the Roorkee University and agreed to provide the following assistance on a cent per cent basis:-

- -

Non-Recurring:

Equipment Rs.70,000

Recurring

Rs.61,500 per annum

It was agreed that the Commission's assistance will be for a period of five years within the Fourth Plan allocation, and thereafter it may be taken over as a committed expenditure by the University/State Government.

-----

Item No.50: To consider further the report of the Committee appointed by the University Grants Commission to examine the proposal of the Gujarat University for the development of the Department of Education.

The Commission generally accepted the recommendations of the Visiting Committee, and after taking into account the comments of the University, agreed to provide the following grants for the development of Department of Education for the period ending 1973-74:

Guidance and Counselling:

Professor - One  
Lecturer - One

Non-recurring grant for furniture  
equipment and Test material - Rs.35,000

Research in Examinations:

Statistician - One  
Recurring grant - Rs.10,000 p.a

Instructional Material and other  
Research Programmes:

Research Assistant- Three  
Recurring grant - Rs.10,000 pa

The Commission desired that the proposal of the University for assistance for Continuing Education may be examined separately.

Item No.51: To consider the report of the Committee appointed by the University Grants Commission to look into the amenities for the students of the Aligarh Muslim University.

The Commission accepted the recommendations of the Committee appointed to look into the amenities for the students at the Aligarh Muslim University, and desired that the University be requested to indicate the phased programme for the implementation of the recommendations of the Committee.

The Commission also accepted in principle the recommendation of the Committee for provision of a separate Administrative Block for the University and desired that the University may be asked to send specific proposals for the consideration of the Commission.



Item No. 52 : To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of Aligarh Muslim University for the development of its centre for West Asian Studies

The Commission generally accepted the recommendation of the Committee appointed to examine the proposal of the Aligarh Muslim University for the development of Centre for West Asian Studies and agreed to provide grant for the following outside the Fourth Plan allocation.

Readers	2
Junior Fellowships	2
Books and Journals	Rs. 50,000

With regard to the construction of the additional building, the Commission desired that the Aligarh Muslim University be requested to postpone the construction of the building to the Fifth Plan.

Item No : 53 : To consider the recommendation of the Fifth All-India Conference on Educational Statistics held at Puri from February 4 - 8, 1971.

This was noted. The Commission desired that a Standing Committee be appointed to advise the Commission regarding the collection and compilation of statistics on higher education.

Item No : 54 : To consider the following proposals of the Banaras Hindu University :

- (i) For the introduction of certificate and diploma courses in Urdu.
- (ii) For sanction of the post of a Librarian in the grade of Rs. 750-1250 in the Institute of Medical Sciences.
- (iii) For awarding scholarships for undergraduate students of the Institute of Technology.

i) The Commission accepted the proposal of the Banaras Hindu University for the introduction of certificate and diploma courses in Urdu subject to there being no additional expenditure in the Fourth Plan period.

ii) The Commission regretted its inability to accept the proposal of the Banaras Hindu University for the creation of a post of Librarian in the scale of Rs. 750-1250 in the Institute of Medical Sciences.

(iii) It was agreed that this may be further discussed with the Ministry of Education and Social Welfare.

Item No.55: To consider the proposal of the Indraprastha College for Women, Delhi (Delhi University) for financial assistance towards the construction of Gymnasium.

The Commission accepted the proposal of the Indraprastha College for Women, Delhi (Delhi University) for the construction of a Gymnasium and agreed to provide a grant of Rs.93,068 on the usual basis.

Item No.56: To consider the proposal of Poona University for the construction of staff quarters for Class IV employees outside the Fourth Plan allocation.

The Commission regretted its inability to accept at this stage the proposal of the Poona University for construction of staff quarters for Class IV employees outside the Fourth Plan allocation.

Item No.57: To consider the proposal of the Panjab University for approving the revised plans and estimates for the construction of library building at VIS and IS, Hoshiarpur.

The Commission accepted the revised plans and estimates for the construction of library building at VIS and IS, Hoshiarpur, at an estimated cost of Rs.4,00,140/-. The Commission's assistance would be limited to two-third of the approved expenditure.

Item No.58: To consider further the proposal of the SNDT Women's University for assistance towards the setting up of a department of continuing education from the year 1971-72.

The Commission accepted the proposal of the SNDT Women's University (including building, mobile van and equipment) for the Department of Continuing Education provided that the Commission's assistance for the IV Plan period on 75:25 basis would not exceed Rs. three lakhs.

Item No.59: To consider the proposal of the Marathwada University for sanctioning an additional grant towards the publication of the thesis entitled "Persian Elements in Marathi Chronicles".

The Commission agreed to the proposal of the Marathwada University for incurring expenditure towards the publication of the thesis on a cent per cent basis provided

the expenditure of Rs.7,654-46 could be accommodated within the total allocation of Rs.50,000 available to the University for the publication of research work.

Item No.60: To consider a proposal received from the Centre of Advanced Study in Botany, University of Madras for a special grant of Rs.4.5 lakhs for purchase of an AEI Electron Microscope from U.K.

The Commission desired that the University may be requested to accommodate the expenditure required within the Fourth Plan allocation. The possibility of obtaining assistance under the UK Assistance Programme may also be explored.

Item No.61: To consider further the proposal of the Bihar University for (i) the creation of additional post of a Professor each in the Departments of History, Political Science, Economics and Mathematics; (ii) starting teaching of new subjects.

The Commission agreed that the Bihar University may provide for the following within the Fourth Plan allocation:

(i) Diploma in Russian Language:

Reader	...	1
Lecturer	...	1
Books	...	Rs.15,000
Equipment	...	Rs.10,000

(ii) Postgraduate teaching in Commerce at C.M. College, Darbhanga:

Readers	...	3
Books	...	Rs.25,000

The Commission was not in favour of the University providing for Diploma in Journalism and teaching of Telugu in the University during the current Plan period. With regard to the additional posts of Professor, the University be requested to indicate the present strength of staff in the different departments and also their qualifications/contribution to research.

Item No.62: To consider the proposal of J.S.S.S.G. Science College, Dharwar (Karnatak University) regarding the Commission's assistance for a laboratory building.

The Commission regretted its inability to accept the proposal of J.S.S.S.G. Science College, Dharwar

(Karnatak University) for admitting the expenditure of Rs.28,288/- incurred in 1967 towards the construction of the proposed building for Botany and Zoology laboratories for purposes of Commission's assistance.

Item No.63: To consider a proposal received from the Birla Institute of Technology and Science, Pilani for establishment of Practice School/Sandwich Courses in Engineering and Technology.

The Commission regretted its inability to accept at this stage the proposal of the Birla Institute of Technology and Science, Pilani for establishment of Practice School/Sandwich Courses in Engineering and Technology.

Item No.64: To consider the proposal from the Indian Institute of Science, Bangalore for a collaborative project between the Indian Institute of Science, Bangalore and Purdue University, USA.

The Commission desired that further information may be obtained from the Institute and the matter brought up again before the Commission.

Item No.65: To consider further the question of reservation of seats for postgraduate courses for the candidates belonging to Jammu & Kashmir.

This was noted.

Item No.66: To consider the question of prescribing composite teacher-pupil ratio in respect of teaching of B.Sc (Hons) courses by colleges affiliated to Delhi University.

The Commission desired that this may be further examined and brought up again before the Commission.

Item No.67: To consider the draft resolution regarding a civil suit to be instituted against the S.D. College,, Hoshiarpur (Panjab University).

The Commission resolved "that the Registrar, Panjab University, is authorised to institute and further prosecute the legal proceedings against the S.D. College Committee, Hoshiarpur for possession of Lands (including the buildings therein) situated in the area of village Sutheri, Distt. Hoshiarpur, to sign all documents in this connection and to take all other steps necessary for the purpose of the aforesaid legal proceedings. He is further authorised to engage a legal practitioner or legal

practitioners for conducting the case in the court of law."

Item No.68: To receive the draft report of the University Grants Commission for 1970-71.

The Commission desired that the comments of the members be invited on the draft report for 1970-71 and that the draft report, along with the comments that may be received, may be examined by a Committee and the report finalised.

Item No.69: To consider the proceedings of the Standing Committee on Part-time Education.

The Commission accepted the recommendations of the Standing Committee on Part-time Education, and desired that the general recommendations on the subject may be circulated to the universities.

Item No.70: To consider the recommendations of the Committee to advise the UGC on the implementation of the Summer Science Institute Programme.

The Commission accepted the recommendations of the Committee in regard to the organisation of 55 General Summer Institutes and further agreed that only 12 All-India Special Summer Institutes be organised during 1972 as against 24 recommended by the Committee. The Commission also agreed that in addition to the charges of Rs.8 per participant per day towards boarding, an additional sum of Re.1/- per participant per day may be provided for meeting the cost of essential services viz., water, electricity etc. of the hostel.

Item No.71: To consider a proposal of the Delhi University for the creation of a post of a Dean of Administration in the grade of Rs.1800-2000.

It was agreed that this may be further discussed with the Delhi University.

Item No.72: To consider further the proposal of Rajdhani Colleges, New Delhi (Delhi University) for payment of grant for acquiring land for the construction of building allotted by the DDA on concessional rates.

It was agreed that this may be further discussed with the Ministry of Education & Social Welfare and the Delhi University.

Item No.73: To consider the proposal from the Calcutta University Bangladesh Sahayak Samiti for assistance for organising a Seminar on Bangla Desh in collaboration with the Calcutta University.

The Commission agreed to make a contribution of Rs.20,000/- for organising a seminar on Bangla Desh by the Calcutta University.

Item No.74: To consider a note on the implementation of Research Participation Programme in Basic Science for College Teachers and Postgraduate Students 1971--72.

The Commission desired that the progress of the scheme of Research Participation in Basic Science for College Teachers and Postgraduate Students may be reviewed so as to increase its effectiveness and the matter brought up again before the Commission.

Item No.75: To consider the question of providing financial assistance to full-time research scholars/research fellows working in Universities/Colleges for their visits abroad either in connection with their research work or for attending International Conferences.

This was noted.

Item No.76: To consider the suggestions made by the Committee appointed by the CSIR to review the working of the schemes for Emeritus Scientists and Retired Scientists.

The Commission desired that this may be referred to the Standing Committee on the scheme of utilisation of services of retired teachers.

Item No.77: To consider a proposal received from Utkal University for the sanction of additional grant towards the salary of one Reader and one Lecturer in the Department of Physics outside the Fourth Plan allocation.

The Commission desired that the Utkal University be advised to provide for the additional posts for the Department of Physics by adjustment within the Fourth Plan allocation.

R.K.Chhabra  
Secretary

D.S.Kothari  
Chairman

Confidential

UNIVERSITY GRANTS COMMISSION

Date : Meeting  
Time : 1st December, 1971  
Place : 10 A.M.  
UGC Office, New Delhi.

A G E N D A

- Item No.1\* : To receive the minutes of the meeting of the Commission held on 6th October, 1971.
- Item No.2\* : (a) To approve the action taken on certain matters;  
(b) To receive the items of information.
- Item No.3\* : To approve the statement of grants released after the last meeting of the Commission held on 6th October, 1971.
- Item No.4\* : To receive a statement of expenditure incurred by the University Grants Commission during 1971-72 (upto 31st October, 1971)
- Item No.5 : To receive a note on the cases of Student Unrest for the period September-October, 1971.  
(P.1-32)
- Item No.6 : To receive a note on the suggestions for practical action by Member States and National Commissions on the 1971-72 Programme of Unesco.  
(P.33-61)
- Item No.7 : To receive the minutes of the meeting of the Committee appointed by the UGC to consider the role and functions of the UGC Advisory Committee of Vice-Chancellors.,  
(P.62-64)
- Item No.8 : To receive a note on the constitution of Task Forces in the field of education to review past developments and formulate proposals for the Fifth Five Year Plan.  
(P.65-76)

p.t.o.

....

- Item No. 9 : To receive a note on the field studies in Geography and other subjects and to consider further the guidelines proposed by Delhi University for purposes of payment of T.A. & D.A. to students of B.A.(Hons.)/B.A.(Pass) Course in Geography for field work excursion. (P.77 )
- Item No.10 : To consider further the reference from the Ministry of Education and Social Welfare to setting up of a special Institute or a separate University for foreign students. (P.78-82)
- Item No.11 : To consider a reference from the Government of India, Ministry of Education and Social Welfare relating to cooperation between Oberlin College, U.S.A. and Indian Universities. (Reference U.O.No.18-2/71 RHUI) (P.83-100)
- Item No.12 : To receive a report regarding the engagement of Shri R.M. Mehta, Central Government Counsel to pursue the case in the High Court of Delhi in Criminal Appeal Nos.103 and 104 of 1971 filed by the Accused Directors of the Commercial Union Bank Limited, Delhi. (P.101-102)
- Item No.13 : To consider the report of the Committee appointed to examine the proposals of (i) Shri C.N.P.F.Arts & Dabhoi Nagarpalika Science College, Dabhoi and (ii) Bhavan's Arts and Science College, Dakor(Gujarat University) for the development of their postgraduate departments of Chemistry. (P.103-114)
- Item No.14 : To consider the report of the Committee appointed to examine the proposals received from the P.P.N. College, Kanpur(Kanpur University) for the development of Postgraduate studies in Science subjects. (P.115-120)
- Item No.15 : To consider further the report of the Committee appointed by the University Grants Commission to examine the proposal of Gujarat Vidyapith for the development of the Department of Education. (P.121-134)
- Item No.16 : To consider a report on the visit of the Buildings constructed with UGC grant at Vaish College, Shamli(Meerut University) (p.135-141)



- Item No. 17 : To consider the recommendations of the Standing Committee on Library Development regarding the proposals from the Universities for additional grants for Books & Journals during the Fourth Plan period. P. 142-143.
- Item No. 18 : To consider further the report of the Visiting Committee appointed by the Commission to assess the Fourth Plan requirements of the Birla Institute of Technology and Science, Pilani and the proposals for the development of Bio-Science and the Central Instrumentation facility centre. P. 144-172.
- Item No. 19 : To consider the recommendations of the AICTE for the development of Undergraduate and Postgraduate Courses in Pharmacy at Jadavpur University. P. 173-174
- Item No. 20 : To consider the recommendations of the AICTE for the provision of students' amenities at the Osmania University as well as Annamalai, Andhra, Bangalore, Madras, Sri Venkateswara and Sambalpur Universities. P. 175-176.
- Item No. 21 : To consider the recommendations made by the UGC Advisory Committee on Colleges at its meeting held on 2.9.1971. P. 177-178
- Item No. 22 : To consider the proposal of People's College, Nanded (Marathwada University) for Commission's assistance towards the development of Postgraduate Studies in the Humanities and Social Sciences. P. 179-185
- Item No. 23 : To consider the recommendation of Inter-University Board regarding establishment of a Central Examination Unit. P. 186-197
- Item No. 24 : To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of H.M. Patel Institute of English along with the comments of Sardar Patel University. P. 198
- Item No. 25 : To consider a reference from the Rector, Zogreb University, Yugoslavia, with regard to the establishment of Inter-University Postgraduate Centre in Humanities and Social Sciences in Dubrovnik. P. 199-214

- Item No. 26 : To consider the following proposals received from the Banaras Hindu University:- P.215
- i) For appointment of a Committee to consider the size of enrolment in the various faculties of the University and to fix the number of places in the Departments/Institutions of the University taking into account the facilities available.  
(P.216-219)
  - ii) For the sale of certain items of equipment to the Magadh University.  
(P.220-226)
  - iii) For assistance from the Ford Foundation for the development of the Bharat Kala Bhavan.  
(P.227-229)
- Item No. 27 : To consider the following proposals received from Delhi University:- (P.230)
- i) For financial assistance outside its Fourth Plan allocation for certain schemes of the Departments of Botany and Anthropology.  
P.231-239
  - ii) Not to insist for the condition of about 20 students in the case of honours courses in Modern Indian Languages, Urdu or Sanskrit or Geography in Delhi Colleges. P.240
- Item No. 28 : To consider the following proposals received from the Bombay University:- P.241
- i) Establishment of a department of Geology.  
P.242-244
  - ii) Establishment of departments of Microbiology and Biochemistry in the Biological Science Division.  
P.245-254
  - iii) For transfer of equipment from ex-Institute of Basic Medical Sciences to University Departments/Colleges. P.255-257
- Item No. 29 : To consider the proposal of the Calcutta University for the construction of extension to the building of the Institute of Basic Medical Sciences.  
P.258-259
- Item No. 30 : To consider the proposal of the Vikram University for financial assistance towards the construction of a Gymnasium.  
P.260-261  
p.t.o.

- Item No. 31 : To consider a proposal for establishment of Instrumentation Workshop in the Department of Physics, Andhra University. P.262-268
- Item No. 32 : To consider a proposal from the M.S. University of Baroda for secretarial assistance under the Adult Education Scheme. P.269.
- Item No. 33 : To consider the proposal received from Calicut University to organise orientation meetings and workshop on Examination Reforms. P.270-277
- Item No. 34 : To consider the following proposals received from Burdwan University:- P.278
- i) For financial assistance outside the Fourth Plan allocation for the department of Geography. P.279-281
  - ii) For financial assistance for the M.Sc. course in Applied Botany. P.282-285
- Item No. 35 : To consider a proposal from the Jiwaji University for additional grant for Library books and journals for the department of Physics. P.286-288
- Item No. 36 : To consider the proposal of the Meerut University, Meerut regarding the revised allocation in respect of the scheme of the Correspondence Courses for B.A. degree. P.289-290
- Item No. 37 : To consider the proposal of Sri Venkateswara University for financial assistance towards the introduction of Correspondence Courses. P.291-292
- Item No. 38 : To consider the proposals of the following Universities towards the establishment of 'Health Centres':- P.293
- i) Sambalpur University; P.294-295
  - ii) Saurashtra University. P.296-302
- Item No. 39 : To consider a proposal of the Sri Satya Sai Arts and Science College for Women, Anantapur (Sri Venkateswara University) for financial assistance for the construction of Women's Hostel. P.303-304

- Item No. 40 : To consider a request from the Chikitsak Samuha Sir Sitaram and Lady Shantabai Patkar College of Arts and Science , Bombay (Bombay University) for financial assistance for a Biology Laboratory beyond the normal ceiling of Rs. three lakhs. P.305
- Item No. 41 : To consider a proposal of St. Mary's College, Tuticorin (Madurai University) for assistance for a Women's Hostel beyond the normal Fourth Plan ceiling of Rs. three lakhs. P.306
- Item No. 42 : To consider the proposal of the Sri Avinashilingam Home Science College, Coimbatore (Madras University) towards the construction of a Gymnasium. P.307-308
- Item No. 43 : To consider further the payment made by the Jamia Millia Islamia, New Delhi towards the salary of 'Clerk of Works' from the provision made for contingencies in respect of the Arts Faculty Building. P.309 (Will follow)
- Item No. 44 : To consider the question of nomination of a representative of the UGC on the Governing Board of the Tata Institute of Social Sciences, Bombay. P.310
- Item No. 45 : To consider further the proposal of the Universities for enhancing the allocation of unassigned grant for the year 1971-72. P.311-317.
- Item No. 46 : To note the date and place for the next meeting of the Commission.

Any other item.

UNIVERSITY GRANTS COMMISSION

Confidential

Date : Meeting  
Time : 1st December 1971  
Place : 10 A.M.  
UGC Office, New Delhi.

A G E N D A (Contd.)

- Item No. 47 : To receive the calendar of meetings of the UGC to be held during 1972. P. 318
- Item No. 48 : To consider the recommendations of the AICTE for the starting of diploma course in Textile Design at the A.C. College of Technology, University of Madras, Madras. P.319-324
- Item No. 49 : To consider the recommendation of the AICTE for the introduction of postgraduate diploma course in Hydrology in Roorkee University. P. 325-327
- Item No. 50 : To consider further the report of the Committee appointed by the UGC to examine the proposal of Gujarat University for the development of the Department of Education. P.328-340
- Item No. 51 : To consider the report of the Committee appointed by the UGC to look into the amenities for the students of the Aligarh Muslim University. P. 341-348.
- Item No. 52 : To consider the report of the Committee appointed by the UGC to examine the proposal of Aligarh Muslim University for the development of the Area Centre for West Asian Studies. P. 349-359.
- Item No. 53 : To consider the recommendation of the Fifth All-India Conference on Educational Statistics held at Furi from February 4-8, 1971. P. 360-361
- Item No. 54 : To consider the following proposals of the Banaras Hindu University : P. 362
- i) For the introduction of certificate and diploma courses in Urdu; P. 363
  - ii) For sanction of the post of a Librarian in the grade of Rs. 750-1250 in the Institute of Medical Sciences; P. 364-365
  - iii) For awarding scholarships for undergraduate students of the Institute of Technology. P. 366

p.t.o.

- Item No. 55 : To consider the proposal of the Indraprastha College for Women, Delhi (Delhi University) for financial assistance towards the construction of Gymnasium. P. 337
- Item No. 56 : To consider the proposal of Poona University for the construction of staff quarters for Class IV employees outside the Fourth Plan allocation. P. 368.
- Item No. 57 : To consider the proposal of the Panjab University for approving the revised plans and estimates for the construction of library building at VIS and IS, Hoshiarpur. P. 369-370
- Item No. 58 : To consider further the proposal of the S.N.D.T. Women's University for assistance towards the setting up of a department of continuing education from the year 1971-72. P. 371-374.
- Item No. 59 : To consider the proposal of the Marathwada University for sanctioning an additional grant towards the publication of the thesis entitled "Persian Elements in Marathi Chronicles". P. 375.
- Item No. 60 : To consider a proposal received from the Centre of Advanced Study in Botany, University of Madras for a special grant of Rs. 4.5 lakhs for purchase of an AEI Electron Microscope from U.K. P. 376-377
- Item No. 61 : To consider further the proposals of the Bihar University for (i) the creation of additional post of a Professor each in the departments of History, Political Science, Economics and Mathematics (ii) starting teaching of new subjects. P. 378-
- Item No. 62 : To consider the proposal of J.S.S.S.G. Science College, Dharwad (Karnatak University) regarding the Commission's assistance for a laboratory building. P. 384-385.
- Item No. 63 : To consider a proposal received from the Birla Institute of Technology & Science, Pilani for establishment of Practice School/Sandwich Courses in Engineering & Technology. P. 386-387
- Item No. 64 : To consider the proposal from the Indian Institute of Science Bangalore for a collaborative project between the Indian Institute of Science, Bangalore and Purdue University, USA. P. 388-392
- Item No. 65 : To consider further the question of reservation of seats for postgraduate courses for the candidates belonging to Jammu and Kashmir. P. 393-394
- Item No. 66 : To consider the question of prescribing composite teacher-pupil ratio in respect of teaching of B.Sc. (Hons.) courses by colleges affiliated to Delhi University. P. 395-396.

- 3 -

- Item No : 67 : To consider the draft resolution regarding a civil suit to be instituted against the S.D. College, Hoshiarpur (Punjab University).  
P. 397.
- Item No : 68 : To receive the draft report of the University Grants Commission for 1970-71.  
P. 398.

'VK'

UNIVERSITY GRANTS COMMISSION

Meeting

Date : 1st December 1971  
Time : 10 A.M.  
Place : UGC Office, New Delhi

AGENDA (Contd.)

- Item No.69 : To consider the proceedings of the Standing Committee on Part-time Education. P. 399-403.
- Item No.70 : To consider the recommendations of the Committee to advise the UGC on the implementation of the Summer Science Institute Programme for 1972. P. 404-413.
- Item No.71 : To consider a proposal of the Delhi University for the creation of the post of Dean of Administration in the grade of Rs.1800-2000. P. 419-421.
- Item No.72 : To consider further the proposal of Rajdhani College, New Delhi (Delhi University) for acquiring land for the construction of building allotted by the DDA on concessional rates. P. 422-423.
- Item No.73 : To consider the proposal from the Calcutta University Bangla Desh Sahayak Samiti for assistance for organising a seminar on Bangla Desh in collaboration with the Calcutta University. P. 424-425.
- Item No.74 : To consider a note on the implementation of Research Participation Programme in Basic Science for college teachers and postgraduate students 1971-72. P. 426-438.
- Item No.75 : To consider the question of providing financial assistance to full-time research scholars/ research fellows working in universities/ colleges for their visits abroad either in connection with their research work or for attending international conferences. P.439-440
- Item No.76 : To consider the suggestions made by the Committee appointed by the C.S.I.R. to review the working of the schemes for Emeritus Scientists and Retired Scientists. P.441-44.
- Item No. 77 : To consider a proposal received from Utkal University for the sanction of additional grant towards the salary of one Reader and one Lecturer in the Department of Physics out the Fourth Plan allocation. P. 444-44



Confidential

UNIVERSITY GRANTS COMMISSION

MINUTES OF THE 129TH MEETING OF THE UNIVERSITY  
GRANTS COMMISSION HELD ON 6TH OCTOBER, 1971.

The following were present:

Professor D.S. Kothari	Chairman
Dr. A.S. Adke	Member
Smt. Indumati Chimanlal	"
Professor A.B. Lal	"
Professor Tapas Majumdar	"
Shri T.P. Singh	"
Shri M.R. Yardi	"
Shri R.K. Chhabra	Secretary

SECRETARIAT

Dr. R.C. Gupta	Additional Secretary
Dr. J.N. Kaul	Joint Secretary
Dr. S.K. Dasgupta	Development Officer
Shri S. Viswanath	"
Dr. G.S. Mansukhani	"
Shri I.C. Menon	"
Shri P.G.N. Nampoothri	Finance Officer

Dr. P.B. Gajendragadkar attended the meeting by special invitation.

The Chairman mentioned that Dr. P.B. Gajendragadkar resigned last month from the UGC membership on his relinquishing the Vice-Chancellorship of the Bombay University (to join as Chairman of the Law Commission). Also, Dr. S. Dhawan (whose term was upto February 1972) who has been out of India since April 1971, and has not attended the last six meetings of the Commission, would now cease to be a member of the Commission. Action is being taken to fill the vacancies.

The Commission placed on record its sense of gratefulness and appreciation of the valuable services rendered to the Commission by Dr. P.B. Gajendragadkar and Dr. S. Dhawan.

Item No.1: To receive the minutes of the meeting of the Commission held on 1st September 1971.

The minutes of the 128th meeting of the Commission held on 1st September 1971, already circulated, were confirmed.

p.t.o.

- Item No.2: (a) To approve the action taken on certain matters;  
(b) To receive items of information.

(a) The Commission approved the action on items listed in Appendix I\*.

Arising out of Item 2(a)(15) the Commission desired that the Government of India be requested that the first para of the revised Regulation framed under Section 2(f) of the UGC Act may be re-worded as follows (with a view to clarifying that an institution under this clause is recognised by the UGC as "included in the University" and not as a "university"):

"No College shall be recognised by the University Grants Commission as included in the University concerned for the purpose of the UGC Act, 1956 unless it

- (i) is affiliated to, or forms a constituent member of, or is run directly as a University college by a university established or incorporated by or under a Central Act, a Provincial Act or a State Act and the statutes and regulations made thereunder;
- (ii) provides instructions upto a Bachelor's Degree or upto a Postgraduate Degree or for a Postgraduate Degree only or provides instructions for a Diploma Course of a duration of not less than one academic year and for which the minimum qualification for admission is a Bachelor's Degree; and
- (iii) is registered as a society under the Societies Registration Act, 1860 (21 of 1860) or is a body corporate established or incorporated under a Central or State Act for the time being in force or is a trust with trustees being appointed and vested with legal powers and duties.

Any institution, recognised by the Commission under clause (f) of section(2) of the University Grants Commission Act, 1956, immediately before the commencement of these regulations shall, if it does not satisfy the requirements of clause (iii) of sub-section(I) take action to comply with such requirements within a period of three years of such commencement."

(b) This was noted.

Item No.3: To approve the statement of grants released after the last meeting of the Commission held on 1st September 1971.

The Commission approved the grants released after the last meeting held on 1st September 1971 (Appendix II)\*.

Item No.4: To receive a statement of expenditure incurred by the University Grants Commission during 1971-72 (upto 31st August, 1971).

This was noted.

Item No.5: To receive a note on the procedure for promotion and assessment in the Indian Institute of Science, Bangalore.

This was noted. The Commission desired that the Indian Institute of Science, Bangalore be requested to send a note on the actual operation of the "promotions scheme" over the past five years indicating the number of promotions and subjects covered under the scheme.

Item No.6: To receive a note on the rules for Industrial Consultancy Work at the Indian Institute of Science, Bangalore.

This was noted. The Commission desired that detailed information about Consultancy Work undertaken by the Institute may be obtained.

Item No.7: To receive a note on the Maharashtra Universities (Amendment) Bill, 1970.

This was noted.

Item No.8: To receive the minutes of the meeting of the Committee appointed by the Commission to consider the question of developing of "National Centres".

The Commission desired that the suggestion regarding "National Centres" may be referred to the Standing Committee on Centres of Advanced Study.

Item No.9: To receive the report on the implementation of various Cultural Exchange Programmes for the period 1.3.1971 to 31.8.1971.

This was noted. The Commission desired that an assessment of the cultural exchange programmes may be made with a view to further improve their effectiveness and utility.

Item No.10: To receive a note on the strengthening of college libraries - the scheme of 'Book Banks' in colleges.

This was noted.

Item No. 11: To consider the report of the committee appointed by the UGC to consider the question of extension of facilities for training in Library Science at the Postgraduate level.

The Commission desired that the comments of Dr.S.R. Ranganathan (a member of the Committee) on the report may be obtained, and the report printed and circulated to the universities.

Item No. 12: To consider the report of the committee appointed by the UGC to examine the proposal of the Utkal University to start LL.M. course.

The Commission agreed to provide the following assistance to the Utkal University for starting the LL.M. Course on condition that the expenditure will be accommodated within the fourth plan allocation of the University and that the recommendations made by the committee are accepted by the University:

Recurring

1 Professor, 1 Reader and 2 Lecturers	For the period ending 1973-74.
--	-----------------------------------

Non-Recurring

Library building including furniture	Rs. 3,00,000
Books and journals	Rs. 40,000
	<hr/>
	Rs. 3,40,000

Item No. 13: To consider further a reference from the Government of India, Ministry of Education and Social Welfare, with regard to procedure for recognition of degrees by the universities.

The Commission was of the view that while it was for a university to determine the conditions of eligibility for admissions to the various courses of study of the university (as also the question of their relaxation in any individual case), it may be desirable to have some guidelines as regards the recognition of diplomas/degrees awarded by "non-university institutions", and desired that this may be discussed at a meeting of the UGC with the Standing Committee of the Inter-University Board of India.

Item No. 14: To consider further the report of the Committee on Transport Economics and Transport Management appointed by the UGC.

The Commission desired that the comments received from the Planning Commission, Ministry of Railways and the Ministry of Education & Social Welfare on the report of the Committee on Transport Economics and Transport Management may be considered by an expert committee. The report may be also circulated to the universities for their comments/proposals.

Item No. 15: To consider the recommendations of the AICTE for the institution of one year postgraduate diploma course in Traffic Engineering at the Universities of Baroda and Roorkee.

This was postponed. (More details are to be obtained in regard to the proposed courses).

Item No.16:To consider the following proposals received from the  
Delhi University:-

- (i) Regarding rules to be followed by the Centre of Advanced Study in Botany for payment of honorarium to Visiting Fellows;
- (ii) For assistance for starting a college of Medical Science in Delhi from the academic year 1971-72;
- (iii) For the creation of a post of Reader in the Hindi Department;
- (iv) For the construction of hostels for non-academic staff of the affiliated colleges.

(i) The Commission was of the view that ordinarily the payment of honorarium to persons invited to deliver lectures in the departments which are Centres of Advanced Study should be on the same basis as for the other departments of the university; and that the UGC assistance towards such payments in the case of the Centres would not exceed that indicated in the "guidelines" for the purpose supplied by the Commission to the Centres.

(ii) The Commission noted that it has been decided to start a college of Medical Sciences by the Delhi University w.e.f. the academic year 1971-72. The setting up of a medical college with adequate hospital facilities required advance planning and preparatory work, and as this was not possible in the present case, the project would need special support and expert assistance. The Commission was not in a position to assist the College from its present funds. Additional funds would be required for this purpose to be made available to the UGC by the Central Government. The Commission desired that the college and the teaching hospital should be under the same management and that this matter may be taken up with the Ministry of Health, Government of India, and the University of Delhi.

(iii) The Commission noted that the University of Delhi had not provided for the post of a Reader in the Hindi Department within its "Fourth Plan allocations." In view of this the Commission regretted its inability to accept the proposal of the University.

(iv) The Commission desired that this may be further examined and the matter brought up before the Commission.

Item No. 17:To consider the proposal of the Lady Shri Ram College for Women (University of Delhi) for the construction of additional hostel.

The Commission accepted the proposal of the Lady Shri Ram College for Women for the construction of an additional hostel at an estimated cost of Rs. seven lakhs. The Commission's assistance would be on 75(UGC):25(College)basis.

Item No.18: To consider further a proposal from the Banaras Hindu University regarding introduction of Hindi as an alternative medium of education.

This was withdrawn as the matter was to be discussed with the Ministry of Education and Social Welfare.

Item No.19: To consider proposals from the Annamalai University for additional grants during the Fourth Plan period towards completion of (i) Guest House and Staff Quarters and (ii) Additional Research Laboratory at the Centre of Advanced Study in Marine Biology.

The Commission agreed to provide an additional grant of Rs.2,41,000/- to the Annamalai University during the Fourth Plan period for the completion of Guest House and Staff Quarters and (ii) additional research laboratory at the Centre of Advanced Study in Marine Biology.

Item No.20: To consider a proposal from the Rajasthan University for assistance for strengthening of the School of Law.

The Commission regretted its inability to provide additional assistance to the Rajasthan University for strengthening the School of Law in the current plan period.

Item No.21: To consider further a proposal from the Sri Venkateswara University for the creation of a post of Professor in Library Science.

The Commission regretted its inability to assist the Sri Venkateswara University for the post of Professor in Library Science in the current plan period.

Item No.22: To consider a letter from the Kerala University inviting the views of the Commission regarding the long term lease of the building for the Departments of Politics and Psychology constructed with the financial assistance provided by the UGC.

The Commission agreed to the transfer of the building under reference, constructed with the assistance of the U.G.C., to the University College, Trivandrum, and to treat the expenditure incurred on the building as a grant to the college.

Item No.23: To consider a proposal from the Andhra University for further assistance for providing additional accommodation in the Department of Chemistry to meet the requirements of increased admissions.

The Commission accepted the proposal of the Andhra University for assistance on 100% basis, outside the "Fourth Plan allocation" for providing additional accommodation of 7550 sq.ft., at an estimated cost of Rs.2.40 lakhs for the Department of Chemistry.

Item No.24: To consider the proposal of the Burdwan University for financial assistance for the construction of a Gymnasium.

The Commission accepted the proposal of the Burdwan University for the construction of a gymnasium at an estimated cost of Rs.3,09,000/- and agreed to provide a grant not exceeding Rs.1,87,500/- for the purpose on the usual basis.

Item No.25: To consider the proposal of Shivaji University for the establishment of Health Centres.

It was agreed that the Shivaji University may be requested to send its proposal for the establishment of Health Centres along with estimates of expenditure for the Commission's consideration.

Item No.26: To consider further the proposal from the Indian Institute of Science, Bangalore, for setting up of a Unit in Bio-physics in the Fourth Plan period.

The Commission agreed as a special case to the provision of an additional post of Professor (Rs.1100-1600) for the Bio-physics Unit at the Indian Institute of Science, Bangalore. With regard to the other items, the Commission desired that these may be considered after the report of the Reviewing Committee has been considered.

Item No.27: To consider the question of inclusion of colleges which provide facilities for oriental degrees in the list of colleges prepared under Section 2(f) of the UGC Act.

It was agreed that this may be referred to an Expert Committee.

Item No.28: To consider further the question of providing assistance to the Schools of Social Work for the posts of Co-ordinator, Stenographer etc., sanctioned to enable them to formulate programmes of NSS by the end of 1973-74.

The Commission noted that as the National Service Scheme was not on a 'permanent basis', the proposal that the post of Co-ordinator and other staff be created on a permanent basis could not be accepted. The posts under this scheme would be for the plan period, and the matter may be reviewed before the end of the Fourth Plan.

Item No.29: To consider the terms of conditions for exchange of junior research workers under Indo-Romanian Cultural Exchange Programme.

This was noted.

**Item No. 30:** To consider further the payment of out-of-pocket allowance and transport charges to foreign visitors under Cultural Exchange Programmes for the day of their departure to their respective countries.

The Commission desired that the practice followed by the Ministry of Education for payment of out-of-pocket allowance/transport charges to foreign visitors under the various Cultural Exchange Programmes be also followed by the UGC.

**Item No.31:** To consider the proposals of the Universities for enhancing the allocation of "unassigned grant" for 1971-72.

The Commission desired that this may be further examined and brought up again before the Commission at its next meeting.

**Item No.32:** To consider the proposal received from Colleges for participation in the College Science Improvement Programme.

The Commission considered the proposals received from the following four colleges for participation in the College Science Improvement Programme, and agreed to provide assistance indicated against each, spread over a period of three years:

<u>Name of the college</u>	<u>University</u>	<u>Amount recommended</u>
D.N.R.College, Bhimavaram.	Andhra	Rs. 3,00,000
Serampore College, Serampore, Hooghly.	Calcutta	Rs. 2,70,000
Bangabasi College, Calcutta.	Calcutta	Rs. 3,00,000
D.A.V. College, Kanpur.	Kanpur	Rs. 3,00,000
	<b>Total:</b>	<b>Rs.11,70,000</b>

**Item No.33:** To consider certain establishment matters relating to UGC.

(i) It was agreed that, in accordance with usual practice in such cases, Dr. J.N. Kaul may be granted leave for the period he will be abroad(not exceeding 12 weeks).

(ii) It was agreed that a standing establishment committee consisting of Dr. P.B. Gajendragadkar, Professor A.B. Lal, Finance Secretary and the Education Secretary, may be constituted. It was further agreed that the case of Dr. R.D. Deshpande, under reference, and the question of fixation of salary of the E.Os., and other pending cases, may be referred to the committee.

(iii) The Commission could not agree to the provision of residential telephones to the Branch Officers at this stage.



(iv) The Commission agreed to the purchase of an additional staff car and a three-wheeler scooter.

(v) This was noted.

Item No.34: To note the date and place for the next meeting of the UGC.

The next meeting of the Commission will be on Wednesday December 1, 1971. There will be no meeting in November.

The Chairman mentioned that the Federal Government of West Germany have invited a delegation of five Vice-Chancellors and the Secretary(UGC) to visit Germany for two to three weeks in October/November 1971. This has been approved by our Government. The Chairman said that he had also been invited; and it is likely he may join the delegation.

Item No.35: To receive revised estimates for 1971-72 and budget estimates for 1972-73 for the University Grants Commission under Plan.

The Commission desired that the revised estimates for 1971-72 and budget estimates for 1972-73 may be considered by a Committee consisting of the Chairman, Shri M.R. Yardi and Shri T.P. Singh, and then sent to the Government of India.

Item No.36: To receive a note on cases of students unrest for the period July-August 1971.

This was noted.

Item No.37: To receive the report of the Committee appointed to recommend the Block Grant to the Indian Institute of Science, Bangalore for the three year period 1971-72 to 1973-74.

This was noted. (The report is under the consideration of the Government of India).

Item No.38: To consider the recommendations of the Committee appointed by the Commission for examining the proposals of Colleges for the construction of teachers' hostels.

The Commission accepted the recommendations of the Committee which examined the proposals received from colleges for the construction of teachers' hostels and desired that these may be implemented keeping in view the availability of funds. The Commission further desired that fresh proposals for assistance to colleges for teachers' hostels outside the Fourth Plan ceiling may be invited during 1972-73.

Item No.39: To consider the recommendations of the Advisory Committee on English Language Teaching Summer Institutes for 1972 programme.

The Commission agreed that subject to the fulfilment of the conditions prescribed, the ELT Summer Institutes may be held in the following Universities during 1972:

1. Andhra University
2. Banaras Hindu University
3. Calcutta University
4. Calicut University
5. Dibrugarh University
6. Indore University
7. Karnatak University
8. Madurai University
9. Marathwada University
10. Meerut University
11. M.S. University of Baroda
12. Panjab University
13. Rajasthan University
14. Shivaji University
15. South Gujarat University
16. Utkal University

Item No.40: To consider the report of the Committee appointed to examine the proposal of the Punjabi University, Patiala, for the introduction of post-M.Sc. courses (with applied bias).

The Commission accepted the recommendations of the Committee appointed to examine the proposal of the Punjabi University for introduction of post-M.Sc. courses with a distinctly practical content relevant to the present needs. To begin with the University may select one or two programmes to serve as a "pilot project". The Commission agreed that in view of the priority to be given to such projects, the UGC support in this case, and similar other cases, would be outside the usual "Fourth Plan allocations" to the universities.

Item No.41: To consider a reference from the Government of India, Ministry of Education and Social Welfare with regard to organisation of Sri Aurobindo Memorial Lectures.

The Commission welcomed the proposal for organisation of Sri Aurobindo Memorial Lectures, beginning with 1972, and noted that Endowment of Rs. three lakhs would be made available to the Commission for the purpose. The Commission desired that a committee may be constituted to recommend names of persons for the Memorial Lectureships and to consider other relevant matters.

Item No.42: To consider a reference from the Indian Council for Cultural Relations, New Delhi, for improving facilities for receiving foreign students on their first arrival.

The Commission desired that this may be discussed with the Secretary ICCR and some university representatives.

Item No.43: To consider the proposal from the Government of Maharashtra for declaring the Institute of Sciences, Bombay as an institution deemed to be University under section 3 of the UGC Act.

The Commission took note of the views of the Bombay University and desired that the proposal may be referred to the UGC Standing Committee on new universities.

Item No.44: To consider the following proposals from the Banaras Hindu University:

- (i) For the improvement of watch and ward arrangement in the campus;
- (ii) For bifurcation of the Department of Arabic and Persian and for assistance towards the posts of a Reader in Arabic and a Lecturer each in Arabic and Persian;
- (iii) For creation of the posts of Professors and Readers in Applied Sciences at the Institute of Technology;
- (iv) For introduction of the two-year M.A. course in German.

(i) The Commission agreed to assist the Banaras Hindu University for improvement, as proposed, of the campus watch and ward arrangements, and desired that the quantum of assistance that may be made available to the University may be examined by a small committee with one or two experts and representatives of the Government of India. The Commission was not in favour of revising at this stage the grade of Chowkidars (which was at present the same in the universities of Banaras and Aligarh).

(ii) Consideration of this was postponed to a later meeting. In the meantime, the Commission desired further information may be obtained.

(iii) The Commission reiterated its earlier recommendation that it would be desirable that the posts of Professors and Readers under reference are instituted in the respective science departments of the University rather than in the Institute of Technology.

(iv) The Commission accepted the proposal of the Banaras Hindu University for introduction of a two-year M.A. course in German subject to no additional grant being necessary for the purpose.

Item No.45: To consider the following proposals from the Aligarh Muslim University:

- (i) For sanction of an ad-hoc grant of Rupees twenty lakhs to meet the deficit of the hospital attached to the Jawaharlal Nehru Medical College;

(ii) For additional funds required for completion of the building for the Centre of Advanced Study in History.

(i) The Commission desired that the proposal of the Aligarh Muslim University to meet the deficit of the hospital attached to the Jawaharlal Nehru Medical College be recommended to the Government of India.

(ii) The Commission accepted the proposal of the Aligarh Muslim University for additional funds of Rs.62,000 for the completion of the building for Centre of Advanced Study in History.

Item No.46: To consider proposals of the following Universities for the provision of Gymnasium:

- (i) Visva-Bharati
- (ii) Calicut University

(i) The Commission accepted the proposal of the Visva-Bharati for the provision of a gymnasium and agreed to provide a grant of Rs.50,000 for the purpose. The Commission noted that the expenditure for this would be met out of the allocation made by the Government of India under the N.S.O. programme.

(ii) The Commission accepted the proposal of the Calicut University for the construction of a gymnasium at an estimated cost of Rs. 3,65,000 and agreed to provide a grant not exceeding Rs.1,87,500 for the purpose on the usual basis.

Item No.47: To consider further a proposal from the Madurai University for assistance for starting of the Department of Sociology with special emphasis on Gandhian Technique outside the Fourth Plan allocation.

The Commission reiterated its earlier decision that assistance to the Madurai University for the department of sociology be accommodated within Fourth Plan allocation of the university.

Item No.48: To consider the following proposals from the Allahabad University:

- (i) For construction of a hostel for research scholars at the Sheila Dhar Institute of Soil Science;
- (ii) For the creation of a post of Professor in the Department of Defence Studies.

(i) The Commission accepted the proposal of the Allahabad University for construction of first phase of a hostel for research scholars at the Sheila Dhar Institute of Soil Sciences at a cost of about Rs.30,000, and agreed to provide a grant of Rs.15,000 for the purpose, on the usual sharing basis.

(ii) The Commission regretted its inability to accept the proposal of the Allahabad University for the creation of a post of Professor in the Department of Defence Studies.

Item No.49: To consider the proposal of the SNT Women's University for assistance towards the setting up of a Department of Continuing Education from the year 1971-72.

The Commission desired that assistance to the university for the programme of continuing education may be generally on the same pattern as approved for the M.S. University of Baroda.

Item No.50: To consider a proposal from the Bombay University for the establishment of a Department of Geology.

The Commission would prefer if the proposal could be taken up by the Bombay University in the Vth Plan, but agreed that it may be further discussed with the University.

Item No.51: To consider the proposals of Allahabad and Madras Universities for the revision of sharing basis towards the M.B.A. Courses.

The Commission regretted its inability to revise the present sharing basis of assistance to universities towards the M.B.A. courses.

Item No.52: To consider a proposal of the Andhra University for assistance towards the establishment of a postgraduate Department of Geography.

The Commission accepted the proposal of the Andhra University for assistance towards the establishment of a postgraduate Department of Geography and agreed to provide assistance for the following w.e.f. 1973-74:

Professor	- one
Lecturer	- one
Cartographer	- one
Contingencies (Maps/Models etc.)	- Rs. 3,000 p.a.
Books & Equipment (N.R.)	- Rs.20,000/-

It was noted that the funds for this would be provided by the University within the overall "Fourth Plan allocation". The Commission further desired that the question of assistance to the University for the Department beyond Fourth Plan period may be further examined.

Item No. 53: To consider the proposal of the University of Jammu for assistance towards the establishment of a Law Department in the University.

In view of the bifurcation of the Jammu and Kashmir University on the recommendation of the Gajendragadkar Commission( 1969 ) and the need for providing facilities for studies in Law in the State, the Commission agreed to assist the Jammu University for the establishment of a law department outside the Fourth Plan allocation. The Commission further desired that the requirements for this purpose may be assessed by a committee.

Item No. 54: To consider the proposal of Udai Pratap College, Varanasi (Gorakhpur University) for financial assistance beyond the Fourth Plan ceiling for the provision of additional teaching accommodation and reading rooms.

The Commission accepted the proposal of Udai Pratap College, Varanasi (Gorakhpur University) for the provision of additional teaching accommodation and reading rooms at an estimated cost of Rs. 2,18,000 and agreed to provide a grant of Rs. 1,45,333 for the purpose on the usual sharing basis.

Item No. 55: To consider the proposals of the Maris Stella College, Vijayawada (Andhra University) for financial assistance beyond the fourth plan financial ceiling of Rs. three lakhs for a non-resident student centre and purchase of science equipment.

The Commission accepted the proposal of the Maris Stella College, Vijayawada (Andhra University) for the construction of a non-resident student centre and provision of science equipment at a total estimated cost of Rs. 1,30,000 and agreed to provide a grant of Rs. one lakh (Rs. 70,000 (NRS) and Rs. 30,000 (equipments) for the purpose on the usual basis.

Item No. 56: To consider a proposal of Birla College of Science and Education, Calcutta for purchase of laboratory equipment and books.

The Commission accepted the proposal of the Birla College of Science and Education, Calcutta for purchase of laboratory equipment and books & journals at an estimated cost of Rs. 1,29,351/- and Rs. 33,000/- respectively and agreed to provide a grant of Rs. 1,21,763/- to the College on the usual sharing basis.

Item No. 57: To consider a proposal from the Indian Institute of Science, Bangalore, for the readjustment of the allocation for building projects.

The Commission regretted it could not accept the proposal of the Indian Institute of Science, Bangalore, as the allocations for buildings under reference being parts of specific programmes, these could not be available if the programmes were not undertaken. The Commission desired that the matter be further discussed with the Institute.

Item No. 58: To consider the question of filling up of teaching posts sanctioned to the Allahabad University.

The Commission was of the view that the teaching posts accepted by the Commission for the Allahabad University, as a part of the Fourth Plan development, were based on the recommendations of the Visiting Committee. The Commission desired that the recommendations of the Visiting Committee regarding specific subjects may be kept in view in instituting the professorships and other posts.

Item No.59: To consider a note on the proceedings of the meeting of the Committee to advise the UGC on the implementation of Summer Institute programme for 1972, held on August 16, 1971.

This was noted.

Item No. 60: To consider a note on the norms of expenditure for Summer Institutes, Seminars, Symposia, Conferences and Orientation Courses programme.

The Commission accepted the norms of expenditure for Summer Institutes, Seminars, Symposia, Conferences and Orientation Courses programme as indicated in Appendix III.

Item No. 61: To consider the question of inclusion of non-teaching employees of universities and educational institutions within the purview of industrial legislation.

The Commission desired that this may be brought up again before it along with the recommendations made by the National Commission on Labour in this regard.

Item No.62: To consider a proposal received from Sardar Patel University for holding a convention on organising and coordinating Hindi Research Centres of Non-Hindi States.

The Commission desired that this may be considered along with the proposals for conferences and seminars to be organised during the next year.

Item No.63: To consider the proposal of the U.P. Agricultural University, Nainital for assistance towards programmes of Adult Education.

The Commission agreed in principle to provide assistance to the U.P. Agricultural University, Nainital for programmes of Adult Education and desired that the proposal may be processed in the light of the guidelines.

Item No.64: To consider further the proposal from the Government of Bihar State for re-organisation of the KS Darbhanga Sanskrit Vishwavidyalaya.

The Commission desired that this may be referred to the Standing Committee on new universities.

Item No.65: To consider further a reference from the University of Calcutta for payment of ad-hoc grants to recoup the loss incurred on account of disturbances, of property and equipment.

The Commission desired that the question of payment of ad-hoc grants to colleges which had suffered a loss on account of "disturbances" may be discussed with the Ministry of Education & Social Welfare. The

Commission after considering the relevant aspects of the subject felt that such grants may be provided by the State and the Central Governments, and not the U.G.C.

Item No.66: To consider further the report of the Visiting Committee appointed by the Commission to assess the Fourth Plan requirements of the Birla Institute of Technology & Science, Pilani and the proposals for the development of bio-Science and the central instrumentation facility centre.

The Commission desired that this may be brought up again alongwith the recommendations of the Visiting Committee which assessed the IV Plan requirements of the Institute.

Item No.67: To consider the proposal from the Patna University for the construction of (i) Guest House-cum-International Students Hostel and (ii) Teachers' Club.

The Commission agreed to assist the Patna University with regard to the present proposal, and desired that the University may select either the project of a Guest House-cum-International Students Hostel or a Teachers' Club: The assistance would be within the "Fourth Plan allocation" of the University.

Item No.68: To consider the recommendation of the AICTE for the development of Postgraduate Courses in Engineering and Technical Education during the IV Plan period at the Roorkee University.

The Commission desired that the report of the review undertaken by the AICTE for the development of Postgraduate Courses in Engineering and Technological Education may be awaited.

Item No.69: To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of the Poona University for assistance to the Deccan College Postgraduate and Research Institute for completion of the Dictionary of Sanskrit on Historical Principles.

The Commission accepted the recommendations of the Committee appointed by the University Grants Commission to examine the proposal of the Poona University for assistance to the Deccan College Postgraduate and Research Institute for completion of the dictionary of Sanskrit on Historical Principles and agreed to provide, outside the plan allocation, assistance of Rs. one lakh p.a. for a period of five years, to be shared equally between the UGC and the Government of Maharashtra. Grants on this account may be paid after the University has conveyed its acceptance of the recommendations of the Committee.



Item No.70: To consider the proposal of the University of Calcutta for assistance towards a professorship for encouraging the study of the Philosophy of Sri Aurobindo.

The Commission accepted the proposal of the Calcutta University for a professorship for the study of the philosophy of Sri Aurobindo provided the expenditure is met within the Fourth Plan allocation to the university.

Item No.71: To consider the recommendation of the Committee appointed to review the staff strength (other than teachers) of the Colleges affiliated to Delhi University.

The Commission accepted the recommendation of the Committee appointed to review the strength of non-teaching staff of colleges affiliated to Delhi University.

Item No.72: To consider a proposal from St. Berchman's College, Changanacherry(Kerala University) for the development of postgraduate studies in science subjects.

The Commission desired that this may be further examined and brought up again.

Item No.73: To consider a proposal from the National Book Trust for participation of the UGC in the World Book Fair to be held in New Delhi in January-February 1972.

The Commission agreed that it may set up a pavilion at the World Book Fair to display the university publications. It was further agreed that a Committee may be set up to work out the relevant details in consultation with the NBT.

R.K. Chhabra  
Secretary

D.S. Kothari  
Chairman

NORMS FOR SUMMER INSTITUTES, SEMINARS, WORKSHOPS, REFRESHER/ORIENTATION COURSES ETC. FOR 1971.

Item	Six week programmes					Upto 4 week programmes, seminars, workshops, Refresher courses etc.	Conferences of Academic/ Professional Bodies.
	Science subjects	English Language	Social science subjects	For Post-graduate science students	Orientation courses for New/Junior college teachers		
1	2	3	4	5	6	7	8
1. Board & lodging	i)Rs.8/-per participant per day (ppd) including services ii)Free lodging to be provided by host institution iii)Rs.4/- per day for hospitality (lunch, tea, coffee,etc) for each local participant. iv)Outstation academic staff - Free lodging and board with participants, otherwise DA at the rate of Rs.12/50.					Rs.10/-ppd	2/3rd of total approved expenditure subject to a maximum of Rs. 3,000/- for national (All-India Conference and Rs.2,000/- for regional conferences.
2. a. TA upto First Rail fare (sleeper) railfare	Upto 3rd class					Upto first class rail fare	
b. Incidental expenses journey.	Rs.12-50 for every 24 hours of journey or part there of during						
3. Out-of-pocket allowance	Rs.2/-per participant per day					Rs.1/-ppd.	Rs.2/-ppd Nil

1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.		
4. Books							
a. Per participant	150 @	100	100	50	Nil	Nil	
b. Reference library	1,000	500	1,000	500	1,000	Nil	
5. Laboratory supplies	3,000	Nil	Nil	2,000	Nil	Nil	
6. Academic Staff							
a. Number (Director included)	upto seven	upto seven	upto seven	upto seven	upto seven	-	
b. Honorarium							
i) 800			for		Director	Nil	
ii) 500 for each academic staff with specific limits						Nil	
7. Visiting Guest Lecturers							
i) Available for special/All India advanced institutes only						-	
ii) They should participate for not less than 2 - 3 weeks						-	
iii) They should not normally exceed half of the academic staff						-	
iv) They may be treated as part-time academic staff and honoraria paid to them in proportion to their work out of the provision in item 6 above, but should be accommodated within overall specified limit for honoraria for academic staff							
v) TA and DA will be met as per UGC rules							

1	2	3	4	5	6	7
8. Field trips	Rs.1500 for biology only, and Rs.500/- each for chemistry and physics	Nil	Nil	Rs.500*	Nil	Nil
9. Miscellaneous contingencies office supplies etc.	Rs.1,500	Rs.1,500/-	Rs.1,500/-	Rs.1,500/-	Rs.1,500/-	15 p.c. of the approved estimates of TA & DA.
10. Secretarial, clerical, class IV Library Asstt., Medical Expenses etc.	Rs.1,500/-* (Rs.500/-for Mathematics only)	Rs.1,000/-	Rs.1,000/-	Rs.1,500/* (Rs.500/-for Mathematics only)	Rs.1,000/-	

@Rs.200/- per participant for advanced special/All India Institute

\* For biology, chemistry and physics institutes only.

Confidential

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 1st December, 1971

Item No.2(a): To approve the action taken on certain matters.

- (1) Saugar University - purchase of a Station Wagon for the Department of Ancient Indian History and Archaeology.
- 

The University Grants Commission accepted the proposal of the University of Saugar for the purchase of Station Wagon for the Department of Ancient Indian History and Archaeology at an estimated cost of Rs.30,000/-, the share of the Commission being limited to Rs.20,000/-. In August, 1971 the University informed the Commission that it had not been able to get the matching grant of Rs.10,000/- from the State Government for the purpose and, therefore, requested the Commission to sanction the grant of Rs.30,000/- for the station wagon on 100% basis. The Saugar University pointed out that the wagon is essentially required for Archaeological excavations and exploration work which are undertaken in connection with postgraduate studies and research. The Visiting Committee which has assessed the fourth plan proposals of the Saugar University had also suggested that grants to the University may be given on 100% basis. In view of the above, the proposal of Saugar University for the purchase of station wagon for the Department of Ancient Indian History and Archaeology at an estimated cost of Rs.30,000/- has been accepted on 100% basis on the condition that the University provides an additional amount of Rs.10,000/- for the purpose within its over all fourth plan allocations.

-----

- (2) Kerala University - survey of Harijan Dialect of Malayalam
- 

In July, 1971 the Kerala University approached the Commission for assistance towards a survey of Harijan Dialect in Malayalam at an estimated cost of Rs.98,846/-. The project is expected to contribute to the history of Malayalam and theory of caste dialects in Indian languages. In view of the willingness of the Kerala University to meet 50% of the expenditure on the project and its willingness to adjust 50% share of University Grants Commission within

R. T. G.

the fourth plan allocation, the proposal has been accepted at a cost of Rs.98,846/- as detailed below:

1.	Salary of three Research Assistants for 3 years.	Rs. 70,746.00
2.	Field expenses, T.A. & D.A.	" 4,000.00
3.	Informant fee	" 3,000.00
4.	Stationary	" 1,600.00
5.	Office expenditure	" 1,500.00
6.	Publication funds	" 14,000.00
7.	Tapes 50 reels @ Rs.80/- per reel	" 4,000.00
<hr/>		
Total:		Rs. 98,846.00

(3) Madras University - Research scheme in Commerce entitled - "Effect of store complexity on the Drawing Power of Super Market in Madras City and its Environs".

In August, 1971 the Ministry of Education and Social Welfare forwarded a research scheme in commerce entitled "Effect of store complexity on the Drawing Power of Super Market in Madras City and its Environs" from the Madras University. The Commerce Research Committee of all-India Board of Technical Studies in Commerce had already examined the scheme and recommended the following financial estimates:-

		<u>Estimated Cost</u>
1.	Honorary Director One	Nil
2.	Honorary Joint Director One	Nil
3.	Full time Investigators Two	Rs. 9,600/-
4.	Travelling allowance -	Rs. 500/-
5.	Postage, printing, typing charges. -	Rs. 400/-
<hr/>		
Total:		Rs. 10,500/-

The Commission at its meeting held on 2nd December, 1970 has agreed (vide resolution No.44) to provide grants to Allahabad, Jodhpur and Osmania Universities towards Research schemes in commerce outside the fourth plan allocation. In view of this, the proposal of the Madras University for undertaking the research scheme in commerce at an estimated cost of Rs.10,500/- as detailed above was accepted. The assistance will be provided to the University outside the Fourth Plan allocation.

---

- (4) Grant-in-aid for the purchase of furniture for Humanities Block at the University of Roorkee.
- 

On the recommendations of the Fourth Plan visiting committee, the Commission approved a provision of Rs.50,000/- to the Roorkee University for the construction of Humanities Block. The proposal of the University for the purchase of furniture for the Humanities Block has been accepted at a cost of Rs. 3,866/- i.e. 10% of the civil cost of Rs. 38,660/-) on condition that the amount of Rs. 3,866/- will be accommodated by the University within the total plan ceiling.

---

- (5) Sambalpur University - Creation of one post each of Youth Welfare Officer and Director of Physical Education Fourth Five Year Plan.
- 

The proposal of the Sambalpur University for the creation of one post each of youth Welfare Officer and Director of Physical Education in the scale of pay of Rs.700-1250 has been accepted, subject to the condition that the expenditure on the salary of these posts would be met by the University within the over all fourth plan allocation and that the State Govt/University would take over the responsibility of maintenance of the posts after the Commission assistance ceases.

---

- (6) Grants to Teachers Training Colleges during the Fourth plan period.
- 

The Commission has approved the pattern of financial  
P.T.O.

/colleges offering  
B.Ed. and M.Ed.

assistance for development of Teacher Education and Research during the Fourth plan subject to a ceiling of Rs. 2 lakhs for colleges teaching upto B.Ed and upto Rs. 3,00,000/- for / course. The Commission may in exceptional cases provide an additional grant upto Rs.1 lakh each case to be placed before the Commission.

The proposals of the following colleges have been accepted under the scheme:-

<u>No.</u>	<u>University</u>	<u>College</u>	<u>Item approved</u>	<u>Esti- mated cost</u>	<u>UGC share</u>	<u>Sharing Basis</u>
1.	2.	3.	4.	5.	6.	7.
1.	Utkal	Madhanath Training College, Cuttack	(i) Construction of Residential quarters.	78,100	39,050	50:50
			(ii) Purchase of Books and Laboratory Equipment (for B.Ed. classes)	24,000	18,000	75:25
			(iii) Appointment of additional staff for two lecturers.	46,960	24,480	50:50
			(iv) Purchase of Books & Equipment (for M.Ed. classes)	12,000	9,000	75:25
Total:				Rs. 1,63,060	90,530	
2.	Panjab	Rao Sirendar Singh College of Education, Dewari.	(i) Extension of Women's Hostel	64,808	48,606	75:25
			(ii) Library Books	13,333	10,000	75:25
			(iii) Laboratory Equipment.	13,333	10,000	75:25
Total:				91,474	68,606	

P.T.O.



1.	2.	3.	4.	5.	6.	7.	
3.	Jabalpur	Government College of Education, Jabalpur.	(i)	Extension of Library including furniture.	10,000	6,666	$66\frac{2}{3}:33\frac{1}{3}$
			(ii)	Purchase of Books & Journals.	30,000	22,500	75:25
			(iii)	Audio Visual Aids	15,000	11,250	75:25
			(iv)	Equipment of Laboratories.	20,000	15,000	75:25
			(v)	Staff quarters	50,000	25,000	50:50
				Total: Rs.	1,25,000	80,416	
4.	Shivaji	S.M.T.T. College of Education, Kolhapur.	(i)	Extension of Libraries and Laboratories including furniture & fittings	1,25,000	93,333	$66\frac{2}{3}:33\frac{1}{3}$
			(ii)	Purchase of Books	60,000	45,000	75:25
			(iii)	Laboratories equipment	4,000	3,000	75:25
				Total: Rs.	1,89,000	1,31,333	

(7) Cochin University - development of the department of Marine Biology and Oceanography - Fourth Plan development.

The Cochin University forwarded a proposal from the Head of the Department of Marine Biology and Oceanography for the construction of an extension to the Lab-  
P.T.O.

oratory for providing extra accommodation to increase the number of admissions and for purchase of temperature controlling equipment etc., to provide adequate facilities for the culture of marine organisms. The proposal involved the following expenditure:

(i)	Construction of building (With pile foundation as the soil is clayey)	Rs. 1,25,000/-
(ii)	Temperature controlling equipment and installing the same.	" 25,000/-
(iii)	Furniture, circulating sea water fittings and other fittings.	" 25,000/-
Total:		<u>Rs. 1,75,000/-</u>

The proposal of the University for items 2 and 3 involving an expenditure of Rs. 50,000/- was accepted subject to the condition that this would be first charge on the 4th Plan allocation of the University. The University was also informed that the proposal for the extension of the Lab. will be examined by the Visiting Committee.

-----

(8) Jawaharlal Nehru University - Financial assistance to Research Scholars out of the grants paid for support of Research.

-----

The Commission at its meeting held on 2nd July, 1969 (Resolution No. 31) agreed to provide grants for support of Research in the Universities during the 4th plan period and inter-alia allocated a grant of Rs. 50,000/- to Jawaharlal Nehru University for the purpose.

The Jawaharlal Nehru University has incurred an expenditure of Rs. 23,337.54 towards award of fellowships to research scholars out of the grants paid to it for support of research activities. This was admitted as approved expenditure, as a special case.

P.T.O.

- (9) Centre of Advanced Study in History, Aligarh Muslim University - Extension of tenure of Junior Research Fellowship and Research Scholarship awarded to Shri Afzal Hussain and Shri Shaikh Abdul Latif beyond the three-year period.
- 

Shri Afzal Hussain and Shri Shaikh Abdul Latif were awarded Junior Research Fellowship and Research Scholarship at the Centre of Advanced Study in History, Aligarh Muslim University, with effect from 12th August, 1968 and 11th September, 1968 respectively.

On the recommendation of the Head of the Centre, the tenure of their Fellowship/Scholarship has been extended beyond the three-year period for a period of six months subject to their continued satisfactory progress of work.

-----

- (10) Centre of Advanced Study in Philosophy, Banaras Hindu University - Permission to Dr. (Miss) B. Mukherjee to draw salary from the college in addition to stipend as Senior Research Fellow.
- 

The Banaras Hindu University made a reference to the Commission whether Dr. (Miss) B. Mukherjee, who was a Senior Permanent Lecturer in the Women's College, Banaras Hindu University and had been subsequently selected as a Senior Research Fellow at the Centre of Advanced Study in Philosophy, may be permitted to draw salary payable to her by the College in addition to fellowship.

In view of the representation made by Dr. Mukherjee it has been agreed to permit her to draw both the leave salary and the fellowship stipend on the condition that the total amount drawn by her will not exceed the salary drawn by her at the time of award.

-----

- (11) Centre of Advanced Study in Philosophy, Banaras Hindu University - Extension of tenure of Research Scholarship awarded to Km. Shanti Chaturvedi.

P. T. O.

Km. Shanti Chaturvedi was awarded Research Scholarship at the Centre of Advanced Study in Philosophy, Banaras Hindu University with effect from 23rd September, 1968. In order to enable her to complete the research work undertaken by her, on the recommendation of the Head of the Centre, her tenure of Scholarship has been extended for a period of six months beyond the three-year tenure, subject to continued satisfactory Progress of her work.

- 
- (12) Centre of Advanced Study in Linguistics, Annamalai University - Sanction of an additional recurring grant of Rs. 7,000/- under the head 'Travels' for the year 1971-72.

---

Dr. P. S. Subrahmanyam, Reader in the Centre of Advanced Study in Linguistics, Annamalai University, has been accepted by the Commission to visit U.K. under the British Assistance Programme during 1971-72.

Since the centre could not meet the cost of travel of Dr. Subrahmanyam to U.K. out of the existing Provision of Rs. 2,000/- under the head 'Travels', an additional grant of Rs. 7,000/- has been sanctioned to the Centre for the purpose under the head 'Travel' during the year 1971-72 to enable it to meet its obligation.

- 
- (13) Centre of Advanced Study in Philosophy - University of Madras - Proposal for an additional grant of Rs. 12,000/- for printing special works.

---

The University of Madras requested for a special grant for printing the following special works at an estimated cost of Rs. 11,903/- under the auspices of the Centre of Advanced Study in Philosophy:-

1. Sureswara's Taithriya upanished-  
Shashya-Vartika with text,  
Translation and Notes by  
Dr. R. Balasubramaniam,
2. Social Justice: An Axiological  
Analaysis by Dr. S. Gopalan.

P. T. C.

In support of the proposal, the University stated that the Centre's annual provision of Rs.10,000/- under the Head 'Publications' was fully committed for printing some other publications. In the circumstances the proposal of the University has been accepted and an additional grant of Rs.12,000/- has been provided during 1971-72 under the head 'Publications' to enable the Centre to undertake the proposed publications.

- 
- (14) Centre of Advanced Study in Linguistics,  
University of Poona - Conversion of two  
posts of Language Instructors into a  
single post of Research Associate.
- 

The University of Poona on the recommendation of the Advisory Committee of the Centre of Advanced Study in Linguistics sent a proposal to the Commission for conversion of two posts of language instructors in the pay scale of Rs.300-25-350 int.; a single post of Research Associate in the pay scale of Rs.400-40-800-50-950 at the Centre of Advanced Study in Linguistics in order to attract suitably qualified candidates.

The proposal has been accepted upto the end of the plan period i.e. 1973-74.

- 
- (15) Centre of Advanced Study in Mathematics,  
Panjab University - Extension of Junior  
Research Fellowship awarded to Shri  
S.K. Bhandari.
- 

The Centre of Advanced Study in Mathematics, Panjab University has submitted a proposal for the extension of the term of Junior Research Fellowship of Shri S.K. Bhandari for two years beyond the normal three year period expiring on 27.8.1971.

The Head of the Centre in support of the proposal has stated that the normal period for getting a Ph.D. in Mathematics is four to five years. In view of the recommendation of the Head of the Centre of Advanced Study in Mathematics, the tenure of Junior Research Fellowship of Shri Bhandari has been extended by two years beyond the normal three-year period subject to his continued satisfactory progress of work.

P.T.O.

- (16) Centre of Advanced Study in Applied Mathematics, University of Calcutta - Extension of tenure of Junior Research Fellowship held by Shri L.M. Saha.
- 

The three year tenure of Junior Research Fellowship held by Shri L.M. Saha in the Centre of Advanced Study in Applied Mathematics, University of Calcutta, expired on 11th August, 1971.

On the recommendation of the University/Centre, the tenure of Fellowship held by Shri L.M. Saha has been extended, beyond the three year period, for a further period of one year with effect from 12th August, 1971 subject to continued satisfactory progress of his work.

-----

- (17) Centre of Advanced Study in Botany, University of Madras - Extension of the tenure of Junior Research Fellowships.
- 

The University of Madras submitted a proposal for extension of tenure of the following Junior Research Fellowships in the Centre of Advanced Study in Botany beyond the normal three year period by six months to enable them to complete their research work.

- (i) Miss K.S. Bhama
- (ii) Shri V. Sankaran
- (iii) Shri C.V. Agadi
- (iv) Miss T.V. Bhuvaneshwari
- (v) Shri J.J. Solomon
- (vi) Shri C. Laxminarasimhan
- (vii) Mrs. A. Hilda

In view of the recommendations of the Head of the Centre of Advanced Study in Botany and the University of Madras the proposal has been accepted, subject to continued satisfactory progress of work of the concerned fellows.

-----

- (18) Centre of Advanced Study in Botany, University of Madras - Extension of the tenure of Research Scholarship awarded to Shri M.N. Venkataraman.
-

The University of Madras submitted a proposal for extension of tenure of postgraduate Research Scholarship awarded to Shri M.N. Venkataraman in the Centre of Advanced Study in Botany beyond the normal three year period by six months to enable him to complete his research work.

In view of the recommendation of the Head of the Centre of Advanced Study in Botany and the University of Madras, the Proposal has been accepted, subject to continued satisfactory progress of work of the Scholar.

- 
- (19) Centre of Advanced Study in Applied Chemistry, University of Bombay - Additional grant to meet the expenditure towards the cost of International Travel to U.K. during 1971-72 in respect of Prof. M.R. Padhye under the Programme of British Assistance to Centres of Advanced Study.

---

Prof. M.R. Padhye of the Centre of Advanced Study in Applied Chemistry, University of Bombay has been approved to visit U.K. under the Programme of British Assistance to Centres of Advanced Study. As it is not possible for the Centre to meet the air fare of Prof. Padhye from out of the existing annual provision of Rs.2,000/- under the Head "Travels", an additional grant of Rs.5,500/- has been agreed to be provided to the University for the Centre for the purpose.

- 
- (20) Centre of Advanced Study in Chemistry, University of Delhi - Payment of Rs.469/- to Mr. V.S. Georgiev, International Scholar, on account of excess baggage.

---

Mr. V.S. Georgiev of Sofia has been awarded International Scholarship at the Centre of Advanced Study in Chemistry, University of Delhi, as a part of the celebration of the Programme of the International Education year 1970. Mr. Georgiev arrived in New Delhi on 30th July, 1971. He spent a sum of Rs.469/- for paying the excess baggage charges on some books which he had brought with him from Bulgaria in connection with the Research Work to be done by him in the Centre of Advanced Study.

As Mr. Georgiev is expected to stay at the Centre for a period of nine months and found it difficult to meet this expenditure but of the contingent grant of Rs. 1,000/--, it has been agreed that the amount may be reimbursed to him as a very special case.

(21) College Science Improvement Programme -  
approval of grant to colleges.

The Commission, at its meeting held on 2nd September, 1970 (Item No.12) while accepting the recommendations made in the report on evaluation of proposals received from the University departments and colleges for participating in the College Science Improvement Programme, desired that the proposals from other Institutions selected to participate in the programme be placed before it from time to time.

Proposals from the following seven colleges out of the colleges recommended for selection by the Standing Committee have been accepted. The grants approved for each college is indicated below:

<u>S.No.</u>	<u>Name of College</u>	<u>University</u>	<u>Amount recommended</u>
1.	Jai Hind College & Basant Singh Institute of Science, Bombay.	Bombay	Rs. 1,85,000
2.	Veerasaiva College, Bellary.	Karnatak	" 3,00,000
3.	C.M.S. College, Kottayam	Kerala	" 2,75,000
4.	Maharaj Singh College, Saharanpur	Meerut	" 3,00,000
5.	Hislop College, Nagpur	Nagpur	" 3,00,000
6.	Gangadhar Meher College, Sambalpur	Sambalpur	" 3,00,000
7.	Ravenshaw College, Cuttack.	Utkal	" 2,85,000

With the acceptance of these proposals the total number of colleges invited to participate in the programme would be 71 out of 119 colleges suggested by the Standing Committee.

(22) Madurai University - Certificates from P.W.D. in respect of estimates of building projects constructed with assistance from the University Grants Commission.

The Director of Technical Education, Tamil Nadu Government, has been authorised by the Government of Tamil Nadu to exercise all the functions of the Chief Engineer in respect of building projects executed by him. On a reference from the Madurai University and in consultation with the Chief Engineer, P.W.D., Madras, it has been decided that the certificates of the Director of Technical Education, Madras, in respect of estimates of building projects, which are normally required from the State P.W.D. in terms of the conditions of the University Grants Commission grants may be accepted.



- (23) Lenin Centenary Celebrations- All Universities Seminar in Delhi University.
- 

The University of Delhi had agreed to organise an all Universities Seminar on Lenin & Comparative analysis of the political economic and social conditions and policies in Russia in the decade after the Revolution and in India after Independence in Nov-Dec 1970. Subsequently the University informed that they would organise the Seminar in September, 1971. This was agreed to by the Govt. of India, Min. of Education & Social Work. The University of Delhi has now intimated that it would not be possible for them to organise the all-Universities Seminar. The University had informed the Min. of Education & Social Welfare also.

---

- (24) Proposal from Jawaharlal Nehru University regarding payment of Travelling Allowance to the candidates called for interview for M.Phil. and Ph.D. Courses and for award of scholarships in the four schools of Studies maintained by the University.
- 

The Commission at its meeting (item No.2(a) - 136) held on August 5, 1964 accepted the proposal of the then Indian School of International Studies for payment of travelling allowance to candidates not exceeding 25 in number called for interview for award of scholarships at the rate of third class railway fares.

The Indian School of International Studies has since been merged with the Jawaharlal Nehru University under the name of "School of International Studies". The Jawaharlal Nehru University have stated that they have admitted candidates to M.Phil and Ph.D. for the academic year 1971-72 and that candidates from all over India applied for admission to these courses. Some bright candidates from distant places had expressed their inability to attend the interview for the reason that they could not meet travel expenses. Even those who came for interview suggested that the University should make provision for travel expenses. The University had, therefore, sent a proposal that candidates not exceeding 25 in number who come from distant places for interview in any of the Schools of Studies maintained by the University for admission to the M.Phil/Ph.D. Courses and for award of Scholarships may be paid traveling allowance @ their class fare as had been agreed to by the Commission earlier in the case of the Indian School of International Studies.

The proposal of the Jawaharlal Nehru University has been accepted.

- (25) The dissolution of the working group appointed to consider the details regarding the establishment of a second campus of Delhi University.
- 

At a meeting held to consider the proposal of the Delhi University for the establishment of a second campus in South Delhi, it was decided that a working group may be appointed to spell out the structure of the proposed campus and its relationship with the main university campus. Accordingly, a working group consisting of the following was constituted:

1. Professor A. B. Lai ,  
Vice-Chancellor,  
Rajasthan University,  
Jaipur,
2. Professor S. Nurul Hasan,  
Head of the Department of History,  
Aligarh Muslim University,  
Aligarh,
3. Dr. A .R. Varma,  
Director,  
National Physical Laboratory,  
New Delhi.
4. Shri Chandran D.S. Devanesan,  
Principal,  
Madras Christian College,  
Tambaram,  
Madras

The Delhi University has now suggested that the working group appointed to consider the details for the establishment of the second campus may be dissolved in view of the Delhi University's new proposal regarding the setting up of another University in Delhi. Delhi University has further decided not to pursue the proposal for setting up a second campus.

---

- (26) Provision for four additional tubewells, static tanks, pump houses etc., for the purpose of increasing the water supply for horticultural works at the Jawaharlal Nehru University Campus.
- 

The Jawaharlal Nehru University sent an estimate

P.T.O.

amounting to Rs.6,52,900/- duly prepared by the Central Public Works Department, for the provision of four additional tubewells, static tanks, pump houses etc., for the purpose of increasing the water supply for horticultural works in the University Campus. The four tubewells proposed were in addition to the tubewells at a cost of Rs.1,34,370/- sanctioned by the Ministry of Education and Social Welfare and the six tubewells, static tanks, pump houses etc., at a cost of Rs.7,48,100/- sanctioned by the Commission earlier (vide item 2(a) of this Commission's meeting held on the 4th November, 1970).

The estimates of Rs.6,52,900/- sent by the Jawaharlal Nehru University for the provision of four additional tubewells etc., for increasing the water supply for Horticultural purposes in the University Campus have been accepted.

- 
- (37) Jawaharlal Nehru University - Proposal for the creation of a post of professional Senior (Deputy Librarian) and two Posts of Professional Junior in the scales of Rs. 700-50-1250 and Rs.400-40-800-50-950 respectively.

---

The Commission had earlier accepted the proposal of the Jawaharlal Nehru University for the creation of two posts of Professional Juniors in the grade of Rs.400-40-800-50-950 for the Library of the University. The matter was also reported to the Commission at its meeting held on the 2nd September, 1970 under item No.2(a).

The Jawaharlal Nehru University has since intimated that the present strength of two Junior Professionals to assist the O.S.D. (Library) is quite inadequate to cope with the volume of work involved. Moreover, the pressure of work in the Library has enormously increased as a result of ever increasing demands from the teachers and students in the field of acquisitions as well as services. The University has, therefore, approached for the sanction of the Commission to creation of one post of Professional Senior (Deputy Librarian) in the scale of Rs.700-50-1250 and two additional posts of Professional Junior (Assistant Librarians) in the pay scale of Rs.400-40-800-950 for the Library. In view of the circumstances stated by the University, the proposal of the University for the creation of the aforesaid posts has been accepted.

P. T. O.

(20) University of Delhi - Conversion of 5 posts of Lecturers into 3 Readerships in the Department of Physics and Astro-physics.

---

The University of Delhi informed the Commission that its Department of Physics and Astro-physics would be having 380 students in the current year in B.Sc.(Hons.), M.Sc.(Previous) and M.Sc.(Final) classes and that this number would gradually increase to 550. It was also stated that the members of the teaching staff of the Department were also carrying on research activities with more than 100 Research Students and that there would be a gradual increase in their postgraduate activities. In order to augment the academic staff in the Department of Physics and Astro-physics the University proposed conversion of five posts of Lecturers in this department into three Readerships. The proposal has been accepted.

---

(21) Name of the Hostel Buildings constructed by the Panjab University out of the assistance received from the University Grants Commission.

---

The Panjab University had sent a proposal to name the Hostels for 200 Men and 51 Women Students' constructed out of assistance received from the Commission after the name of late Dr. Homi Bhaba and Mata Sahib Kaur respectively. The proposal of the University has the approval of its Syndicate.

According to the principles laid down by the Commission for naming of buildings constructed with assistance from the University Grants Commission by the Universities, the proposal should emanate from the Syndicate or the Government and be subject to the concurrence of the Commission. The hostel buildings could be named after persons of outstanding eminence in the field of teaching, research, scholarship and public service whose life and work would be a source of inspiration to the younger generation provided that no building shall be named after a living person.

The proposal of the Panjab University to name the hostels for 200 men and 51 women students as "Homi Bhaba" and "Mata Sahib Kaur" hostels respectively has been accepted.

- (30) Delhi University constituent colleges -  
Finalisation of the accounts of the main-  
tenance grants paid by the University  
Grants Commission.
- 

Maintenance grant to colleges affiliated to Delhi University is paid on 95% basis to meet deficit (i.e. approved expenditure minus approved income). In the case of University maintained colleges and evening classes of the colleges deficit accordingly worked out is met on 100% basis.

The audited accounts in respect of the following colleges for the year noted against each have been examined and grants finalised.

1. Shayam Lal College (Day) for 1968-69 Rs. 4,09,138/-
  2. Atma Ram Sanatan Dharma College for 1967-68 Rs. 4,05,575/-
  3. Delhi School of Social Work for 1969-70 - Rs. 3,35,559/-
  4. Bhagat Singh College for 1968-69 Rs. 1,95,503/-
  5. Gargi College for 1968-69 Rs. 2,51,706/-
  6. Women's College for 1968-69 Rs. 5,01,226/-
  7. St. Stephen's College for 1968-69 Rs. 5,26,182/-
  8. Shri Ram College of Commerce for 1969-70 Rs. 6,93,302/-
- (31) Establishment of Health Centre at Farook College, Farook (Calicut University).
- 

At its meeting held on 7th April, 1971 the Commission desired that assistance may be provided to the universities and selected colleges (2 colleges per university in the first phase) for the establishment/development of Health Centres. The Commission further agreed that assistance for non-recurring expenditure on Health Centres (building and equipment) would be on a sharing basis of 75(UGC) : 25(University/College). As regards the recurring expenditure the Commission agreed to make an annual contribution (the amount to be determined by the Commission after examination of the proposals) for the current plan period, at the end of which the responsibility for maintaining the Health Centres would be taken over by the universities/colleges concerned. (Resolution No.52).

On the recommendation of the Calicut University, the proposal of the Farook College, Farook for the establishment of a 'Health Centre' has been accepted as under:

<u>Non-recurring</u>	<u>Estimated Expdn.</u>
Building	Rs. 50,126/-
Equipment	" 10,000/-
Total:	Rs. 60,126/-
Commission's contribution @ 75%	Rs. 45,094/-

P.T.O.

Recurring:

Salaries of staff	Rs. 20,000
Commission's share on 50:50 basis (as in the case of academic staff)	" 10,000 p.a.

The Commission's assistance will cease at the end of the Fourth Plan period after which the responsibility for maintaining the Health Centre would be taken over by the College.

- 
- (32) Deputation of Dr. R. D. Deshpande, Joint Secretary, abroad to the Federal Republic of Germany.
- 

On receipt of a letter from the Embassy of the Federal Republic of Germany Dr. R. D. Deshpande, Joint Secretary . was deputed to visit the Federal Republic of Germany for about two weeks (October 6-17, 1971) for attending the International Conference on "Problems of the Promotion and Production of Teaching Materials in Developing Countries" organised by the German Foundation for Developing Countries. The stay in Germany was also utilised by Dr. Deshpande for the work relating to National Science Exhibition.

/\_agreed to  
pay

The German Foundation for developing countries had / his air fare by economy class from New Delhi to Germany and back and also his expenditure for his stay in Germany. Necessary clearnace from the Govt. of India was obtained.

-----

- (33) Grant of advance to University Grants Commission employees affected by recent floods in Bihar and Uttar Pradesh.
- 

The Govt. of India's orders as contained in the Ministry of Finance (Department of Expenditure) Office Memorandum No.F.18(6)-E.II(A)/71 dated the 17th August, 1971 and No.F.18(7)-E.II(A)/71 dated the 15th September, 1971 regarding grant of advance equal to three month's pay not exceeding Rs. 500/- to be recovered in 24 equal monthly instalments to non-gazetted Central Govt. employees affected by recent floods in Bihar & Uttar Pradesh have

P.T.O.

been made applicable to the U.G.C. employees on the same terms and conditions as specified in the Office Memoranda referred to above.

-----  
(34) Junior Research Fellowships in Sciences -  
Extension of tenure beyond three years.  
-----

Under the rules, Junior Research Fellowships of the value of Rs.300/- per month are tenable for a period of three years.

On the recommendations of the supervisor, Head of the Department and the University concerned, the tenure of two fellows was extended by six months beyond three years as per details given below to enable them to complete their work:

Sl. No.	Name, subject and centre of work.	Date of joining the fellowship	Period of extension
1.	Sh. U.R. Selvarajan Zoology Sri Venkateswara University.	16.7.1968	16.7.71 to 15.1.72
2.	Sh. N.S. Kalra Chemistry U.P. Agriculture University.	5.8.1968	5.8.71 to 4.2.72

-----  
(35) Junior Research Fellowships in Humanities -  
Leave without fellowship - Km. Vidula Jaiswal.  
-----

Under the rules, leave without fellowships for a maximum period of three months may be granted to a fellow on academic grounds during the tenure of award.

On the recommendation of the university, leave without fellowship for a period of six months from 21.7.1971 to 20.1.1972 has been granted to Km. Vidula Jaiswal, a Junior Research Fellow in the Department of Ancient Indian History, Culture & Archaeology at the

R.T.O.

Banaras Hindu University to enable her to work as a temporarily Demonstrator in Exploration in the Department of Ancient Indian History, Culture and Archaeology, Banaras Hindu University. The period of leave will be counted towards her fellowship tenure.

-----  
(36) Utilization of contingency grant -  
Dr. S.R. Pattabiraman  
-----

Under the rules, Commission's assistance to the research fellows towards expenditure on contingencies is limited to Rs.1,000/- in a year.

Dr. S.R. Pattabiraman who worked as a Junior Research Fellow at Madras Veterinary College incurred expenditure of Rs.1,277.61 during the first year and Rs.721.25 during the second year of his award. On the recommendation of the Head of the Institution, the request of Dr. Pattabiraman for meeting the excess expenditure of Rs.277.61 incurred during the first year of his award out of the contingency grant of Rs.1,000/- available for the second year of his award has been accepted.

-----  
(37) Award of Research Fellowships in Engineering & Technology - 1971-72.  
-----

The Selection Committee for award of Research Fellowships in Engineering and Technology at its meeting held on 19th August, 1971 recommended that fellowships may be awarded to 42 candidates subject to their obtaining master's degree in first division. As 4 of these candidates have fulfilled this condition, research fellowships in Engineering and Technology of the value of Rs.400 p.m. have been awarded to them during 1971-72 as per details given below:

Sl.No.	Name	Subject	Centre of work
1.	Shri A shok Kumar	Mechanical Engineering	Roorkee University.
2.	" Jayden Sharma	Electrical Engg.	-do-
3.	" Gyan Dhar Singh	Ceramics	Banaras Hindu University.
4.	" R.K. Malhotra	Pharmacy	Panjab Univ.



(30) Research Fellowships in Engineering & Technology - Extension of tenure.

Under the rules, research fellowships in Engineering and Technology are tenable for a period of two years and may be extended upto a period of one year in special cases.

On the recommendations of the Supervisor, Head of the Department and the University concerned, the tenure of Shri Anil Kumar Singla and Shri V. Sreenivasulu was extended for the 3rd year and has now been further extended by six months as per details given below to enable them to complete their work for the doctorate degree.

S. No.	Name	Subject	Centre of work	Date of joining	Period of extension beyond 3 years.
1.	Shri Anil Kumar Singla	Pharmacy	Punjab Univ.	11.11.68	11.11.71 to 10.5.72
2.	Shri V. Sreenivasulu	Civil Engg.	I.I.Sc. Bangalore	4.10.68	4.10.71 to 3.4.72

(31) Utilization of services of retired teachers - First award during 1971-72.

The UGC Committee for retired teachers at its meeting held on 5th August, 1971 recommended that views of the Vice-Chancellor concerned may be invited in respect of 9 teachers about their suitability for undertaking teaching work under the retired teachers scheme and awards be made to them if the views of the Vice-Chancellor are favourable. The Committee also desired that further information/views of referees in respect of 6 teachers may also be obtained and their cases for award under the scheme may be placed before the Chairman, University Grants Commission for consideration.

On the recommendation of the Vice-Chancellor concerned, awards have been made to 15 teachers during 1971-72 as per details given in Annexure .

P.T.O.

(40) Utilization of services of retired teachers -  
Additional honorarium - Dr. M.A.M. Khan  
-----

Under the rules relating to the retired teachers scheme, an awardee may receive additional honorarium upto a maximum of Rs.4,000 a year from the institution where he works with the approval of the U.G.C.

The proposal of the Osmania University for payment of additional honorarium @ Rs.4,800 p.a. and conveyance allowance @ Rs.1200 p.a. to Dr. Muid Khan during the tensure of his award under the retired teachers scheme for working as Director, Dairatul Ma'arif and Secretary, Islamic Culture Journal has been accepted.

-----

(41) Utilization of services of retired teachers -  
Dr. D.N. Majumdar - Sanction for additional  
contingency grant.  
-----

Under the rules relating to the retired teachers scheme, contingency grant upto Rs.1,000/- p.a. is available to the awardees for meeting expenditure related to their research work.

The request of Dr. D.N. Majumdar who is working under the retired teachers scheme in the Department of Pharmacy at the Jadavpur University for additional contingency grant of Rs.1500/- for meeting expenditure on purchase of animals needed for his research work has been accepted.

-----

(42) Utilization of services of retired teachers -  
Extension of award.  
-----

Under the rules, assistance to a teacher under the retired teachers scheme is limited to a period of three years in the first instance and may be continued thereafter till the age of 68 provided the teacher retains active interest in academic work.

Dr. S. Jalota formerly Professor of Psychology, Ravi Shankar University has been working under the retired teachers scheme at Govt. College of Education

P.T.O.

Chandigarh since 14th December, 1970. The proposal from the Principal for extension of his award beyond 13th December, 1971 was received after the meeting of the retired teachers Committee on 5th August, 1971. Views of two experts namely, Dr. N.V. Tirtha, Professor of Education, Bangalore University and Dr. S.V. Adaval, Professor of Education, Banaras Hindu University were invited about the suitability of extending the tenure of Dr. Jalota beyond one year (as Dr. Jalota was 67 years old at the time of joining the scheme, award was made to him for one year only).

Dr. Jalota is 68 years old. On the recommendation of the experts, his award under the retired teachers scheme has been extended by one year with effect from 14.12.71 to enable him to complete his work on "The revision of the test of general mental ability in Hindi 1/60).

-----  
(13) Award of scholarships for Honours/  
Postgraduate studies in Arabic/  
Persian during 1971-72.  
-----

On the recommendations of the Head of the Department and the University concerned, scholarships for honours/postgraduate studies in Arabic/Persian have been awarded to the following five candidates during 1971-72 as their qualifications were comparable to the candidates selected during the current year for award of scholarships on the recommendation of the Selection Committee which met on 8th July 1971. With these awards, the number of scholarships awarded this year in Arabic and Persian will be 25 against 20 scholarships available for award every year. The number of scholarships has been raised this year as 9 candidates selected last year did not avail of the scholarship for two years since they were studying the final year.

(a) For Honours Studies

Sl. No.	Name	Centre of study	Subject	Qualifications	Remarks
1.	Ahmad Hasan	Aligarh Muslim Univ.	Persian	1st class in High School & P.U.C. exams. with distinction in Persian in the PUC exams.	He is blind. The result of P.U.C. examination was not available to the Committee.

...P. T. O.

(b) For Postgraduate Studies

<u>Sl. No.</u>	<u>Name</u>	<u>Centre of study</u>	<u>Subject</u>	<u>Qualifications</u>	<u>Remarks</u>
1.	Km. Itret Fatima	Aligarh Muslim Univ.	Persian	1st class in B.A.(Hons.) examination with 67% marks in Persian.	Result of B.A. examination was not available to the Committee. She held UGC scholarship for honours studies.
2.	Sh. Akhtar Mahdi.	Allahabad University.	Persian	1st class in High School and B.A. examinations with more than 70% marks in Persian and IInd class in Inter- mediate with 61% marks in Persian.	Application was sent after the meeting of the Committee as the B.A. exami- nation results were declared late.
3.	Sh. Akkas Ali Molla	Gauhati University	Arabic	1st class in Matric and B.A. with 64% marks in Arabic at the B.A. Hons. exami- nation. IInd class in P.U.C. with 1st class marks in Arabic. Held UGC scholar- ship for honours studies.	--do--
4.	Km. M.T. Gulamabi,	Gujarat University.	Persian	1st class in P.U.C. and B.A. examinations with 70% marks in Persian.	The Committee recommended her name for award subject to her getting 60% marks in Persia in the B.A. examination.

- (44) Award of scholarships and Junior Research Fellowships to the students belonging to the hill areas of North-Eastern Region of India during 1971-72.

The University Grants Commission constituted a Committee consisting of Dr. M. S. A. Rao, Professor of Sociology, Delhi University and Dr. S. M. Mukherji, Professor of Chemistry, Kurukshetra University to scrutinize 18 applications received for award of scholarships and fellowships to the students belonging to the hill areas of North-Eastern Region of India after the meeting of the Selection Committee held in July last. The Committee met on 24th September, 1971. Dr. Mukherji could not attend the meeting. On the recommendation of the Committee four candidates have been selected for award of scholarships and Junior Research Fellowships during 1971-72 as per details given below:

A. For Junior Research Fellowships  
of the value of Rs. 300/- p.m.

Sl. No.	Name of the scholar	Subject	Topic of work	Centre of work
1.	Km. P. Tiewsoh	Zoology	Chromosomes (Grasshoppers)	Gauhati University.
2.	Sh. S. H. Pantu	Pol. Science	Indian foreign policy	Jawaharlal Nehru Univ.

B. For Scholarships for Postgraduate studies of the value of Rs. 150/- p.m.

1.	Km. J. J. Sawian	English	-	Gauhati University
2.	Km. E. M. T. Basaiawamoit	Education	-	-do-

As two candidates namely Shri K. Thansang and Shri Zochungunnga fulfilled the condition laid down by the Selection Committee at its meeting held in July last by obtaining 50% marks and 53% marks respectively in the B.A. examination, scholarships for postgraduate studies have been awarded to them as per details given below:

Sl. No.	Name	Subject	Centre of study
1.	Sh. K. Thansang	English	Gauhati University
2.	Sh. Zochungunnga	History	-do-

(45) Award of scholarship for postgraduate studies in Sanskrit during 1971-72.

---

The Selection Committee for award of scholarships for postgraduate studies in Sanskrit/Pali/Prakrit at its meeting on 8th July, 1971 recommended that candidates who have got first class in all the examinations with atleast 70% marks in Sanskrit in the B.A. examination may be awarded scholarships in Sanskrit subject to a maximum of 3 from one university. As this condition was fulfilled by Km.K.J. Nasrin and Km. Shefika Datt, scholarships for postgraduate studies in Sanskrit at Allahabad University have been awarded to them during 1971-72. With these awards, the number of scholarships awarded for postgraduate studies in Sanskrit this year will be 17 against 20 scholarships available for award every year.

---

(46) Payment of scholarship amount to the candidates selected for award of scholarships for honours/postgraduate studies under various UGC schemes.

---

It has been decided that the value of scholarships for postgraduate studies in Arabic/Persian/Sanskrit/Pali/Prakrit and to the students of hill areas of North-Eastern Region of India may be fixed @ Rs.1800/- p.a. (the present value of scholarship is Rs.150/- p.m.) and for honours studies in Arabic/Persian at Rs.1200 p.a. (the value of scholarships at present is Rs.100 p.m.) and that the amount of scholarship be released to the institution concerned for full one year on receipt of the information that the scholar has taken admission and joined the course for which he has been selected. The second year's scholarship is required, may also be released for full one year if the candidate passes the annual examination. The institution may, however, pay the scholarship amount on monthly instalments to the scholar concerned subject to his satisfactory work.

---

(47) Financial assistance to teachers in universities and colleges for research or learned work in Humanities including Social Sciences and Sciences - Second Award during 1971-72.

---

Since 1963-64, the University Grants Commission has been giving grants to the teachers in universities and colleges for field work, books, chemicals, equipment and for publication of monographs, research papers etc., needed by them for their research work but which are not normally available at the institution where they work. Assistance upto a maximum of Rs.5,000/- may be provided to a teacher under the scheme. Two selections are held in a year under the scheme. First selection is held in March and the second in September.

For second award during 1971-72, the Commission received 479 applications in Humanities and Social Sciences and 602 applications in Science subjects which were scrutinized by the Selection Committees (Annexure I & II). On the recommendation of the Committees, grants amount to Rs.1,15,600 were sanctioned for 136 teachers in Humanities and Social Sciences and Rs.1,93,150 for 21 teachers in Science subjects. Subject-wise details of applications received and grants sanctioned are given in Annexure III & IV.

-----

(48) B.P.S.M. College, Khanpur Kalan  
(Panjab University) - Assistance  
for the construction of Teacher's  
Hostel.

-----

In view of the recommendation of the Vice-Chancellor, the proposal of B.P.S.M. College, Khanpur Kalan (Panjab University) for the construction of Teacher's Hostel comprising 4 flats has been accepted by the Commission after relaxing the condition of minimum enrolment on a sharing basis of  $66\frac{2}{3}$  :  $33\frac{1}{3}$ . The college has 150 students on its roll as against 400, required under normal rules. The Commission's grant for the project will be limited to Rs.56,834/- against the estimated cost of Rs.83,752/-.

-----

(49) Allum Sumangalamma Memorial College for  
Women, Ballary (Karnatak University)  
Assistance for the construction of a  
Women's Hostel and purchase of fur-  
niture.

-----

In view of the strong recommendation of the Vice-Chancellor, Karnatak University, Dharwar that this is the only Women's College in the entire district of Bellary and most the students come from the mofussil talukas of the district, the proposal of Allum Sumangalamma Memorial College for Women, Ballary (Mysore) which has a student enrolment of 242 (as against the minimum enrolment of 400 normally required under the rules) for the construction of a Women's Hostel and purchase of furniture for 62 students has been accepted. The Commission's grant for the project will be limited to Rs.1,64,436/- against an estimated cost of Rs.2,37,140/-.

-----

(50) Shri Baldeo Degree College, Baragaon (Gorakhpur University) assistance for the construction of a Library-cum-Laboratory Building.

-----

In view of the recommendation of the Vice-Chancellor, Gorakhpur University, Gorakhpur that the college is located in a rural backward area, the proposal of Shri Baldeo Degree College, Baragaon which has a student enrolment of 235 (as against the minimum enrolment of 270 normally required under the rules) for the construction of a Library-cum-Laboratory Building has been accepted. The Commission's grant for the project will be limited to Rs.79,534/- against the estimated cost of Rs.1,19,300/-.

-----

(51) Mahila College, Chaibasa (Ranchi University) assistance for the construction of Non-Resident Students Centre.

-----

In view of the recommendation of the Vice-Chancellor, Ranchi University, Ranchi that the college is located in the Tribal Belt of Chotanagpur where the majority population consists of Adivasis, the proposal of Mahila College, Chibasa which has a student enrolment of 175 (as against the minimum enrolment of 400 normally required under the rules) for the construction of a Non-Resident Students Centre has been accepted. The Commission's grant for the project will be limited to Rs.35,000/- against the estimated cost of Rs.50,000/-.



(53) Sofia College for Girls, Ajmer (Rajasthan University) Construction of Women's Hostel.

-----

In view of the special recommendation of the Vice-Chancellor, Rajasthan University "that the staff is so devoted and dedicated and it is functioning so well that it deserves special consideration and encouragement from the Commission", the proposal of Sofia College, Ajmer (Rajasthan) (Which has a student enrolment of 256 as against 400 normally required under the rules) for the construction of Women's Hostel for 56 students including furniture has been accepted. The Commission's contribution for the project will be limited to Rs.1,85,605/- against an estimated cost of Rs.3,99,727/-.

-----

(53) S.P.U. College, Falna (Rajasthan University) Construction of Library Building.

-----

In view of the special recommendation of the Vice-Chancellor, Rajasthan University that the college is "situated in a backward rural area from the educational point of view", the proposal of S.P.U. College, Falna (Rajasthan) (which has a student enrolment of 275 as against 400 normally required under the rules) for the construction of Library building has been accepted.

The Commission's contribution of the project will be limited to Rs.91,783/- against an estimated cost of Rs.1,37,677/-.

-----

(54) Kshetrabasi College, Nirankarpur (Utkal University) Construction of Non-Resident Students Centre.

-----

In view of the special recommendation of the Vice-Chancellor, Utkal University, the proposal of Kshetrabasi College, Nirankarpur Distt. Puri (which has a student enrolment of 258 as against 400 normally required under the rules) for the construction of Non-Resident Students Centre has been accepted.

The Commission's contribution for the projects on cent percent basis will be limited to Rs.29,426/-

- (55) B.R.M. Mahavidyalaya, Monghyr, (Bhagalpur University) Assistance for the construction of a Teacher's Hostel.
- 

In view of the recommendation of the Vice-Chancellor that B.R.M. Mahavidyalaya being a Women's College, the proposal for the construction of a Teacher's Hostel comprising 8 flats has been accepted by the Commission at an estimated cost of Rs.1,16,993/- with University Grants Commission's share of Rs.77,995/- @ 66 $\frac{2}{3}$ %. The college has 352 students on its roll as against 400 required under normal rules.

-----

- (56) Approval of provision of furniture in the Cafeteria attached to the University Polytechnic - Aligarh Muslim University.
- 

The Commission approved the construction of a Cafeteria attached to the Polytechnic Aligarh Muslim University at a total cost of Rs.32,995. The construction is nearing completion. The University's proposal for provision of furniture, utensils etc., in the Cafeteria has been accepted and an expenditure of Rs.15,000/- approved for the purpose.

- (57) Financial assistance to universities and colleges for development of play fields and purchase of accessories.
- 

The Commission at its meeting held on 3rd February 1971 (Item 98) decided that assistance may be given to the universities and colleges for the development of their play fields and purchase of accessories for sports and games, and expenditure for this purpose met to the extent of 75% of Rs. 45,000/- for a University and of Rs. 10,000/- for a college. In pursuance of this it has been decided to assist the universities/institutions deemed to be universities and upto 20% of the colleges affiliated to each university (in the first phase of the programme). The universities concerned have been requested to select the colleges to be assisted keeping in view the availability of play fields and the interest and performance of the institutions concerned in the field of games and sports. The Commission's assistance is not available for the purchase/acquisition of land, and may be utilised only for the improvement of the playfields/courts/pitches required for the games and sports conducted by the institutions. If so desired the grant or a portion thereof may be utilised for the purchase of equipment/accessories for such games and sports, excluding day-to-day consumable articles like shuttle cocks, cricket balls, tennis balls, etc.

(58)

Financial Assistance was sanctioned to the colleges listed below for their development projects subject to the normal rules and within the approved financial ceiling of Rupees three lakhs per college.

.....

S.No.	Name of the college.	Purpose of the grant	Approved cost.	UGC Share.
1.	2.	3.	4.	5.
1.	Milind College of Science, Aurangabad. (Marathwada University)	Purchase of library books laboratory equipment and furniture.	81,000/-	59,666/-
2.	Smt. C.H.M.College, Ulhasnagar (Poona University)	Purchase of Laboratory equipment.	50,000/-	36,667/-
3.	Dharmabad Shikshan Sanastha's Lal Bahadur Shastri Mahavidyalaya, Dharmabad. ( Marathwada University)	Construction of Men's Hostel for 160 students.	5,97,511/-	2,98,756/-
4.	L.M.S.Law College, Imphal.(Gauhati University)	Construction of cycle shed.	54,332/-	27,166/-
5.	People Education Society's Dr. Ambedkar College of Commerce Aurangabad. (Marathwada University)	Construction of Non-resident students Centre.	1,01,631/15	70,000/-
6.	Shri G.V.G.Visalakshi College, Udamalpet. (Madras University)	Construction of Women's Hostel for 120 students.	3,79,740/-	2,43,930/-
7.	American College, Madurai. (Madurai University)	Construction of Teaching accommodation.	86,634/-	57,756/-
				(Revised sanction)
8.	S.K.R.Gevt. Arts and Science College, Gudur (S.V.University)	Purchase of library books.	30,000/-	22,500/-
9.	Navjivan Arts and Commerce College, Dohaz. (Gujarat University)	(a) Construction of class rooms.	2,50,466/-	1,66,977/-
		(b) Construction of Cycle Shed.	22,267/-	11,133/-
10.	Maulana Azad College of Arts, Science and Commerce, Aurangabad. (Marathwada University)	Construction of Teachers Hostel for 4 teachers.	1,62,330/46	1,00,000/-
				(Revised sanction)
11.	Shree B.P.Brahmbhatt Arts and N.H. Guru Commerce College: Unjha. (Gujarat University)	Construction of library building purchase of furniture and books.	2,26,936/-	1,42,290/-

1.	2.	3.	4.	5.
12.	Willingdon College, Barpeta. (Shivaji University).	Construction of Cycle shed and tubewell and overhead tank.	25,697/78	13,348/-
13.	Modern College, Imphal (Gauhati Univ)	purchase of books and journals.	10,000/-	7,500/-
14.	Mathabhanga College, Mathabhanga (North Bengal University)	purchase of books and journals.	25,000/-	18,750/-
15.	Barpeta Road Howly College, P.O.Howly (Gauhati University)	Construction of library and purchase of library furniture.	1,60,700/-	88,423/-
16.	Anandaram Dhekial Phookan College, Nowgong (Gauhati University)	Construction of Non-Resident students Centre.	71,927/-	70,000/-
17.	Panchmura Mahavidyalaya, Panchmura (Burdwan University)	Construction of Non-Resident Students Centre.	37,560/-	35,000/-
18.	North Gauhati College, Gauhati. (Gauhati University)	Construction of Women's Hostel for 33 students.	1,58,902/-	1,19,137/- (Revised sanction)
19.	Sardar Patel College, Secunderabad (Osmania University)	Purchase of Laboratory Equipment and Laboratory furniture.	1,44,509/-	1,07,287/-
20.	Women's College, Nizamabad (Osmania University)	Women's Hostel for 100 students.	5,00,000/-	3,00,000/-
21.	Shri Shivaji Education Society's Shivaji College, Kandhar (Marathwada University)	Construction of additional teaching accommodation.	5,98,885/-	3,00,000/-
22.	Jhanji College, Jhanji (Dibrugarh Univ)	Construction of Teachers Hostel.	3,00,000/-	2,00,000/-
23.	Saldhia College, Saldhia (Burdwan Univ)	Men's Hostel (90 students)	2,62,795/-	1,31,397/- (Revised sanction)
24.	Shree M.P.Shah Commerce and Law College, Surendranagar. (Saurashtra University)	Construction of additional teaching accommodation.	1,51,490/-	1,00,993/- (Revised sanction)
25.	Bongaigaon College, Bongaigaon. (Gauhati University)	Construction of Cycle Shed.	7,012/-	3,506/-
26.	Vivekananda College, Mylapur, Madras. (Madras University)	Extension of Laboratory Building.	2,44,955/-	1,56,180/-

	2.	3.	4.	5.
Shri I.V.Patel College of Commerce, Nadiad. (Gujarat University)	(a) Construction of teaching accommodation.	2,26,713/-	1,51,142/-	
	(b) Construction of Cycle stand.	32,605/-	16,302/-	
St. John's College, Anchal (Kerala University)	Construction of Library building and purchase of library books.	1,53,160/4,	04,370/-	(Revised sanction)
V.S.R.College, Tanali (Andhra Univ)	(a) Construction of a Cycle Shed.	48,233/-	24,116/-	
	(b) Library building.	3,70,111/-	2,46,741/-	
M.E.S.Arts and Commerce College, Nagpur ( Nagpur University ).	purchase of chalkboards.	1,000/-	1,000/-	
V.S.M.College, Ramachandrapuram (Andhra University)	construction of class rooms and lecture theatre	2,37,518/-	1,58,345/-	
Smt. Paddha Devi Goenka College for Women, Akola (Nagpur Univ)	Purchase of books and furniture.	39,820/-	28,213/-	(Revised sanction)
Hindu College, Machilipatnam. (Andhra University)	Purchase of books and Science equipment.	21,476/-	16,107/-	(Revised sanction)
Bharatiya Mahavidyalaya, Amravati. (Nagpur University)	Purchase of library furniture.	41,148/-	27,432/-	
Sri Paramakalyani College, Alwarkurichi (Madurai University)	Construction of Teachers Hostel (4 flats)	87,675/-	58,450/-	
Madras Christian College, Madras (Madras University)	Construction of staff quarters.	1,99,855/-	99,920/-	(Revised sanction)
Shah K.S.Arts College and V.M.Parekh Commerce College, Kapadwanj (Gujarat University)	Construction of additional teaching and library accommodation.	2,16,997/711,	44,665/-	
Shri Sahu Mandir Mahavidyalaya, Poona (Poona University)	Construction of class rooms	1,53,000/-	1,02,000/-	
Gujarat College, Ahmedabad. (Gujarat University)	Construction of Tube-well and overhead tank.	2,06,000/-	1,03,000/-	

1.	2.	3.	4.	5.
40.	Rama Devi College, Bhubaneswar.	1. N.R.S.C. 2. Library Books.	50,400/- 30,000/-	35,000/- 22,500/-
41.	National Degree College, Bhongaon.	Construction of Teachers Hostel.	71,000/-	47,334/-
42.	Sahu Jain College, Najibabad.	Construction of Teacher's Hostel.	1,08,900/-	72,600/-
43.	Upadhi Mahavidyalaya.	Construction of Teacher's Hostel.	1,01,650/-	67,766/-
44.	Kasganj College, Kasganj.	Construction of Teacher's Hostel.	2,82,000/-	1,88,000/-
45.	Smt. B.D.Jain Girls Degree College, Agra Cantt.	Construction of Cycle Shed.	16,644/-	8,322/-
46.	N.M.S.N.Dass College, Budaun.	Construction of Teacher's Hostel.	2,51,600/-	1,67,734/-
47.	J.S.Hindu College, Amroha.	Construction of N.R.S.C. & purchase of Library Books.	65,678/-	50,000/-
48.	B.D.Girls College, Agra.	Construction of Teacher's Hostel.	2,08,677/-	1,39,118/-
49.	Ganjdundwara College, Ganjdundwara.	Construction of Library Building.	1,83,029/-	1,22,081/-
50.	Shri Remukacharya College of Commerce, Bangalore.	Construction of Cycle stand and Library Building.	2,60,000/-	1,61,000/-
51.	Shri Durgaji Degree College, Chandesar.	Cycle Shed.	34,842/-	17,421/-
52.	National Degree College, Barhalganj.	Expansion of Science Education.	1,37,887/-	92,758/-
53.	D.A.V.Degree College, Azamgarh.	Construction of Laboratories.	2,55,783/-	1,70,522/-
54.	Baldeo Degree College, Baragaon.	Construction of Library cum-Laboratory.	1,19,300/-	79,534/-
55.	Gandhi Degree College, Matari.	Construction of Class rooms	65,880/-	42,920/-

2.	3.	4.	5.
56. Shivapati Degree College, Shohratgarh.	Library Building.	83,300/-	55,532/-
57. Janta College, Bakewar.	Expansion of Library facilities.	1,26,684/-	84,456/-
58. K.A. Degree College, Allahabad.	Extension of Laboratory and Lecture theatres.	1,65,321/-	1,10,214/-
<u>Punjab University.</u>			
59. L.R.M. College, Jagraon.	Teacher's Hostel.	1,26,525/-	84,350/-
60. B.P.S.M. Girls College, Khanpur Kalan.	Teacher's Hostel.	83,752/-	55,834/-
61. Sri Guru Arjen Dev College, Taran - Taran.	Teacher's Hostel.	1,21,776/-	81,184/-
62. Guru Gobind Singh Republic College, Jandiala.	Teachers Hostel.	94,356/-	62,904/-
63. College of Fine Arts, Mansa Gangotri.	Construction of Lecture Theatre.	1,06,000/-	70,666/-
64. Jagdam College, Chapra.	Construction of Laboratories.	5,95,000/-	390,000/-
65. Gopalganj College, Gopalganj.	Construction of Science Block.	2,45,418/-	1,63,612/-
66. Nimapara College, Nimapara, (Utkal University)	Teacher's Hostel.	1,26,810/-	84,540/-
67. Godha College, Godha, (Bhagalpur University)	Teacher's Hostel.	2,02,621/-	1,35,080/-
68. Ranchi Women's College, Ranchi. (Ranchi University)	Construction of Science Block.	6,75,000/-	4,00,000/-
69. R.L. Law College, Balgaum (Karnatak University)	1. Construction of Library Building. 2. Construction of Lecture theatre. 3. Purchase of Library furniture.	83,835/- 1,83,897/- 13,058	} 1,87,993/-
		2,80,790/-	
70. K.L.S. Gogte College of Commerce Belgaun (Karnatak University)	Construction of Library Building and purchase of Library furniture.	3,39,568/-	2,15,438/-

1.	2.	3.	4.	5.
71.	Safia College, Bhopal. (Bhopal University)	1. Laboratory Building. 2. Laboratory furniture. 3. Teaching accommodation.	81,918/- 20,000/- 1,15,411/-	1,44,836/-
			<u>2,17,329/-</u>	
72.	C.M. Dubey (P.G.) College, Bilaspur (Ravi Shankar University)	1. Library Bulding and Library furniture. 2. Laboratory furniture. 3. Books and Journals.	1,96,810/- 20,000/- 25,000/-	1,31,207/- 13,333/- 18,750/-
73.	Govt. College, Mandasaur. (Vikram University)	1. Construction of Cycle Shed. 2. Purchase of Books and Journals. 3. Purchase of Laboratory furniture. 4. Purchase of Chalk Boards.	22,800/- 30,000/- 20,000/- 1,000/-	11,400/- 22,500/- 13,333/- 1,000/-



## Annexure

To Item No. 2(a)(39)

Teachers selected for assistance under the retired teachers scheme during 1971-72 (First Award).

.....

1. Name, age and designation	2. Subject.	3. Proposed work	4. Centre of work	5. Remarks.
2.	3.	4.	5.	6.
Dr. G.N. Dwivedi (57 yrs) Principal D.S.B. Govt. College Nainital.	History.	Teaching	DSB Govt. College Nainital.	-
Sh. G.N. Chakravorthy (53 yrs) Reader St. Philomen's College Mysore.	Sanskrit	-do-	Mysore Univ.	-
Dr. B. Bhattacharya (62 years) formerly Principal, and Head, Department of Philosophy, Meerut College, Meerut.	Philosophy.	-do-	Meerut College Meerut	-
Sh. M.D. Devadason (60 yrs) formerly Professor & Head, Department of Education, Regional College of Education, Bhopal.	Education.	-do-	Bangalore University.	-
Sh. P.G. Rangnekar (60 yrs) formerly Professor, Ramnarain Ruia, College, Bombay.	Zoology.	-do-	Ramnarain Ruia College Bombay.	-
Sh. K.T. Kurian (62 yrs 8 months) formerly Postgraduate Professor, Fatima Mata National College, Quilon.	Zoology.	-do-	Fatima Mata National College Quilon.	-

2	3	4	5	6
7. Dr. G.C. Varma (56 yrs) formerly Principal, Govt. College Banswara.	History.	-do-	S.S.G. Pareek College, Jaipur.	-
8. Dr. B.D. Mahor (62 yrs) formerly Lecturer Bundelkhand College Jhansi.	Hindi	Teaching	Bundelkahan College Jhansi.	-
9. Sh. M.R.V. Krishna Rao (61 yrs) formerly Professor & abd Head, Department of English Govt. College Ajmer.	English	-do-	Rajasthan University.	Award has been made to him for two years since he worked under the scheme for one year fro, 1-4-70 to 31-3-71.
10. Sh. R.K. Yarday, (63 yrs) formerly Principal Arts and Commerce College, Indore.	Economics.	-do-	Indore University.	The Committee desired that details of teaching work done by him may be obtained and his case may be placed before the Chairman U.G.C. for consideration. Sri Yarday had been parti- cipating in teaching work at various colleges in Indore after retirement. The Vice-Chancellor strongly recommended him for award.
11. Dr. Dev Raj Upadhyaya (63 yrs) Professor and Head Department of Hindi Udaipur University.	Hindi	-do-	Udaipur University	The Committee desired that since he was deaf the views of Vice- Chancellor be invited. The Vice-Chancellor indicated that the ailment had been of long standing and had never stood in the way of Dr. Upadhyaya's teaching or academic activities He strongly recommended him for award.

1.	2.	3.	4.	5.	6.
12.	Dr. M. Srinivasan (54 yrs) Professor of Agriculture Economics, Agricultural College and Research Institute Coimbatore.	Economics. -do-	-do-	Madras University	The Committee desired that the views of Dr. K. Kanungo of A. I. R. I New Delhi be invited. Dr. Kanungo strongly recommen- ded him.
13.	Professor Subodh Ranjan Das Gupta (63 yrs) Professor and Head Department of Pharmacology Calcutta University.	Medical Sciences	Teaching and Research	Calcutta University	The Committee desired that it may be enquired from the Vice-Chancellor whether he would continue his private practice if selected for award and whether facilities for his r search work would continue to be provided to him as were being provided to him before retirement. The Vice-Chancellor has informed that he has not been doing private practice after retirement and the university would continued to provide him facilities for research as were being provided to him beofre retirement.
14.	Pt. Demodar Sharma Gauh (60 yrs) formerly Professor of Basic Principals Institute of Medical Sciences, Varanasi.	-do-	-do-	Banaras Hindu University.	-do-

15.	Dr. V.S. Rao (59 yrs) Prof. of Botany Ramanarain Ruia College Bombay	Bombay	Teaching and Research	Andhra University	The Committee desired that views of Prof. V.Puri of Meerut University be invited. Prof. Puri strongly recommended him for award.
-----	---	--------	--------------------------	-------------------	---

Members of the Selection Committee which met on 16th Sept.1971 for recommending teachers for second award during 1971-72 under the scheme of Financial Assistance to teachers for research or learned work in Humanities and Social Sciences.

.....

- |     |   |                |
|-----|---|----------------|
| 1.  | Dr.S.B.Deo<br>Professor of History<br>Nagpur University                     | Attended       |
| 2.  | Dr.S.K.Ghosh<br>Professor of English<br>Visva-Bharati                       | --do--         |
| 3.  | Dr.G.T.Hutchappa<br>Professor of Economics<br>Mysore University             | --do--         |
| 4.  | Dr.K.S.Murthy<br>Professor of Philosophy<br>Andhra University               | --do--         |
| 5.  | Dr.S.P.Nagendra<br>Professor of Sociology<br>Gorakhpur University           | --do--         |
| 6.  | Dr.P.Fredhan<br>Professor of Sanskrit<br>Utkal University                   | Did not attend |
| 7.  | Dr.G.N.Sharma<br>Professor of Political Science<br>Marathwada University    | Attended       |
| 8.  | Dr.S.N.Sharma<br>Professor of Modern Indian Languages<br>Gauhati University | --do--         |
| 9.  | Dr.V.P.Singh<br>Professor of Hindi<br>Banaras Hindu University              | --do--         |
| 10. | Dr.N.V.Tirtha<br>Professor of Education<br>Bangalore University             | --do--         |

-----

Members of the Selection Committee for recommending teachers for Second Award during 1971-72 under the scheme of Financial Assistance to Teachers for research or learned work in Science subjects - Meeting held on 23.9.1971.

- 
- |   |                 |
|---|-----------------|
| 1. Dr. S.M. Alam,<br>Professor of Geography<br>Osmania University                                     | Attended        |
| 2. Dr. S. Basu<br>Department of Chemistry<br>Calcutta University                                      | -do-            |
| 3. Dr. Khem Singh Gill<br>Professor of Plant Breeding<br>Panjab Agricultural University,<br>Ludhiana. | Did not attend. |
| 4. Dr. K.J. Joseph,<br>Head of the Department of Zoology<br>Calicut University.                       | Attended.       |
| 5. Dr. R. Khan, Professor of Botany,<br>Aligarh Muslim University.                                    | -do-            |
| 6. Dr. K.G. Kasht, Principal,<br>Christian Medical College.   | -do-            |
| 7. Dr. Jagdish Lal, Principal,<br>Motilal Nehru Regional Engg. College<br>Allahabad.                  | Attended.       |
| 8. Dr. P.M. Mathews<br>Professor of Physics,<br>Madras University.                                    | -do-            |
| 9. Prof. V.V.S. Murthy,<br>Professor of Chemistry,<br>Delhi University.                               | -do-            |
| 10. Dr. N.N. Raina,<br>Professor of Physics,<br>Kashmir University.                                   | -do-            |
| 11. Dr. S.N. Sarkar,<br>Director,<br>Indian School of Mines,<br>Dhanbad.                              | -do-            |
| 12. Dr. Shaligram Singh,<br>Prof. of Mathematics,<br>Magadh University.                               | -do-            |

Annexure III to Item  
No. 2(a) (4)

Subject-wise details of applications received and grants sanctioned in the second award during 1971-72 under the scheme of financial assistance to teachers for research work in Humanities & Social Sciences,

....

Sl. No.	Subject	No. of applications	No. of teachers recommended for award	Amount recommended.
1.	Sanskrit	17	5	2,250
2.	Hindi	65	13	9,850
3.	English	41	21	9,200
4.	Urdu	2	1	1,500
5.	Persian	2	1	500
6.	Bengali	8	8	4,250
7.	Kannada	3	1	1,000
8.	Marathi	2	1.	1,000
9.	Gujarati	2	-	-
10.	Oriya	7	4	3,000
11.	Panjabi	4	1	500
12.	Malayalam	1	-	-
13.	Tamil	7	4	1,750
14.	French	1	.	-
15.	Linguistics	16	5	4,500
16.	History	61	7	7,500
17.	Islamic Studies	2	1	1,500
18.	Pol. Science	29	6	4,000
19.	Pb. Admn.	3	2	2,000
20.	Economics	54	13	8,000
21.	Commerce	23	7	5,000
22.	Sociology	25	8	16,000
23.	Law	9	2	1,750
24.	Fine Arts	10	1	1,500
25.	Philosophy	15	4	1,500
26.	Psychology	29	8	12,300
27.	Education	38	8	13,500
28.	Assamese	1	1	1,000
29.	Telugu	2	2	750

....

Annexure IV to Item  
No. 2(a) (47)

Subjectwise details of applications received and grants sanctioned in the second award during 1971-72 under the scheme of financial assistance to teachers for research work in Science subjects.

S. No.	Subject	No of. applications	No. of teachers recommended for award.	Amount recommended
1.	Physics	102	34	32,700
2.	Mathematics	63	20	11,750
3.	Statistics	5	1	500
4.	Engg. & Tech.	37	11	15,500
5.	Geology	19	9	6,800
6.	Geography	25	12	7,650
7.	Anthropology	4	3	2,400
8.	Chemistry	255	43	38,350
9.	Bio-Chemistry	11	2	2,000
10.	Medicine	14	4	5,800
11.	Physiology	3	3	4,500
12.	Botany	108	34	27,500
13.	Zoology	123	25	29,000
14.	Agriculture	17	5	4,700
15.	Vet. Science	6	1	1,000
16.	Microbiology	4	3	3,000
17.	Home Science	1	-	-
		802	210	1,93,150



UNIVERSITY GRANTS COMMISSION

---

Meetings.

Dated : 1st December 1971.

Item No. 2(b) : To receive items of information.

- (1) Report made by Dr. R.N. Konar, Reader in Botany, University of Delhi on his visit to U.K. as an awardee of Commonwealth Academic Staff Fellowship during 1970-71.
- 

Dr. R.N. Konar, Reader in Botany, University of Delhi was awarded a Commonwealth Academic Staff Fellowship for about 10½ months during 1970-71 for study in the field of Plant Morphogenesis. Dr. Konar visited U.K. from 1st October 1970. On return from U.K., Dr. Konar has submitted a report on work done by him in U.K., a copy of which is placed as Annexure.

---

- (2) Report made by Dr. V. Srinivasagopalan, Professor of Civil Engineering, Thiagarajar College, Madurai University on his visit to Tokyo as a Unesco Fellow under the United Nations Special Fund Programme for 1968.
- 

Dr. Srinivasagopalan, Professor of Civil Engineering, Thiagarajar College, Madurai University, had been awarded a twelve months Unesco Fellowship by Unesco under the United Nations Special Fund Programme from November 1968 to carry out studies in the field of Earthquake Engineering at the International Institute of Seismology and Earthquake Engineering, Tokyo which was subsequently extended for a further period of two months. On his return Dr. Srinivasagopalan has submitted a report of work done by him, a copy of which is placed as Annexure.

---

- (3) Report made to Unesco Headquarters by Dr. C.R. Sehgal, Lecturer, Centre of Advanced Study in Botany, University of Delhi, on completion of his fellowship awarded under the Unesco/TA Programme for 1967-68 for a period of six months from 19th November 1970 to 18th May 1971.

Under the Unesco/TA Programme for Centre of Advanced Study Project, for the biennium 1967-68, Dr. C.B. Sehgal, Lecturer, Centre of Advanced Study in Botany, University of Delhi was awarded Unesco fellowship for a period of six months from 19th November 1970 to 13th May 1971 for studies/training in USA. On completion of his fellowship in USA Dr. Sehgal has submitted report to Unesco, a copy of which is attached as Annexure.

- (4) Report made by Dr. A.L. Nagar and Dr. (Mrs.) Dharma Kumar on the Centre of Advanced Study in Economics, University of Delhi on their visits to U.K. under the Programme of British Assistance to Centre of Advanced Study.

Dr. A.L. Nagar and Dr. (Mrs.) Dharma Kumar of the Centre of Advanced Study in Economics, University of Delhi visited U.K. under the Programme of British Assistance to Centres of Advanced Study, while Dr. Nagar visited U.K. in 1969, Dr. (Mrs.) Kumar visited U.K. in 1969 and 1971. They have submitted their reports on their visit to U.K., a copy of which attached as Annexure I & II.

- (5) Report made by Professor Burton Jones Professor of Mathematics, the University of Colorado, Boulder, Colorado, on his visit to India under the College Science Improvement Programme.

Professor Burton Jones, Professor of Mathematics, the University of Colorado, Boulder, Colorado visited India during the period 31st May 1971 to 24th July 1971 as a consultant under the College Science Improvement Programme. During his stay in India, Professor Jones visited University Leadership Projects in Mathematics, located at Bangalore, Madurai, Panjab and Gujarat Universities and a number of colleges under College Science Improvement Programme. A copy of his report received through National Science Foundation, New Delhi is attached as Annexure.

- (6) Report made by Dr. G.N. Boganik, Soviet Expert in Seismic Prospecting on his visit to Centre of Exploration Geophysics, Tasmania University under the Indo-Soviet Bilateral Agreement.

Under the Indo-Soviet Bilateral Agreement, Dr. G.N. Boganik,  
p. 100

(3)

a Soviet Expert in Seismic Prospecting visited the centre of Exploration Geophysics, Osmania University during the period 28th September 1970 to 12th September 1971. On conclusion to his visit, Dr. Boganik has submitted a report, a copy of which is attached as Annexure.

(7) Amendments to ordinances of the University of Delhi.

The Government of India, Ministry of Education and Social Welfare have sent certain amendments proposed by the University of Delhi, to the ordinances of the University for the comments of the Commission. before these are sent to the Visitor for his assent. The ordinances relate to:-

- a) Qualification for recruitment to the posts of Professor, Reader and Lecturer.
- b) Manner of extension of service of Principals and teachers in Colleges beyond the age of 60 years.
- c) Mode of appointment of Principals.

A copy of each of the amendments proposed by the Delhi University to the existing ordinances of the University relating to the above is attached (Annexures I to III).

(8) To receive a statement showing the faculties in the universities along with duration of Courses.

Based on the information furnished by the Universities, a tabular statement showing for each University, the duration of courses in the main faculties at degree and postgraduate levels has been prepared; the statement is at Annexure.

The information relates to the session 1970-71

p.t.o.

(4)

- (9) To receive a statement on the medium of instruction at M.A. (level) and admissible medium for accepting doctoral theses in the Universities.

Based on the information received from the Universities a tabular statement has been prepared showing for each University,

- a) The medium of instruction at M.A. level  
b) The admissible medium for accepting doctoral theses  
and  
c) The reasons for not accepting the theses in Hindi/Regional Language in the case of Universities where English is the sole medium of instruction/examination at M.A./Ph.D. levels.

The statement is at Annexure and covers 82 Universities and 9 Institutions deemed as Universities; the information furnished relates to the session 1970-71.

In forty-five universities and five institutions deemed as Universities, English was the only admissible medium for accepting doctoral theses.

- (10) Report made by Dr. A.S. Janardhanan, Lecturer in Geology, University of Mysore on conclusion of his visit to U.K. under the Programme of Exchange of Visits by Younger Scientists between India and U.K.

Dr. A.S. Janardhanan, Lecturer in Geology, University of Mysore visited U.K. during March - April, 1971 under the Programme of Exchange of visits by Younger Scientists between India and U.K. On conclusion of his visit he submitted a copy of extract of the report on his visit received from the British Council was noted by the Commission at its meeting held on 4th August 1971 vide item 2(b)(10).

Report which is attached as annexure. A copy of an

p.t.o.

(5)

- (11) Report made by Dr. (Mrs.) S. Vishwanathan, Lecturer in Japanese and Mr. J. Krishnamurthy, Research Associate in the Department of Economics, University of Delhi after their visit to Japan for participation in the Study Tour Programme for specialists.
- 

Dr. (Mrs.) S. Vishwanathan, Lecturer in Japanese and Shri J. Krishnamurthy, Research Associate in the Department of Economic, University of Delhi were selected and participated in the "Study Tour Programme on Japan for specialists for two weeks" sponsored by the Government of Japan under the Colombo Plan from 15th March 1971. After participation of the Study Programme, they have submitted their reports, a copy each of which is placed below as Annexure I and II respectively.

---

- (12) Report made to Unesco Headquarters by Professor M.S. Yakovlev, Unesco Consultant in Botany to the Centre of Advanced Study in Botany, University of Delhi who visited India from 17th March to 15th June 1971.
- 

Under the Unesco/TA Programme for Centres of Advanced Study Project in Indian Universities, Professor M.S. Yakovlev, Head of the Department of Morphology and Laboratory of Embryology, Komarov Botanical Institute of the USSR Academy of Sciences, Leningard, visited India from 17th March to 15th June 1971, as Unesco Consultant in Botany to the Centre of Advanced Study in Botany, University of Delhi. On completion of his assignment in India, Professor Yakovlev has made a report to Unesco Headquarters, a copy of which is attached as Annexure.

---

- (13) Report made to Unesco Headquarters by Professor A.F. Bochkov, Unesco Consultant in Chemistry to the Centre of Advanced Study in Chemistry, University of Delhi, who visited India from 17th January to 18th May 1971.
- 

Professor A.F. Bochkov of the Institute of Chemistry

USSR Academy of Sciences, visited India as Unesco Consultant in Chemistry to the Centre of Advanced Study in Chemistry, University of Delhi, from 17th January to 18th May 1971, under the Unesco/TA Programme for Centre of Advanced Study Project in Indian Universities. On completion of his assignment in India, Professor Bochkov has made a report to Unesco Headquarters, a copy of which is attached as Annexure.

---

- (14) Report made to Unesco Headquarters by Professor L.V. Nikitin, Unesco Consultant in Applied Mathematics, who visited India from 15th January to 10th April 1971 under the Unesco/TA Programme for Centres of Advanced Study Project.
- 

Under the Unesco/TA Programme for Centres of Advanced Study in Project in Indian Universities, Professor L.V. Nikitin visited India from 15th January to 10th April 1971 as Unesco Consultant to the Centre of Advanced Study Project.

The services of Professor Nikitin were obtained as a consultant for the Mathematics Department, Jadavpur University, but due to disturbances in Calcutta during those days, his services were utilised instead in the Department of Mathematics, University of Delhi besides which he also visited some other Universities/Institutions in India.

On completion of his assignment in India Professor Nikitin has made a report to Unesco Headquarters, a copy of which is attached as Annexure.

---

- (15) Report made to Unesco Headquarters by Drs. K.M.M. Dakshini and M.R. Vijayaraghavan, Lecturers, Centres of Advanced Study in Botany, University of Delhi, on completion of their fellowships awarded to them under the Unesco/TA Programme for Centres of Advanced Study Project for the biennium 1967-68.
- 

Under the Unesco/TA Programme for Centre of Advanced

Study Project in Indian Universities for the biennium 1967-68, Drs. K.M.M. Dakshini and M.R. Vijayaraghavan, Lecturers, Centre of Advanced Study in Botany, University of Delhi, were awarded Unesco fellowships for the period mentioned below against each:-

<u>Name of fellow</u>	<u>Country of Study</u>	<u>Fellowship period</u>
1. Dr. K.M.M. Dakshini	USSR, U.K., France, Netherlands, Denmark, Austria and Hungary	13 Months - from October 5, 1969 to October 30, 1970
2. Dr. M.R. Vijayaraghavan,	USA	9 Months - from May 5, 1970 to Feb. 3, 1971.

On completion of their fellowships, Drs. Dakshini and Vijayaraghavan have submitted their report to Unesco Headquarters, a copy of which is attached as Annexure I and II.

(16) PL 480 Research Projects approved by the National Screening Committee and the US authorities.

The Government of India, Ministry of Education and Social Welfare has set up a National Screening Committee with the Chairman and Additional Secretary, UGC as Chairman and Member-Secretary, to scrutinise research proposals in Physical and Biological Sciences submitted by Universities and other research organisations for support from US PL 480 funds in collaboration with the National Bureau of Standards, Washington, Environmental Science Service Administration, Office of Naval Research, Smithsonian Institution etc. The following research proposals cleared by the National Screening Committee have been accepted by the US Authorities, to be financed from PL 480 funds and grant documents signed during the period ending September 1971:

p.t.o.

(8)

S.No.	Name of the Principal Investigator/ University/ Institution	Title of the research project	Amount approved	Duration
1.	Dr. A.M. Ghosh, Bose Institute, Calcutta	Experimental Investigations of the Generalized Optical Parameters of Fast Neutrons	257,800	One year
2.	Dr. W.D. West, Director, Centre of Advanced Study in Geology, Saugar University, Sagar	Geological and Geochemical study of Parts of the Deccan Flood Basalts	258,600	Five years
3.	Dr. T. Ramasarma, Department of Bio-chemistry, Indian Institute of Science, Bangalore	Environmental stress and Biochemical Adaptation	569,500	Four years
4.	Dr. S.V. Srikthankar Professor of Dyestuff Technology, Department of Chemical Technology, Bombay.	Synthesis of Silicon-Nitrogen Heterocyclic Compounds	169,900	Four years
5.	Dr. Ranji L. Mital, Department of Chemistry, University of Rajasthan, Jaipur	Synthesis of potential metabolites of psychotropic trifluoromethyl phenethiazines.	197,180	Five years
6.	Dr. J.N. Bhar, Head, Department of Radiophysics and Electronics, Calcutta University, Calcutta	Studies on the total Electron Content and Irregularities of Electron Density in the Ionosphere with Beacon and Synchronous Satellites	403,300	Five Years

p.t.o.



(9)

7.	Dr. M. Sirsi, Deptt. of Micro- biology and Pharmacology Indian Institute of Science, Bangalore	Studies of Human Mycosis	501,000	Five Years
8.	Dr. R. K. Arora, Deptt. of Electronics & Communication Engineering, University of Roorkee, Roorkee	"Investigations of Electro- magnetic guiding Radiating Structures"	1,93,400	3 years
9.	Dr. P. C. Dutta, Prof. Organic Chemistry, Indian Asso- ciation for the Cultivation of Science, Jadavpur, Calcutta-32.	"Sterospecific Synthesis of Terpenoids and Diterpene Alkaloids"	1,89,574	3 years
10.	Dr. S. D. Sinval, Director, UP State Observatory, Nainital	"Satellite Tracking Project of the Uttar Pradesh State Observatory, Nainital-An Extension"	62,250	--
11.	Dr. S. Ranganathan, Reader in Metallurgy, Department of Metallurgy, Instt. of Technology, Banaras Hindu University, Varanasi	"Field Ion Microscopy"	43,200	2 years
12.	Dr. Zafar Futehally, Hony. Secy. Bombay Natural History Society, Bombay	"Ecological Research in Gir Forest"- Extension	1,08,255	8 months
13.	Dr. K. V. Krishna Rao, Department of Physics, Osmania University, Hyderabad	"Low Temperature and High Pressure X-Ray Investigations of Phase Transitions"	1,21,600	2 years

—

(17) Visit by Fellows of the Royal Society London to India during 1971-72.

The Royal Society Bulletin dated the 1st October 1971 enlists the following Professors visiting the Institutes indicated against each during 1971-72:-

<u>Name of Visiting Prof:</u>	<u>Institutes to be visited</u>	<u>Duration of stay</u>
1. Prof. D. Whitheridge	Vallabhbañ Patel Chest Institute, Delhi	1st October 1971 to 6th January 1972.
2. Prof. I. Fowden	Indian Institute of Science, Bangalore	2nd December to 16th December 1971.
3. Prof. T.W. Goodwin	-do-	2nd January to 9th January 1971

(18) Participation of Dr. A.P. Varma, Professor & Head Department of Mathematics, S.V. Regional College of Engineering and Technology, Surat-1.

Dr. A.P. Varma, Professor and Head, Department of Mathematics, S.V. Regional College of Engineering and Technology, Surat attended the XIV International Congress of International Association of Hydraulic Research, Paris from 29th August to 3rd September 1971. The Commission provided 50% of his travel expenses. A copy of the report on the Congress is attached (Annexure).

- (19) "Education & Science in North Vietnam"  
 By Arthur W. Galston and Ethan Signer  
 (From "Science" dated 22nd October 1971)

We spent the 18 days from 23 April through 10 May in the Democratic Republic of Vietnam (DRVN), also called North Vietnam. As guests of the Vietnam Committee for Solidarity with the American People and the State Committee for Science and Technology, we visited educational, scientific, agricultural, and medical institutions, gave lectures and seminars on plant physiology (Galston) and molecular biology (Signer); and met at length with Vietnamese scientists and officials, including Premier Pham Van Dong. Like other American scientists who have visited the DRVN (1,2), we found the Vietnam to have serious commitment to science, expressed primarily in the training of technicians and engineers for agriculture and industry, in the establishment of facilities, personnel and supportive research for their expanding program of medical care, and in their interest in recent progress in Western Scientific research.

### Science Education

The Vietnamese have an ancient tradition of learning. We saw the Quoc Tu Giam (or National) University, founded in 1070-17 years after Bologna and 50 years before Paris were founded - which has graduated over 2000 persons (including many national figures) at the doctoral level in literature, history, philosophy, and mathematics until it was moved to Hue in 1797 (3). The University was rebuilt around 1860, but the buildings were partially burned by the French when they left in 1954; most of them have since been restored as a historical museum under the Ministry of Culture.

Elementary (1st through 7th Grade) and nontechnical secondary (7th to 10th grade) education is supervised by the Ministry of General Education. All DRVN children attend school through the 4th grade; about one third go through the 7th grade, and one tenth go through the 10th grade (from which 45,000 graduated last year.) Compulsory 7th grade education was originally planned for next year, but fulfillment of the plan will probably take somewhat longer. By comparison, it is reported that in South Vietnam less than half the children are in school (4).

When the French left in 1954, the single university in Hanoi with its 700 students was the only one in all Indo China. Now, 17 years later, in the DRVN alone there are 70,000 students in 31 colleges and universities, including the university of Hanoi, the Polytechnic Institute and its branches, and specialised colleges. There are also 150,000 in vocational secondary schools (7th to 10th grade) among the population of 21 million. The vocational schools and ten of the colleges and universities are supervised by the Ministry of Higher Education, which shares supervision of the remaining 27 with production ministries such as that of Agriculture. Almost all the Ministry's staff of 200 have candidate's (equivalent to our master's) degrees.

Ta Quang Bui, the dynamic Cambridge educated Minister of Higher Education, still teaches mathematics to maintain contact with the university. In excellent English, he told us that in education the Vietnamese "are trying to do in 20 years what you Americans have

done in 200 years." To some extent they are using both the Soviet and U.S. Systems as models. However, Minister Bui feels that the Soviet System is too rigid and produces scientists whose training is too specialised, while the American system, although more practical in that it links science more efficiently to production, produces scientists whose scope is limited by their narrow political and social background. The DRVN is trying to evolve its own educational philosophy. As Minister Bui says, "We are in some sort of great Skinner box and trying to find reinforcement".

Students are selected for University by competitive matriculation examination, given on one day each year throughout the country even during the height of the war. Each student chooses an examination in one of three blocks, Block 1 includes mathematics, physics and chemistry; block 2, mathematics, chemistry, and biology; and block 3, literature, history and geography. Candidates are screened to eliminate those with unusually poor political records, and to select those usually good records. This is not a systematic political selection.

Next year, Minister Bui hopes that the universities can begin graduate education. At present, 86% people in the country have either candidate's (master's) degrees or doctorates, and these candidates come mostly from socialist countries; recently three Vietnamese candidate's degrees in biology have been awarded in fish breeding, cattle genetics, and ecology of estuarine vegetation.

Women constitute about 30 percent of the student body, but the number of women in fields such as medicine and pharmacy comes to 70 to 80 percent. The Vietnamese are trying to increase the participation of women in all of society, but they consider some fields, such as those requiring great patience, more suitable for women, whereas others, such as those requiring physical strength and endurance, are thought to be less appropriate. They say this despite the fact that much of the routine heavy agricultural labour in Vietnam is done by women. At present, not enough women are considered to be participating in education - for instance, only 10 percent of the students studying abroad are women, and only two or three women hold professorships with tenure, which are called chairs. Therefore, like disadvantaged minority groups in the United States, women are permitted lower university entrance requirements and are given special tutoring to prepare them for higher education. Scholarships, in the form of compensation to the family for loss of services at home and in the fields, are used to increase the number of women secondary schools. "There is no freedom," said Minister Bui, "when there is no freedom of women".

As is the case in Europe, institutions are divided into faculties, each having at least one chair. The 37 higher institutions have 529 chairs for 7000 faculty members. Although the younger faculty members depend on a chair as in the European system, there is said to be more democracy here because of the relative lack of traditions. New chairs are decided upon in connection with the state committees on planning and on science and technology, with money being a prime consideration. Thus

chairs of physical engineering and of mathematical engineering were recently created at the Polytechnic Institute. The latter, which includes cybernetics and linguistics, was made possible by the gift of a Soviet Minsk 22 Computer (roughly equivalent to the IBM 704). On the other hand a research chair of biochemistry, although needed, was considered too expensive because it would require equipment like electron microscopes.

Education at the old French university was in French. Now higher education is almost entirely in the Vietnamese language, although the many ethnically distinct minorities use their own language in everyday affairs, with Vietnamese as second language. The most used foreign language is now Russian and the second is English, although most of the older professors speak French. Many of the textbooks are in Vietnamese; at first they were translations but now they are also as original writings; some Russians, English, and French texts are also used.

At the University of Hanoi (1) (which we did not visit), occupying the buildings of the old French All Indo-China University there are 500 faculty and 3500 students of whom 20 percent are women. Whereas 80 percent of the population as a whole are peasants, the student body includes rural peasants, urban working people, and intellectuals in the ratio 60:15:25. After graduation, 10 percent of the students go into academic work, 30 percent go into industry or agriculture, and 60 percent go into school teaching. Some 1200 of the ablest university graduates are now receiving advanced training in other socialist countries. About 75 to 80 percent of students take the rigorous science curriculum (5).

The Polytechnic Institute, where we were received by a group of department heads led by the Vice-director, Ngyyen Thein Huoc, is now housed primarily in a spacious modern building constructed with Soviet aid in 1965. It was founded in 1956 with 40 teachers, all educated in Vietnam, and 800 students, and was located at a muddy site in a former French military encampment. By 1965 there were 6000 full time students and 200 correspondence students. At that time the Institute spawned four new engineering colleges, but retained the rest of curriculum (6). Courses there emphasize technology, and even those in science are more applied than in the universities; for example, mathematics and physics are combined into a single department. There are currently the same number of students as in 1965 and more than 300 faculty; of the faculty over 100 have doctorates or candidate's degrees, and they devote, on the average, 30 percent of their time to research.

The Polytechnic's general educational policy is formulated by the government and the Communist Party. Scientific training aims at combining what is "most fundamental, most modern and most Vietnamese," but ideological and political education are not neglected. About 10 to 15 percent of the formal curriculum is set apart for courses in the history and political aims of the Vietnamese Communist Party and in Marxist Leninist philosophy, taught by a special staff. In addition, Thursday evenings are spent in discussions of what they call "morals" and current events, & other political activities.

Applicants to the Polytechnic must pass the general nationwide matriculation examination and also a second special examination. By design, one third of the entrants are women and special consideration is also given to ethnic minorities and factory workers. Most students are from peasants and working class families, some from South Vietnam. Each receives a scholarship including meals and textbooks throughout the 5 year course. Most graduates go into factories, although a few stay for further training as teachers or researchers.

The Polytechnic maintains more than 50 laboratories and shows simulating factory conditions. Those we visited were furnished with teaching equipment donated by the Soviet Union (some of which had been modified by the students, using electronic components from downed U.S. jets) and heavy machinery made in the Soviet Union, in Czechoslovakia and also locally in Haiphong. The 30000 volume library where 36,000 journals are mostly in Russian and Chinese seemed well designed and housed.

During our visit to the Polytechnic, we saw damage remaining from the 1965-68 air war, when Hanoi, Haiphong, and surrounding areas were bombed by the US planes. A section of the main building had been damaged by the bomb attack during which 5 were killed and 20 were wounded by steel pellets from an "antipersonnel" cluster bomb. Such bombing disturbed the operation and the development of the Institute; in November 1965, the Polytechnic and most of its facilities were built by the students. Most of the institute is now back in Hanoi, although we were told it could be quickly evacuated again -- this time virtually without interrupting studies.

Some institutions are still dispersed in the countryside because of the war. Agricultural College Number 2, founded in 1967 at the height of the air war, is located about 1 1/2 hours driving time from Hanoi (College Number 1 is nearer Hanoi, and Number 3 is in a northern province). The 90 hectare campus which we visited was designed mainly for teaching and is a collection of small, temporary bamboo framed, thatch roofed buildings, including class rooms, a library laboratories, and dormitories, which are dispersed among farm plots. A second campus 50 kilometers away includes 300 hectares of exportable farms. Both campuses have been bombed -- upto 8 times in one day and the college claims to have shot down one plane and captured the pilot. To minimize damage from a possibly resumed air war the buildings are set far apart, with air raid trenches in between.

Vice-Director Das Truong Cen told us that the college which is supervised jointly by the Ministries of Higher Education and Agriculture, trains agriculturalists in three faculties: botany, zoology and agricultural economics. Of the 104 teachers, about two thirds belong to the Ho Chi Minh labour Youth and many belong to the Communist Party, although neither is obligatory. There are 1400 students, of whom one third are women, and the college is just now graduating its first class. The four year course is planned

to follow secondary school (10th grade), but the college also runs a 2 year "crash course" for 7th grade graduates and remedial course for weak secondary school graduates. Most college graduates will work on agricultural cooperatives, state farms and agricultural stations as technical cadres; in the future some may be trained as teachers.

Students live at the college. Classes (7) run 6 days a week, with the students free to go home from 5 p.m. on Saturday until Sunday night. Half a day a week is spent in constructive maintenance of the grounds and fields. Students have private clubs where they may spend an hour a day at art and gymnastics, although 2 hours a week of these activities are included in the regular curriculum. Formal study takes 30 weeks a year; the rest of the time, except for 2 months summer vacation, being spent at practical work.

The laboratories that we visited provided a striking contrast between their modest bamboo and thatch farmhouse like exterior and the modern interior containing such equipment as microscopes, centrifuges, and electrophoresis apparatus. We also looked in on several classes in session. They seemed to be run in a traditionally formal way, with students, even in small groups, carefully taking notes from teachers who were, in turn, lecturing from their own notes.

#### Scientific Research.

Most of the research we saw was connected with medicine, such as that at two sections of the Materia Medica Institute; the Van Dien station just outside Hanoi and its affiliated pharmaceutical laboratories in the city. Both, under the direction of Dr. Nguyen Van Dan, are attached to the Ministry of Public Health. Since 1963 the institute has been preparing the first Vietnamese Pharmacopoeia, which will be ready this year. Written by a team of more than 100 doctors and pharmacists, its 600 monographs will describe general methods of analysis, plants, chemicals, medications, and vaccines. A second volume describing traditional medicines, started last year, is expected to be ready in 5 or 6 years.

The institute supervises plant research at ten botanical stations and testing of medicines at about 20 laboratories, dispersed throughout the country because of the air war. About 2000 villages throughout the country have their own medicinal gardens. The institute also runs seminars, colloquia, and symposia, and has some students doing theses.

The 10 hectare Van Dien station specialises in tropical botany, especially the introduction and acclimatization of new medicinal plants that are ultimately to be propagated and used at agricultural cooperatives. The 1000 medicinal plant species now in the garden are mostly common ones, but some new effective plants have been obtained from peasants who have developed their own home remedies, such as one used for curing diarrhea(8). Many of the display gardens, production fields, and seed multiplication plots were destroyed during the air war when the station was bombed seven times. Although some of the damage has been repaired, several large craters were

still evident, and not all the plant species lost during the bombing have been replaced.

One of the Hanoi laboratories resembles our Food and Drug Administration; it is part of a network, with a branch in every province, for testing medicines. Other laboratories study the chemical composition of medicinal plants (9); carry out chemical and microbiological analysis of antibiotics, vitamins, plant derivatives, and clinical samples; and practice pharmacognosy and forensic medicine. There is also a library, stocked mainly with Russian and German but also some American texts (10).

The National Institute of Hygiene and Epidemiology, where Huang Thuy Ngyyen is director, was dispersed in the countryside during the air war, but is now back in Hanoi. However, the building formerly the French Institute Pasteur for all Indochina - is reinforced on the ground floor with sand and brick against air raids, and so requires year round air conditioning. The staff of 500 includes 98 with candidate's degree (many of them women), most of whom are also professors at the medical or pharmacological faculty of the University of Hanoi. This institute's eleven divisions include seven for research (11), one for coordinating provincial Hygiene and epidemiology stations, one for laboratory animals with farms and colonies in the countryside, a library, and a school of microbiology and chemistry.

We visited several research laboratories that were studying the growth of pathogenic organisms (Treponema, Toxoplasma, Leptospira) serological typing, and preparation of antisera and vaccines (including leptospira, cholera, and paratyphoid A and B) developed locally and said to be in adequate supply for the entire country. Director Nguyen's virology laboratory has prepared a measles vaccine and is now working on one for trachoma and rabies. The agricultural laboratories study health problems arising from fungicides, herbicides, insecticides, and additives; and they are also interested in increasing nutritive value of foods. We were told that there is no kwashiorkor and little beriberi in the DRVN because the government controls the degree to which rice is polished. Since rice protein is poor in several amino acids (lysine

methionine, and tryptophan) an attempt is being made to supplement it with chemicals and with legumes in the diet. They had heard of and were interested in the lysine rich strain of maize (opaque-2) developed in the United States. They are also developing new foods, such as an infant formula made of wheat, rice soybean, and fish extracts.

The institute's school offers a 3 year course, leading to a medical assistant's diploma. It accepts about 50 students a year, mostly women, who ultimately staff hospitals, laboratories; and provincial epidemiology stations. First year training includes general physiology, chemistry, physics and anatomy while in the second and third years the students specialise in either chemistry or bacteriology. The school also has some postdoctoral medical students doing specialist's diplomas.

✓ a polyvalent  
vaccine against



The laboratories in the various educational and research institutions were clean and orderly, even when the facilities were modest. There was remarkable variety of foreign instruments -- an East German Zeiss spectrophotometer, a West German Zeiss fluorescence microscope, a French Jobin Yvon vaporphase chromatography apparatus, pH meters from China and Denmark, a Japanese inverted coil culture microscope, an electrophoresis apparatus from the Soviet Union, a Hungarian polarograph, and so on. Nevertheless, equipment and materials were obviously in very short supply.

Besides the very extensive library of the Polytechnic and the smaller libraries in all the institutions we visited, scientists may use the Central Scientific and Technical Library in Hanoi, directed by Tran Mai. Started in 1957 as an outgrowth of the Far Eastern Archaeological Library founded by the French in 1901, the library now has some 1,50,000 books and 4,000 periodicals (12). Most are in Russian, with English next, and then French, German and Japanese. Chinese journals stopped coming during the Cultural Revolution but have now started again. In general, older people read French and English, whereas younger people read Russian and Chinese, although efforts are being made to extend language training. French scientists have recently sent 10,000 of the best books in their fields, including monographs, textbooks and mimeographed materials, and gifts have also been received from other countries, including the United States. But books and especially recent periodicals are in very short supply. There are facilities for microfilming, but not for photoduplication.

The library is exclusively for the use of postgraduates, since undergraduates are expected to use either the libraries at their own institutions or their own state library, which has duplicates of many of the books here. Loss, mutilation, and theft of books occur occasionally but are said not to be a major problem. On the other hand, insect and fungus degradation cause serious difficulties in the tropical climate.

#### MEDICINE.

Health care in the DRVN was efficiently and briskly described to us by Dr. LE Van Phung, director of hospitals, at the Ministry of Public Health. He said that the system is organized under five principles; (i) Medicine must serve production, national defense, mother and child and ethnic minorities; (ii) it must be based on prevention; (iii) prophylactic and therapeutic care must be linked; (iv) Western and traditional medicine must be combined; and (v) administration must be through the mass organizations.

Dr. Phung summarized a number of statistics for us (13). Under French colonial rule, cholera, smallpox, trachoma, malaria, venereal diseases and leprosy were rampant, and infant mortality was high. There were only 47 hospitals in the entire country, and only one doctor for every 1,80,000 people. Now there is one doctor for every 7000 people (and if auxiliary medical personnel are included, there is one for every 1600 people).

The yearly death rate has been reduced from 26 to 7.6, per thousand; maternal mortality from 20 to 0.8 per thousand births; and neonatal mortality (first 7 days of life) from 300 to 26 per thousand births (36 per thousand in the first year). Vaccination has made possible control of cholera, polio (Sabin-Shakoff vaccine), typhoid, paratyphoid, and smallpox. Unlike Saigon, Hanoi has no plague. The incidence of trachoma has been reduced from 80 percent to 40 percent and that of malaria from 9 to 0.14 percent; malaria has been controlled primarily with DDT supplied by the Soviet Union, although the disease is again on the rise because of resistant strains of mosquitos. Leprosy has been reduced from 2 to 1 percent, although facilities for leprosy treatment have been diminished since the world-renowned 2600-bed Quynh Lap leprosarium was destroyed by repeated aerial bombardment. Tuberculosis has been reduced from 4 to 1.5 percent partly through development of a heat-killed (43°C) variant of the standard BCG (Bacillus Calmette Guerin) preparation that makes storage and transport easier. Venereal disease has been reduced to several hundred cases a year, primarily because prostitution has been banned.

Despite the war, the population of 21 million is increasing by about 600,000 or 2.8 percent per year. Since this rate is considered too rapid for optimum development of the country, a birth control program has been instituted; this program is based on the use of rhythm method, condoms, and intrauterine devices. Abortion by dilation and curettage is also available on request at the district hospitals.

The core of the public health system is the village maternity clinic, of which there are now 6000; there were 200 in 1955. Almost every village in the country has such a clinic, which is staffed by at least one doctor, an auxiliary doctor, a midwife with 2 to 3 years' training, a nurse, and a pharmacist. Using scale models, Dr. Phung showed us the two technical advances by which this network is able to establish effective sanitation. The first is a new type of double compartment privy that combines sanitation with production of economically valuable fertilizer. Urine is led off separately; feces are collected, a sand and ash mixture being added to the compartment after each use. When the first compartment is full it is sealed hermetically and the second compartment is put into use. After 2 months' anaerobic incubation of the first compartment, during which all parasites are killed and odors are destroyed, the material is removed and used as fertilizer. The second compartment is then sealed, and with the first ready for use, the cycle begins again. Except for about one-quarter of Hanoi, which uses a sewer system, each farm in the DRVN now has such a privy.

The second advance is the provision of clean drinking water. Each group of two or three families is taught by the clinic to dig a good well with water-tight stone-lined sides.

Where there is no water table, a channel filled with sand is used to filter swampwater. The clinics also do vaccinations, grow medicinal plants, and conduct educational campaigns such as one that reduced gynecological problems by teaching women to bathe daily.

Based upon the network of clinics is a pyramidal system of district and then provincial hospitals, and there are also special dispensaries for diseases such as trachoma, tuberculosis and leprosy. The provincial stations of the National Institute of Hygiene and Epidemiology keep track of potential and actual epidemics and diseased individuals and operate mobile units for vaccination and spreading of public health information. The Institute's Hanoi staff also operates mobile units for collection of samples, preliminary laboratory work in epidemiology, and control of epidemics.

The air war necessitated a tight and efficient organization of health services. Casualties were first minimized by dispersal of buildings and people (as with the Agricultural College we had seen earlier), camouflage, and trenches and shelters, especially between the 17th and 19th parallels where the bombing continues. For instance, we were told that a particular commune in the demilitarized zone, although hit with 430 tons of explosives in 180 bombardments, has suffered only 6 dead and 29 wounded because of efficient use of bomb shelters. Casualties are treated by a four-level network; Each cooperative has medics who dig out collapsed shelters, resuscitate, set tourniquets and splints, and evacuate to the village clinics if necessary. There shock treatment and transfusions may be given, and minor wounds are treated. Surgical cases are evacuated to the district hospitals, all of which can now perform operations, unless cranial surgery is required in the top level provincial hospitals. Because of the war, all medical students are now trained in surgery.

We learned more about medicine in the DRVN from Dr. Ton That Tung, a vigorous and forceful surgeon at the Viet Duc Huu Ngha Hospital, who was formerly Vice-Minister of Public Health, is "Hero of Labor" and is widely respected among the scientists we met. Trained as a surgeon in Hanoi he is a member of the Surgical Academy in Paris and of the Academy of Medical Scientists of the Soviet Union. The 350-bed hospital, started in the forest during the anti-French resistance and moved to Hanoi only in 1954 is used as a surgical training clinic for the university medical school.

In animated, rapid French, Dr. Tung told us that this medical school, the only one in the DRVN, graduates 300 to 500 doctors a year from the 5 to 6 year course following secondary school. Although students used to start in the hospital doing chores in the first year according to the French system, the war and dispersal of facilities have forced a change to the American system where students do not enter the hospital until the

third year . This is not as desirable, according to Dr. Tung, because it gives less of a feeling for the patients. He also criticized the students for being too eager to specialize. In addition there are 20 schools throughout the country training 800 to 1000 auxiliary doctors ("feldschers") a year with a 3-year course. There are apparently enough nurses now, for the first time.

The hospital itself seemed clean and well run, although in modest quarters. We saw equipment from many different countries, mostly from the Soviet Union, China, East Germany, and Hungary, but also from France and Britain, and even oxygenators from the United States - not used very often, he said, because they waste precious oxygen. The hospital had recently received a gift of a heart machine from the American Friends Service Committee (14) for which Dr. Tung repeatedly expressed his appreciation. However, the hospital is still short of equipment and desperately short of medicines, especially methotrexate, isoniazid-streptomycin, and antibiotics.

Dr. Tung is very concerned about herbicides, which he believes accumulating evidence suggests are carcinogenic, **Although** he is dissatisfied with the statistics obtained thus far. Since the start of defoliation by the United States, the most common cancers reported at/hepatomas (15) and hydatiform moles and ~~chorioepitheliomas~~ of the placenta, Hydatiform moles have increased particularly in Tay Ninh, a province in South Vietnam heavily sprayed with herbicide Orange, which contains 2,4,5-T. This preparation, partly because it is contaminated with dioxin, is already known to cause embryonic malformations (16). He also described the effects of other "antipersonnel" weapons used in both the DRVN and South Vietnam. Among these is CS gas (O-chlorobenzalmalonitrile) which can cause ocular lesions. It reaches fatal concentrations when pumped into **unventilated** bunkers and tunnels by the Mighty Mite, a device developed by the U.S. Army. This allegation was supported by a film shown to us. Magnesium ~~incendiaries~~ burn at temperature high enough to melt bone, and napalm has been "improved" so that it sticks better to flesh. Many children are treated for ~~of~~ or damage to limbs or eyes. These injuries are incurred when the children accidentally detonate small camouflaged mines that have been dropped earlier from the air. The fragmentation bombs now contain, besides steel pellets, small ~~varied~~ steel arrows called "flechettes" that are more difficult than pellets to remove. We saw numerous photographs, x-rays and tissue specimens of civilians with pellets and flechettes embedded in their bodies; these were said to cause much pain and suffering. Treatment is becoming more difficult now that pellets are being made of plastic, and so cannot be located by x-rays. Dr. Tung and other Vietnamese are quite impressed with the remarkable variety of U.S. antipersonnel weapons, and the high level of research and developments

are

indicated by the yearly improvement and sophistication in each type. As he put it, "The United States has shown a kind of existentialism in applying science so creatively to the problem of killing people."

The Vietnamese appeared to take very seriously the task of cataloging the effects of the war. At the recent International Conference on Chemical Warfare in Vietnam, held in Paris on 12 December 1970, and attended by scientists from the United States, Britain, France, and other countries in addition to the DRVN and South Vietnam, the various herbicides, defoliants, gases, and other chemicals, their mode of application, and some of the effects of their use were extensively described(18). One study reported an increase in the rate of stillbirths at the Tay Ninh Provincial Hospital, and a rise in the incidence of the birth defects cleft palate and spina bifida in Saigon, coincident with large-scale herbicide spraying in South Vietnam(see also (17)). Another study of 903 South Vietnamese patients evacuated to the Benh Vien Hospital in Hanoi included 179 who had spent from 2 months to 5 years in sprayed areas. Of the 19 women, 4 had been pregnant at the time. Although the women appeared normal, had not been x-rayed during pregnancy, and had no family history of congenital abnormalities, three of the four infants were born with severe abnormalities. One child was born to a woman directly sprayed in the seventh week of pregnancy, the time when digital differentiation occurs in human embryos. A programme of karyotyping cultured peripheral blood cells of these and other victims has recently been initiated. One of the three infants above, who has the symptoms of Down's syndrome(Mongolism), has the corresponding karyotype(21-trisomy), and preliminary karyotyping of other victims is claimed to show chromosome and chromatid breaks.

One of the children whose abnormalities

In all this work, the Vietnamese scientists impressed us as being very painstaking in amassing evidence and very cautious in drawing inferences. Nevertheless, it was quite clear from their research that chemical and other types of antipersonnel weapons are being used against civilians, and that teratogenic and carcinogenic effects may result from the use of herbicides in addition to their severe and possibly sometimes irreversible effects on plant and animal ecology(see(17)).

### Vietnamese Scientists

Our lectures began at 7.30 a.m., fairly late for the Vietnamese who are used to rising at 5 and then taking a siesta in the middle of the day. The large, bare lecture hall at the State Committee of Science and Technology building was filled with about 150 students, professors, and scientists—plant physiologists and agriculturists for Galston's lecture and virologists, geneticists, and biochemists for Signer's(19). The lectures, delivered from a platform in front of an old, scratchy blackboard, were translated by Dan Vinh Thien, a 33-

year old mechanical engineering graduate of the Pedagogical School. Thien's performances was extraordinary - rather than translating, he paraphrased groups of several sentences at one time. Often he didn't even wait for us to finish what we were saying since he clearly understood almost everything quite well, while at other times he interrupted to clarify a scientific point before translating. His broad scientific knowledge, he said, stems from his job as one of a team of ten that reviews international technological and scientific literature for a popularized fortnightly mimeographed bulletin, about 600 copies of which are distributed to scientists throughout the country.

they asked.  
any of the  
questions

The audience seemed to be listening closely and taking pains to follow. At the lectures and the three smaller seminars we each gave to groups of about 20 and in other discussions with scientists (for instance, at the Agricultural College), we were able to get some feeling for the scientific level of the Vietnamese from their interests and the questions were far too comprehensive for a brief answer; others dealt with details of our lectures and related areas; still others asked for more information about developments in Western science of which they were aware and curious, and particularly about environmental and developmental effects of the herbicides with which their country is being sprayed. Most of the scientists had a good, if somewhat uneven general background biased toward the agricultural and medical sciences in which they specialize, and a few were extremely well read in even rather abstruse topics such as genetics of bacteriophage lambda. Their obvious interest and eagerness to learn made the discussions very enjoyable, and many of them seemed particularly intrigued by complex arguments and trains of reasoning.

Teaching was taken seriously by most scientists as an important aspect of their scientific development. Their approach seemed to be somewhat rigid and, to us conventional. For example, they were quite disturbed when we happened coincidentally to mention that definitions of some terms and concepts - like "cistron" were rather arbitrary and likely to change as information accumulated. "How, then", they wondered "can you teach people what a gene is?"

Having essentially no scientific tradition of their own, the Vietnamese were very interested in learning how scientific research is organized in the United States and arranged several small meetings on the subject for us. They were careful to collect all the details of how we do things, with a view to planning ultimately to organize science to reflect their country's unique needs.

### General Evaluation

Several characteristics stood out among the institutions

Conditions in  
Vietnam were  
unique and that

we visited and the scientists we met. One is the attitude of independence and self-reliance present in science as in everything else Vietnamese. Even as they described to us the various kinds of aid and assistance they were receiving from foreign countries, the scientists took pains to point out that their particular problems required a specifically Vietnamese solution. For example, rather than bringing in foreign medical specialists they preferred to develop their own public health program from the beginning.

A second is the absence, despite an obvious respect for learning and knowledge, of a tradition of scientific research and higher education. This may once have existed, but has been missing at least since the years of French occupation. This causes the Vietnamese, on the one hand, to organize science and education in a way that matches their own assessment of the needs but on the other, it means that at least temporarily they must adopt foreign methods for the organization of such matters as university education.

A third is the strong orientation toward public service and public welfare that runs through their scientific endeavors. Quite limited in resources, the Vietnamese are giving priority to the development of medical sciences, as they relate to care for war victims, to public health and nutrition, and to the development of scientific education and research establishments connected with the needs of agriculture and industry. Surprisingly, concern for public welfare was not restricted to the DRVN. Several times scientists urged us in the name of national unity, to help their colleagues in South Vietnam too.

A fourth characteristic is close interaction between science and Vietnamese society. Examples are the change in orientation of doctors from curative to preventive medicine, and the adjustment of the research and educational structure to provide equal opportunity for women.

It is worth noting that these characteristics-independence and self-reliance, serious and responsible planning for the future, concern for public welfare, and change in societal values-were also quite evident in the nonscientific aspects of Vietnamese life that we saw.

The scientists we met, and particularly the upper level administrators such as Minister Bui and Drs. Phung and Tung, seemed highly intelligent, serious and competent. The institutions appeared well organized and well run. On the other hand, the little we saw of classroom procedure suggested that it was rather tightly disciplined and depended heavily on rote learning. The scientific, medical, and educational facilities all seemed hampered by shortages of equipment, supplies, books, journals, educational materials, and particularly medical supplies such as antibiotics.

In addition to the problems that beset all developing countries, the DRVN must deal with the war, which penetrates Vietnamese society at every level. During the air war, from 1965 through 1968 for most of the country, and through the present for areas below the 19th parallel - bombing on an unprecedented scale has severely crippled the country and its physical plant and has retarded the nation's development. Antipersonnel bombs and mines, napalm, and gas have killed many civilians and permanently maimed many more. Science must be extremely difficult under these conditions, and in the face of such destruction it might be expected to fall far behind national defense in priority. Yet not only are morale and national unity very high, but we and other American scientists(1,2) found a vigorous material and intellectual commitment to the development of science, and a lively interest in many areas of basic biology that are only remotely related to the country's immediate needs. Apparently, fighting the war does not preclude building up civil society and planning for the future.

The personal response of the Vietnamese, both scientists and others, also surprised us. Far from being treated as the enemy, we were continually welcomed warmly as friends. Their quarrel, they said is with the U.S. Government, but not with the American people. They also exhibited a nice sense of humor. While lecturing on independent and associated states of bacterial epizootics, Signer noticed the translator's use of *doctap* - one of the few Vietnamese words he had managed to learn. "I just recognized a familiar Vietnamese word - independent" he told the audience. An appreciative chuckle ran round the room.



Confidential

UNIVERSITY GRANTS COMMISSION

Item No. 2(b)(Contd.)

(20) Science Teaching and Scientific Method. \*

By

Academician P. Kapitza, U.S.S.R. \*\*  
(From Scientific World  
1/1971)

It is a recognised fact that the achievements of science exert their influence on the general standard of man's cultural life, but in the 20th century these achievements have been so great that they have come to bear on the social structure of society on a global scale. As a result of this process, generally called the scientific and technological revolution, the problem of the teaching of the young cannot be examined today without taking into account the social changes which it has brought about.

I shall dwell only on two new factors in the structure of society which, in my opinion, demand the most essential changes in the organisation of the education of the young.

THE PRODUCTIVITY OF LABOUR.

It is well known that the most important result of the utilisation of the achievements of science and technology is the high productivity of labour. This is mainly due to the fact that the physical labour of man is replaced by work done by machines made possible by a wide utilisation of electric power. Here automation is increasingly put to use, and the job of the worker becomes limited to a push-button control of machines, lathes, cranes etc. Thanks to this the productivity of human labour in developed countries has increased many times as compared with the last century reached very high levels both in agriculture and in industry.

If in the last century 80 to 90 per cent of the population lived on the land and produced foodstuffs in a quantity just sufficient to feed themselves and the urban population of their country, now, as for instance in the U.S.A, no more than 10 per cent of the population live on the land and more than satisfy the alimentary needs of the country. The exceptionally high standard of productivity reached today by industry can be realized from the following example : if we were to divide the number of cars produced in a large modern works by the number of workers employed there we would find that each worker produces more than one car per month.

\*This article is the opening address by Academician Kapitza delivered at the International Congress of Physics Teachers held at Eger (Hungary) on 11 September 1970.

\*\*Member of the U.S.S.R. Academy of Sciences.

Economists consider that with the modern productivity of labour perhaps one third or even one quarter of the labour contingents of a country is sufficient to provide the population with all the necessities of life: food, clothing, dwellings, means of transport etc. If at present a greater number of workers are employed in industry this is mainly connected with the defence industry, with economic help to less developed countries, with scientific research, tourism, services, the radio, television, sports, the press etc. In these fields the number of people employed today is unlimited and is apparently conditioned by the number of available hands.

Such a high, as compared with the last century, labour productivity and the incomplete utilisation of the labour force makes it possible today to prolong considerably the education of the young.

In the last century, for instance in England, at that time the most industrially developed country, only the wealthiest fraction of the population could allow a young man to devote his youth up to the age of 20 to 23 to education. The majority were already working from the age of 14 either in industry or in agriculture. Such could have been the fate of Faraday who already at 14 was apprenticed to a book-binder. In those times a working day often consisted of up to 12-14 hours.

Today there exist no economic reasons that could hamper an industrially well developed country from giving all its young not only a full secondary education up to 16-18 years, but also a higher education up to the age 20-23.

The large increase in the number of students which can be now observed in highly developed countries, such as the USA, the USSR and others, has of course become possible only owing to the high productivity of labour. In these countries the number of students in institutions of higher education has doubled within the last 10 years. By extrapolating this increase we reach the conclusion that it is not impossible for higher education in these countries to become general within a few decades. This will of course exert its influence on the organisation of the entire educational system, and in the first place in that of the secondary school.

Even the leading economists and sociologists of the last century did not foresee the present enrichment of states due to the high productivity of labour. On the contrary, at that time the growth of industrial productivity was indissolubly accompanied by the process of the "impoverishment of the proletariat". Today the reverse phenomenon is taking place. The development of production for mass consumption leads to an extraordinary increase of income per head. The well-being of the working class invariably increases. If in some

countries we observe a small proportion of unemployment and poverty, this should be explained by the defects of the social structure of a country and should not be linked with its economic possibilities.

### THE PROBLEM OF LEISURE.

This growth of the prosperity of a country's population raises a new social problem, that of "leisure". It is now widely discussed though up till now no generally accepted solution has been found. There is no doubt, however, that this problem is closely linked with that of the education of the young.

This problem can be schematically presented as follows: today the average time spent by a worker at his job is about 7-8 hours. If we take it that he spends 7-8 hours on sleep, 2 hours on meals, commuting etc, it leaves him some 7 hours of leisure a day. Sunday remains as before a day of rest. With the steady increase of labour productivity leisure time continues to grow. Just now, for instance, this increase is due to the utilisation of computers. A number of sociologists and economists foresee here a new revolutionary rise in labour productivity both in production and in services.

As people's time spent at their jobs will continue to decrease soon their leisure time will surpass it.

The social problem which already now presents itself is how to ensure to man conditions for a rational employment of his leisure.

The first to have realised all the importance of this problem was apparently Aldous Huxley in his remarkable Utopia (brave New World). Those who have read this book remember that for the population of the "Brave World" the problem of leisure was solved by sports, various primitive shows and entertainments, and sex, a wide use of narcotics being regarded as necessary. The main task which, according to Huxley's book, the leaders of the "Brave World" set themselves was to ensure that the workers should not acquire any interest in social problems. With this in view they were discouraged from early childhood from independent and critical thinking.

Huxley's prognosis on the employment of leisure is beginning to be justified today in the industrially most developed countries where the prosperity of the population is growing fast, especially in the USA where among a great number of people spiritual and social aspirations are waning and the addiction to narcotics is constantly growing. Particularly unwise in their utilising of leisure and wealth

are those young people who have no cultural interests. Young men and girls on reaching maturity soon become sated with sport and stage shows. Nor are there any barriers with regard to sex. Great prosperity brings in a multitude of all kinds of gadgets, such as the radio, cameras, the cinema, cars, etc., but the pleasure afforded by their primitive utilisation soon palls. The awareness of their parents' material security leaves no room for the fear of the morrow, there is no necessity to struggle for existence with the result that the young people do not have to face problems in the solution of which they could develop their energy and will power. And so their lives are empty of inner content. Added to this, home and school education on the principles of the capitalist societies fosters individualism which results in the young acquiring no wide social ideals, such as service to mankind, to science, to the arts, thus narrowing the interests of the young and depriving their lives of inner content. Various narcotics, the use of which is constantly growing among the young as a means of escaping from the realities of life, give only a brief respite. This addiction as we well know, is accompanied by the destruction of the nervous system which further increases spiritual depression. Criminality among the young is in constant increase.

#### PROTEST OF THE YOUNG.

It is understandable why today the young are beginning to protest against this kind of reality. The first symptoms among the younger generation of protest against the existing social structure have manifested themselves long ago and are well known. It is the beatniks, the hippies and so on. Although not a mass phenomenon it is still only possible in a society in which there is an excess of wealth and leisure, and it undoubtedly symbolizes youth's negative attitude towards the philistine tenor of life of modern civilization devoid of inner content.

What is far more symptomatic and becoming more serious is the student unrest which the state should already now take into account as an important social phenomenon. According to statistics in the USA already in 1968-1969, 55 per cent of all school-leavers acquired higher education. This encompasses 5 million young people. By their number students therefore form a considerable social political force.

A study of student unrest which is so widely spread in the institutions of higher education in all the capitalist countries shows that it is the wealthiest category of students that takes the main part in this movement.

This indicates that the discontent is due not to economic causes but is essentially an expression of discontent with the existing ideology of the social structure. The social principles governing the life of the young do not give them the necessary ideals in so far as individualism, inherent in capitalist society, provides no broad social ideals outside that of enrichment.

There was a time when religion provided a spiritual direction for the social activities of man, but today, mainly owing to the achievements of science, the majority of people have come to realise the primitive character of doctrines forming the foundation of beliefs which can therefore satisfy only a fraction of society.

Today the student movement has the character of a revolt because the young people have not yet found for themselves those ideals and that structure of society for which one must struggle. The process of realizing the nature of this discontent is just beginning and will continue for some years to come.

The structure of modern society has thus proved to be insufficiently prepared for a useful utilisation of the material wealth and of the leisure which the scientific and technological revolution has given it. Some sociologists express the view that already today one can discern signs of the degeneration of society. Sociological studies of the questions of prosperity and leisure among the broad masses are published in growing numbers. In so far as it is impossible to arrest the further growth of the material well-being of humanity and the increase of leisure connected with it, all the investigators see a great danger in this social process if it were left to itself.

The existing social structure being what it is some students of the subject see no way out of the situation and arrive at the conclusion that this process must contain the beginnings of the final cycle of modern civilization and of its destruction. Some go so far as to suggest that the inability of people to make good use of their wealth and leisure may become no less dangerous to humanity than the destruction of a general atomic war.

Such conclusions, needless to say, prove nothing and are premature. Ways out of the situation may in fact be sought in two opposite directions. The first is the one so brilliantly described by Huxley in his Utopia, i.e. by satisfying the broad masses during their leisure in their most primitive needs, animal in character, and at the same time by bringing them up so that from childhood they should not develop

spiritual aspirations. The other way is diametrically opposed to the first; it is to foster in people from their young days high spiritual demands to enable them to utilise their wealth and their leisure to the advantage of society and in a way interesting for themselves. To achieve this people, and in the first place the young, should be given a purpose of life, an interest in the solution of social problems, and at the same time their spiritual qualities should be developed as necessary for the perception of science and art. Humanity will undoubtedly choose this last way. As the inception and development of the spiritual qualities of man are achieved by education this is the new problem set by the scientific and technological revolution before the school and the institutions of higher education.

#### UTILITARIAN APPROACH IS INADEQUATE.

Up till now, however, the approach to man's education has been rather utilitarian. He was taught in such a way as to enable him to carry out effectively his professional functions of engineer, doctor, lawyer etc. This was done to ensure that during his working time his labour should be more productive and more conscientious. The time has now come when higher education is becoming necessary to man to learn how to make best use of his leisure and wealth in a way interesting for himself and useful to society.

What then should be the character of this education?

It is still difficult to give a definite answer to this question but it is possible to foresee the general nature of the solution.

I believe, and practical experience shows, that the people most satisfied with their work are those whose labour is creative : scholars, writers, artists, actors, painters, stage managers etc. It is well known that those following these professions do not divide their time into working and leisure hours. They live by their activities and see the purpose of life in their work. We observe that any work can be made attractive and interesting if it contains a creative element. This process of creativity must of course be understood in a wide sense, it is manifest in any kind of activity when a man has no definite instructions and must decide for himself how to act.

It is a well known fact that in modern mass production in order to achieve a close coordination in the work of a collective all must be done according to instructions; the individual worker is thus prevented from showing any creativity which is why mass production is so dull and un-interesting. This has been well shown by Chaplin in his film "Modern Times".

Some Utopians have long ago foretold that with time every citizen would devote only part of his time to work on production, devoting the other part of some absorbing creative job in the field of science or art. Such a solution of the problem is unreal because experience shows that for useful work in the fields of science and art talent is necessary, and one can assume that no more than 3-5 per cent of people possess sufficient natural gifts to be employed as professional scholars, constructors, artists, writers, actors etc. Therefore the present problem is how to ensure a creative character to the leisure of the average man so that he should appreciate it and utilize it intelligently.

Life shows that this kind of activity during leisure time is entirely possible for the majority of people. It can be in the field of humanitarian interest, or in that of science and technology, or in that of social problems. But life also shows that a man can spend his leisure in an interesting manner only if he is sufficiently educated and especially has been taught to bring a creative element into his activity.

To make this statement clear I shall cite an example. Today many spend their leisure in travel. When a tourist is interested in ancient or modern cities, to be really interested he must be prepared, know history, for instance. But he will derive the greatest satisfaction if he will reflect independently on what he has seen and compare it with the history of other countries or with contemporary times. To do this to his full satisfaction he must be taught how to proceed in correspondence with his creative capacities.

The task set before education consists therefore not only in giving a man the all round knowledge necessary to turn him into a good citizen, but also in developing in him independence of thought necessary for a creative awareness of the surrounding world.

The creative gifts of a man's intelligence usually manifest themselves early in life and can be developed already in the secondary school, but it is usually towards the age of eighteen that their character and direction become clear. For this reason higher education which begins at that age should already be specialised according to individual capacities. But to teach everyone how best to spend their leisure the state must evidently give the opportunity of a higher education to the entire population independently from whether it is necessary for some particular profession or not.

#### Creative education

Leaving aside now the general questions of the great social importance of a creative education of the young, I should like to share with you the experience which I have acquired during many years of scientific and organizational activity and my considered opinion on how education should be conducted so that it should not be confined to a memorizing of factual material and of the laws of nature but should educate their creative capacities in the young.

I have long taken interest in this problem independently from considerations on the necessity of developing an individual's creative capacities during his education in connexion with the present increase of people's leisure and prosperity of which I have spoken in the beginning.

The matter of selecting and educating the young for creative scientific work has always been the foundation of the successful progress of science.

As man's education begins in fact in the secondary school, let us examine how it should be reorganized in order to satisfy the problem facing it.- the fostering in the pupils of independent thinking.

Until now the main task of secondary education has been the acquisition by every individual of a determined quantity of information in various fields of learning necessary for him to become a worthy citizen of his country. But in the education of creative capacities an individual approach to the pupil is needed which considerably complicates education.

The young, often manifest rather early where their creative gifts lie, whether it be in the field of exact science or in that of the arts and literature. The school must of course take into account this difference in the gifts of the young and by all means avoid bringing any pressure on the natural inclinations of the pupils. I have always proceeded from the fact that in the education of a future scientist the early development of his creative abilities is exceptionally important and that therefore it should begin in the school, and the earlier the better.

This education of an individual's creative abilities is based on the development of independent thinking. This can develop in the following basic directions : ability to generalize scientifically-induction ; ability to apply theoretical conclusions for foretelling the course of progress in practice deduction; and finally, disclosing the contradictions between theoretical generalizations and the process taking place during the study of nature - dialectics.

It is easy to see that the most suitable fields for developing general scientific thinking in the young within the realm of natural sciences are mathematics and physics as in these fields independent thinking can be fostered from a very early age mainly by means of solving problems and examples. If we compare the effectiveness of the development of creative thought in mathematics and physics it would seem that the realm of physics is much closer to life and to the opportunity of a scientific study of the processes of nature, and can be the most vividly illustrated. If we add that during laboratory



work the pupil realizes in practice how to deduce theoretical generalizations from observations, we have here an inductive method for the study of nature. The solving of problems accustoms the pupil to deductive thinking. In order to develop dialectical thinking the teacher can during lessons show on a number of examples how in physics the contradiction between theoretical conceptions and experiments lead to new scientific discoveries.

### PHYSICS.

Physics is a most suitable subject for the primary fostering in the young of creative thought in the field of natural sciences, and this makes the organisation of the teaching of physics in the school a responsible **task**.

In so far as the problems of the teaching of physics are the main concern of our congress, I shall dwell on them in somewhat greater details.

It is generally recognised that practical courses and seminars are extremely useful for the fostering of creative thinking in physics, the solving of problems and the organisation of olympiads being particularly valuable for the opportunities they give to bring out most effectively the creative gifts of the young.

Experience has shown that the problems habitually set in text-books are not always such as to foster independence of thinking. These problems usually consist in fitting the given elements into the necessary formulae and thus finding a definite answer. The pupil's independence is limited to a correct choice of the formulae into which to fit the elements.

I believe that problems should be set less definitely to allow the pupil an independent choice of the suitable elements from experience. Here are some examples of such simple problems. Ask to define the power of the motor of a pump necessary for maintaining a jet to put out the fire of a six storied building. Or another problem : how large should be a lens so that the concentration of a sun-rays in its focus should bring a wire to red-heat. The pupil must evidently select the necessary elements from practical experience or from a handbook. I have set problems of this type, though of course somewhat more complex, to my students. They collected them over a number of years and published them in a small volume. Students like such problems; they have no exact solutions and this leads to lively discussions. A similar text-book of problems could be composed for the secondary school too.

Today, in order carefully to prepare the most gifted youth for scientific work both in the Soviet Union and in other countries special schools have been created for particularly talented children .

This may find its justification in the field of the arts, in so far as such artistic talents as for music, painting etc. usually manifest themselves much earlier than inclinations towards creative thinking in the field of science.

But schools created for a selected gifted youth in the field of mathematics, physics, chemistry, biölogy, prove to be even harmful. The evil consists in the following : if a gifted pupil is taken out of a school this devitalizes it and has a bad effect on the general standard of the entire school. This is because a gifted pupil can give up much more of his time to his class-mates than can the teacher, and this mutual help works out much more easily and closely. Gifted pupils often play a more important role than do the teachers in coaching their friends. But this is not all. It is a well known fact that in the process of imparting knowledge the teacher himself also learns. In order to explain a theorem to a friend one has to understand it well oneself, and in the process of explaining one's own incomplete understanding is most clearly realised. Thus gifted children need for their own intellectual growth comrades with whom they can study. In a school for talented pupils such mutual education does not usually take place and this hinders the most effective development of their gifts. There are of course quite a few other well known factors forming the negative side of such selective education, as for instance, the incipience in the pupils of too much self-assurance and conceit which are harmful for the normal development of the young.

#### PROBLEMS OF TEACHING.

As we know, the role of the teacher is very important for the development in the young of their creative capacities. Here we are faced with greate difficulties as it is practically impossible to provide the secondary schools with a sufficient number of talented teachers capable of an individual approach to the pupils in developing their independent thinking.

The majority of teachers set themselves the task of passing on to their pupils a detemined quantity of knowledge, and in their evaluation of their progress proceed from how well they have absorbed it. The school itself has no criterion for judging independence of thinking. The selection of the suitable type of teachers forms the most difficult problem of this task. I believe that a way does exist for solving this problem though it is no simple one because it may meet with serious opposition from the ministerial officials in charge of the schools. This way is similar to that which we broadly apply in an establishment of higher education Moscow specially created to prepare scientific workers for leading research institutes, mainly within the concern of the Academy of Sciences.

The basic idea which we used was the following. The history of science shows that it is those scientists who have pupils and who work with them who progress most fruitfully in their own work. This is evident from the examples of the most eminent scientists. For instance, Mendeleev discovered the periodic system of elements when seeking a means for describing the properties of the elements so that the students to whom he lectured on the principles of chemistry should best memorize them. The young Lobachevsky, when teaching geometry in a school for adults following the programme of a secondary school, could not find a satisfactory means of explaining to the learners the a priori evidence of the postulate of the non-intersection of parallel lines, and so he discovered the non-Euclidian geometry. Stokes, in one of the problems he was composing for his students, proposed to prove that the integral taken round the circuit is simply linked with the strength of the influx passing through this circuit. This is now called Stokes's theorem, but in fact he never published the means of proving it leaving this to the students. As we know, this theorem has become a fundamental one in so far as it has formed the basis of Maxwell's equations. In his famous treatise Maxwell refers to the text-book of problems composed by Stokes. Such examples can be found up to our own times. Thus Schrodinger found his famous equations in the process of explaining the works of de Broglie to a group of post graduates in the University of Zurich where he did this at the request of Debye who it was who told me how the fundamental equations of quantum mechanics were discovered.

Proceeding from this, in a number of research institutes we suggest to the young scientists to read short courses of lectures to the students and also to hold seminars with them, usually on specific subjects. This does not take up more than one of their working days, and a suitable remuneration has been introduced for such work. In our view the young scientists gain from such work no less than do the students. In some cases young scientists have gone on their own initiative to a secondary school where they conducted studies of physics in the upper forms with positive results.

I believe that it is quite possible to organize on the same principles the teaching of physics in the upper forms of secondary schools, drawing into this work young scientists from research institutes. This would benefit both them and their pupils; the difficulty lies in organisation, as such teaching ought not to be a full time job for the scientists and should not take up more than one working day. In a secondary school, however, this gives rise to a number of organisational difficulties in the distribution of the work. A large number of teachers would be needed because each scientific worker would be unable to give up much of his time, and this complicates the work of the administrative apparatus.

Therefore, so long as the necessity of a creative education of the young has not been realised on a state scale such broad measures will come up against difficulties.

In conclusion I would like to stress once again that beyond all doubt the right education of modern youth demands a fostering of its creative capacities with the taking into account of the special gifts of the individual, and this starting from the school bench and continuing in institutions of higher education. This is a fundamental problem the solution of which is crucial to the future of our civilization, not only in one country but on a world scale. It is of no less importance than the problems of peace and of the prevention of an atomic war.

In order that humanity should develop along the path of humanism and culture we, scientists and workers in the intellectual field, must take an active part in the working out of the problems connected with a healthy and progressive education of our successors.

Report made by Dr. R.N. Konar, Reader in Botany,  
University of Delhi on his visit to U.K. as an  
awardee of Commonwealth Academic Staff Fellowship  
during 1970-71

During the tenure of the fellowship, two major problems of  
fundamental importance were taken in hand. These were:-

1. To investigate the morphogenetic pathways in suspension  
culture of Atropa belladonna and,
2. To study electron microscopically the cells of the callus and  
stem epidermis of the invitro raised seedlings of  
Ranunculus sceleratus that differentiate into embryos and  
to elucidate the cytological details of some of the  
embryonal cells as seen under EM,

In the first case callus from root fragments of Atropa belladonna was made into suspension culture. Soon the cell aggregates in the suspension showed the formation of roots. It was observed that root formation occurs either from peripheral meristems or from endogenous meristematic nodules. The roots when released from the aggregates either continue to develop as cultured roots or quickly develop a callus at their basal ends and within this a shoot bud develops. When this shoot bud is initiated both root and shoot may continue to develop to give a plantlet with either two equal first leaves or less commonly with several first leaves or with a single first leaf. Where the roots are of endogenous origin and where some retardation of root growth is associated with bud formation, structures arise which have previously been termed 'embryo-like structures'. Alternatively root development may be suppressed and only the bud develops.

It has been possible to trace the development also in these cultures of embryos whose development involves recognisable stages of normal embryology. These embryos may arise from single cells of the initial cell aggregates or from cells of the massive suspensions of these embryos.

As for the second problem callus raised on basal medium, on 2,4-D supplemented medium and seedling bearing stem embryos were processed for electron microscopy. It was thought worthwhile to investigate if differentiating cells in these calli or the epidermal cells of the stem giving embryos can be ultrastructurally defined. Various parameters have been examined keeping this in view. Hardly any study at ultrastructural level exists on cell division in the embryos. This has been done.

(2)

The work resulted in two papers which are in the process of publication.

It has been possible to have profitable discussions with Professor H.F. Street with whom I was associated. I had also participated in a Tissue Culture Forum meeting held at Hatfield, Herts, England. I did some honorary teaching at the Department of Botany, University of Leicester, Leicester, England. During the tenure of fellowship I visited the University of Edinburgh and University of London.

'VK'

Report made by Dr. V. Srinivasagopalan, Professor of Civil Engineering, Thiagarajar College, Madurai University on his visit to Tokyo as a Unesco Fellow under the United Nations Special Fund Programme for 1968.

I. PERIOD OF TRAINING:

I was awarded a UNESCO Fellowship (ADVANCED COURSE) under the United Nations Special Fund Programme for 1968 for a period of twelve months (as from November 1968) to carry out studies at the International Institute of Seismology and Earthquake Engineering\*, TOKYO, as per the letter EDV/FE/4153/411/BM/AM/1j dated 13th November 1968 from Mr. I. Dandolo, UNESCO, Paris (Copy enclosed as Appendix I). The period of the fellowship of twelve months has been extended by two months from 1.12.68 as per the letter EDV/FE/4153/411 mtp/gg dated 20.11.69 (copy enclosed Appendix II) from Mr. A. Kh. Kinany, UNESCO, Paris.

II. I.I.S.E.E.

The International Institute Seismology and Earthquake Engineering, enjoying an independent status with Dr. Syun<sup>2</sup>Itiro Omoto as its Acting Director, forms a part of the Building Research Institute\*\*, Ministry of Construction, Government of Japan. The important wings of the B.R.I. are the following:

- i) Materials Division
  - ii) Structures Division
  - iii) Construction Division
  - iv) Fire Research
- and v) I.I.S.E.E.

There is a good interdepartmental co-operation among the various divisions in the research activities. The Library attached to B.R.I. has a good collection of Books and Technical Journals in English, Japanese, German, Russian and French. The Library at I.I.S.E.E. has got a modest collection of modern books and journals connected with

---

\* Referred to hereafter as I.I.S.E.E.

\*\* Referred to hereafter as B.R.I.

Earthquake Engineering and Seismology. The B.R.I. has well equipped laboratories and has facilities even for testing a full size five storey building, the details of which will be furnished later. There is a computer, TUSBAC 380, at I.I.S.E.E. which serves the needs of the research workers at B.R.I. also. The B.R.I. is financed by the Japanese Government.

The First Phase of the I.I.S.E.E. was started in the year 1962 with the financial assistance of the UNESCO and Japanese Government for a period of five years. Both Engineers and Seismologists about ten in each selected from various countries as participants to the regular course at I.I.S.E.E. are awarded fellowships by the UNESCO and the Japanese Government. These participants are given regular lectures on various topics connected with Earthquake Engineering by the Staff members of I.I.S.E.E., UNESCO experts attached to I.I.S.E.E., Professors from Tokyo University and specialists from other research Institutions.

The second phase of the I.I.S.E.E. was initiated in the year 1968 and an intensified programme called Advanced Course was started. The participants in the Advanced Course are able to devote their time to research problems selected to suit the needs and conditions in their respective countries. In addition to research, these participants are also requested to assist in the teaching programmes of the Regular Course.

WORKING LANGUAGE AT I.I.S.E.E. The working language at I.I.S.E.E. is English. The research workers at B.R.I. and the Professors of the University of Tokyo have sufficiently good knowledge of English and mutual communication of ideas is not a problem. But most of the current technical publications are in Japanese, which are to be translated with help of the staff at I.I.S.E.E.

### III. SUMMARY OF MY PROGRAMME AT I.I.S.E.E.

A brief summary of my work at I.I.S.E.E. is given below. This may broadly be divided into the following:

1. Study
2. Lectures to the regular course
3. Research
- 4(a) Participation in the Testing of Reinforced Concrete Five Storeyed Building
- 4(b) Participation in the Testing of four storeyed prestressed precast building
- 4(c) Participation in the Testing of Reinforced Concrete Members subjected to Axial force, Shear and Bending.



5. Visit to various laboratories and research Institutions, Manufacturing Plants, and Construction sites.
6. Seminars
7. Study Tour

The details of the above are briefly given below:

STUDY

1. It is always essential that an engineer or a scientist keeps abreast with the latest developments in his field. With this in view I have made a special study of the following subjects:-

- a) Structural Dynamics
- b) Matrix Analysis of Structures
- c) Earthquake Resistant Design of Structures
- d) Computers and Programming
- and e) Finite Element Method,

2. Lectures to the regular courses: I have made a special study of the behaviour of Reinforced Concrete Members during my stay at the University of Illinois and developed my interest in the same at I.I.T., Kharagpur also. Hence I gave a series of lectures on the 'Behaviour of Reinforced Concrete Members to the regular course. I also gave two special lectures one on "The Design of End Blocks of Prestressed Concrete Beams" and another on "The Behaviour and design of Light gage steel structures".

3. RESEARCH: In addition to the participation in Research Activities of BRI, the following individual research projects have been undertaken by me.

- a) "Inelastic Analysis of Five storeyed Reinforced Concrete Building". This project was undertaken by me in collaboration with Dr. Hajimeumemura and Dr. Hiroyuki Acyama, Professor and Associate Professor respectively in the Department of Architecture, in the University of Tokyo. In this project an attempt has been made to analyse the behaviour of the Building using Matrix Methods and Computer Programming. The results of the Analysis have been compared with the actual values obtained from the Tests of the same Five storeyed building at B.R.I., TOKYO.
- b) "Anchorage Zone stresses in Post Tensioned Prestressed beams by Finite Element Method." The above problem has been studied by me earlier using two dimensional theory of Elasticity and Photo elasticity methods. Now the same problem has been analysed using Finite Element Methods. This work was carried out in collaboration with Dr. Makino,

Staff Member, I.I.S.E.E. The distribution of stresses and in particular the position and magnitude of maximum transverse tensile stresses in the anchorage zone were compared with the results obtained from other investigators. In this investigation also the analysis was carried out with the help of computer.

- c) I was also closely associated with a Test programme for the 'Design of Anchorage Zone of Prestressed Beams using the SEEE System'. The above project was undertaken in the B.R.I. by Mr. Okamoto. I was connected with this project from the planning stage and data obtained regarding crackings ultimate loads and the effect of reinforcements in the end blocks are very interesting.

4.a) PARTICIPATION IN THE TEST ON FIVE STOREYED REINFORCED CONCRETE BUILDING: The above test was carried out during March 1969 in B.R.I. under the project sponsored by 'The Housing Corporation', Ministry of Construction, Government of Japan. The test building, a walled framed construction, was 13m x 7m x 14m and was anchored at the bottom. Horizontal loads were applied at the slab level at each floor through Hydraulic Jacks obtaining the necessary reaction from an adjoining retaining wall. The deflection at the floor level, rotations, strains in concrete surfaces and steel reinforcements were measured. The formation of Plastic Hinges were found. A more detailed report on the method of Testing and test results will be submitted later.

4.b) TEST ON FOUR STOREYED PRESTRESSED PRECAST BUILDING: The elements of precast building consisted of units as walled frames, Reinforced Concrete beams and slabs. The precast walled frames were prestressed vertically for monolithic action. Horizontal loads were applied through Jacks. The behaviour of the building was observed. This test was carried out in November - December 1969.

4.c) TESTS ON REINFORCED CONCRETE MEMBERS SUBJECTED TO AXIAL LOAD, BENDING AND SHEAR:

These Tests were conducted at B.R.I. A severe Earthquake struck Japan during 1968 and many Reinforced Concrete school buildings suffered damage, especially through the failure of columns in shear. The above tests at BRI were intended to explain the cause of the damage. This test was carried out during early part 1969.

As I feel that the above three tests are unique, I will submit a detailed report later.

## 5. VISITS

S.No.	Name of Institution Visited	Remarks
1.	Tokemura Technical Research Lab. and a construction site (TOKYO).	One of the Big Five Construction Companies - Speciality Foundation Engineering
2.	Japanese National Railway Central Hospital Building, TOKYO.	Post tensioned Prestressed Concrete beams are used
3.	Earthquake Research Institute and Structural Lab. of Architectural Department of University of Tokyo	Tests on full scale shear wall
4.	Itoh - Seiki and Co.(Near Tokyo)	Manufacturers of vibrators for Dynamic Testing.
5.	Kajima Construction Company Lab, Kasumiga Seki Building, Tokyo	One of Big Five Construction Companies of Japan - Well equipped, 36 storeyed - First Tallest - Building
6.	Obayashigumi Lab.(Tokyo)	One of Big Five Construction Companies, well equipped Lab. for static and Dynamic Testing.
7.	Ei-Yo-Wa Electronic Instruments Ltd., Tokyo	Manufacturers of Electrical strain gages of quality and measuring Instruments designed for embedment in Concrete Structures.
8.	Port and Harbour Technical Research Institute. (Near Tokyo)	Model study of suspension Bridges and Wind Tunnel Experiments
9.	Public Works Research Institute, Chiba (Near Tokyo)	Model study of suspension Bridges and Wind Tunnel Experiments
10.	Institute of Industrial Sciences, Tokyo	Dynamic Photoelasticity method used to find the behaviour of Kyna Dam, near Poona, which suffered damage due to Earthquake
11.	Japanese Development Construction Corporation Company Ltd., Tokyo, a construction site and their Factory, Tokyo.	A medium sized construction company.

12.	Oki Electrical Instrument Manufacturers	Manufacturers of Seismo- graphs and other equipment
13.	Akashi & Co., Tokyo	Manufacturers of Strong Motion Seismographs
14.	Taisei Construction Company : Lab. and Construction site	One of Big Five Constructi Companies. Present cast R.C. Multi storeyed Apartment houses.
15.	Kawasaki Steel Plant	The Third largest steel producer - Fully mechanised production controlled plant.
16.	Water Works (Tokyo)	Working, partly controlled by Computer
17.	World Trade Centre Building	Constructed by Kajima Construction Company. 42 storeyed Building - Tallest in Japan - Completed in 1969.
18.	Structural Lab. University of Sapporo, (Sapporo, North Japan)	Hybrid type Computer - Good Dynamic Testing Lab.
19.	Civil Engineering Lab. University of Hongkong, Hongkong	Effect of wind on Tall Buildings being studies.

---

SEMINARS:

- a) Seminars and were conducted periodically as a part of the Advanced and Regular Courses and I took an active part in the discussions.
- b) I presented a paper on "Anchorage Zone stresses in Free-Stressed Concrete Beams by Three Dimensional Photo elasticity" to the Architectural Institute of Japan, an organization similar to Institution of Engineers, India and attended their annual session at Sapporo. It gave me an opportunity to acquaint myself with some of the leading research workers in Japan.
- c) Periodical meetings between United States and Japanese Engineers are held to discuss the latest developments in various fields. As a special member, I attended two such conferences, namely (i) Effect of Earthquake and wind on Tall buildings. and (ii) Matrix Methods and Finite Element Method Analysis of Structures. Each of them was conducted for a duration of 3 days. Eminent research workers from U.S. and Japan presented papers and I took part in the discussions.

7) STUDY TOUR :

I was given an opportunity to tour throughout Japan. At Hachinohe many reinforced concrete multistoreyed buildings suffered extensive damage during the Earthquake in 1968. We inspected some damaged buildings and some buildings which were repaired subsequently. At Hakodate, a Tunnel under sea is being constructed, which, when completed, it is claimed, will be the longest tunnel. We also visited a Gravity Dam under construction near Sendai. I also visited Hiroshima and Nagasaki. In addition, I have made a general survey of the Educational system in Japan. I have also studied the construction methods adopted in Building Industry. The training programme arranged at I.I.S.E.E. was a well balanced one one having included study, teaching, research, seminars and visits to construction sites and laboratories. All these activities were ~~connected~~ with and connected to the immediate problems in Civil (Structural) Engineering. These are dynamic and progressive ones. The training which I have undergone can profitably be utilised in effective organising and better teaching of the undergraduate and postgraduate courses.

I wish to record my sincere thanks to all the authorities in India, Japan and UNESCO, Paris for their help guidance and co-operation, in making my training highly useful.

Appendix I

Copy of the letter No. EDV/FE/4153/411/BM/AM/1j dated 13th November 1968 from the Director, Division of Training Abroad, Department of Advancement of Education, to the Acting Director, International Institute of Seismology, and Earthquake Engineering, Tokyo.

I have the pleasure to inform you, on behalf of the Director-General that you have been awarded a Unesco fellowship under the United Nations Special Fund Programme for 1968.

The fellowship is of a duration of twelve months (as from November 1968) and will enable you to carry out studies in the field of Earthquake Engineering, at the International Institute of Seismology and Earthquake Engineering, Tokyo.

Further information and instructions concerning the award will be the subject of a letter which will be sent shortly.

'VK'

Appendix II

Copy of the letter No. EDV/FE/4158/411 mtp/gg,  
dated 20th November 1969 from the Director,  
Division of Training Abroad, Department for  
Advancement of Education, to the Unesco Fellow,  
C/o International Institute of Seismology and  
Earthquake Engineering, Tokyo, Japan.

—

I have the pleasure to inform you, on behalf of the  
Director-General, that the 12-month fellowship awarded to you under  
the above-mentioned Programme and Project has been extended for a  
further period of two months from 1 December, 1969 to enable you to  
terminate the studies which you are carrying out in the field of  
Seismology and Earthquake Engineering, Advanced Course.

\*VK\*

Report made to Unesco Headquarters by Dr. C.D. Sehgal, Lecturer, Centre of Advanced Study in Botany, University of Delhi, on completion of his award to him under the Unesco/TA Programme for 1967-68 for a period of six months from 19th November 1970 to 18th May 1971.

During the tenure of UNESCO Fellowship awarded to me for six months under the UNDP 1970, Technical Assistance Programme for Centre of Advanced Studies, Commencing November 19, 1970, I worked with Professor E.M. Clifford Jr, Department of Botany, University of California, DAVIS, California, USA.

At DAVIS, I learnt the techniques of Histochemistry and Electron Microscopy. A brief account of the research which I conducted there is presented below in three parts:

PART-I.

HISTOCHEMISTRY OF SHOOT APICES OF FOUR SPECIES OF EUPHORBIA

Shoot apices of Euphorbia altissima, E. aphylla, E. obtusifolia and E. schimoi were fixed in Formalin-acetic acid-alcohol, dehydrated in tertiary butyl alcohol series and embedded in paraplast. Sections were cut 7 $\mu$  thick and following histochemical tests were performed for various compounds (a) Total Carbohydrates and insoluble Polysaccharides - Periodic acid - Schiff's (PAS) reaction; (b) Ribonucleic acid - Pyronin Y as a stain with enzyme RNase serving as a Control; (c) Deoxyribonucleic acid - Foulgen staining; (d) Total Protein - Mercuric bromphenol blue method and aniline blue black method; (e) Histones - the use of Basic fast green with additional controls using enzymes Trypsin and RNase. For RNA and DNA - Azur B staining was also done. All the microphotographs were taken, developed and printed in exactly the same way, so that they show the relative intensity of staining.

There is a great variation in the shape, size, organisation and the number of tunica layers in shoot apices of all the four species of Euphorbia studied. There are 3-4 tunica layers in E. obtusifolia, 2-4 in E. schimoi, 2-3 in E. aphylla and only one tunica layer in E. altissima.

Total Carbohydrates of insoluble Polysaccharides - Positive PAS reaction was observed in all cases. The intensity of staining was highest in E. obtusifolia showing that it contains highest amount of carbohydrates. The intensity of staining decreases in the sequence E. schimoi, E. altissima and E. aphylla. So the total carbohydrates of insoluble polysaccharides were lowest in E. aphylla.



Ribonucleic acid ↔ Staining could occur with Pyronin Y only when Pyronin Y was extracted with chloroform. Nuclear material in various stages of mitotic divisions stained more intensely as compared to that of non-dividing nuclei. The intensity of staining of nucleoli and cytoplasm was maximum in E. schimperi followed by E. obtusifolia, E. anhylla. The material treated with RNase prior to staining removed all RNA from the nucleus and cytoplasm so that Pyronin Y did not show any staining of cells. The above observations were also confirmed with Anur B.

Deoxyribonucleic acid ↔ By testing with Faelgen reaction it was found that like RNA, maximum amount of DNA was present in shoot apices of E. schimperi and lowest in E. altissima.

Total Protein ↔ The shoot apices stained with Mercuric bromphenol blue showed the presence of maximum amount of total protein in E. obtusifolia. It was present in the following decreasing order in the other three species, E. anhylla, E. schimperi and E. altissima. These observations have been confirmed with Aniline blue black staining.

Histones ↔ Positive fast green staining at pH 8 was found in the shoot apices of all the four species of Euphorbia treated with 5% Trichloroacetic acid (TCA) prior to staining. The intensity of nuclear staining was highest in E. schimperi followed by E. altissima and it was least in E. obtusifolia. E. schimperi was not tested for the presence of histones. The nucleoli as well as the cytoplasm took up the stain. Treatment of shoot apices with Trypsin prior to staining removed the histones (basic proteins) and consequently no staining was observed in such instances.

## PART II

### HISTOCHEMISTRY OF OVULES OF NICOTIANA RUSTICA BEFORE, DURING AND AFTER DOUBLE FERTILIZATION

The ovaries of Nicotiana rustica were fixed in Formalin-acetic acid-alcohol at various stages of embryo sac development. The histochemical changes in ovules especially embryo sac were studied from ovaries collected at different intervals between one day before anthesis till seven days after pollination. The material was dehydrated and embedded according to the technique already described for shoot apices of Euphorbia. The sections were cut 12  $\mu$  thick and histochemical tests conducted for Total Carbohydrates of insoluble polysaccharides, Ribonucleic acid, Deoxyribonucleic acid, Total Protein, and Histones.

The ovules are anatropous, unitegmic, unitegmic, tenuinucellate and show the presence of endothelium. One day before anthesis the embryo sac is 8-nucleate consisting of an egg apparatus, two polar nuclei and 3 antipodal cells. The synergids are elongated, pyriform, hooked and there is no filiform apparatus. On the day of anthesis the polar nuclei fuse and the primary fusion nucleus is seen near the egg cell.

Pollination takes place on the day of anthesis and fertilization two days later.

The primary endosperm nucleus divides earlier than the zygote. The first division of the primary endosperm nucleus is followed by a transverse cell wall and the subsequent two or three divisions are also transverse so that a linear row of 4-8 endosperm cells are seen before longitudinal divisions start. So the endosperm is ab initio cellular. The zygote divides after the several divisions of endosperm have occurred. The embryogeny confirms to the Solanad type. Seven days after pollination we get a globular proembryo in the embryo sac.

Total Carbohydrates of insoluble Polysaccharides -- As revealed by PAS reaction and iodine test, before pollination there is plenty of starch in the general cytoplasm of embryo sac. Before the entry of pollen tube there is no starch in the integumentary cells. Immediately after pollination, starch disappears from the embryo sac but the integument is heavily laden with it. The amount of starch is maximum in the integument cells near the embryo sac and gradually decreases towards the peripheral integumentary cells. Starch is minimum in the outermost cells of the integument. The embryo does not show any starch as the reserve food material.

Ribonucleic acid -- Specific staining with Pyronin Y suggests that there is more RNA in the nucleus as well as cytoplasm of integumentary cells before fertilization. However, after fertilization the amount of RNA is reduced in integumentary cells. A very interesting feature is the presence of the two RNA positive bodies, one on the either side of the egg nucleus. After fertilization these RNA positive bodies are seen in large number and almost surround the sygotic nucleus. When the Zygote divided these structures are also seen in 2-celled and 4-celled proembryos. However, in the later stages of development of embryo these bodies are restricted only in the suspensor cells. These observations have also been confirmed with Azur B.

Total Protein -- Sections stained with Aniline blue black showed lot of protein in the integument cells up to the first division of primary endosperm nucleus. The zygote contains little protein. However, after first division of zygote the concentration of total protein starts increasing and in later stages of development the embryo contains large amount of protein as a reserve food material.

Histones -- Basic fast green staining revealed that the integument cells before pollination and fertilization have more histones in the nucleolus and cytoplasm as compared to the embryo sac. However, after fertilization the level of histones falls in the integument but increases in the proembryo. Treatment of sections with Trypsin prior to staining removed the histones and consequently no staining was observed with basic fast green.

(4)

PART III

ULTRASTRUCTURE OF EMBRYO SAC OF NICOTIANA RUSTICA

I attended a course on Electron Microscopy delivered by Dr. R.H. Falk during the winter quarter (January-March 1971). I did some work on the ultrastructure of embryo sac of Nicotiana rustica before and after fertilization.

The ovules at various stages of development fixed in 6% glutaraldehyde were post fixed in unbuffered 2% KM O<sub>4</sub> or 1% Osmium tetroxide. Fixations were made at room temperature or at ice temperature. The material was dehydrated in ethyl alcohol and propylene oxide before embedding in Araldite. Sections of material fixed in glutaraldehyde-Osmium tetroxide were stained in 1% uranyl acetate and lead citrate. Observations were made with Electron Microscope, Zeiss EM-9A or Hitachi HU-1.

Some EM photographs were taken but a comparative study of embryo sac at various stages of development was not possible due to lack of time. I have got the embedded material with me and I wish to finalize the above work as soon as the facilities for Electron Microscopy are available in the department.

Towards the end of my stay in the United States, I visited the following botanists:

1. Dr. P.S. Sabharwal, Department of Botany, University of Kentucky, Lexington, Ky.
2. Dr. Richard H. Eyde, Department of Botany, National Museum of Natural History, Smithsonian Institution, Washington, D.C.
3. Dr. Howard Irwin, New York Botanical Gardens, Bronx, New York

I wish to thank Professor E.M. Gifford, Jr for providing me the necessary research facilities and his keen interest in the progress of research project. He also provided me the facilities of a Technical Assistant to teach me techniques of Electron Microscopy and to print some of the negatives. I am grateful to Mrs. Natasha Deakin, Program Administrator, the Institute of International Education, New York for her able suggestions and ready help from time to time.

'VK'

Report made by Dr. A.L. Nagar of the  
Centre of Advanced Study in Economics  
University of Delhi on his visit to  
U.K. under the Programme of British  
Assistance to Centre of Advanced Study.

---

I reached London (England) on June 3, 1969 and stayed at the London School of Economics till July 10, 1969. Thus my stay there was a short one of about 5 weeks duration. The trip was primarily intended as part of an over-all project of writing a book on the Small Sample Properties of the Two-Stage Least-Squares Estimator of Parameters in Simultaneous Equations. This book, entitled

ESTIMATION OF SIMULTANEOUS LINEAR EQUATIONS:  
Exact Sampling Distribution and approximations to  
Moments of the Two-Stage Least-Squares Estimator

coauthored by me and Aman Ullah, has since been completed and is presently being considered by North-Holland Publishing Company, Amsterdam (Netherlands) for publication.

At London School of Economics I was mainly working on this subject. Professor J.D. Sargan at the London School has also been actively engaged in this research and I had frequent discussions with him. I also had the opportunity of discussing with Professor James Durbin - Professor of Statistics - and Professor A. Walters (Professor of Economics). These discussions were entirely on personal level and no seminars were involved.

In fact the result of discussions with Professor Sargan has been that I disproved some of his conjectures. This was communicated to him at the Second World Congress of the Econometric Society, held at Cambridge, England, during September 8-14, 1970. Professor Sargan presided over the session in which I presented my paper.

Annexure II to item No. 2(b)(4).

Report made by Dr. (Mrs.) Dharma Kumar of the Centre of Advanced Study in Economics, University of Delhi on her visit to U.K. under the Programme of British Assistance to Centre of Advanced Study.

—

Since the main purpose of both my visits was to carry on research and hold discussions in connection with the Cambridge Economic History of India I have dealt with the two visits together. By and large I met the same people and visited the same institutions on both visits.

1. INSTITUTIONS VISITED:

- a) London School of Economics
- b) School of Oriental and African Studies, London
- c) Institute of Statistics, Oxford
- d) The Department of South Asian Studies, Cambridge
- e) Department of Economics, Cambridge
- f) Institute of Development Studies, Sussex
- g) Royal Institute of International Affairs, London
- h) Cambridge University Press
- i) Indian Office Library

2. INDIVIDUALS WITH WHOM CONTACTS WERE MADE:

- i) Professor M.M. Pestan, Cambridge
- ii) Professor Joan Robinson, Cambridge
- iii) Mr. Andrew Shonfield, Chatham House
- iv) Professor R.P. DORE, London School of Economics
- v) Dr. K.N. Chadhuri, School of Oriental and African Studies, London.
- vi) Professor Morris D. Morris, (Washington University)
- vii) Dr. S. Gopal, Oxford
- viii) Dr. Elizabeth Witcombe
- ix) Dr. S. Bhattacharya, Oxford
- x) Professor P. Mathias, Oxford
- xi) Professor I.M.D. Little, Oxford
- xii) Mr. Michael Lipton, Sussex
- xiii) Miss Ruth Cohan, Principal Newnham College Cambridge.

(2)

- xiv) Professor Nicholas Kaldor, Cambridge
- xv) Professor W.B. Reddaway, Cambridge
- xvi) Professor J. Gallagher, Cambridge
- xvii) Professor E. Stokes, Cambridge.
- xviii) Professor R.E. Stokes, Cambridge
- xiv) Mr. J. White, Editor, South Asian Review.
- xx) Commander Jackson, Editor, Round Table
- xii) Professor B. Cohn, Chicago

### 3. WORK DONE

This consisted of three types of work:

a) Historical research in connection with (1) the Cambridge Economic History of India and (2) the special paper on Indian Economic History taught at the Delhi School of Economics. I was able to read a great deal of material not available in India including papers from the McKenzie collection, papers of Governors and of other officials connected with India and some Government proceedings such as survey of India memoirs. Copies of extracts and tables from books not available in India but which are useful for teaching were obtained and have been placed in the Library of the Delhi School of Economics. The other material I have collected will be used in writing two chapters for the Cambridge Economic History of India.

b) I had detailed consultations with some contributors to the Cambridge Economic History of India, Vol. II of which I am the Editor. These included Dr. K.N. Chaudhuri, Professor J. Gallagher, Professor Stokes, Professor Morris, Professor Frykenberg, Professor B. Cohn, Dr. S. Bhattacharya, and Dr. E. Whitcombe. These discussions were extremely useful and they saved a great deal of time and correspondence. I also discussed several matters in connection with the volume with the Cambridge University Press. I was fortunate in that the three American scholars mentioned were also visiting the India Office Library. In fact I was able to meet many other scholars working in India from America, Australia and the Continent.

c) I had general discussions on questions of economic development, international trade and economic history with economists and historians in the institutions listed above. Partly as a result of these discussions, I wrote two articles: one on the economic history of India for the South Asian Review, and the other, which is to be published, on the effect of British entry into the European Common Market on developing countries for Round Table.

Report made by Dr. Burton Jones, Professor of Mathematics, University of Colorado on his visit to India under COSIP.

UNIVERSITY OF BANGALORE:

I spent June 1-11 in Bangalore. This was during the second week of the meeting of the teachers (about 40) in the affiliated colleges of the University. I was told that most of these teaching mathematics in these colleges were there. Some of the meetings were for the purpose of hearing a series of six lectures on Topology and three on Numerical Analysis - the two topics which the group had decided on at their initial meeting. (There had been some notes prepared in algebra but they decided against this topic in favor of the others). I attended the last two lectures of Professor Wankatachallengal who is UGC Professor at Madurai (spending about three months a year there) and in charge of the NCFMT writing in geometry. I think he gave two lectures in topology. These were good, though I had difficulty in understanding him some of the time, with some talk about mathematical personalities and how these things should be taught. I heard two of the three lectures on Numerical Analysis by Dr. R. Shankar, head of the department of Computer Science at the National Aeronautical Laboratories. These were excellent. One of the chief points of view which he stresses was the difference between treatment of physical data which are necessarily inexact and the exact numbers of pure mathematics - e.g. in the solution of linear equations. I gave one talk on mathematics curriculum in the colleges of the U.S.A., one on the Fibonacci sequence and one on composition of quadratic forms. There were also plenary sessions, panel discussions and committee meetings.

On Revision of Examinations: One of several committees had to do with the revisions of examinations and the examination system. The procedure for these committees was to hammer out details and proposals for the group to consider, revise and approve in plenary session. I attended such a plenary session which was really a panel discussion on the proposal of the committee that the external examination consist 60% of short answer type questions, some unconventional, and 40% longer answer type, mostly conventional. All points of view were presented by the panelists, in the course of which all the evils of the present system were described. One was that the percentage distribution was not important but the kinds of questions.

One afternoon I met with the committee on examinations. Each of the 40 colleges in which mathematics is taught had been asked to assemble a set of 50 sample questions and send them to the committee, which would then assemble the 500 and send

them back to the institutions for use partly for the students and partly to serve as samples for their own internal examinations. The idea is that each college give its own internal examinations throughout the course and count these results as, say, 1/4 of the total mark. The members of the committee were also concocting questions of their own to suggest the University Examination Committee. I felt in their going over the list that they were not thinking of too drastic a revision - e.g. a question given before had no difficulty in getting acceptance but they had to consider each new type question to see if it was in the syllabus and if it was fair. I was told in answer to my question, that they planned some questions (in the short answer part) which would be designed to test whether or not the student could apply his knowledge to something he had never seen before. I also suggested that they try to get questions from institutions in other parts of India and other countries - e.g. the Tripos examinations. There was some distrust expressed of the colleges in their grading of internal examinations: would they be too easy on their students?

Text Book Committee: The task of this committee, with which I met once, is to prepare monographs for use of the students in the B.Sc. mathematics program in the colleges. They had a tentative copy of the syllabus and were in the process of farming out among the members the writing of the materials. They were in the preliminary stages. The plan was to bring the materials before the committee for suggestions and revisions. After the committee gives approval a number of copies will be made so that the group as a whole can consider the material. After the whole group has approved, they will be cyclostyled for use of the students. They propose to teach the geometry from the transformation point of view - that is, start with axioms of symmetries, a la Guggenheimer in his book on Geometric Groups.

Faculty Improvement Program: This is just the beginning of the three year program. At present there is strong interest and activity on the part of the group. I asked about the retraining part of the program and was told that they already knew much about the material, these lectures were just refresher courses and they expect to get together in seminars by subject field throughout the year to work on these things together.

There were two very enlightening sessions with Dr. B.R. Seth of the mathematics department of the Indian Institute of Technology, (Delhi) erstwhile (and perhaps present) vice chancellor of the university in Assam and formerly on the UGC. Dr. Seth has a D.Sc. from the University of London, and has wide experience in India. Apparently he was one of those chiefly responsible for setting up the institutes of technology in India. He was sent to look in on the COSIP program in Bangalore. The first session was with Professor Noronha and his staff and the second was, at Seth's request with about 12 persons from the various colleges. I



(3)

approved heartily of most that he said and at places I would have liked to have gotten up and cheered. I felt that my role was to mention a point now and then and to reinforce the important points which he made. It was wide-ranging.

One facet of the plan was for some from the colleges to come to the university to give postgraduate courses for lectures. Seth said they should be invited. Noronah was inclined to let them apply. We asked if this would be counted as part of their teaching load and were told that fiscal policies of the colleges prevented this. Seth mentioned various ways in which the 16 hours requirement for teaching load could be lightened. One could count 4 hours of tutorials as part, one could give 1-1/2 hours credit for each hour of teaching a post graduate course. Also credit could be given for working with students individually or in small groups in seminars.

Noronah said they are hoping to institute Olympiads in the schools.

Seth suggested that bright young man back from postgraduate studies be invited to give special lectures at the University of Rs. 25 each, Noronah told me later that he felt paying would be wrong since the motivation should be the honor and not the money.

Noronah and staff hope that Dr. Seth would ask UGC to exert pressure for reform of procedures on the administration of the University in Bangalore. Seth replied that the UGC could not do much. The pressures must come from within and he urged trying to set up meetings with the administrators. It should be pointed out to them, the public and students that when size of classes goes up the quality of instruction goes down. Also being effective with the new program requires time on the part of the staff - they do not have time to do it properly, failure is likely.

Seth said that there should also be provision for "leave staff" - that is, for every 6 or 7 in the department, an extra position should be provided so that each member can have leave once every seven years.

Food should be provided at minimal cost or free for needy students. Noronah said it had been the practice there but had been discontinued since some thought it degrading. Seth remarked that paying could be optional. Noronah thought it might be reintroduced. (As it is, some students faint in class for want of nourishment.)

Noronah proposed to distribute equally along the ten colleges the money for books. Seth felt that it should not be so widely dispersed but rather concentrated in a few regional locations within the city.

Vijaya College

The first afternoon Dr. Seth was there we visited Vijaya College. It seems to have one of the best mathematics staffs of the colleges here. The library was crowded but there was some space for students to study. The librarian was well trained. Students could take books out for two weeks duration. There was a number of new, as yet unused, books bought with money from the COSI program. The selection was good though meagre.

I later talked at my hotel with one of the lectures at Vijaya College. He felt that the program was going well and would continue to do so. He felt that he could do research even though teaching 16 hours - only a matter of the will to do so.

SUMMARY AND RECOMMENDATIONS

In Bangalore the impetus seems to come from the colleges though one does not know how much work is done by Noronah behind the scenes. They have good plans which they are starting to put into effect. It is definitely a cooperative endeavor which they feel they are running. I think if this enthusiasm continues it should be a successful program.

First, I would recommend that Dr. Seth visit them from time to time to check up on their progress and given them encouragement. He can also serve as good liaison person between them and UGC and NSF. I think he would be a much more useful visitor than almost any American and with him short visits should pay dividends.

When and if they want it, they should be given help on examination questions. One might send to them examination questions from the rest of India and all over the world. Perhaps, again if they want it, there might be profit in sending them someone who is an expert on making questions for certain purposes. I think they are not yet ready for this since they are still thinking of cautious modifications of the present system. It is well to talk of a "bold step forward" but such a step at the wrong time might spell disaster.

I think foreign lectures are not called for - India has sufficient resources. For instance, if they wanted impetus for study of Modern Algebra, they could be given some book to work on by themselves for a month or so with a seminars to prepare them for a series of lectures by someone from TATA. It is hard to pull oneself up by his own bootstraps all the time. A visitor from somewhere else in India could be useful in a number of ways.

(5)

They need financial and advisory help to ~~secure~~ books. I would hope that means could be found so that in Indian textbooks could be devised to be used in more than one institution and so cut down on the endless cyclostyled notes which each department seems to think it must prepare. Is there any way to get one institution to accept something from another?

### NCERT

Professor Venkatachaliengar is in charge of writing the materials in ~~geometry~~ of which I saw books 1, 2 and 3. I did not read them in detail but they seemed good if somewhat on the formal side. The Teachers' Guides are being written in Calcutta - I was told that there is close cooperation and that they are not closely pegged to the actual materials in the books but aim to prepare the teacher to teach them. The algebra is from the Jaipur group. I saw typewritten copies of the materials for grades 8 & 9 which Venkatachaliengar says he will use if those of Jaipur are not ready in time.

### REPORT ON THE UNIVERSITY OF MADURAI

---

I spent June 13-19 in Madurai. Though I arrived at a busy time for them (in the middle of the institute on K-Theory and during the process of registration). I was most cordially welcomed and an office next to that of Dr. Venkataraman the head of the department, was provided for my use. I gave two lectures: one on an application of matrix theory to a problem in pecking order, and one on quadratic forms. I was impressed with my audience. They asked questions and made corrections which made it apparent that they knew what I was talking about. One came to my office later to ask me about extensions of what I had presented. I sat in on one or two of the sessions in K-Theory. This was conducted on seminar lines with each presenting parts of the material. There were between 20 and 23 from all parts of India including TATA and the day I counted, at least ten had something to say during the course of the presentation, either in the way of questions or disagreement or assistance to the lecturer.

Aside from the programs within the three colleges: Lady Doak College, American College and Madura College which have coordinated programs of their own, the teacher improvement program is centred in the mathematics department of the University. There are several facets to this program described below, not in order of importance.

p.t.o.

There is distribution of funds for books. This is done equally: 3000 rupees for each of the ten institutions participating in each of the three years. I mentioned Seth's suggestion of concentration and was told it is not practical in Madurai even if other considerations were not there, since its affiliated colleges are spread over a radius of 250 miles.

They are concentrating on the special B.Sc. programs in the various colleges because of the lack of funds, personnel and control for the regular program.

Each of three years, 10 affiliated colleges are selected to participate in a ~~rotating~~ program consisting of a sequence of three courses each of three months duration on the respective subjects: Modern Algebra, Analysis, Geometry. One from each institution will take each of the courses, meaning that each institution will have had at the end of the year, three persons in the program. Dr. Venkataraman's purpose in these courses is to build confidence in themselves as mathematicians and a feeling of the enjoyment of discovery in mathematics. They will use the material prepared for the B.Sc. students. Three members of the staff will be involved with these ten - there will be discussion and participation just as there is with the K-Theory institute on a higher level. So, at the end of the three years he hopes to have 3 persons in each of, say, 30 colleges who have these attitudes and capabilities. He feels that if a teacher tries too soon for the degree of Master of Philosophy (between the M.Sc. and Ph.D.) his aim will be to get the degree rather than to learn mathematics and also he may not be ready for the courses required for the degree.

I looked at the material for the B.Sc. students and in the three month courses mentioned above for the fields of algebra and analysis. Since those taking these courses will have only one course for the three months (the funds provide a replacement at the college for the whole year for the three thirds involved in the program at the university and since there are lectures, tutorials and discussions sessions, the coverage seemed realistic to me. But of course the real test is in the teaching, the preparation of the participants and what is really expected of them. The materials in geometry have not yet been prepared. The idea is that the students in the regular B.Sc. program will use some of this material and those in the special program will have all ~~and~~ some more. They are to be printed for the use of the students.

They have an excellent department of young active mathematicians. At present there are eight students in the

Master of Philosophy program and two writing thesis for Ph.D.s. They feel that they know reasonably well the teachers in their affiliated colleges, through their summer schools and can place them where their capabilities require. I talked in some detail one afternoon with Dr. K.R. Nagarajan who received his Ph.D. degree under Kaplansky at the University of Chicago. He is very content. He has time for research and he can talk to his colleagues. He is enthusiastic about the program. He has charge of two students for the M.Phil. degree.

I looked in some detail at the thesis of Mr. V.R. Chandran on duo-rings. This is written principally under the direction of Nagarajan. (If in a ring any right ideal is a left ideal it is called right duo). It is quite long and becomes more and more technical. But I can say that he writes well, the proofs I read in detail were clever and he found a number of results which I think are new. He has read widely. It will be probably sent to Herstein and Jacobson for external reevaluation as is the custom with Indian thesis. I leafed through a pile of about ten Ph.D. thesis written in the department - mostly under Venkataraman. There is quite a range in algebra and one on geometries. They look quite impressive. Venkataraman said that his philosophy with respect to thesis and research in general is that learning and discovery is what is important. If some of the results turn out to have been gotten elsewhere, that is of less importance. So the theses are quite comprehensive and long with, I suspect, original work here and there. I quite approve of theses like this.

Though Venkataraman is definitely the head of the department, I feel that most things are done cooperatively. The writing of the materials was done by four of the department.

I asked about reform of examinations. He feels that the time is not yet ripe for such change in the colleges for a number of reasons. He cited the case of an instructor who decided that he should not just spend his time in class solving 100 problems and announced that henceforth he would only sketch the solution so that the students could do them themselves. The next day he found on his board the statement "we do not believe in a teacher who only half solves problems." and no students came. At least 50% of the students are interested only in the degree - not the knowledge - because they believe with some justice that a degree will help them get a job. Again, the examiner may in grading an examination know clearly from the answer that the student has answered without understanding. But he also knows that if too many fail, an administrator will come and say:

p.t.o.

(8)

"We pay you 1000 rupees a month - why cannot you teach more effectively". So he passes the students. Many of the college teachers do not want internal examinations because of the responsibilities they entail and the extra work required.

### Madura College

This was the first of three colleges which I visited - the colleges which have grants and programs of their own. The principal, P.S. Varadachan, a physicist, was most cordial. He felt that the chief purpose of his institution is to prepare well-rounded citizens, though there is also need for specialists. In the Physics department, which I heard most about, they teach courses for their students in complex variable, vector spaces, differential equations and I think even calculus. I asked if mathematics teachers taught courses in physics and was told, yes, some applied mathematics. The special B.Sc. program is in operation in Physics and is about to begin in mathematics. One unusual feature of their program is that they use their special B.Sc. students to give some lectures to the Pre-University students, with two staff members sitting in. I did not have much opportunity to talk to the mathematics teacher in the group.

I had a brief tour of the Physics laboratories and a visit to the library which was quite spacious with high ceiling but not enough stack room. There was plenty of space for study. They have 1400 rupees a year for mathematics books plus any special grants from UGC. For journals they have the Mathematical Gazette and the Mathematics Magazine but not the American Mathematical Monthly.

Venkatraman says he has received no request for persons from that mathematics department to participate in the COSIP Program.

### Lady Doak College

I met with Miss Doraiswamy and three of her staff. The college is for women only and has a kind of affiliation with Oberlin College where she was for two years. She is a little concerned at the emphasis on the special B.Sc. program in mathematics at the expense of the regular program. This college will not send any one to the three months course part of the university's program but is sending one of the staff to work for the M.Phil. degree.

p.t.o.

They have an interesting program of independent study for some of the students. I saw several of the papers with the accompanying appraisal of the staff members. (These were spread around the staff). One subject was Braids, another Fibonacci Numbers and a third Regular Polyhedra. I thought they were quite interesting. At her request I told her I would try to send her some lists of problems.

They are not writing materials for use of the students in their courses but are using several books for each course. These are available to the students in the library, in cases in multiple copies.

### American College

This is a men's college except for postgraduate work in physics, Chemistry and biology which is open to women. They have 1600 students about 600 of whom are resident. It started as a missionary college but now has little support or direction from outside. It also is loosely affiliated with Oberlin College though there has not been much exchange.

One of their staff has a M.Phil degree and two will start this July as full time postgraduate students at the University. Beginning a year from now they expect to have three for the three month's courses. The chairman has an M.S. from Boston University.

They have a number of new books purchased from the COSP grant. Some are multiple copies, e.g. five copies of Herstein to be used for reference in Modern Algebra. Also they have Birkhoff and MacLane in algebra and Churchill and Ahlfors and Complex Variables. There is a reasonably good selection but not many books.

I mentioned the plan at Madura for having B.Sc. students teaching in the PUC courses. The chairman thought that not a good idea for such students needed the best of instruction. It would be better for first year B.Sc. students.

They expect to have a say in the revision of the materials written by the University for use in the B.Sc. program but not in the setting of the external examinations. However they expect to give internal examinations on which 40% of the marks will be based. They are going to be careful to give marks solely on the showing on the examination - not on any personal impression. The students will like it better this way, they feel.

(10)

If a student fails the final (internal) examination he must repeat the course but under the special program he need not then repeat courses in the same year which he has passed.

Summary

The program seems well and realistically conceived. I think it is well started and there seems to be mutual respect and cooperation. I do not think they need outside help but I think visits from Dr. Seth would be useful. I think what Venkataraman would like would be visiting mathematicians who would provide stimulus to members of his department and graduate students. I think this is a very laudable aim. Marshall Stone is apparently a kind of honorary visiting professor.



REPORT ON THE UNIVERSITY OF PUNJAB, CHANDIGARH.

From June 23 to July 10 I was at Chandigarh except for parts of June 27 and 28th in Jammu. I was there from almost the beginning to the end of a summer school held for 192 "teacher participants" in 110 affiliated colleges not only in Punjab and Chandigarh but also in Haryana and Himachal Pradesh. Since the ~~Guru Nanak~~ **University** in Amritsar is purely an examining body, its teachers are helped through Chandigarh and external examinations set by them. Since Professor Bhatnagar has been in Simla only a year and will be away next year in Waterloo, Canada, the teachers of Himachal Pradesh are being affiliated with the University of Punjab and will be until such time as the vice chancellor at Simla decides that responsibility will be centered there. It appears that 270 were invited and listed on the original roll but for various reasons only 192 came.

The program with the college teachers began almost a year ago. The University department sent typical examination questions to the various colleges for preliminary comment and apparently received little feedback. Then the university set internal examinations at all of the colleges. This was partly to prepare the teachers for questions under the revised syllabus, partly to test the questions and partly to enable the students to qualify for the external examinations the following Spring.

An important part of the project consisted of the area coordinators. There were 20 to 30 placed throughout the region. There were preliminary contacts and they all visited Chandigarh in the Spring to plan the summer school. Their function throughout is to keep channels open both ways and call meetings of their respective regions. As may be expected, not all were equally effective. Bambah remarked that such a post should not be regarded as an honour but a responsibility. They also lectured in the various sections during the summer school. Through meetings and consultation they were definitely involved in the planning. They were not selected by seniority but on the basis of personal or other knowledge about them. Also there were three or four who were to be in residence at the University for a total of two years to assist in writing student materials for mathematics in the new syllabus.

The participants were split into four groups of about 50 each. Each group took one course in modern algebra, one in geometry (chiefly analytical geometry) and one in calculus - perhaps one should say analysis including at the end some differential equations. It was originally planned to have tutorials of half an hour for each of the sources and sections but soon it was decided to merge them with the lectures for greater flexibility. The general plan was to have a staff member of the university in charge of each of the 12 sections and two teachers participants (usually area coordinators) to work with him and assume some of the lecturing.

I visited about two classes a day to get the feel of what was going on. The excellence of the lecturing varied of course but in most cases the participants were very much involved. In fact, at times the discussions became quite heated. They had before them the cyclostyled material written largely by members of the university staff and area coordinators material destined for the students. (Actually, they hope to get the material revised, printed and in the students hands by September first). My chief criticism of the material and the instruction is that both were inclined to be too formal with little attempt at motivation or taking the student into confidence of why such things are important and where he is going.

I gave three lectures to the group as a whole at an elementary level, trying to point out some developments which they could make themselves, and three lectures at a more advanced level for the staff. It was especially stimulating to me since some of the staff are interested in quadratic forms and have worked in this subject.

I was assigned an office and had a number of visitors: a few wanting to do graduate work in the U.S.A. a few with mathematical questions sometimes related to my talks and some wanting a sympathetic ear for their problems with the new syllabus. Also I had two question and answer periods with the group in halves. Though the university staff did its best to encourage questions and comments, some seemed to feel that they wanted to put requests through me - this I was glad to do though of course I did not on always concur with what they wanted done. Near the end of sessions one hour each of two mornings was devoted to an assembly and an opportunity to make criticisms. There was also a meeting with the areas coordinators to discuss the future. For instance in one of my question and answer periods a teacher vehemently declared that the written materials were drab and I pointed out that probably those writing the materials felt lack of space to supply motivation and it was up to the teacher to bring life to the "bones". He felt they need help in giving life. There are planned teachers guides which, I hope will do some of this.

The teachers have many apprehensions. In many cases their increments may be cut if too small a proportion of their students pass the external examinations. They fear retrenchment. They have not had the experience in the new materials to give them confidence in their effectiveness. Much of their livelihood depends on private tutoring and again they are wondering about their effectiveness there. They are somewhat unsure of their knowledge and fear that it will be more likely to be exposed in private tutorials. They feel that to make a success with these materials they must have funds to institute tutorials for the classes. It is hoped that UGC can supply funds in the beginning with the finances gradually assumed by the colleges themselves.

A record of attendance was kept during most of the session and it was found that some were not very regular. In the end after some discussion I think it was decided in the meeting of the area coordinators that attendance records of their people would be given to them but not to the principals.

The plan is to convene a meeting in each of the four areas for, say, a week in October run partly by the area coordinators of that area and partly by the mathematics department of the university. The latter plans to send two staff members to each of the regional meetings. The University department is hoping this time to get better response to its invitation for comments on sample questions and suggestions for others. In the end Bambah and one other person set the external examination questions.

### SUMMARY

I think the program is very well planned with the resources available. In fact I am impressed that they can do so much with such a small staff. Very important is the idea of area coordinators. These they can train more thoroughly. The most crucial problems are the transitional ones. For instance, they are revising the curriculum for first and second years simultaneously. They plan to provide a month of transitional discussion for next year's second year students with the old syllabus background in their first year. The long range problems are in keeping the changes fluid and continually pushing for improvement.

### RECOMMENDATIONS

1. I think the request to UGC for help in setting up tutorials in the courses is a reasonable one. It would be more expensive in the beginning since they have no backlog of third year students brought up in the new way. Each college should be asked to assume an increasing share of the cost over the next few years so that UGC can phase out its support. Colleges with tutorials already in effect do not have this problem since it is the initiation which requires a sudden substantial increase in expenditures. Such a move would not only help the instruction directly but also contribute indirectly by improving the lot of the college teacher.

2. Here as elsewhere, much more effort should be directed toward motivation and to explain to a student the usefulness of concepts. For instance in teaching sets usually the idea of null set comes before that of intersection whereas it is the latter that gives point to the former. Dr. Bhatnagar who visited Chandigarh while I was there, partly to reassure the teachers of Himachal Pradesh that they were not forgotten, gave an excellent talk showing why we define addition and multiplication of matrices as we do. A book of his is in page proof which treats a number of topics this way.

p.t.o.

UNIVERSITY OF GUJARAT, AHMEDABAD

There are 18 colleges affiliated with the University which have B.Sc. programmes in mathematics, 7 of which are in the city. They have two training programs under COSIP. In the first they have five teachers from five colleges (2 in Ahmedabad) who are to be at the University for a year. The COSIP program provides support for these five and their respective colleges pay for replacements. Two have a contract with their institutions to return for three or five years, which is supposedly binding on the individual but not the college - actually it is neither. They did not seem to be concerned about their positions being open when they return, even though retrenchment is in the air.

At present, there are two courses - one in algebra taught by Dr. Vaidya, junior, meeting three times a week and one in analysis taught the other three days by Dr. Singh. Before long they are to start a kind of seminar and they are preparing for this by outside study. The plan is that they will select a subject and then study it together. Later on, each will have a kind of thesis or paper to prepare. I gave two talks. I visited only part of one of their sessions. Here Dr. Singh was leading them through the proofs of two simple theorems in analysis. I could not tell whether they needed such help or whether he was too impatient with their way of doing things. I suspect that the former was the case. This program will continue for three years at the end of which they hope to have a trained person in each of the colleges. They hope that the three government colleges will also participate at their own expense. No degree is envisioned. They will make some effort at evaluation but since the group is small they probably will not have to resort to examinations.

The second approach is an inservice program for about 30 teachers, ten in the city and others from outside within a 50 mile radius. They arrive Saturdays in time for an evening course and leave after a course on Sunday morning. This will continue for a year. Dr. Seth, Dr. Vaidya, senior, and I talked to the group early Saturday evening. I think the chief thrust of this program was toward the new syllabus.

I asked about follow-up plans and was told that when the teachers go back - presumably in either program - it is being recommended that they so arrange their schedules so that they have a common time of two or three hours a week when they can get together to discuss problems in teaching and mathematics which arise.

I saw their new syllabi for the PUC and first three years. I think these were first worked out of the university mathematics staff and revised in the light of discussions with the teachers of the colleges.

In the PUC I questioned the introduction of Peano's axioms and was told that this was done to serve as a basis for the treatment of mathematical induction. Not having any combinations they proved the binomial theorem by induction. For the first year there are two papers: one in analysis and one in geometry stressing the use of vectors. A number of "old" topics like poles and polars are among the new. For the second year there are three papers: Analysis including Beta and Gamma functions, gradient, linear differential equations and envelopes. The second is in differential calculus and linear algebra - in the latter it seems to me that there is too much material to cover well in the time available. The third is "numerical analysis" chiefly devoted to the solution of equations. In the third year there are four papers: groups and polynomials, Analysis I and Analysis II, Mechanics, and one optional paper from Topology, Combinatorics, logic, set theory, Electricity and Magnetism, Projective Geometry (most synthetic).

One morning when Dr. Seth was there we met with the department and the five students. They were complaining that now the first choice of students is for medicine after the PUC and that later more students go into biology, physics and chemistry. We pointed out the need for the mathematics department to give courses which could train students for positions in industry and government - partly applications to social sciences. They have no staff interested in this. The suggestions were made to apply to UGC and also approach the industries in the city who support, for instance, the Community Science Center.

I was told that the plan is for the colleges to set up special free tutorial sessions for weak students who cannot pay for individual help. It was not clear to me whether teachers will continue to tutor their own students while being involved in setting and marking internal examinations which count 30% of the student's final marks.

#### ST. XAVIER'S COLLEGE

I visited one afternoon at this college which has its COSIP program in mathematics and all the sciences. This Jesuit college of about 15 years of age has fine esprit de corps and is very proud of their students and program. They have selected the 40 best students on the basis of entrance tests and are putting them in a special program under two teachers in each subject. The students are divided into two groups for tutorials and practicals. This is a big improvement over the traditional system in which the students are taught in big lecture sections by five teachers - each with his own disjoint part of the subject. These students are encouraged to work on their own and are taught for understanding. The students and teachers are a little worried about how they will do on the external examination for the first year.

Most students will probably leave mathematics for medicine if they can. The staff is anxious for assistance and want to be known by the University and UGC they would welcome visitor from UGC for advice and evaluation.

I also visited two colleges in Ahmedabad which are involved with with reform: Bhavan college and MG Science colleges. I talked to a room packed with students at the former and looked at the library at the latter; they have not yet received books under the COSIP program. Since there are 1650 students, each student has access to the library only one day a week, but may take books out and there is a quite an ample reading room. Also there is a Book Bank Plan under which 150 students are loaned four or five books at the beginning of the year which they return for others at the end.

#### SUMMARY

This is another valient effort with meagre resources. This should pay dividends over the long run but it will take time and continued effort. I think the chief need is an outward look in the department, not just toward teachers of mathematics, but toward developing persons who can use mathematics in other fields. I am not sure that they yet want this.

#### GENERAL RECOMMENDATIONS

1. I think there is need at all the institutions I visited for outreach into numerical analysis, quality control and other aspects of applied mathematics which can serve the needs of the country and attract more young people. I am not sure that the institutions want this and I think it cannot be forced. Perhaps they can be wheedled and shown how by selected visitors.
2. In most of the new materials I see formality and little attention paid to motivation and pedagogy. I think Dr. Bhatnagar has the right idea and should be encouraged.
3. I think the visits of Dr. Seth were very worthwhile. He has authority, speaks convincingly and I wholeheartedly approve of most of his ideas. I hope such participation by outstanding Indians can be increased. Also these visits give the local institutions a sense that UGC cares. This can also serve as a means of exchange of information among the various centres. I think the various centres need guidance by men of judgement.

4. A very important question is to what extent U.S. participation contributes to the program. Though those involved feel that we do contribute given the right conditions (timing, adequate length of stay, local interest, etc. ) we are not really the ones to decide on this. We need frank opinions from the Indians themselves. This is hard to get. I think, for instance, if two Americans were to call on Dr. Seth alone and ask him not how helpful we are but rather what role of the Americans would make the greatest contribution, you might get some worthwhile information. There are times of course, when an outsider has an advantage over insiders.

5. What will be hardest will be to maintain the spirit of change. There is a great tendency everywhere to "adopt" a new program and think the job is done. Actually much of the new materials in my opinion need to be changed now. But one cannot have too radical a departure in the beginning. Perhaps the point of view is the most important and that is hardest to change.

S.C. Goel

Report made by Dr. G.N. Boganik, Soviet Expert  
in Seismic Prospecting on his visit to Centre of  
Exploration Geophysics, Osmania University.

Soviet Expert in seismic prospecting Dr. G.N. Boganik arrived at Osmania University on September 26, 1970 in accordance with Contract No. 50912-2 due to bilateral agreement between the Indian and Soviet Governments which provides Soviet assistance in developing the advanced Centre of Prospecting Geophysics at the Geophysics Department of Osmania University. The following programme of activities of the expert was agreed upon on his arrival at the Department.

1. Organisation of the seismic laboratory, designing and construction of laboratory experiments.
2. Modification of seismic field refraction instrument for purposes of shallow depths prospecting.
3. Delivering a course of lectures in seismic prospecting conducting laboratory experiments and computations for final-year students.
4. Composition of a manual on seismic laboratory experiments.
5. Organisation of the academic field training in exploration geophysics.
6. Conducting a scientific research work in seismic prospecting for underground water. Here is the report of what has been accomplished as per the items mentioned.

a. Soon after Dr. Boganik's arrival, an order was issued by the Head of the Department Prof. VLS Bhimasankaram declaring establishment of a separate laboratory of Seismic Prospecting and appointing the expert incharge of it with a Junior Research Fellow J.P. Nath being attached to the laboratory for rendering assistance to Dr. Boganik. A special room was allotted for the laboratory and equipped with facilities necessary for normal work with electronic instruments.

A full completion of laboratory experiments for students dealing with study and testing of seismic prospecting instruments was designed and constructed. This set of experiments covers all the three principal units of field seismic recording apparatus (geophones amplifiers and galvanometers) and consists of 10 laboratory works:

- 1) Determination of electro-mechanical coupling coefficient of geophone.



(2)

- ii) Determination of geophone damping factor.
- iii) Determination of geophone frequency response.
- iv) Determination of geophone resonance frequencies and resistances.
- v) Checking for identity of geophones.
- vi) Determination of seismic amplifier amplitude response.
- vii) Determination of seismic amplifier frequency response.
- viii) Checking for identity of seismic amplifiers.
- ix) Determination of galvanometer damping factor
- x) Determination of galvanometer frequency response.

All experiments were constructed in uniform manner and mounted on special panels supplied with circuit diagrams. Electronic measuring and testing instruments of Indian make were employed for this work and Soviet make instruments received by the Department as well. For construction of original electronic circuits indigenous components were mostly used. All the experiment circuits were properly adjusted and now are perfectly ready for routine usage.

b) A seismic recording instrument in the possession of the Department was found to be inadequate for shallow depths refraction observations which problem is now of primary importance in connection with underground water prospecting. The main shortcomings with the instrument were: Absence of high pass filters in the amplifiers, in-effective usage of the oscillograph, absence of a checking input panel, bad condition of the field cables, absence of a photo-processing dark room.

After careful study of the amplifiers (construction and characteristics) it was found possible to supplement each of them with a high pass filter circuit to cut off low frequency components of ground oscillations being detrimental noise in shallow depths prospecting. The newly installed filter with cut-off frequency of 40 Cps can be switched off if necessary.

Seismic oscillograph being used in the recording unit consists of 24 galvanometers while the number of amplifiers is only 12. This situation was taken advantage of to obtain simultaneous recording of seismic oscillations with 2 groups of galvanometers adjusted to different levels of sensitivity. By means of a special controlling panel seismic oscillations detected by each geophone can now be recorded on two traces of a seismogram with the ratios of the sensitivities being 1:1 or 1:3 or 1:6 or 1:12 or 1:24 as per choice of an operator. Such an invention in field recording has proved

to be very useful for shallow depth prospecting especially since it enables to obtain simultaneously on seismogram in readable form seismic waves of wide range of intensity. Otherwise to acquire these data, additional explosions of varying power have to be fixed thus increasing costs and duration of field work.

An input panel was constructed and attached to the recording unit. It enables to check up geophones planted along a profile and also provides necessary commutations for recording one, two or three components of ground oscillations at the same points of observations. Such possibility is valuable for scientific researches in seismic prospecting.

Three new seismic cables of 12-channels each were prepared to secure reliable field work under different conditions. They were manufactured from a special multichannel seismic cable of Soviet make. The first cable enable to plant geophones along a profile at a distance upto 10 and the second -- up to 23 m, thus providing spreads of lengths upto 110 m and 300 m correspondingly. The third cable of 150 m length serves as an extension section to facilitate field work under complicated relief conditions.

An easily transferable dark rook for photo processing of seismic records in field or in the laboratory was constructed at present. Atlas t<sub>3</sub> special carriage box was made to serve as a container for the entire recording unit. This makes it possible to easily and swiftly remove the seismic instrument from the transporting truck and carry it to the places not accessible for the vehicle. All the modifications of the seismic recording unit mentioned above have been tested in field conditions and found faultless.

c) A full course of lectures in seismic prospecting was delivered for a group of the final year students, providing 64 hours of instructions in theory of the method. For the same group, 30 hours of practicals were given, including laboratory experiments with seismic instruments and computation exercises pertaining to interpretation of seismic observations. 12 hours of lectures on physical principles of seismic prospecting were delivered for a group of the second year students.

d) For all the experiments in seismic instruments indicated earlier (see item a) detailed manuals were composed, so that to enable students to carry out the work independently. The descriptions for all experiments are written in uniform way, each of them comprising the following items:

Aim of the experiment, its principle, construction, procedures of preparations and measurements parameters to be chosen, results to be presented and the questions to be answered in the conclusive discussion on the work done. The descriptions are supplied with necessary diagrams of the experiment circuits.

e) A series of meetings and discussions took place concerning the problem of organising a regular academic field training in exploration geophysics. It was decided to conduct such a training for students of 2nd and 3rd years annually during fixed periods. Now that the Department has necessary equipment and able personnel in all methods of prospecting geophysics, the main problem in organising regular field training is to find and acquire a proper area for such work suitable in geological aspects and convenient for practical arrangements on field work and settlement of students. All these problems are due to be solved by the leaders of the Department. Meanwhile, this year field training of the final year students, in geophysical prospecting, including seismic method was carried out during research works conducted by field teams of the department in several areas of the state.

f) Scientific research work was undertaken with intention to assess practical possibilities of the seismic method in shallow depths prospecting under particular conditions of granite terrain of Hyderabad. With respect to underground water searching and various engineering projects, the most important problem is exploration of the utmost portion of the cross-section composed by the granite weathering zone and underlying bedrock. Our main purpose was to ascertain what additional information, above that yielded by a routine refraction profiling, can be obtained by means of seismic observations in the area.

The modified recording unit employed two periods of field work was carried out. The first field experiments took place on Feb. 21-28 near Suryapet village (Nalgonda district). The problem was to record converted head waves refracted at the bedrock subsurface in course of a routine seismic profiling dealing usually with longitudinal waves only. The converted wave which is gliding along the basement subsurface as a transverse oscillations was successfully detected and interpreted thus yielding the value of transverse wave velocity in the granites. This parameter used along side with the obtained value of longitudinal wave velocity in the same rock, enables to calculate such important constants of the granites as Young's modulus and Poisson's ratio.

The second session of field work was held on July 28 - August 7 near Dhulapally village in close vicinities of Hyderabad city. This time a more complicated technique of seismic observations was resorted to, since the problem under study was to obtain the ratio of transverse and longitudinal wave velocities in the weathering zone. From theoretical premises, this ratio is expected to be dependent upon water content in the loose rock of the overburden. To achieve the result desired, directional sources of transverse seismic oscillations were used, i.e. explosions were carried out in special shot pits. From the data observed the above ratio was obtained on several profiles and its close relation with electrical parameters of the weathering zone was noticed (hydrogeological characteristics of the zone were not available).

The results of the field experiments are reported in good details in two papers prepared for publication by the author and J.P. Nath.

The addition to the items mentioned the expert participated in composing the new curriculum on seismic prospecting, in commissioning seismic equipment received by the Department from the U.S.C.R. and in some other occasional activities. In conclusion, it will be noted with gratification that the expert, throughout all his activities, was receiving very friendly co-operation from all the staff of the Geophysics department headed by Prof. VIS Bhimasank ram.

UNIVERSITY OF DELHI

Schedule of amendments to existing Ordinance submitted to the Visitor under Section 31(4) of the Delhi University Act, 1922.

Original Ordinance and amendments.	Date of amendments	Ordinance as amended	Remarks
Amendments to Ordinance XXIV - "Qualifications of University Teachers (Appointed and Recognised) and Principals" (Pages 136-137 of the University Calender 1967-68)	<u>E.C.</u> 26-2-1971	Amendments to Ordinance XXIV - "Qualifications of University Teachers (Appointed and Recognised) and Principals" (Pages 136-137) of the University Calender - 1967-68.	
<u>Original provisions of Ordinance XXIV:</u>		<u>Original provisions of Ordinance XXIV:</u>	
<u>"Professor</u>	<u>Court</u> 15-5-1971	<u>"Professor.</u>	
A scholar of eminence.		A scholar of eminence.	
Independent published work of high standard and experience of teaching Postgraduate classes and guiding research for a considerable period desirable.		Independent published work of high standard and experience of teaching Postgraduate classes and guiding research for considerable period desirable.	
<u>Readers:</u>		<u>Readers:</u>	
Good academic record with first or high second class M.A./M.Sc. Degree in the subject concerned with a Doctor's Degree or equivalent published work.		Good academic record with first or high second class M.A./M.Sc. Degree in the subject concerned with a Doctor's Degree or equivalent published work.	
Independent published work in addition to the published work mentioned above; with at least 5 year's teaching experience in Honours/Postgraduate classes essential.		Independent published work (in addition to the published work mentioned above) with at least 5 years teaching experience in Honours/Postgraduate classes essential.	
<u>Lecturers:</u>		<u>Lecturers:</u>	
Good academic record with a first or high second class Master's degree or an equivalent degree of a foreign University in the subject concerned."		Good academic record with a first or high second class Master's degree or an equivalent degree of a foreign University in the subject concerned.	

Part-time Lecturers

Qualifications as prescribed for Lecturers.

Relaxation of any of the qualifications may be made in exceptional cases in respect of all posts on the recommendation of the Selection Committee.

Principals.

Good academic record with a first or high second class Postgraduate Degree with Doctor's degree or equivalent published work and 10 years' teaching experience or, Lecturers' qualifications with 15 years' teaching experience.

Desirable: Administrative experience.

Amendments proposed:

Substitute the following:

Essential

- i) Good academic record with a first or high second class Master's Degree with Doctor's Degree or equivalent published work and teaching experience of Degree Classes of not less than 10 years; or
- ii) Good academic record with a first or high second class Master's Degree with teaching experience of Degree Classes of not less than 15 years.

Desirable:

Administrative experience in a recognised institution teaching Degree Classes or above."

Part-time Lecturers:

Qualifications as prescribed for Lecturers.

Principals:

Essential

- (1) Good academic record with a first or high second class Master's Degree with Doctor's Degree or equivalent published work and teaching experience of Degree Classes of not less than 10 years; or
- Or
- (ii) Good academic record with a first or high second class Master's Degree with teaching experience of Degree Classes of not less than 15 years.

Desirable

Administrative experience in a recognised institution teaching Degree Classes or above.  
Note: Relaxation of any of the qualifications may be made in exceptional cases in respect of all posts on the recommendation of the Selection Committee".

"Essential

Good academic record with a first or high second class Postgraduate degree with Doctor's Degree or equivalent published work and 10 year' teaching experience, or Lecturer's qualifications with 15 year's teaching experience.

Desirable: Administrative experience."

II. The following note appearing immediately above the provision relating to Educational Qualifications and Administrative Experience etc. for the post of Principal, be placed at the end of the provisions relating to Educational qualifications etc. for the post of Professor's Readers, Lecturers, Part-time Lecturers, and Principals:

"Note:-Relaxation of any of the qualifications may be made in exceptional cases in respect of all posts on the recommendation of the Selection Committee."

---

Sd/-K.P.Govil  
Registrar,  
University of Delhi,  
Delhi-7.

## UNIVERSITY OF DELHI

Schedule of amendments to existing Ordinance submitted to the Visitor under Section 31(4)  
of the Delhi University Act, 1922

Original Ordinance and amendments	Date of amendments	Ordinance as amended	Remarks.
Amendments to Clause 3(A) of Ordinance XII and 7(6) of Ordinance XVIII - "Colleges appointed Teachers" and Colleges other than those maintained by the Government of India" respectively (pages 101-102 and 115-116 of the University Calendar - Volume I - 1967-68).	E.G. 10-4-1971	Amendments to Clause 3(A) of Ordinance XII and 7(6) of Ordinance XVIII - "Colleges appointed Teachers" and Colleges other than those maintained by the Government of India" respectively (pages 101-102 and 115-116 of the University Calendar - Volume I - 1967-68).	

Original Clause:

"Subject to the provisions of Clauses 6,7 and 8 of the Agreement of Service, a person appointed permanently as a Principal of a College or Institution or as a teacher there in shall be entitled to be in the service of that college or Institution until he completes the age of sixty. Extension of service for a period not exceeding 3 years may be granted by the Governing Body of the College or the Institution if it is satisfied that such extension is in the interests of the College or the Institution. In the case of a teacher such extension may be granted by the Governing body on the recommendation of the Principal. Provided that the question whether any extension should or should not be granted to the Principal or a teacher shall not be decided by the Governing Body except after prior consultation with the Vice-Chancellor.

No teacher or Principal shall granted more than one extension but in special cases where extension for a total period of three years, i.e. upto the completion of 63 years has been given and the person concerned is still considered to be fit for work after that period and his services are required in the interests of the College/Institution, a further extension for period not exceeding two years may be given by the Governing Body on the recommendation of the Principal in a case of a teacher. In both the cases the question whether any extension should or should not be granted shall not be decided by the Governing Body except after prior consultation with the Vice-Chancellor.

Amended Clause:

"Subject to the provisions of Clauses 6,7 and 8 of the agreement of Service, a person appointed permanently as a Principal of a college or Institution or as a teacher therein shall be entitled to be in the service of that college or Institution until he completes the age of sixty. Extension of service for a period not exceeding 3 years may be granted by the Governing Body of the College or the Institution if it is satisfied that such extension is in the interests of the College or the Institution. In the case of a teacher such extension may be granted by the Governing Body on the recommendation of the Principal. Provided that the question whether any extension should or should not be granted to the Principal or a teacher shall not be decided upon by the Governing Body except with the approval of the Vice-Chancellor.

No teacher or Principal shall be granted more than one extension, but in special cases where extension for a total period of three year, i.e. upto the completion of 63 years has been given and the person concerned is still considered to be fit for work after that period and his services are required in the interests of the College/Institution, a further extension for a period of not exceeding two years may be given by the Governing Body on the recommendation of the Principal, in a case of a teacher. In both the cases the question whether any extension should or should not be granted shall not be decided upon by the Governing Body except with the approval of the Vice-Chancellor.



Where the date of retirement of a Principal or a teacher with or without extension falls during the course of an academic year, the Governing Body may, on the recommendation of the Principal, in the case of a teacher, and with the approval of the Vice-Chancellor in both the cases, allow the Principal or the teacher to continue till the end of the term or till the end of the academic year."

Amendment proposed:

Substitute the words 'shall not be decided upon by the Governing Body except with the approval of the Vice-Chancellor' for the words 'shall not be decided by the Governing Body except after Prior consultation with' in clause 3(A) of Ordinance XII and Clause 7(6) of Ordinance XVIII.

---

Where the date of retirement of a Principal or a teacher with or without extension falls during the course of an academic year, the Governing Body may, on the recommendation of the Principal, in the case of a teacher and with the approval of the Vice-Chancellor in both the cases, allow the Principal or the teacher to continue till the end of the term or till the end of the academic year.

---

Sd/-K.P.Govil  
Registrar,  
University of Delhi,  
Delhi-7.

UNIVERSITY OF DELHI.

Schedule of amendments to existing Ordinance submitted to the Visitor under Section 31(4) of the Delhi University Act, 1922.

....

Original Ordinance and amendments.	Date of amendments.	Ordinance as amended	Remarks.
------------------------------------	---------------------	----------------------	----------

Amendment to Clause 7(2) of Ordinance XVIII - "Colleges other than those maintained by the Government of India." (Pages 114-120 of the University Calendar - Volume I - 1967-68).

E.C.  
23-4-1971

Amendment to Clause 7(2) of Ordinance XVIII - "Colleges other than those maintained by the Government of India". (Page 114-120 of the University Calendar - Volume I - 1967-68).

Original Clause 7(2) of Ordinance XVIII:

"(2) The appointment of the Principal shall be made by the Governing Body of the College on the recommendation of a Selection Committee consisting of the Chairman of the Governing Body, two representatives of the University on the Governing Body, one expert nominated by the Academic Council for the purpose and two members of the Governing Body nominated by it, provided that prior to final selection and appointment (a) the Governing Body shall submit to the University a list of persons who have applied for the post of Principal in a form as prescribed by the University and shall indicate the persons from whom, in their opinion, the final selection may be made; (b) the list thus submitted by the Governing Body shall be considered by a Selection Committee constituted for the purpose and consisting of the following:-

- (i) Vice Chancellor
- (ii) Pro-Vice-Chancellor
- (iii) The nominee of the Visitor appointed under Statute 19(1)
- (iv) Chairman of the Governing Body of the College concerned, and
- (v) Two members of the Executive Council nominated by it.

Court  
15-5-1971

Amended Clause 7(2) of Ordinance XVIII:

"The appointment of the Principal shall be made by the Governing Body of the College on the recommendation of a Selection Committee consisting of the Chairman of the Governing Body, two representatives of the University on the Governing Body, one expert nominated by the Academic Council for the purpose and two members of the Governing Body nominated by it, provided that prior to final selection and appointment (a) the Governing Body shall submit to the University a list of persons who have applied for the post of Principal, as also names of persons, who may not have applied but whose names the Governing Body may desire to consider for the post in a form as prescribed by the University and shall indicate and persons from whom, in their opinion, the final Selection may be made; (b) the list thus submitted by the Governing Body shall be considered by a Selection Committee constituted for the purpose and consisting of the following:-

- (i) Vice-Chancellor
- (ii) Pro-vice-chancellor
- (iii) The nominee of the Visitor appointed under Statute 19(1).
- (vi) Chairman of the Governing Body of the College concerned, and
- (v) Two members of the Executive Council, nominated by it,

p.t.o.

and (c) on the recommendation of the Selection Committee the University shall transmit to Governing Body a list of persons mentioned in the order of preference whom the University would be prepared to recognise as Principal or, if none of the applicants are considered suitable, shall refrain from sending a list, in which case the post shall be re-advertised:

Provided that where in the opinion of the Vice-Chancellor, emergency action is called for or where in his opinion it would be unnecessary to adopt the procedure prescribed in (b) and (c) above, the Vice Chancellor may indicate merely which of the candidates included in the list submitted by the Governing Body under sub-clause 2(a) of Clause 7 of Ordinance XVIII will not be acceptable to the University, briefly indicating the ground for the decision. In such a case, the Governing Body will be free to appoint any person from any and the candidates against whom no such disapproval has been indicated."

Amendment proposed:

Add the following after " a list of person who have applied for the post of Principal" in the above clause:

"As also names of persons, who may not have applied, but whose names the Governing Body may desire to consider for the post".

and (c) on the recommendation of the Selection Committee the University shall transmit to Governing Body a list of persons mentioned in the order of preference whom the University would be prepared to recognise as Principal or, if none of the applicants are considered suitable, shall refrain from sending a list, in which case the post shall be re-advertised:

Provided that where in the opinion of the Vice-Chancellor, emergency action is called for or where in his opinion, it would be unnecessary to adopt the procedure prescribed in (b) and (c) above, the Vice-Chancellor may indicate merely which of the candidate included in the list submitted by the Governing Body under sub-clause 2(a) of Clause 7 of Ordinance XVIII, will not be acceptable to the University, briefly indicating ground for the decision. In such a case, the Governing Body will be free to appoint any person from any of the candidates against whom no such disapproval has been indicated."

CHART SHOWING THE FACULTIES ALONGWITH DURATION OF COURSES(DEGREE LEVEL)

B. (Professional Education - Education, Engineering, Medicine, Agriculture, Vet. Science & Law) (NOTE:- The duration shown for the M.B.B.S. course does not include the compulsory training period i.e. Housemanship or internship).  
 Minimum Admission=Minimum Qualifications for Admission. 1970-'71 Position\*

(\* Where 70-71 information was not available information on the basis of previous years data has been incorporated.

S. No.	University	B.Ed.		BE/B.Sc.(Engg.)		M.B.B.S.		B.Sc.(Agri.)		B.V.Sc.		LL.B./B.L.	
		Minimum Admission	Dura-tion.	Minimum Admission	Dura-tion.	Minimum Admission	Dura-tion.	Minimum Admission	Dura-tion.	Minimum Admission	Dura-tion.	Minimum Admission	Dura-tion.
1.	Agra	B.A./B.Sc.	1yr.	Inter or equivalent.	4yrs.	Inter Medical	4½yrs.	Inter Agri.	2yrs.	Inter Medical/Agri.	4yrs.	Degree	3yrs.
2.	Aligarh	Degree	1yr.	Inter PUC	4yrs.	Pre-Med. or Inter	4½yrs.	-	-	-	-	Degree	3yrs.
3.	Allahabad	-	-	Inter	4yrs.	-	-	Inter Agri./Sc.	3yrs.	-	-	B.A./B.Sc. B.Com.	3yrs.
4.	Andhra	Degree	1yr. or 9 months.	PUC, H.Sec.	5yrs.	PUC/H.S.L.C.	5½yrs.	-	-	-	-	Graduate	3yrs.
5.	Andhra Pradesh Agri.	-	-	-	-	-	-	PUC/H.Sec.	4yrs.	PUC/H.Sec.	5yrs.	-	-
6.	Annamalai	B.A. or B.Sc. or equivalent.	1yr.	Pre-Univ. or Pre-Tech.	5yrs.	-	-	Pre-Univ.	4yrs.	-	-	-	-
7.	Assam Agri.	-	-	-	-	-	-	Pre-Univ. Sc. or H.Sec.Sc.	4yrs.	Pre-Univ. Sc. or H.Sec.Sc.	5yrs.	-	-
8.	A.P. Singh	B.A./B.Sc. B.Com.	1yr.	H.Sec.	5yrs.	B.Sc.Pt.1	4½yrs.	-	-	-	-	B.A./B.Sc. B.Com.	3yrs.
9.	Banaras	Graduate	1yr.	Inter Sc. PUC	4yrs.	Inter Sc. PUC	4½yrs.	PUC/H.Sec.	4yrs.	-	-	Graduate	3yrs.
10.	Bangalore	Degree	1yr.	PUC	5yrs.	PUC	5½yrs.	-	-	-	-	Degree	3yrs.
11.	Berhampur	Degree	1yr.	-	-	Inter Sc. or Pre-Prof. course.	4½yrs.	-	-	-	-	Graduate	3yrs.
12.	Bhagalpur	Degree	1yr.	Pre-Sc. or H.Sec.	5yrs.	-	-	-	-	-	-	Degree	3yrs.

S. No	B.Ed.		BE/B.Sc. (Engg.)		M.B.B.S.		B.Sc. (Agri.)		B.V.Sc.		M.B./B.L.	
	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.
13. Bhopal	Degree	1yr.	H.S.S.C.	5yrs.	Inter Sc. or Ist yr B.Sc. Pt. I	4yrs.	-	-	-	-	B.A./B.Sc	3yrs.
14. Bihar	Degree	1yr.	PUC/H. Sec	5yrs.	Pre-Med.	4yrs.	-	-	-	-	Graduate	3yrs.
15. Bombay	Degree in Arts, Sc. Comm.	1yr.	Inter Sc.	4yrs.	Inter Sc.	4yrs.	-	-	-	-	Graduate	3yrs.
16. Burdwan	B.A./B.Sc. B. Com.	1yr.	Inter Pre-Univ.	4yrs. 5yrs.	-	-	-	-	-	-	-	-
17. Calcutta	B.A./B.Sc. B. Com.	1yr.	H. Sec./ PUC	5yrs.	Pre-Med.	4yrs.	-	-	Pre-Med. after PUC or H. Sec.	4yrs.	Graduate	3yrs.
18. Calicut	B.A./B.Sc. B. Com.	1yr.	Pre-Deg. or equiva- lent.	4yrs.	Pre-Med.	4yrs.	-	-	Pre-Deg.	4yrs.	-	-
19. De lhi	B.A./B.Sc. B. Com.	1yr.	H. Sec.	5yrs.	Pre-Med.	4yrs.	-	-	-	-	B.A./B.Sc. B. Com.	3yrs.
20. Dibrugarh	Degree	1yr.	PUC/H. Sec	5yrs.	Pre-Med./ Inter Sc/ B. Sc. Pass	4yrs.	-	-	-	-	All degrees	3yrs.
21. Gauhati	B.A./B.Sc. B. Com.	1yr.	PUC	5yrs.	PUC	5yrs.	-	-	-	-	Graduate	3yrs.
22. Gorakhpur	B.A.	1yr.	Inter Sc. or equi- valent.	4yrs.	-	-	-	-	-	-	B.A.	3yrs & 2yrs.
23. Gujarat	Degree	1yr.	PUC	5yrs.	B.Sc. Iyr. or Inter Sc.	4yrs.	-	-	-	-	Degree	3 & 2 yrs. both
24. Gujarat Agri.	-	-	-	-	-	-	-	-	-	-	-	-
25. Guru Nanak	-	-	-	-	SAME	AS	PANJAB	-	-	-	-	-
26. Haryana Agri.	-	-	-	-	-	-	Matric or H. Sec. Inter or equiva- lent. Pre-Univ.	5yrs. 4yrs.	F.Sc. Med. Pre-Med. or Pre. Vet.	4yrs.	-	-

(or H. Sec (Sc./Agri.))

CONTD..3

Sl. No.	University	B.Ed.		BE/B.Sc. (Engg.)		M.B.B.S.		B.Sc. (Agri.)		B.V.Sc.		LL.B./B.L.	
		Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.
27.	Himachal Pradesh	B.A./B.Sc.	1yr.	-	-	F.Sc.Med. or Pre-Med.	4½yrs	H.Sec. Pre-Univ.	4yrs.	-	-	-	-
28.	Indira Kala Sangeet.	-	-	-	-	-	-	-	-	-	-	-	-
29.	Indore	Graduate	1yr.	H.S.S.C.	5yrs.	B.Sc.Pt.1 or equivalent.	4½yrs	-	-	-	-	Graduate	3yrs.
30.	Jabalpur	B.A.II	1yr.	PUC/H.Sec.	5yrs.	B.ScPt.1	4½yrs	-	-	-	-	Graduate	3yrs.
31.	Jadavpur	-	-	H.Sec.	5yrs.	-	-	-	-	-	-	-	-
32.	Jammu	B.A./B.Sc. B.Com.	1yr.	-	-	-	-	-	-	-	-	Graduate	3yrs.
33.	J.L.Nehru	-	-	-	-	-	-	-	-	-	-	-	-
34.	J.L.Nehru Krishi	-	-	H.Sec.	5yrs.	-	-	H.Sec.	4yrs.	H.Sec.	5yrs.	-	-
35.	Jiwaji	Graduate	1yr.	H.Sec.	5yrs.	B.Sc.Pt.I	4½yrs	-	-	-	-	B.A./B.Sc. B.Com.	3yrs.
36.	Jodhpur	Graduate	1yr.*	H.Sec.	5yrs.	-	-	-	-	-	-	B.A./B.Sc. B.Com. & B.Sc. Agri.	3yrs.
37.	Kalyani	Graduate	1yr.	-	-	-	-	H.Sec.Sc/ Agri.	4yrs.	-	-	-	-
38.	K.S.D.Sans	-	-	-	-	-	-	-	-	-	-	-	-
39.	Kanpur	Graduate	1yr.	Inter Sc.	4yrs.	Inter	4½yrs	Inter Agri.	3yrs.	-	-	Graduate	2yrs.
40.	Karnatak	B.A./B.Sc. B.Com.	1yr.	B.ScPt.1	4yrs.	B.ScPt.1	4½yrs	-	-	-	-	Graduate	3yrs.
41.	Kashmir	B.A.	1yr.	Inter, PUC H.Sec.	5yrs.	Pre-Med.	4½yrs	PUC	4yrs.	-	-	-	-

\* For teachers two academic sessions during vacations.

CONTD..4/.

S. No.	B. Ed.		BE/B.Sc. (Engg.)		M.B.B.S.		B.Sc. (Agri.)		B.V.Sc.		LL.B./B.L.		
	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	
42. Kerala	Graduate	1yr.	Pre-Deg. or B.Sc.	4yrs.	Pre-Med.	4yrs.	Pre-Deg.	3yrs.	-	-	Graduate	3yrs.	
43. Kuruksetra	Graduate	1yr.	H.Sec.	5yrs.	-	-	PUC/H.Sec	4yrs.	-	-	Graduate	3yrs.	
44. Lucknow	Graduate	1yr.	-	-	Inter	9sem-	-	-	-	-	Graduate	3yrs.	
45. Madras	B.A./B.Sc	1yr.	PUC	5yrs.	PUC	5yrs.	PUC	4yrs.	PUC	5yrs.	Deg.in & one term.	Deg.in Arts, Sc. Commerce.	3yrs.
46. Madurai	Degree	1yr.	Pre-tech. or Pre-Univ.	5yrs.	PUC	5yrs.	PUC	4yrs.	-	-	-	-	
47. Magadh	-	-	-	-	-	-	-	-	-	-	B.A./B.Sc	3yrs.	
48. M.S. Univ. or Baroda	Graduate	1yr.	Prepara- tory Sc. or equi- valent.	5yrs.	Pre-Med.	4yrs.	-	-	-	-	Graduate	2yrs. (Gen) 3yrs. (Spec- ial.)	
49. Mahatma Phule Krishi	-	-	-	-	-	-	S.S.C.or H.C.C.	4yrs.	Inter Sc. B.Group or equil. S.S.C.or equil.	4yrs. 5yrs.	-	-	
50. Marathwada	B.A./B.Sc	1yr.	B.Sc.1yr.	4yrs.	B.Sc.Pt.1 (Bio)	4yrs.	-	-	-	-	Graduate	3yrs.	
51. Meerut	Graduate	1yr.	-	-	-	-	Inter(ag)	2yrs.	-	-	Graduate	3yrs.	
52. Mysore	Deg.in Arts, Sc. Commerce	1yr.	PUC or H.S.S.C. or equil.	5yrs.	P.P.C.	4yrs.	-	-	-	-	Degree	3yrs.	
53. Nagpur	Graduate	1yr.	H.Sec./ Pre-Univ.	5yrs.	B.Sc.Pt.1	4yrs.	-	-	-	-	Graduate	3yrs.	
54. North Bengal	B.A./B.Sc B.Com.	1yr.	H.Sec.	5yrs.	Pre-Med.	4yrs.	-	-	-	-	-	-	
55. Orissa Univ. of Agri. & Tech	-	-	Pre-Univ. (Agri. Engg.)	5yrs.	-	-	PUC	4yrs.	Pre-Prof1	4yrs.	-	-	

S. No.	University	B.E.	BE/B.Sc. (Engg.)	M.B.B.S.	B.Sc. (Agri.)	B.V.Sc.	IL.B./B.L.	
	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.	Minimum Admission	Dura- tion.
56.	Osmania	Graduate	1yr. PUC	5yrs. H.S.C., PUC	5yrs. -	-	Graduate 3yrs.	
57.	Panjab	B.A./B.Sc.	1yr. Pre-Engg.	4yrs. Pre-Med.	4yrs. -	-	-	
58.	Panjab Agri	-	-	Pre-Engg. or F.Sc. 4yrs.	-	Matric or H.Sec.Pt.1 or H.Sec. with Sc./Agri. 4yrs.	5yrs. F.Sc.Med. or Pre-Vet. 4yrs.	
59.	Patna	Graduate	1yr. PUC or H.Sec.	5yrs. PUC	5yrs. -	-	Graduate 3yr	
60.	Poona	Graduate	1yr. Inter Sc. or Pre-Prof.	4yrs. Inter Sc. B.Group/Pre-Med.	4yrs. -	-	Graduate 3yrs.	
61.	Punjabi	Graduate	1yr. Pre-Engg.	4yrs. Inter Sc. Med.	4yrs. -	-	Graduate 3yrs.	
62.	Punjabrao Krishi	-	-	-	-	S.S.C. or equil 4yrs.	Inter Sc. 4yrs.	
63.	Rabindra Bharati	-	-	-	-	-	-	
64.	Rajasthan	Graduate	1yr. H.Sec. or PUC	5yrs. Pre-Med. or B.Sc. 1yr.	4yrs. H.Sec. Agri.Sc.	3yrs. -	Graduate 2yrs. for Academic 3yrs. for Prof.	
65.	Rajindra Azri.	-	-	-	-	H.Sec./Pre-Univ./ 4yrs.	H.Sec./PUC 5yrs	
66.	Ranchi	-	-	H.S. or Pre-Sc. 5yrs.	Pre-Med. 4yrs.	-	Graduate 3yrs.	
67.	Ravi Shankar	Graduate	1yr. H.S.S.C. or equil.	5yrs. Pre-Prof; Science	4yrs. -	-	Graduate 3yrs.	
68.	Roorkee	-	-	Inter Sc. or equil. 4yrs.	-	-	-	
69.	Sambalpur	Graduate	1yr. H.Sec. or Pre-Univ. Science.	5yrs. -	-	-	Graduate 3yrs.	

/Inter Sc. 3yrs.  
or B.Sc.Pt.1

CONTD..6/.



S. No.	University	B.Ed.		BE/B.Sc. (Engg.)		M.B.B.F.		B.Sc. (Agri.)		B.V.Sc.		LL.B./B.L.	
		Minimum Admission	Dura-tion.	Minimum Admission	Dura-tion.	Minimum Admission	Dura-tion.	Minimum Admission	Dura-tion.	Minimum Admission	Dura-tion.	Minimum Admission	Dura-tion.
70.	Sardar Patel	Graduate	1yr.	Pre-Sc.	5yrs.	-	-	Prep. Agri	3yrs.	B.Sc. Pt. I Bio. or Ag	4yrs.	Graduate	2yrs.
71.	Sangar	Graduate	1yr.	-	-	-	-	-	-	-	-	Graduate	3yrs.
72.	Saurashtra	Graduate	1yr.	Pre-Univ. Sc. or equil.	5yrs.	-	-	C.S.C.	4yrs.	-	-	Degree	3yrs.
73.	Shivaji	Graduate	1yr.	PUC	5yrs.	Inter Sc. B. Group.	4yrs.	-	-	-	-	Graduate	3yrs.
74.	S.N.D.T. Women's	G.A., B.A. B.Sc., B.Com., B.Sc. (H.Sc.)	1yr.	-	-	-	-	-	-	-	-	-	-
75.	South Gujarat	Graduate	1yr.	Pre-Univ. Sc.	5yrs.	B.Sc. 1yr. or Inter Science.	4yrs.	S.S.C. or equil.	3yrs.	-	-	Graduate	3yrs.
76.	Srivenkat- eswara.	Degree	1yr.	H. Sec. or PUC	5yrs.	H.S.S.L.C. or PUC	5yrs.	-	-	-	-	B.A./B.Sc.	2yrs.
77.	Tamil Nadu Agri.	-	-	-	-	-	-	-	-	-	-	-	-
78.	Udaipur	Graduate	1yr.	-	-	-	-	-	-	-	-	-	-
79.	Univ. of Agri. Sc.	-	-	-	-	-	-	PUC or H.L.S.C.	4yrs.	PUC or H.L.S.C.	5yrs.	-	-
80.	Utkal	Graduate	1yr.	Pre-Prof	5yrs.	-	-	-	-	-	-	Graduate	3yrs.
81.	U.P. Agri.* (*Deg. awarded is B.Sc. Agri. (Hons.))	-	-	-	-	-	-	H. Sec., Inter & B.Sc. or 4yrs. (after PUC or H. Sec)	3yrs. (after Inter B.Sc.)	H. Sec., Inter B.Sc.	14 Trimes- ters. with 45 days practical training	-	-
82.	Varanaseya Sanskrit	-	-	-	-	-	-	-	-	-	-	-	-
83.	Vikram	Graduate	1yr.	Dce/H. Sec	5yrs.	Pre-Prof	5yrs.	-	-	-	-	Graduate	3yrs.
84.	Visva- Bharati	B.A./B.Sc. or equil.	1yr.	-	-	-	-	H. Sec. or equil.	4yrs.	-	-	-	-



CHART SHOWING THE FACULTIES ALONGWITH DURATION  
OF COURSES (DEGREE LEVEL):

A. ( General Education-Arts, Science & Commerce ).  
1970-'71 Position

S. No.	University	ARTS		SCIENCE		COMMERCE	
		Under Grad-uate.	Post Grad-uate.	Under Grad-uate.	Post Grad-uate.	Under Grad-uate.	Post Grad-uate.
1.	Agra	2yrs.	2yrs.	2yrs.	2yrs.	2yrs.	2yrs.
2.	Aligarh	3 "	2 "	3 "	2 "	3 "	2 "
3.	Allahabad	2 "	2 "	2 "	2 "	2 "	2 "
4.	Andhra	3 "	2 "	3 "	2 "	3 "	2 "
5.	Andhra Pradesh Agri.	-	-	3 "	2 "	-	-
6.	Annamalai	3 "	2 "	3 "	2 "	3 "	2 "
7.	Assam Agri.	-	-	-	-	-	-
8.	A.P. Singh	3 "	2 "	3 "	2 "	3 "	2 "
9.	Banaras	3 "	2 "	3 "	2 "	3 "	2 "
10.	Bangalore	3 "	2 "	3 "	2 "	3 "	2 "
11.	Berhampur	3 "	2 "	3 "	2 "	3 "	2 "
12.	Bhagalpur	3 "	2 "	3 "	2 "	3 "	2 "
13.	Bhopal	3 "	2 "	3 "	2 "	3 "	2 "
14.	Bihar	3 "	2 "	3 "	2 "	3 "	2 "
15.	Bombay	2 "	2 "	2 "	2 "	2 "	2 "
16.	Burdwan	3 "	2 "	3 "	2 "	3 "	2 "
17.	Calcutta	3 "	2 "	3 "	2 "	3 "	2 "
18.	Calicut	3 "	2 "	3 "	2 "	3 "	2 "
19.	Delhi	3 "	2 "	3 "	2 "	3 "	2 "
20.	Dibrugarh	3 "	2 "	3 "	2 "	3 "	2 "
21.	Gauhati	3 "	2 "	3 "	2 "	3 "	2 "
22.	Gorakhpur	2 "	2 "	2 "	2 "	2 "	2 "
23.	Gujarat	3 "	2 "	3 "	2 "	3 "	2 "
24.	Gujarat Ayurveda	-	-	-	-	-	-
25.	Guru Nanak	3 "	2 "	3 "	2 "	3 "	2 "
26.	Haryana Agri.	-	-	-	-	-	-
27.	Himachal Pradesh.	3 "	2 "	3 "	2 "	3 "	2 "
28.	Indira Kala Sangeet	-	-	-	-	-	-
29.	Indore	3 "	2 "	3 "	2 "	3 "	2 "
30.	Jabalpur	3 "	2 "	3 "	2 "	3 "	2 "
31.	Jadavpur	3 "	2 "	3 "	2 "	3 "	2 "
32.	Jammu	3 "	2 "	3 "	2 "	3 "	2 "
33.	J.L.Nehru	-	-	-	-	-	-
34.	J.L.Nehru Krishi	-	-	-	-	-	-
35.	Jiwaji	3 "	2 "	3 "	2 "	3 "	2 "
36.	Jodhpur	3 "	2 "	3 "	2 "	3 "	2 "
37.	Kalyani	3 "	2 "	3 "	2 "	3 "	2 "
38.	K.S.D.Sanskrit	-	-	-	-	-	-
39.	Kanpur	2 "	2 "	2 "	2 "	2 "	2 "
40.	Karnatak	3 "	2 "	3 "	2 "	3 "	2 "
41.	Kashmir	3 "	2 "	3 "	2 "	3 "	2 "
42.	Kerala	3 "	2 "	3 "	2 "	3 "	2 "
43.	Kuruksetra	3 "	2 "	3 "	2 "	3 "	2 "
44.	Lucknow	2 "	2 "	2 "	2 "	2 "	2 "
45.	Madras	3 "	2 "	3 "	2 "	3 "	2 "

CONTD..2/.

S.No.	University	ARTS		SCIENCE		COMMERCE	
		Under-Graduate	Post-Graduate	Under-Graduate	Post-Graduate	Under-Graduate	Post-Graduate
46.	Madurai	3yrs.	2yrs.	3yrs.	2yrs.	3yrs.	2yrs.
47.	Magadh	3 "	2 "	3 "	2 "	3 "	2 "
48.	M.S.Univ.of Baroda	3 "	2 "	3 "	2 "	3 "	2 "
49.	Mahatma Phule Krishi	-	-	-	-	-	-
50.	Marathwada	3 "	2 "	3 "	2 "	3 "	2 "
51.	Meerut	2 "	2 "	2 "	2 "	2 "	2 "
52.	Mysore	3 "	2 "	3 "	2 "	3 "	2 "
53.	Nagpur	3 "	2 "	3 "	2 "	3 "	2 "
54.	North Bengal	3 "	2 "	3 "	2 "	3 "	2 "
55.	Orissa Univ. of Agri.&Tech.	-	-	-	-	-	-
56.	Osmania	3 "	2 "	3 "	2 "	3 "	2 "
57.	Panjab	3 "	2 "	3 "	2 "	3 "	2 "
58.	Panjab Agri.	-	-	-	2 "	-	-
59.	Patna	3 "	2 "	3 "	2 "	3 "	2 "
60.	Poona	3 "	2 "	3 "	2 "	3 "	2 "
61.	Punjabi	3 "	2 "	3 "	2 "	3 "	2 "
62.	Punjabrao Krishi	-	-	-	-	-	-
63.	Rabindra Bharati	3 "	2 "	-	-	-	-
64.	Rajasthan	3 "	2 "	3 "	2 "	3 "	2 "
65.	Rajindra Agri.	-	-	-	-	-	-
66.	Ranchi	3 "	2 "	3 "	2 "	3 "	2 "
67.	Ravi Shankar	3 "	2 "	3 "	2 "	3 "	2 "
68.	Roorkee	-	-	-	2 "	-	-
69.	Sambalpur	3 "	2 "	3 "	2 "	3 "	2 "
70.	Sardar Patel	3 "	2 "	3 "	2 "	3 "	2 "
71.	Saugar	3 "	2 "	3 "	2 "	3 "	2 "
72.	Saurashtra	3 "	2 "	3 "	2 "	3 "	2 "
73.	Shivaji	3 "	2 "	3 "	2 "	3 "	2 "
74.	S.N.D.T.Women's	3 "	2 "	4 "	2 "	-	-
75.	South Gujarat	3 "	2 "	3 "	2 "	3 "	2 "
76.	Srivenkateswara	3 "	2 "	3 "	2 "	3 "	2 "
77.	Tamil Nadu Agri.	-	-	-	-	-	-
78.	Udaipur	3 "	2 "	3 "	2 "	3 "	2 "
79.	Univ.of Agri. Sciences	-	-	-	-	-	-
80.	Utkal	3 "	2 "	3 "	2 "	3 "	2 "
81.	U.P.Agri.	-	-	-	-	-	-
82.	Varanaseya Sans.	-	-	-	-	-	-
83.	Vikram	3 "	2 "	3 "	2 "	3 "	2 "
84.	Visva-Bharati	3 "	2 "	3 "	2 "	-	-

\* after S.S.C.

NOTE:- The duration of the 'degree course(Pass/Hons.) at the undergraduate level in the faculties of Arts, Science, & Commerce is either 'three years' or 'two years'. The minimum qualification for admission into the first year of the three year degree course is a pass in the Pre-Univ./Higher Secondary or any other examination considered equivalent to it. For admission into the first year of the two year degree course, the minimum qualification is a pass in the Intermediate examination.

Professional Faculties

Courses

(Note:- Information has been furnished in respect of those universities for whom data was readily available).

N.I. = Not indicated.

University	M.Ed.	M.Sc. (Engg.)	M.D.	M.S.	M.Sc. (Agri.)	M.V.Sc.	LL.M.
	Duration	Duration	Duration	Duration	Duration	Duration	Duration
1. Agra	1yr.*	-	3yrs.	3yrs.	2yrs.	2yrs.	2yrs.
2. Aligarh	1yr.	2yrs.	N.I.	N.I.	-	-	2yrs.
3. Allahabad	1yr.	2yrs.	-	-	2yrs.	-	2yrs.
4. Andhra	1yr.	2yrs.	3yrs.	3yrs.	-	-	2yrs.
5. Andhra Pradesh Agricultural	-	-	-	-	2yrs.	2yrs.	-
6. Annamalai	2yrs.	2yrs.	-	-	2yrs.	-	-
7. Assam Agri.	-	-	-	-	2yrs.	2yrs.	-
8. Banaras	1yr.	No limit.	2yrs.	2yrs.	2yrs.	-	1yr.
9. Bangalore	1yr.	Semester system.	3yrs.	3yrs.	-	-	2yrs.
10. Bhagalpur	-	-	-	-	-	-	-
11. Bhopal	-	-	-	-	-	-	2yrs.
12. Bihar	-	-	2yrs.	2yrs.	-	-	-
13. Bombay	2yrs.	2yrs.	3yrs.	3yrs.	-	-	2yrs.
14. Burdwan	-	2yrs.	-	-	-	-	-
15. Calcutta**	2yrs.*	2yrs.	2yrs.	2yrs.	2yrs.	-	-
16. Calicut	-	-	-	-	-	2yrs.	-
17. Delhi	1yr.	2yrs.	2yrs.	2yrs.	-	-	2yrs.
18. Dibrugarh	-	-	2yrs.	-	-	-	N.I.
19. Dhatki	2yrs.	-	2yrs.	-	2yrs.	-	-
20. Durgam Chowpuri	1yr.	-	-	-	-	-	2yrs.
21. Durgam Chowpuri	1yr.*	2yrs.	3yrs.	3yrs.	-	-	2yrs.
22. Durgam Chowpuri Agri.	-	-	-	-	2yrs.	2yrs.	-
23. Indore	1yr.	2yrs.	2yrs.	-	-	-	2yrs.
24. Jabalpur@	1yr.	2yrs.	2yrs.	-	-	-	2yrs.
25. Jadavpur	-	2yrs.	-	-	-	-	-
26. J.I.Nehru Krishi	-	-	-	-	2yrs.	2yrs.	-
27. Jiwaji	N.I.	3yrs.	N.I.	N.I.	-	-	2yrs.
28. Jodhpur	N.I.	2yrs.	-	-	-	-	2yrs.
29. Kalyani (M.A./M.Sc.in Edu.)	2yrs.	-	-	-	2yrs.	-	-
30. Kanpur	1yr.	2yrs.	2yrs.	2yrs.	2yrs.	-	-
31. Karnatak	1yr.***	-	3yrs.	3yrs.	-	-	2yrs.****
32. Kashmir	1yr.	-	N.I.	N.I.	-	-	-
33. Kerala	1yr.	2yrs.	3yrs.	3yrs.	2yrs.	-	2yrs.
34. Kuruksetra	1yr.	-	-	-	-	-	-
35. Lucknow@	1yr.	-	2yrs.	2yrs.	-	-	2yrs.
36. Madras	1yr.*	2yrs.	2/3yrs.	2/3yrs.	2yrs.	2yrs.	2yrs.
37. Madurai	1yr.	-	2yrs.	2yrs.	2yrs.	-	-
38. Mahatma Phule Krishi	-	-	-	-	2yrs.	2yrs.	-
39. M.S.Univ.of Baroda	1yr.	2yrs.	3yrs.	3yrs.	-	-	2yrs.

\* Duration for part-time course is two years.

\*\* M.A. in Education

\*\*\* Two-year vacation course also.

\*\*\*\* Three-year vacation course also.

Contd..2/.

@ For duration of M.D./M.S.courses, 'Directory of Medical Colleges' 1969 issued by the Directorate General of Health Services has also been consulted in a few cases.

S. No.	University	M.Ed. Duration	M.Sc. (Engg.) Duration	M.D. Duration	M.S. Duration	M.Sc. (Agri.) Duration	M.V.Sc. Duration	L.L.B. Duration
40.	Marathwada	1yr.	2yrs.	3yrs.	-	-	-	2yrs.
41.	Meerut	1yr.	-	-	-	2yrs.	-	2yrs.
42.	Mysore	1yr.	2yrs.	2yrs.	2yrs.	-	-	-
43.	Nagpur	1yr.*	2yrs.	2yrs.	2yrs.	-	-	2yrs.
44.	Orissa Univ. of Agri.&Tech.	-	-	-	-	2yrs.	2yrs.	-
45.	Osmania	1yr.	2yrs.	3yrs.	3yrs.	-	-	2yrs.
46.	Panjab	1yr.	2yrs.	2yrs.	2yrs.	2yrs.	-	2yrs.
47.	Panjab Agri. (Ag. Engg.)	-	2yrs.	-	-	2yrs.	2yrs.	-
48.	Patna	1yr.	N.I.	N.I.	N.I.	-	-	2yrs.
49.	Poona	1yr.*	4 academic terms.	2yrs.	2yrs.	-	-	2yrs.
50.	Punjabi	1yr.	-	N.I.	N.I.	-	-	-
51.	Punjabrao Krishi	-	-	-	-	2yrs.	-	-
52.	Bajasthan	1yr.	3yrs.	3yrs.	3yrs.	-	-	2yrs.
53.	Rajindra Agri.	-	-	-	-	2yrs.	2yrs.	-
54.	Ranchi	1yr.	2yrs.	-	-	-	-	-
55.	Roorkee	-	2yrs.	-	-	-	-	-
56.	Sambalpur	-	2yrs.	N.I.	N.I.	-	-	-
57.	Sardar Patel	2yrs.	2yrs.	-	-	2yrs.	-	-
58.	Saugar	1yr.	-	-	-	-	-	2yrs.
59.	Saurashtra	2yrs.	-	2yrs.	2yrs.	2yrs.	-	N.I.
60.	Shivaji	2yrs.	2yrs.	-	-	-	-	2yrs.
61.	S.N.D.T. Women's	2yrs.	-	-	-	-	-	-
62.	Gujarat	2yrs.	-	-	-	2yrs.	-	2yrs.
63.	Kates-	-	-	3yrs.	3yrs.	-	-	-
64.	Dumipur	1yr.	-	-	-	2yrs.	2yrs.	-
65.	Univ. of Agri. Sciences	-	-	-	-	2yrs.	2yrs.	-
66.	Utkal	1yr.	-	2yrs.	2yrs.	-	-	-
67.	U.P. Agri.	-	-	-	-	2yrs.	2yrs.	-
68.	Vikram	-	2yrs.	N.I.	N.I.	-	-	2yrs.
69.	Visva-Bharati	1yr.	-	-	-	-	-	-

**INSTITUTIONS DEEMED TO BE UNIVERSITIES:**

1.	Birla Inst. of Tech. & Sc.	-	2yrs.	-	-	-	-	-
2.	Gujarat Vidyapith	1yr.	-	-	-	-	-	-
3.	Indian Agri. Research Inst.	-	-	-	-	2yrs.	-	-
4.	Jamia Millia	1yr.**	-	-	-	-	-	-

\* Two-year vacation course also.

\*\* For part-time students the duration is two-years.

NOTE:- The minimum qualification for admission to the first year of the Postgraduate degree courses is a pass in the first degree in the faculty concerned; viz for admission in the M.Ed. course, the minimum qualification is B.Ed. degrees for M.Sc. (Engg.), the minimum qualification is B.Sc. (Engg.) / B.E. etc.

Annexure to Item No.2(b)(9)

Medium of Instruction at M.A. level and admissible media  
for accepting doctoral theses -- Summary of replies received  
from universities -- 1971.

....

Sl. No.	University	Medium at M.A. level	Admissible medium for accepting doctoral theses	Reasons for not accepting the thesis in Hindi/Regional languages.
1.	Agra	English/Hindi/or language concerned for Oriental languages.	English/Hindi/or language concerned for Oriental languages.	Does not arise.
2.	Aligarh	English except in Language subjects,	English language concerned.	Being a Central University and students coming from different states and abroad the medium of instruction and examination is English except for languages.
3.	Allahabad	Hindi and English	Hindi/English except in the case of languages where theses are to be submitted in the language concerned.	Not applicable.
4.	Andhra	English	English	The policy of the university is to switch over to Telugu instead of Hindi on a phased programme.
5.	Andhra Pradesh Agricultural	No. M.A. course	English	Medium of instruction being English, the question of submitting theses in regional language does not arise.
6.	Annamalai	English	English	Matter under consideration.
7.	Assam Agri.	M.A. course not there.	English	Medium of Instruction is English, therefore admissible medium is also English.
8.	A.P.Singh	Hindi except for languages taught	Hindi/English	Does not arise.
9.	Banaras	Hindi/English	English/Hindi	Does not arise.
10.	Banagalore	English/Language concerned	English except language subjects.	Not indicated.

1.	2	3	4	5
11.	Jamshampur	English	English	The University has been recently established; English will continue till 1973 as decided at present
12.	Bhagalpur	English except in language subjects.	English as well as Hindi except in language subjects.	Does not arise.
13.	Bhopal	Hindi/English	Hindi/English	Does not arise.
14.	Bihar	Hindi	Not available	Not available.
15.	Bombay	English	English	The medium of instruction in the university is English.
16.	Burdwan	English/Bengali	While no rules have been framed so far by the university restricting submission of doctoral theses in English most of the theses submitted are in English.	Does not arise.
17.	Calcutta	English	English or the languages concerned.	Not given.
18.	Calicut	English	English except for languages (The University takes steps in translating all accepted theses in Malayalam.)	Question does not arise in view of the rules regarding submission of theses.
19.	Delhi	English/Hindi in selected subjects.	English except for languages.	Reasons not specified.
20.	Dibrugarh	English	English except for languages.	The academic Council has not yet considered the matter.
21.	Coochati	English	English	Certain practical difficulties in evaluating the doctoral theses written in Regional languages.
22.	Gorakhpur	English/Hindi	English/Hindi	Does not arise.



1	2	3	4	5
23.	Gujarat	Gujarati/English/ Hindi.	Gujarati/English/ Hindi.	Does not arise.
24.	Gujarat Ayurvedic.	There is no M.A.	The medium of imparting ins- truction at P.G. level is Hindi/Sanskrit and/or English.	Does not arise.
25.	Guru Nanak	English except language concern- ed.	English except for languages with the per- mission of V.C.	Reasons not given.
26.	Haryana Agric.	Does not have M.A. course.	English	Since the medium of instr- ction is English the stud- ts prefer to submit these in that language. Lack of satisfactory knowledge in Hindi on the part of both the staff and the student is another reason. So far as the candidates have sub- mitted their theses in English only. However, request for submitting a thesis in a language other than English will be duly considered by the Academic Council of the university
27.	Himachal Pradesh.	English except in language subjects.	English except for language subjects.	Hindi is also admissible.
28.	Indira Kala Hindi Sangit		Under the D.Mus Ordinance of the University, the thesis shall be submitted in Hindi/English or such other Indian languages as may be approved by Academic Council of the University.	Does not arise.
29.	Indore	Hindi/English	Hindi/English	Does not arise.

30.	Jabalpur	Hindi/English	Hindi/English	Does not arise.
31.	Jadavpur	English except for the course in Bengali literature.	English except for subjects on Bengali language and literature.	As it is the practice of the university to appoint examiners from abroad except in the case of Bengali, English is the admissible medium.
32.	Jammu	English/language concerned.	English except for languages.	Regional language has not been introduced as media so far.
33.	Jawaharlal Nehru	The foreign language concerned for courses conducted in the school of foreign languages.	English/Hindi/Any regional language.	Does not arise.
34.	Jawaharlal Krishi	N.E. M.A. Sanskrit	English	Paucity of text books, technical journals and other literature in Hindi.
35.	Jiwaji	Hindi and English	English/Hindi or any Indian languages may be approved by R.D.C.	Does not arise.
36.	Jodhpur	Hindi/English	English/Hindi or language concerned in the faculties of Arts & Social Sciences. Theses in Hindi in other faculties may be accepted with prior permission.	Does not arise.
37.	Kalyani	English	English	Regional language has not been adopted by the university so far as medium of instruction.
38.	K.S.Darbhanga	No M.A. examinations. Sanskrit.	English/Hindi English.	Does not arise.
39.	Kanpur	Hindi & English	Hindi & English	Does not arise.

1.	2.	3.	4.	5.
40. Karnatak	English	English except language subjects with prior permission.	English except language subjects with prior permission.	The theses are sent for evaluation to the foreign external referees. Further sufficient reference books in Hindi and regional languages are not available.
41. Kashmir	English except language subjects.	English except languages/Oriental classical subjects.	English except languages/Oriental classical subjects.	The Jammu and Kashmir state Government has not introduced the three language formula as yet.
42. Kerala	English except for language subjects.	English for non-language subjects. For language subjects it is left to the option of students.	English for non-language subjects. For language subjects it is left to the option of students.	Reason not given.
43. Kurukshetra	English	English (other than in languages).	English (other than in languages).	Proposal under consideration to allow Hindi as medium of examination for doctoral theses.
44. Lucknow	Hindi except for Maths and statistics.	No prescribed medicum. Hindi or English or in the languages concerned.	No prescribed medicum. Hindi or English or in the languages concerned.	Question does not arise.
45. Madras	English except languages	English	English	Not Given.
46. Madurai	English	English only so far. There is however no restriction to submit theses in English medium only.	English only so far. There is however no restriction to submit theses in English medium only.	Already explained in previous column.
47. Magadh	English for non-language subjects. Option for Hindi permissible.	English/Hindi (other than language subjects.)	English/Hindi (other than language subjects.)	Does not arise.
48. M.S. Univ. of Baroda.	English except languages.	English except languages.	English except languages.	Medium of Instruction being only English, the admissible medium for submitting Doctoral theses in English only.

1.	2.	3.	4.	5.
49. Mahatma Phule Krishi	M.A. examination is not conducted.	English	English	Translation work of Text Books is in progress. The regional language will be introduced after the work is completed.
50. Marathwada.	English	English	English	As per existing rules of the university the theses should be submitted in English.
51. Meerut	Hindi/English	Hindi/English except in subject connected with any other Oriental languages at the option of the candidate.	Hindi/English	Does not arise.
52. Mysore.	English	English	English	As the evaluation of the theses is done by the outside experts, it is necessary to have English medium.
53. Nagpur	English/ Marathi/ Hindi.	No specific restriction. Generally English.	No specific restriction. Generally English.	Already explained in the previous column
54. North Bengal.	English except in the department of Bengali.	English (Bengali Literature)	English (Bengali Literature)	Not available
55. Orissa Univ. of Agri. & Tech.	No provision for M.A. classes.	English	English	Hindi or regional language has not been introduced so far.
56. Osmania	English	In all language subjects the theses is submitted in that particular language or in English.	In all language subjects the theses is submitted in that particular language or in English.	Reasons not given.
57. Punjab	English except languages.	English except Punjabi and Hindi with special mission of Vice-Chancellor.	English except Punjabi and Hindi with special mission of Vice-Chancellor.	As the medium of instruction/examination at M.A. level is English in case of languages obviously the medium for doctoral theses has to be in English.

	2.	3.	4.	5.
58. Punjab Agri.	English	English	English	The medium of instruction at all levels being English the question of accepting the thesis in any language other than English does not arise.
59. Patna.	Hindi/English except for language subjects in Arts faculty.	Hindi/English or any Regional language.	Hindi/English or any Regional language.	Does not arise.
60. Poona	English	English	English	According to the policy of the University medium of instructions for writing Ph.D. thesis is English.
61. Punjabi	English and Punjabi for religious studies and concerned language for language subjects.	English except for languages.	English except for languages.	English language except language subjects because examiners from abroad are appointed.
62. Punjabrao Krishi.	No M.A. classes	English	English	Medium of instructions be English only at the P.G. level the admissible medium for accepting doctoral theses is only English.
63. Rabindra Bharati.	English/Dengali	English/Bengali	English/Bengali	There has been no proposal so far from the research workers for submitting any Doctoral thesis in Hindi or regional languages. However, should any such proposal be made from any intending research worker for submitting his proposed theses in Hindi, the University would consider it in due course, there being no bar for such acceptance.

1.	2.	3.	4.	5.
64. Rajasthan	Hindi/English except language subjects.	Hindi/English (except languages subjects) in Arts Faculty.	Does not arise.	
65. Ranchi	English	English	Absence of standard books in Hindi.	
66. Ravi Shanker	Hindi & English	English/Hindi	Does not arise.	
67. Roorkee	No. M.A. course	English	As English is medium of instruction, therefore, the admissible medium is also English.	
68. Sambalpur	English except in M.I. L subjects.	English	University has not switched over to regional language, however accepted in principle to use regional language as soon as books are available.	
69. Sardar Patel	English except for languages.	Hindi/Gujarati/English as approved by the Guide except for languages.	Does not arise.	
70. Saugar	Hindi except in English language.	English/Hindi	Does not arise.	
71. Saurashtra	Gujarati	English/Gujarati/Hindi (as the case may be).	Does not arise.	
72. Shivaji	English except languages.	English except languages	The provision has not been made.	
73. S.N.D.T. Women's	English/Regional language.	English/Regional language.	Not applicable.	
74. South Gujarat	Hindi/English/Gujarati.	Option to students to use English/Gujarati/Hindi.	Does not arise.	

1.	2.	3.	4.	5.
75. Sri- Venkates- wara.	English.	English	English	The theses (except for Hindi/Regional language) are often sent to foreign experts and secondly the medium of instruction is only English.
76. Udaipur	Hindi/English medium can be adopted for answering questions.	English/Any other language approved by Postgraduate council.	English	Does not arise.
77. Univ. of Agri. Sciences.	No M.A. Course.	English	English	Medium of instruction is in English. Therefore admissible medium is also English-
78. Utkal	English except for Oriya & Sanskrit.	English except languages	English	Reasons not given.
79. U.P. Agri.	There is no M.A.	English only.	English	Non-availability of standard books in Hindi in the field of Agri. & Tech. There is, however no statutory bar against submitting the thesis in Hindi or any other language.
80. Varanaseya Sanskrit.	Sanskrit	Sanskrit	Sanskrit	Not applicable.
81. Vikram	Hindi	Hindi/English (except in case of Oriental languages).	Hindi/English	Does not arise.
82. Visva- Bharati.	English. Bengali is used as and when convenient.	English. But if the topic of Research so warrants permission is accorded to submit a thesis in the Regional language.	English	Does not arise

---

1.                      2.                      3.                      4.                      5.

---

INSTITUTION DEEMED TO BE UNIVERSITY.

1. Birla Inst. of Tech. & Science.	English except for languages.	English except for languages.	Since no research scholar has ever offered to submit his thesis in Hindi/Regional language, the question of not accepting the thesis in Hindi/Regional language did not arise.
2. Gujarat Vidyapeeth.	Regional language with option to teach or answer in Hindi.	Hindi or regional language	Does not arise.
3. Gurukul Kangri.	Hindi except for English Literature and Maths.	Hindi	Does not arise.
4. Indian Agri. Research Institute.	No M.A. Course.	English is the only admissible medium.	As in the previous column.
5. Indian Instt. of Science.	No M.A. Course.	English	Being an institution for advanced studies the medium of instruction is English and theses are also submitted in English.
6. Indian School of Mines.	No M.A. Course.	English	Being an All India Institution.
7. Jamia Millia	English	English	There was no proposal for adopting Hindi as medium before the Academic Council
8. Kashi Vidyapeeth.	Hindi	Theses are submitted in Hindi but only with special permission they can be submitted in English.	Does not arise.
9. Tata Instt. of Social Sciences.	English	For thesis, no specific restrictions in the admissible media.	So far the question of accepting theses in Hindi/Regional language has not arisen.



Annexure to Item No.2(b)(10)

Report made by Dr. A.S. Janardhanan, lecture in Geology University of Mysore on conclusion of his visit to U.K. under the programme of Exchange of visits by younger scientists between India and U.K.

---

I had utilised<sup>my</sup> stay in the Department of Geology, University College, Swansea, U.K. to the maximum possible extent by analysing over seventy rock samples, which I had taken with me from my research area in Mysore.

All through my stay in the Department of Geology, University College, Swansea, I have analysed over fifty samples of ultramafic and associated rocks collected from my research area in Mysore by X-ray Fluorescence method for mainly major elements. I have also analysed the samples for some trace elements like Cr, Ni, Zr etc. I have just received the data processed through the Computer from Dr.P.R. Hooper. The results will greatly help me in interpreting the petrochemistry and petrogenesis of the various rock types occurring in my area. I must thank Mrs. Lynn Atkins, Mr. Bennet and Miss Fraster for helping me in handling this sophisticated equipment. I had also the benefit of discussing my problems with Dr.P.R. Hooper, who also went through my thin sections. Discussions with him were really of great help to me. I must also thank Dr. P.R. Hooper, for introducing me into the techniques of XRF method of analysing rock samples, and constantly helping me in the course of the work.

During the second week of March, I visited London and at first called on Prof. Howie, King's College, London, who kindly went through my thin sections from my research area, and gave his advice on the same. During my stay in London, I had been to the Institute of Geological Sciences, Kingston, London and had discussions with Dr. Livingstone, who is also working on similar problems. I had also visited the Geological Museum and the British Museum (Natural History).

From March 28th to April 5th, I had the opportunity to do field work in the Isle of Mull and Iona, in Scotland along with Dr. P.R. Hooper. The visit has been extremely helpful to me for seeing first hand one of the geologically ideal areas.

I had also the opportunity to go to Department of Geology, University of Bristol, Bristol not only to conduct XRF analyses but also to discuss with Dr. B.E. Leake, Reader in Geology on some of the connected problems connected with my research.

Research workers in the Department of Geology, Swansea working on similar problems, appreciated my knowledge on these problems but from a different orogenic zone.

The visits to the above various places were arranged by the British Council at my request and this has made it possible for me to meet many people who are working on very similar problems as that of mine. I wish to thank the British Council for all the arrangements made for my stay, research work and visits, above all for their cordial hospitality.

I wish to express my gratitude to Prof. Ager, Dr. P.R. Hooper and others of the Department of Geology, whose unstinted help has made my stay at Swansea useful.

Report made by Dr. (Mrs) S. Vishwanathan,  
Lecturer in Japanese, University of Delhi  
after her visit to Japan for participation  
in the Study tour programme for specialists.

The Government of Japan had invited scholars specialising on Japanese affairs for a stay of two weeks from 15th March to 29th March, 1971. There were three scholars from India (including myself), two from Thailand, one from Singapore and one from Indonesia.

Since the Government of Japan did not want to place scholars with a good knowledge of Japanese under their own strict schedule and allowed them to spend the limited time available for making a study in their own field of interest, I arranged my own programme for these two weeks. I utilised this time mainly for the study of the following three problems.

- (1) Japanese Language teaching methods.
- (2) Trade Union Movement in Postwar Japan.
- (3) Collection of further materials to revise my Ph.D. Thesis, "Japan's Relations with the USSR, 1945-63" to bring it up-to-date for publication as a book.

#### Japanese Language Teaching Methods:

I visited the Tokyo University of Foreign Studies and the Japanese Language School run by the Ministry of Foreign Affairs for foreign students and had talks with the Professors there. The Professor of the Tokyo University of Foreign Studies (where I had also studied Japanese for two years between 1966-68) explained to me the new methods they were using and also presented me some of the teaching materials they were using for these classes. They gave me guidance about the new method of teaching grammar and suggested me books which I would find useful for my teaching. I found these discussions very useful and am actually using these materials in my classes.

#### Trade Union Movement in Postwar Japan:

I attended the Industrial Relations Conference organised by the Japan Labour Bureau between 16-19 March, 1971 as an Observer. This also gave me an opportunity to meet many Japanese and foreign scholars, who were specialising in industrial relations. I had the opportunity to meet and

talk to Professor R.P. Dore, a noted specialist on Japanese affairs, especially Japanese society. Apart from the participants in the Conference with whom I could have individual discussions, I met the Research Officers of the Japan Labour Bureau and visited their excellent Library. As a result, they have put my name in their mailing list for their Japan Labour Bulletin.

I met Trade Union leaders of Sohyo, Domei as well as the Director of the Japan Office of the ICFTU and had useful individual discussions with them.

Collection of further materials to revise my thesis for publication.

I visited the Embassy of the USSR, the Nisso Kyokai, International House of Japan and the Cabinet Research Office of the Prime Minister's Secretariat for collection of books and materials. I also had the opportunity to have discussions with some of the Research Staff of the Cabinet Research Office.

Apart from the above, I renewed my contracts with many other Professors who are specialists on Japanese History Politics and Society both at Tokyo and Kyoto. Mention should be made of my meeting with the Editorial Board of Asahi Shimbun with whom I could have frank discussions both on Japanese affairs as well as Indian problems. Prof. Michio Nagai, a member of the Board, is a Professor of Japanese society and is also particularly interested in the development of Japanese studies in Asia.

I would like to make a particular mention of my discussion with Professor Masao Maruyama and Professor Takeshi Ishida, both specialists on Japanese political thought and political attitudes.

It goes without saying that I tried my best to acquaint all the scholars I met with the beginning of Japanese studies at the Delhi University and our plans for the future. Professors like Professor Saburo Okita, Director of the Japan Economic Research Centre and Professor Shigeharu Matsumoto are already well-acquainted with the problems regarding development of Japanese studies in the Delhi University and I could have useful discussions with them.

At Kyoto, apart from my talks with the Professors of the Kyoto University, I also visited the South East Asia Research Centre of the Kyoto University, where area studies are being developed. The special feature of this Centre is that young scholars of natural sciences are also associated with their programme. For example, while making studies made by an economist by discipline, the benefit of the

studies made by, say, a soil chemist, analysing the special features of the soil in Thailand and its connection with agricultural development, is also sought to be made available. The Centre also pays special emphasis on an intensive training in the language of the region, whose problem a scholar may wish to study. A stay of at least six months in the area under study is also made compulsory. The Centre is mainly a research Centre and though under the aegis of the University, the researchers are not directly connected with the teaching programme of the University. The Centre, however, tries to absorb bright young scholars from various disciplines and trains them up for their projects.

Lastly, my discussions with the scholars of the Institute of Developing Economics, Tokyo are also worth mentioning, especially my talks with Mr. Yajeji Watanabe, who is very well versed in Chinese affairs as well, as he is a regular member of the delegations, which makes an annual visit to the People's Republic of China to conclude the Memorandum Trade Agreement.

I found considerable interest in Indian Affairs as well as we had just had our General Elections. In response to a request from the Editor of a Journal, Sarvodaya, I recorded an interview in Japanese mainly on the results of the Indian General Elections and my assessment. This was published in the May issue of Sarvodaya (in Japanese). After returning to India, I also contributed an article to the Journal Kenshu (in Japanese) with the title Nihon wo saihomon shite (Japan Revisited) recording the changes I observed in Japan on my visit after nearly three years. This article was published in the July issue of Kenshu.

Annexure-II to Item No.2(b)(11)

Report made by Mr. J. Krishnamurthy, Research Associate in the Department of Economics, University of Delhi after his visit to Japan for participation in the Study tour Programme for specialists.

I visited Japan for two weeks in March, 1971 on the invitation of the Government of Japan under the Colombo Plan. As this was a study tour for specialists, the Overseas Technical Cooperation Agency of the Government of Japan gave us considerable freedom in deciding our programme. As this was my first visit to Japan, I decided to combine meetings with scholars with seeing the society and economy of Japan.

The first week of my stay was spent in Tokyo, where I was able to visit the Sapporo Beer Factory and the NHK Television Centre. I gave two seminars at the Institute for Developing Economies on problems of unemployment and occupational structure in India. Apart from this I was able to meet and discuss common problems with a number of distinguished scholars. I met Professor Kazushi Okhawa of Hitotsubashi University, who is the Boyen of Japanese economic historians. From my discussions with him I was able to obtain clarifications and advise on a number of problems in the subject which will help in my teaching work in the University. I also met Professors Shigeru Ishikawa and Hiroshi Fukazawa of Hitotsubashi University, Professors Toru Matsui, Matsuo Ara, and H Nakamura of Tokyo University and the research staff of the Institute of Developing Economies.

The second week was devoted to visiting Kyoto, Nara, Osaka and Hiroshima. The entire region between Tokyo & Osaka is highly developed and densely populated and the bulk of Japan's industries are located there. The problems of industrial planning, urbanisation and congestion are very serious here.

In conclusion I would like to emphasise that in a period of two weeks, while it is difficult to do much in a country one is visiting for the first time, I was able to enrich my knowledge and understanding of the economy and society of Japan.

Annexure to Item No.2(b)(12)

Report made to Unesco Headquarters by  
Prof. M.S. Yokovlev, Unesco Consultant  
in Botany, who visited India from 17th  
March to 15th June, 1971 under Unesco/  
TA Programme for CAS Project.

During the time of the mission at the Department of Botany, University of Delhi (Head of the Department Professor J.M. Johri) from 17th March upto 15th June, 1971, the following work was carried out:

1. There were delivered three lectures for the research staff of the Department of Botany, University of Delhi.
  1. "The main problems in the Study of Embryogenesis"
  2. "Botany in the USSR"
  3. "The main groups of Polyembryony in Higher Plants"
2. There were given three seminars on the problems of:
  1. "Embryogenesis and some problems of Phylogenesis"
  2. "On the Embryology of Melocanna Cambusoides"
  3. "Fertilisation and formation of the primitive Endosperm Nucleus in Anemona nemorosa.L"
3. Consultations were given and discussions held on the following topics:-
  1. The Possibility of Fusion of Protoplasts of Cells in Angiosperms (Miss Anita Kapur)
  2. Growth Regulators and their Role in Morphogenesis of Plants (Miss Usha Mehla and Miss Uma P.S. Srivastava Mr. Kanan Nanda?)
  3. Morphogenesis of Ferns (Dr. A. Rashid)
  4. The Process of Pollination and Fertilisation of Gossypium esculentum and Triticum aetivum (S. Chandra).
  5. Caenocytic structures of Gymnosperms and Angiosperms (Dr. H. Singh).
  6. The Anatomy of leaf of Euphorbiaceae ( Dr. L. Kakar).
  7. Ecological study of Oropetum; The Structure of embryo and dormancy period of seeds ( Dr. Tandon).

8. The formation of Callus from the cells of embryo and those of endosperm in Angiosperms in culture tissue (Mr. Bhogwani).
9. Palyembryony in Citrus and other Angiosperms (Dr. N.S. Rangaswami)
10. Morphogenesis in Scrophulariaceae, Asclepidaceae and others in Vitro (Dr. A.P. Ganapathy).
11. The Development of pollen grains in Gramineae (Dr. S.C. Gupta, Dr. N.N. Bhandari).
12. Embryology of Angiosperms Homameridaceae, Ranunculaceae and others (Dr. N.N. Bhandari).
13. Chalasal and Micropylar Haustoria in the family Scrophulariaceae (Mr. S.R. Parakhi).
14. Embryology of Parasitic Plants Santalaceae, Chloranthaceae and others (Dr. S.S. Bhojwani and Dr. S.P. Bhandari, Dr. S.P. Bhatnagar).
15. The Role of Biologically Active Substances in the Regulation of O and O Sex (Dr. V.S. Jaiswal).
16. Microbiological Investigations of Aspergillus and other pathological fungi (Dr. Umakant Sinha, Dr. K.G. Mukherji and Dr. K. Sharma).
17. The Elimination of Self-Incompatibility in the hybridisation of plants (Dr. K.K. Shivanna).
18. "Embryology of Angiosperms" (Dr. Kapll)

4. Besides conducting the main work in the Centre of Advanced Study in Botany, University of Delhi, I also visited the Department of Botany, University of Rajasthan, Jaipur (Head of the Department Prof. B. Tiagi), Department of Botany Chandigarh, Panjab University (Head of the Department, Senior Professor P.N. Mehra).

In Jaipur (1. 4-10-71) I delivered a lecture at the University. The title was "The main problems in the study of Morphology, Anatomy and Embryology of Angiosperms".

Besides, there were given several consultations on the following topics:

1. Comparative study of Morphology, Anatomy and Embryology in the families: Crophalariaceae (Dr. B. Taigi) Convolvulaceae (Dr. C.M. Govil); Compositae (Dr. S. Misra); Graminae (Dr. Sharma and A. Maheshwari); Moringinaceae (Dr. H. Narayana); Mimosaceae (Dr. Singh);



2. Structure and development of seed in Parietales, Fam. Cucurbitaceae, Caricaceae, Bixaceae, Cochlospermaceae, Elatinaceae, Flacourtiaceae, Passifloraceae, Violaceae (Dr. Singh, A.S.K. Dathan);
3. Structure and development of seed in Solanaceae (Dr. R.S. Sharma );
4. Cytology and embryology of high altitude Indian plants (Dr. Vijai Kaul);
5. Effect of chemicals including growth promoting substances in growth and reproduction of Tragopogon (Dr. Vijai Kaul);
6. Studies on the effect of some alkaline agents on germination, growth and reproduction of some Solanaceous crop plants (Dr. S.K. Mehra).

During my visit of Chandigarh, Panjab University, Department of Botany (7-14.5.71) Head of the Department, Prof. P.N. Mehra, I delivered a lecture, the title was:

"Embryogenesis and some problems of Phyllogenesis".

Besides, there was held a discussion on the problems of Chloroembryophytes and Leucoembryophytes among Angiosperms.

In Dehradun ( 15.5-25.5.71) I visited the Institute of Botanical Survey of India and Forest Research Institute.

Dr. K. Ramesh Rao, Dr. N.A. Rau and I have discussed some problems concerning the anatomy of woody plants and the embryology of Leguminosae,

The study of the embryology of Angiosperms (University of Delhi, Jaipur, Chandigarh) is being conducted along three main lines:

Comparative, Phylogenetic and experimental, the main attention being given to tissue culture.

The embryologists of India have contributed much to the development of comparative and phylogenetic embryology.

We suppose, that in order to carry out the research work in the field of botany, particularly in the field of embryology, more efficiently, it is necessary for the Department of Botany to have up-to-date optical equipment such as electron microscopes, etc.

It would be advisable to set up a special botanical garden on the territory of the University of Delhi or at some other place, suitable for that purpose. This garden could be

: -4- :

used for acclimitisation and introduction of flora from other parts of the world and would be of great help for training students of biology.

Appendix

Dr. N.S. Rangaswami, University of Delhi, and Dr. S. Misra, Panjab University, expressed their wish to visit USSR in order to study the method of Histo-Chemistry in Embryology, at the Komarov Botanical Institute of the Academy of Sciences of USSR (Leningrad).

We suppose that their visit to that Institute would be very useful for their future work.

M.S. Yakovlev  
Unesco Consultant  
Head of the Dept. of Morphology  
and Laboratory of Embryology  
Komarov Botanical Institute of  
the Academy of Sciences of USSR  
Leningrad USSR

Annexure to Item No.2(b) (13)

Report made to Unesco Headquarters by Prof. A.F. Bochkov, Unesco Consultant in Chemistry, who visited India from 17th January to 18th May, 1971 under Unesco/TA Programme for CAS Project.

I. Activity in India

1. According to the terms of my contract with Unesco, I visited India from 17 January to 18 May 1971. My activities were based on the Centre of Study in Chemistry, Department of Chemistry, University of Delhi, Delhi.

2. I had fruitful discussions with Professor D.G.A. Boutaev, Director of Field Operations, Unesco, Delhi and throughout the mission I worked in close collaboration with Professor I.S. Vashakidze, Unesco Coordinator on CAS, University Grants Commission, and with Dr. M.L. Mehta, Education Officer, UGC.

3. I stayed in Delhi from 17 January to 16 March, and again from 14 April to 17 May 1971. During this period I worked in close collaboration with Professor S. Rangaswami and had a series of useful discussions with him. The following work was done in Delhi University.

1) A course of six lectures was delivered on carbohydrate Chemistry, mainly devoted to the problems of Chemistry of glycosidic centres in sugar molecules. These lectures covered both material in the literature and results of my own research in this field.

2) Eighteen seminars were organised on various problems of carbohydrate Chemistry; the chief aim was to give the research students basic information in this field. The lectures were of about one hour's duration and dealt with modern methods and current trends in the synthesis and determination of the structure of these compounds. Certain aspects of science planning were also discussed.

3) Some experimental work was done in order to give training in the structural analysis of carbohydrates in micro-scale.

Photographic reproduction  
of the original manuscript

4) I discussed a number of problems confronting the staff of the Division of Organic Chemistry, and gave some advice.

5) In collaboration with research students of the Department, I carried out a partial translation into English of a Russian monograph entitled "Carbohydrate Chemistry". The translated texts of certain chapters of this book, together with the lectures prepared for

publication (see para. 8 below) are expected to be of assistance in the advanced study of carbohydrate chemistry, since adequate literature of this type was not available in English.

4. According to an agreement with UGC, I visited a number of other centres of research in organic chemistry and did some work in them. These centres and my activities in each of them are detailed below:

5. On 25 February, I visited the National Sugar Institute Kanpur. I had a number of useful discussions there with Dr. S.C. Gupta, Director, and Prof. N.G. Ramajah. I saw all the laboratories of the Institute, and discussed their problems with the leaders of the laboratories. The most fruitful discussions were held with Dr. S. Bose, with whom the problems were discussed in more detail and to whom I gave some advice. The lecture was delivered in the Institute.

6. On 26 February, I visited the Harcourt Butler Technological Institute, Kanpur, delivered a lecture there, and had short discussions with the chemists of the Institute.

7. On 27 February, I visited the Central Drug Research Institute, Lucknow, where I contacted Dr. M.L. Dhar, Director and had close and very useful contacts with Dr. N. Anand, Head of the Division of Medical Chemistry. I had a number of fruitful discussions with Dr. Anand and his coworkers, particularly with Drs. R.S. Kapil, P.C. Jain and R.P. Rastogi, and gave some advice. I delivered a lecture to the Institute where problems of the synthesis of polysaccharides were discussed.

8. I stayed in the Department of Chemistry, University of Jammu, Jammu, from 17 to 20 March and again from 23 March to 7 April. Here I worked in close collaboration with Prof. A.C. Jain, Head of the Department, and had a number of very useful discussions with him. I also discussed their problems with local scientists, and gave some advice. A course of six lectures on carbohydrate chemistry was delivered there. These lectures were then written and prepared for publication. In addition, a lecture on the system of education and science organisation in the USSR was delivered in the Department. An agreement with Prof. A.C. Jain was reached on the organisation of research in collaboration with the Laboratory of Carbohydrate Chemistry, Institute of Organic Chemistry, Academy of Sciences of the USSR, Moscow.

9. In January, I had also paid a short visit to the Regional Research Laboratory (Director Dr. K. Ganapathi) and discussed certain problems with chemists of this laboratory.

10. On 21 and 22 March, I visited the Chemistry Department of Kashmir University, Srinagar. There I met Prof. C.N. Kachru (Head of the Department) and Dr. N.K. Sharma, and had useful discussions with them. A lecture was delivered in the Department.

11. I stayed in the Department of Chemical Technology, University of Bombay, Bombay, from 3 to 7 April and again from 9 to 13 April. I had close contacts with Dr. J.G. Kane, Director, and with a number of leading chemists of the Department. A series of fruitful discussions took place during this period, and some advice was given. In particular, I discussed chemical problems with Drs. W.B. Achwal, H. Lokhande, V.A. Shenai, G.A. Sulebelle, D.V. Jamhane, K. Kasturi, G.P. Tipnis, S.K. Pradhan, S.V. Sunthakar, S. Seshadri and other. Three lectures were delivered in the Department concerning the problems of glycosides, oligosaccharides, and polysaccharides, and some enzymology problems.

12. In Bombay, I also visited three other research centres. In the Indian Institute of Technology I had a useful meeting with Professor S.C. Bhattacharya and his co-workers. A lecture on science organisation in the USSR and the problems of synthetic construction of glycosidic bonds was delivered there. Two industrial research centres were also visited, namely the CIBA Research Centre, and the Hindustan Lever Research Centre. At both places, short but useful discussions took place.

13. On 8 April, I visited the National Chemical Laboratory Poona, There I met Dr. T.R. Jungle and Dr. V.N. Cogte as well as other scientists. I had fruitful discussions with these chemists. A lecture covering the main results of my own research was delivered in the laboratory.

## II. Conclusions and recommendations

1. The Department of Chemistry, University of Delhi, gives a good training to students in organic chemistry. A number of research projects are being carried on there. I believe that Unesco aid to this Department should be designed to facilitate the wide development in this centre of research in various branches of the chemistry of natural products; the provision of modern equipment seems to be particularly necessary for this purpose. Much can be learnt from the visit of other Unesco consultants, experts in certain branches of organic chemistry which did not in fact develop in the centre. A reasonable duration for such visits would seem to be about 2-4 weeks.

2. The Department of Chemistry, University of Jammu, is a very rapidly developing organisation. The Department can develop into a centre of modern research, but the provision of quite a number of scientific instruments is necessary.

My opinion is that the Department has good prospects of development, and I recommend Unesco to provide maximum aid to this organisation, which can be used in future as a base for the creation of a new Centre of Advanced Study in the Chemistry of Natural Organic Compounds (see also my special report to Dr. D.S. Kothari) on this subject. Prolonged visits by other consultants in different branches of organic chemistry would seem desirable. In my opinion, the optimum duration of the visits should be about 2-4 months so as to enable the consultants to provide experimental training for research students. These experts should therefore be well experienced in modern experimentation in chemistry.

3. The Department of Chemical Technology, University of Bombay, is a well developed centre of both teaching and research. Its research covers the various branches of chemical technology. There is a large staff of experienced scientists. My opinion is that Unesco aid to this Centre should take the form of modern equipment. It should be noted here that according to the information I was given, the Centre has requested the visits of Unesco experts, but the organisation could not send them. In particular, the Centre wished to have the services of Prof. I.V. Torgov (Moscow) but Unesco has not so far arranged a visit.

4. In addition, I should like to make some remarks on the Unesco aid Programme, based on my own experience and thus valid for organic chemistry only.

1) The activities of consultants would be more fruitful if each one had a clear opinion on the state of his field in India. It would therefore seem reasonable to provide consultants with an opportunity of visiting the principal centres of research in India, before starting the main work of the mission. In this way, consultants would be enabled to compare the general situation in the country, to understand the main problems in a given field which are of most importance for India, and hence improve their activities in the basic place of work. In my experience, such short visits can be quite fertile.

2) The productivity of the longer visits of consultants to the different centres is likely to reach a maximum when the scientists of the centres have direct interests in the respective fields of the individual consultants. Where there is identity of interests, really fruitful collaboration becomes possible, including the organisation of collaborative research.

3) For a number of Indian Scientists, Unesco provides the possibility of prolonged training in modern laboratories

India. This experience is invaluable, and reflects directly on the development of science in India. I observed a number of good examples of the application of such experience. On the other hand, I also saw a few cases when the scientists had not been able to use the experience gained in other countries on their return from abroad. The training received in such cases has thus been fruitless. Consequently, I think that in planning the visits of Indian scientists to other countries for training, Unesco should take great care over the question of whether the individual scientist will be able to use his experience directly in his permanent place of work.

### III. Acknowledgements

First of all I should like to express my thanks UNESCO for providing an opportunity of work which was very useful to me as a scientist.

It is a great pleasure to express my sincere thanks to Prof. D.G.A. Boutaev, Director of Fields Operations, Unesco, New Delhi for very useful advice and care. I sincerely thank Prof. I.S. Vashakidze, Unesco Coordinator, for his constant attention and help in my day-to-day work and for useful guidance and advice. I express my thanks to Dr. Shankar Narayan for his valuable help in the organisation of my programme, and for his care. I thank very much Dr. M.L. Mehta, Education Officer, UGC for useful discussions and assistance. My sincere and grateful thanks are also due both to Mr. J.C. Vohra, for his constant help and to the staff of UNDP.

Wherever I went in India, I was received with kindness and care, thanks to the hospitality of all the Indian scientists mentioned in the report. It is impossible to note all of them here, and I express my most hearty gratitude to them all.

( A.F. Bochkov )  
Unesco Consultant

Report made to Unesco Headquarters by Prof. L.V. Niketur,  
Unesco consultant in Applied Mathematics, who visited  
India from 15th January to 10th April 1971 under the  
Unesco/TA Programme for C.A.S. Project.

It was suggested at first that the place of my mission would be the Centre of Advanced Study in Applied Mathematics, Jadavpur University, Calcutta-32. According to the job description, I had to deliver to the Jadavpur Centre a course of lectures on dynamical plasticity which I had prepared well in advance. However, upon my arrival in India it was decided that the main place of my mission should indeed be Delhi, University of Delhi. At Delhi University I worked from 15th January to 18 February 1971, and I finished my mission also at Delhi University from 4 to 10 April 1971.

During my stay in Delhi University at the Faculty of Mathematics (head of the Faculty, Professor U.N. Singh) the following work was carried out.

I first delivered a course of lectures under the title "mathematical approaches in brittle fracture mechanics". This subject was chosen as a result of discussions at the Faculty of Mathematics, Delhi University in the presence of representatives of the UGC. I specially prepared the course of lectures for the mathematical auditorium. The purpose of the lectures was to give general physical concepts on brittle fracture mechanics, from basic classical works up to the present state of knowledge. But the main point was to submit the mathematical statement of practically important problems in this field, the solution of which is to be obtained. The programme of the course is the physical background of theory:

Ultimate strength and theoretical strength of materials; brittle fracture stress and Griffith's approach to the strength and materials; mathematical background of theory; governing equations and boundary-value conditions; the classical Griffith problem; energy concept of Griffith; the criterion of brittle fracture; Irwin's criterion of brittle fracture and its connection with Griffith's approach; the mathematical statement of the problem for an ideally brittle elastic material; stable and unstable cracks.

General concepts of brittle fracture mechanics. Classification and analysis of brittle fracture models.

Derivation of the equation for energy rate gained by a moving crack edge for a body with arbitrary rheological properties.

Basic equations for dynamics of crack propagation. Generalisation of the Griffith-Irwin criterion in the case of dynamical crack propagation in an elastic media. Fundamental singular problems. The theorem of uniqueness for an elastic body with moving cuts. Statement of the dynamical problem for cracks.



- 2 -

Dynamics of longitudinal shear crack. Cracks in a viscoelastic medium.  
Kinetics of cracks. Influence of plasticity on crack behaviour.

This course of lectures was delivered regularly for a month at the rate of four lectures per week.

At the request of participants, these lectures were written down and the manuscript was left at the Faculty of Mathematics.

The main body of the research carried on at the Faculty is devoted to pure mathematics and is under the supervision of Professor U.N. Singh. Nevertheless there is some research in the field of mechanics (fluid dynamics, theory of elasticity). The teaching programme of the faculty contains the course on continuum mechanics, but this however, has not been delivered at the time of writing.

The level of the mathematical background of students in Delhi University is quite high and it is thought reasonable that a course on continuum mechanics could be delivered there on a good mathematical level. To implement this, it would be desirable to send a Unesco consultant to initiate the course, after which it could be delivered by the Reader of the Faculty, Dr. G.C. Ahuja.

One of the participants of my lectures, Dr. Rethindra Nath Biswas from the Defence Science Laboratory, showed special interest in the subject and requested consultations. I offered him some problems on the dynamics of crack propagation for solution. He has a rather good mathematical background and I would recommend him as a candidate for a Unesco fellowship. The programme of his possible work is fixed and has been discussed with him. His work would be continued at the Institute of Earth Physics of USSR Academy of Sciences or at the Moscow University. By the way, he has some knowledge of the Russian language, in which he also possesses a certificate.

Besides the lectures mentioned above which I delivered at Delhi University, I gave popular talk on biomechanics under the title "mechanics of muscular contraction". This lecture aroused some interest and was discussed with a number of persons afterwards.

On 19 February I was sent to Kurukshetra University where I stayed until 28 February 1971. In the Kurukshetra University I worked at the Department of Mathematics (head, Professor Chopra). There, under the supervision of Professor Chopra, rather intensive and interesting investigations in the field of geophysics (wave propagation in a layered medium, propagation of Raleigh waves in non homogeneous media, study of shifting of the centre of the Earth's mass owing to earthquakes and so on) are carried on. I took part in discussion on current research.

I gave three seminars at this University. One of these was devoted to a review of the recent state of brittle fracture mechanics, the second to the application of the methods of brittle fracture mechanics to the study of earthquake mechanism, and the third to the investigation of the non stable state of the fault in the Earth and its dynamical propagation, leading to earthquakes.

p.t.o

I discussed the carrying out and planning of research work and made some suggestions with the aim of improving and directing these activities.

In Baroda I also visited the Department of Biochemistry. The head of the Department, Prof. Ramakrishnan, acquainted me with the current research. It appeared that we have some common interest in the field of muscular contraction investigation. At Prof. Ramakrishana's request, I delivered a popular talk in connection with Biochemistry and mechanics of muscular contraction in his department.

From 29 March to 4 April I visited the Indian Institute of Technology in Bombay. Here I visited the Department of civil Engineering (Head Prof. C.K. Tamesh) and was acquainted with the very interesting and large research projects at the Department which are devoted to seismic vibration response, wind flutter, bridge vibration, machine vibration on foundations, and biodynamics. I delivered two lectures for faculty members, research students and scholars on the following topics:

- 1) "Brittle fracture mechanics" (Review, lecture)
- 2) "Structural damping"

Both the lectures and specially the second, were followed by interesting discussions.

At the request of the Mathematical Society of the Delhi University, I studied the possibility of publishing two scientific papers and gave a written report. The first paper was by Prof. B.R. Seth, Vice Chancellor, Dibrugarh University, and was devoted to the derivation of equations of elastostatics in terms of the Almansi strain tensor. The second was by Dr.G.C. Ahuja, reader of the Delhi University, and was devoted to the searching of similarity solutions for the system of equations governing free convection from a plate.

Technical Report on UNDP/TA 1967-68: Fellowships in  
Plant Taxonomy and Plant Ecology.

- 
1. Name of the Fellow : Dr. K.M.M. Dakshini
2. Address : Department of Botany  
University of Delhi  
Delhi 7, (India)
3. Status before the award  
of the fellowship : Lecturer in Botany
4. Present status : Lecturer in Botany
5. Duration of fellowship : From October 2, 1969  
to  
October 30, 1970
6. Countries of training  
and visit. : Part I - U.S.S.R.  
Part II - U.K.  
Part III - France, Netherlands,  
Denmark, Austria,  
Hungary

I. Details of places of work and projects undertaken:

Part I

- a) Country of Study - U.S.S.R.
- b) Duration of Study - October, 2 1969 to January 29, 1970
- c) Places of Study - 1. Botanical Garden, Moscow  
2. Department of Botany, Moscow University, Moscow.  
3. Institute of Plant Physiology, Moscow  
4. Botanical Institute, Academy of Sciences, Leningrad  
5. Vegetation Cartography Laboratory, Academy of Sciences, Leningrad
- d) Places of visits - 1. Bach Institute of Biochemistry, Moscow  
2. Timiriazev Agricultural Institute, Moscow.  
3. Botanical Garden, Kiev.  
4. Botanical Institute, Kiev.  
5. Botanical Garden, Tashkent

6. Botanical Institute, Tashkent
7. Herbarium, University, Tashkent
8. Institute Lesa, Tbilisi
9. Plant Physiology Institute, Tbilisi
10. Herbarium, Botanical Institute, Tbilisi
11. Field Research Station of Forest Department of Georgian SSR at Lagodekh

- e) Projects undertaken -
1. Study of Herbarium specimens and living populations of Genus Bidens, with a view to assess the evolutionary tendencies within the taxon, and their taxonomic implications.
  2. Study of methods of Vegetation Cartography.
  3. Study of the effect of soil salinity on the internal structure of chloroplast.

- f) Information required vide item 3(a) of ANNEX III - of the letter of award of fellowship.
- The fellow:
1. Had theoretical knowledge of the Russian concept of species.
  2. Had no practical experience of vegetation cartography as practised in USSR.
  3. Did not know of the physiological stresses at the sub-cellular level during drought and frost conditions.
  4. Had no knowledge of working with and handling Transmission Electron Microscope.

- g) Information required vide item 3(b) of ANNEX III of the letter of award of fellowship.
- The awardee:
1. Has learnt and worked out the techniques of demarcation of the species as understood by Russian Botanists.
  2. Has learnt techniques of vegetation cartography.
  3. Has learnt the techniques to measure the physiological stresses at the sub-cellular level, and also the methods to induce drought and frost hardness in plants.
  4. Has learnt working with the handling of Transmission Electron microscope.

Part II

1. Country of Study : U.K.
2. Duration of Study : January 30 to October 5, 1970
3. Place of Study : Department of Botany  
The University, Reading
4. Places of visits : Taxonomy and Ecology labs at Edinburgh,  
Glasgow, Liverpool, Leicester, Bangor, Bath,  
Rothamstead, Oxford, Cambridge, Kew and  
London.
5. Projects undertaken :
  1. Continuation of the study of Genus Bidens.
  2. Techniques of Scanning Electron Microscope.
  3. Techniques of Phytochemistry and Chaemo-  
taxonomy.
  4. Methods of Numerical Taxonomy.
  5. Statistical methods for the analysis of  
vegetation.
6. Other Academic Activities:
  1. Participated in the teaching program at  
the Department of Botany, The University,  
Reading
  2. Participated in the following International  
symposia:
    - a) Scanning Electron Microscopy at Reading
    - b) Biology and Chemistry of Umbelliferae  
at Reading.
    - c) Phytogeography of South East Asia at  
Edinburgh
    - d) Transmission Electron Microscopy at  
London.
7. Information required vide : Did not know Scanning Electron Microscope,  
item 3(a) of ANNEX III of its techniques and utility for taxonomic  
the letter of the award of purposes.  
the fellowship.
  2. Did not possess sufficient efficiency in  
phytochemical techniques.
  3. Had meagre knowledge of numerical methods  
for taxonomic assessment of taxa.
  4. Had no first-hand information of mathema-  
tical analysis of Plant Communities and  
study vegetation.

8. Information required vide : The awardee:  
item 3(b) of ANNEX III of  
the letter of the award  
of the fellowship.
1. Has learnt the techniques of working with scanning Electron Microscope and the importance of Microcharacters for taxonomic purposes.
  2. Has learnt advanced methods of phytochemical analysis.
  3. Has learnt advanced methods of numerical analysis of Angiosperm taxa.
  4. Has gained field experience of statistical and mathematical analysis of vegetation.

Part III

Supplementary Programme

Duration : October 6 to 30, 1970

1. Visits to Herbaria and experimental gardens at the following places in Europe:
  - 1) Musee National d'Histoire Naturelle Laboratoire de Phanerogamie, Paris.
  - 2) Botanical Museum and Herbarium, Utrecht
  - 3) Rijksherbarium, Leiden
  - 4) Hugo de Vries Laboratories, Amsterdam
  - 5) Botanical Museum and Herbarium, Copenhagen
  - 6) Botanisches Institut und Botanischer Garten der Universität, Vienna
  - 7) Naturhistorisches Museum, Vienna
  - 8) Institute of Systematic Botany and Plant Geography of the University, Budapest.
- II. Paper in press or in preparation (Manuscripts based on the work done during the tenure of the fellowship only)
  1. Heywood, V.H. and K.M.M. Dakshini : Fruit Structure in the Umbelliferae-Caucalideae - Academic Press - In Press
  2. Bramwell, D., and K.M.M. Dakshini: Phytochemistry of Canarian Sonchus Phytochem. In Press.
  3. Dakshini, K.M.M. and D.Bramwell: Canarian Sonchus - A reassessment. Proc. Linn. Soc. In Press.
  4. Dakshini, K.M.M. - Genus Bidens - A revision. In Press.
- III. Information required vide :  
item 3(c) of ANNEX III  
of the letter of award of  
the fellowship.  
: The experience gained and the various techniques learnt during the tenure of the fellowship are being used while imparting instructions to

undergraduate and post-graduate students. Also, as a result of discussions and experimental projects the information is being diffused to several other persons engaged in somilar type of research programs. In addition, useful scientific discussions with the varicus scientists working at the above-mentioned Institutes has helped the awardee to improve his perspective of thinking, designing of research programs in the field of Plant Taxonomy, Plant Ecology, and Evolutionary Botany.

Acknowledgements

I am grateful to Unesco, Paris, for the grant of Fellowship, to the Academy of Sciences, Moscow, U.S.S.R., and The British Council, London, U.K. for arrangement and facilities provided during my stay in their respective countries. The excellant administrative arrangements by Unesco, Paris, for the transfer of Fellowship from U.S.S.R. to U.K., and also for Part III of the Programme, are greatly appreciated. I wish to express my gratitude specially to Professor V.H. Heywood and Dr. J. Harborne (U.K.), Professor A. Takhtajan and Acadmician V. Guliaschavili (U.S.S.R.) for facilities for work in their respective labs.

Sd/-  
K.M.M. Dakshini

Annexure II to Item No.2(b)(15)

Technical report on UNDP/TA 1967/68 Fellowship

1. Name of the fellow : Dr. M.R. Vijayaraghavan
2. Address : Department of Botany  
University of Delhi  
Delhi 7, India.
3. Status before the award  
of fellowship : Lecturer in Botany
4. Present Status : Lecturer in Botany
5. Duration of Fellowship : From May 5, 1970 - February 3, 1971
6. Countries of Training : U.S.A.

TECHNICAL REPORT

During the tenure of UNESCO Fellowship awarded to me for 9 months under the UNDP 1968 Technical Assistance Programme for Centre of Advanced Studies, commencing May 5, 1970, I worked with Professor William A Jensen, Department of Botany, University of California, BERKELEY, California, USA. A brief account of the research I conducted is presented below:

A. Techniques of Electron Microscopy

Electron microscopy techniques were employed to study plant embryology. Various sizes of buds and flowers of Aquilegia Formosa and Barriculus acris before and after anthesis, were collected from the Botanical Garden, Berkeley. Complete ovules were dissected out from carpels and fixed immediately in 5 per cent glutaraldehyde, buffered by 0.05 M sodium cacodylate at pH 7 for 12 hours at 4°C, and post-fixed with 2 per cent unbuffered osmium tetroxide for 12 hours. The ovules were dehydrated through ascending grades of acetone; acetone \* eopn and, finally, embeded in epon. Many other fixatives were tried, but this one penetrated the tissues slowly and preserved the ultrastructural details.

The epon mixture contained an amine accelerator, benzyl di-methylamine (BDMA), and an hardner dodeceny succinic anhydride (DDSA). Silver gray sections were cut with a diamond knife in porter Blum Ultratome I. The sections were picked on copper grid. The material was stained with 1 per cent uranyl nitrate in 70 per cent acetone, and post-stained with lead citrate and observed in a Zeiss Electron Microscope EM 9.

Histochemical studies for light microscopy were conducted with 2 micron thick sections. Nucleic acids were localized on material fixed with Glutaraldehyde and osmium tetroxide, and the use of Azura B (Jensen 1962) gave good results.



'Insoluble carbohydrates' and general 'Protein' were localized in the ovules fixed in GA, and stained with periodic acid Schiff (PAS) reaction and aniline blue-black (Fisher, 1968) respectively.

## B OBSERVATIONS

Immature synergid. The egg apparatus includes two synergids and an egg (Maheshwari, 1950). The base of the synergids penetrates into the micropylar portion of the nucellus. The nucellus is 2-layered and both the layers are densely packed with starch, which is lacking in the synergids. The apex of the nucellus is smooth and lacks the electron-dense layer that is found in the integumenta. The nucleus, nucleolus and the cytoplasm of the synergids stain intensely for protein as do the fused polar nuclei and the antipodal cells. The filiform apparatus occupies the micropylar one-third region of the synergid and shows a negative staining for 'Protein', but a PAS positive reaction thereby indicating its wall-nature. Electron microscopic observations indicate that each synergid has a cell wall which is prominent towards the micropylar and but gradually become thin in the chalazal portion.

Each synergid has a common wall either with the egg or the other sister synergid. The wall between the two sister synergids is prominent at the micropylar end, it is not straight and uniform but with invaginations giving it an undulating appearance. Towards the chalazal and this wall gradually thins down to a plasma membrane. The micropylar region of each synergid has a diagnostic morphological feature having its wall not only irregularly thickened but also with irregular ingrowths which protrude as finger-like projections, the filiform apparatus. Under the light microscope, as soon in thick sections cut at 21 $\mu$ , ingrowths are not clearly seen and may even be mistaken for a solid core of wall. Electron microscopic studies, however, reveal two structural components of the filiform apparatus an electron translucent area surrounded by more electron dense protuberances of various sizes and shapes. This core gives a positive reaction for insoluble carbohydrates with PAS. The plasma membrane follows the contours of the filiform apparatus which greatly increases its surface area in these regions.

Cytoplasmic constituents of the synergid: The synergids contain a large number of mitochondria of various shape and size, evenly distributed in the cytoplasm. The average diameter of the mitochondria range from .0007 $\mu$ . The cristae are short and appear to be more or less tubular with no special or regular arrangement. Ribosome-like particles fill the mitochondria. Many mitochondria have clear areas in the center and, between the cristae, contain many tiny fibrils. Also found, rarely, are intramitochondrial particles.

A large number of dictyosomes are randomly distributed in the synergid cytoplasm. Each dictyosome consists of 4-6 flat cisternae, the middle one tend to be the largest. The average length of cisternae

is .0005m. Associated with the dictyosomes are vesicles which are always electron translucent. The endoplasmic reticulum (ER) is extensive in the synergid and oriented parallel to the long axis of the cell wall or the plasma membrane. The ER is grouped in arrays of 2-8 membranes, sometimes stacked, and follow the contour of the synergid wall. The number of plastids is fairly low in the synergid when compared to the egg and adjacent nucellar cells.

Synergid hook: Electron microscopic studies confirm that the hook is the result of the indentation of cytoplasm. The hook cytoplasm is filled with numerous ribosomes, mitochondria, and a large number of dictyosomes. Plastids of various shape, and rough ER are also concentrated in this region. It appears that the hook region of the synergid is as active as that of the filiform apparatus although the cytoplasm in these two regions differ considerably.

Degenerating synergid: Many organelles like mitochondria, ER, and plastids are gradually encircled by dark osmophilic material. The vacuole contains many membrane-bounded organelles. The cristae of mitochondria are irregularly distributed. Dense ribosomes increase in number in the degenerating synergid and are distributed in rows of two. The ER assumes various shape and size and is filled with small bodies. In completely degenerated synergid cytoplasm, spherical bodies are found and these have a central electron-dense material surrounded by an electron-translucent area. These bodies may be the discharge of the pollen tube.

The strategic position of the filiform apparatus (FA) and the peculiar morphological nature of its cytoplasm indicate that they act as transfer cells, and not only absorb the solutes but also direct them within the synergids.

### C Manuscript

A manuscript entitled 'synergids of *Aquilegia formosa* - Their histochemistry and ultrastructure', in collaboration with Professor W.A. Jensen, is being sent for publication in phytomorphology.

My special thanks are due to Dr. Jensen for providing the necessary facilities including the loan of a diamond knife (I am sorry I could not get one from UNESCO, despite many attempts to procure one by me, through Mrs. Natesha Deakin, Programme Administrator, IIE, UNITED NATIONS, PLAZA, New York). My special thanks are due to her for her valuable advice and help from time to time.

The embedded material of Fanunculus would be cut as soon as the Electron Microscope is installed in the Botany department at Delhi.

D Visits

I also visited the following botanists for discussions on problems of mutual interest.

1. Professor E.M. Gifford Jr, Department of Botany, University of California, DAVIS, California.
2. Professor P.B. Tomlinson, Fairchild Tropical Garden, Miami, Florida. Here I collected many botanical specimens for work at home. Special mention is made to the genus Phytidophyllum.
3. Dr. R.H. Eyde, Department of Botany, National Museum, Smithsonian Institution, Washington, DC.
4. Dr. A. Cronquist, Bronx Botanical Gardens., BRONX, New York.
5. At the suggestion of Professor B.M. Johri, UNESCO also arranged a ten-day visit to the Institute of Specialized Botany, ZURICH, Switzerland.

My thanks are to Dr. Gilbert Bocquet, who placed at my disposal the cleared material of Silene colorata and S. conica.

6. I also attended the AIBS meeting held at Indiana University, Bloomington, from 24th August to 28th August, 1970

Sl/-  
M.R. Vijayaraghavan

September 14, 1971.

Annexure to Item No. 2(b)(18)

REPORT ON THE PARTICIPATION AT THE XIVTH CONGRESS  
OF IAER, PARIS, AUG. 29/SEPT. 3, 1971

by  
Dr. A. P. Verna  
Professor & Head, Department of Mathematics,  
S.V. Regional College of Engrg. & Tech., Surat-I.

(A) JELLYRY OF TRAVEL:

Dep : Surat 24/8/71 Arr : Delhi 25/8/71 by train  
Dep : New Delhi 29/8/71 at 0845 hrs by Air India Flight No. 515  
Arr : Paris 29/8/71 at 1715 hrs (local time)  
Dep : Paris 5/9/71 at 1415 hrs by Air India flight No. 112  
Arr : New Delhi 6/9/71 at 1830 hrs by IAC Flt. No. 188 by Air  
India upto Bombay).  
Dep : New Delhi 8/9/71 Arr: Surat 9/9/71.

(B) ACA-DEMIC PARTICIPATION:

The academic session of the International Congress of IAER commenced on 30/8/71 at 0930 hrs. The major technical sessions were categorized into Sec. I - IV, and only one Section ran at a time. There were about 650 delegates to the IAER Congress with only two from India. The other participant from India was Mr. C.V. Gole, Director, Central Water & Power Research Station, Poona.

The technical Sessions Committee of IAER decided the following pattern for paper reading and discussion of the research papers. A set of international experts were appointed to give a general review on the papers which were to be read in the session. Each expert was assigned about 8-10 papers for such reviewing. After the general review, the author was called upon to give comments on the review of his paper. Thereafter, the paper was given for discussion to the open session.

My paper titled "Fingerinhibition in groundwater replenishment through inhomogenous medium with a slightly varying phase density" belonged to technical session I (S.No. A-30) and was reviewed by Academician O.F. Vasiliev, Corresponding Member of the USSR Academy of Sciences, Department of Applied Fluid Mechanics, Institute of Hydrodynamics, Novosibirsk, USSR. The review essentially consisted of a resume of the paper, and raised only one point for discussion and that was about the relatively greater relevance of this paper to problems of petroleum technology than to hydrological situations. I gave a written reply to this comment and the same will be published in the post congress proceedings. There were a number of interested enquiries from many participants of other countries (including Denmark, Germany, USA, Canada & USSR) who wanted to know more about the mathematical techniques which I have been applying for solving problems in hydrology and Petroleum Technology. They collected quite a few reprints of my recent publications. On the other hand I was able to discuss the problems of my current research interest with experts from USA and USSR and it has certainly given me for greater insight into my field of research.

Beside my own paper, I took part in the discussion of many other papers which were read in various sections for example, A/30, A/37, B/17, C/11 etc.

Contd.....

(2)

(C) NOMINATION COMMITTEE OF IADR

I was nominated as a member on the Seven member nomination Committee of IADR for recommending the Council of IADR for next two years. I took part in all its deliberative and we recommended a council consisting of one president, three vice-presidents and seven members..

I proposed the name of Dr. M. Manohar, Principal, Maulana Azad College of Technology, Bhopal (M.P.) for nomination as a member in the council and the same was accepted after due discussion about his research contributions etc. Dr. Manohar has outstanding research contribution to his credit in the field of coastal Engineering.

(D) ACADEMIC & SOCIAL TOURS/FUNCTIONS:

The Organizing Committee of IADR had arranged a number of academic and social tours/functions during the Congress session and post congress session. I participated in the following conducted tours to Chatou, Maison d' Alfort (Central Labotair, Paris):

Monday: 30th August : 7.30-10 P.M. : Cocktail Party at the Eiffel Tower Restaurant.  
Wednesday: 1st Sept. : 9.30 P.M. : Night Festival at the Chateau de Versailles.  
Friday: 3rd Sept : 7,30 P.M. : Farewell Banquet at the Foyer du Theatre de Chaillot.

(E) TRAVEL EXPENSES\* (ONE WAY ONLY FROM SURAT TO PARIS. )

Air fare from New-Delhi to Paris	Rs. 2,992/-
First class Rail fare from Surat to New Delhi:	<u>Rs. 103/50</u>
	<u>Rs. 3,095/50</u>

(RUPEES THREE THOUSAND NINETY FIVE & PAIS. FIFTY ONLY )

\*Note: (i) I have travelled thro ghout by Air India Carrier only.

(ii) The fare mentioned about is the exact amount paid by me.

(iii) The amount of Rs.3095/- which is being claimed from UGC is in accordance to their sanction letter No. F.15-30/11(CO) dt. 24.8.1971 for Rs.3,000/-.

Sd/-  
(A.P. Verma)

(3)

XIVTH IAHF CONGRESS, PARIS AUG. 29/SEPT.3, 1971  
ABSTRACTED FROM GENERAL REPORT BY OLEG F. VASILIEV

Subject : A: Transfer Problems in liquid flow

Number	Author	Title
A - 30	A.P.Verma	Fingeroimbition in groundwater replenishment through inhomogenous medium with slightly varying phase density.

I shall begin with the paper by Professor A.P.Verma (India) devoted to a complicated phenomenon which may occur under certain conditions in groundwater replenishment through an inhomogenous porous medium. The author calls this phenomenon Fingeroimbition. In fact the phenomenon combines two simultaneous phenomena: Fingering and Imbibition, which arise in displacement processes for immiscible phases, the former being due to the difference in viscosity, the latter to that in wetting ability of the fluids. These phenomena together with the displacement process in a cracked porous medium have gained a great current importance for both oil industry and engineering hydrogeology.

The paper discusses a theoretical model of Fingeroimbition in groundwater replenishment through the porous medium which is assumed to consist of a well developed system of randomly oriented fissures.

The basic assumptions of the investigation under review are the following:

- (1) The native water and the injected water form two immiscible liquid phases of different salinities with a small viscosity difference.
- (2) the injected water is regarded as preferentially wetting, less viscous phase with a slightly varying density. The author has formulated a nonlinear differential system describing the phenomenon and has obtained an approximate solution with the help of a perturbation method. This gives an analytical expression for the distribution of injected water saturation.

In conclusion it could be noted that, in my opinion, the results obtained by the author may have more relevance to oil output technology. As to the hydrological uses mentioned at the end of the paper, it seems that the correctness of the above assumptions in application to the situations given by the author (the injection of water into an airfilled porous medium, the encroachment of seawater into coastal aquifers) is still to be discussed in greater detail.

UNIVERSITY GRANTS COMMISSION

Meeting :

Dated : 1st December 1971.

Item No. 3 : To approve the statement of grants released after the last meeting of the Commission held on 6th October 1971.

P L A N

S.No.	Name of the University	Purpose	Grant released
1.	2.	3.	4.

1.	Agra	Book grant for the Institute of Household Arts and Home Science, Agra, for 1969-70	749,57
		Grant for the employment of trained coaches	1,500
		Purchase of books and journals for the Institute of Home Science	25,000

Affiliated Colleges

D.S.B. Govt. College, Nainital	Development of postgraduate studies in Science subjects	24,000
C.L. Jain College, Firozabad	--do--	5,000
Sahu Gopinath Girls Degree College, Bareilly	Purchase of library books, equipment & furniture	5,000
D.A.K. Degree College, Moradabad	Expansion of Science education	10,000
Gandhi Faizam College, Shahjahanpur	Construction of library building and purchase of library furniture	40,000
S.M. College, Chandausi	Construction of library building and purchase of Science equipment and furniture	20,000
Sri Chitragupta Degree College, Mainpuri	Construction of library building, purchase of library books and furniture	15,000
Womens' Training College, Dayalbagh, Agra	Purchase of books, furniture and audio-visual aids	6 p.t.o.

Agra contd.

Hindu College, Moradabad	Construction of Non-Resident Students' Centre	10,0000
J.S. Hindu Degree College, Amroha	Expansion of Science education	7,3300
Smt. Bhagwati Devi Jain Girls Degree College, Agra Cantt	Construction of library building and purchase of library furniture	25,0000
R.P. Degree College, Mirganj(Bareilly)	Grant to Students' Aid Fund	7500
Sarswati Degree College, Hathras	--do--	7500
Raja Balwant Singh College, Agra	--do--	3,2500
Sarswati Degree College, Hathras	Grant for programmes of student welfare 1970-71	2,5000
Swami Ram Tirth Govt. Degree College, Tehri-Garhwal	--do--	2,5000
Agra College, Agra	--do--	6,0000
--do--	--do-- for 1969-70	5000
Kishori Raman College, Mathura	--do-- for 1970-71	6,0000
UP College of Veterinary Science and Animal Husbandry, Mathura	--do--	2,5000
Upadhi College, Pilibhit	Book grant for 1969-70	1,125
Radhey Hari Degree College, Kashipur	--do-- for 1970-71	1,125
Paliwal Degree College, Shikohabad	--do--	1,125
J.S. Hindu Postgraduate College, Amroha	--do--	1,125
Hindu College, Moradabad	--do--	1,625
K.R. Girls Degree College, Mathura	--do--	1,125
Smt. D.D. Jain Girls Degree College, Agra	--do--	1,375
M.G.B.V. Degree College, Firozabad	--do--	1,125
Raja Balwant Singh College, Agra	--do--	1,625
S.M. College, Chandausi	--do--	1,375
G.D. Hindu Girls College, Moradabad	Award of scholarships for postgraduate studies in Sanskrit during 1971-72	1,282.26
--do--	--do--	1,272.58
D.S.B. Govt. College, Nainital	Purchase of laboratory equipment	52,500
Paliwal Degree College, Shikohabad	--do--	5,000



Agra contd.

Agra College, Agra	Utilisation of services of retired teachers	5,500
St. John's College, Agra	<del>do</del>	5,274.19
Hindu College, Moradabad	Financial assistance to teachers for research work in Humanities and social sciences	250
Total		2,97,214.60

2. Aligarh Muslim

Grant for providing external electrical services to the Medical College and the hospital attached thereto	20,000
Grant towards the sewerage and sewage disposal scheme	50,000
Construction of first floor of Zoology department	50,000
Grant towards the additions/alterations in the newly constructed quarters for Professors, Readers and Lecturers of Jawaharlal Nehru Medical College	2,00,000
Purchase of books and journals for the Law deptt.	12,500
Award of scholarships at the Centre of Advanced Study in History	5,000
Purchase of equipment under the increase intake scheme at the College of Engg.	15,000
Construction of Electrical Engg. Block for Z.H. College of Engg. and Tech.	50,000
Construction of roads for the Jawaharlal Nehru Medical College and the hospital attached thereto	50,000
Construction of Workshops Bays (Block I & II)	20,000
Construction of kitchen and Cafeteria at the University Polytechnic	15,000

p.t.o.

Aligarh contd.

Award of fellowships for undertaking writing of books at university level	432
Purchase of equipment furniture and books for Men's Polytechnic	15,000
Purchase of two water coolers for Medical Students hostel and Engg: Students' Hostel	15,000
Provision of water supply for Jawaharlal Nehru Medical College and hospital attached thereto	30,000
Augmentation of electrical supply in university campus	20,000
Grant towards maintenance and staff for introduction of part-time postgraduate Diploma course in Business Management	70,000
Purchase of additional equipment for the Jawaharlal Nehru Medical College	75,000
Award of scholarships for postgraduate studies in Arabic during 1971-72	1,229,003
Financial assistance to teachers for research work in Sciences	250
Total	<u>7,14,41,03</u>

## 3. Allahabad

Purchase of books and journals for science deptts.	10,000
-do- Law deptt	12,500
Award of sr. research fellowships in Sciences- contingency grant	1,000
Financial assistance to teachers for research work in sciences	250
-do-	500

Affiliated Colleges

Allahabad Degree College, Allahabad	Expansion of library facilities	30,000
-------------------------------------	---------------------------------	--------

Allahabad contd.

C.M.F. Degree College, Allahabad	Basic grant for purchase of library books	500
Allahabad Agricultural Institute, Allahabad	Utilisation of services of retired teachers - contingency grant	1,000
Ewing Christian College, Allahabad	Grant for programmes of student welfare for 1970-71	5,000
	Total	<u>60,750</u>

## 4. Andhra

Purchase of books and journals for the Law deptt.	12,500
Construction of building for the increase in admission in chemical Technology at J.V.D. College of Science and Technology	10,000
Construction of building for the postgraduate course in Engg (Civil branch) at the college of Engineering	12,000
Construction of building for the reorganisation of three year degree courses into four year integrated course in Pharmacy	10,000
Construction of Students' Hostel block in South campus	50,000
Grant for holding a Seminar on "Thin Film Technology"	8,450
Utilisation of services of retired teachers	2,333.33
Financial assistance to teachers for research work in Sciences	560

Affiliated Colleges

Sir C. Ramalinga Reddy College, Eluru	Book grant for 1970-71	1,625
Y.S. Govt. College for Women, Chirala	-do- for 1969-70	749.34
Kakaraparti Dhavanarayana College, Vijawada	-do- for 1970-71	4,875

Andhra Contd.

Jagalamudi Kuppaswamy Choudhary College, Guntur	Book grant for 1970-71	1,6255
S.K.B. Ramar's College, Amalapuram	-do-	1,6255
Jagaramudi Kuppaswamy Choudhary College, Guntur	Grant to students' Aid Fund	3,2500
St. Joseph's College for Women, Waltair	-do-	1,7500
R.S. Visakhapatnam St. Joseph's College for Education, Guntur	-do-	7500
St. Joseph's Training College for women, Guntur	Grant for programmes of students' welfare 1970-71	2,5000
N.T. Ramarao College, Nandigam	-do-	2,499,73
St. Joseph's College for Women, Visakhapatnam	-do-	4,0000
Govt. Arts and Science College, Razole	-do-	2,5000
Maris Stella College, Vijayawada	Purchase of laboratory equipment	5,0000
Andhra Loyola College, Vijayawada	-do-	5,0000
Kakarparti Bhavnarayan College, Vijayawada	Purchase of Semi-Micro Analysis equipment	5,0000
S.R.R. & C.V.R. Govt. College, Vijayawada	-do-	5,0000
Govt. Women's College, Srikakulam	-do-	5,0000
S.K.B.R. College, Amalapuram	-do-	5,0000
-do-	Construction of science laboratories	11,0000
Andhra Jateeya Kalasala, Machilipatnam	Basic grant for purchase of laboratory books	500
St. Joseph's College for Women, Waltair, R.S. Visakhapatnam	Extension of laboratories	45,0000
S.S. & N. College, Narasaraopet	Construction of Men's hostel	40,0000
A.N. Rao College, Gudivada	Estt. of Text Book library	1,0000
Govt. Arts & Science College, Mancherial	-do-	349
J.M.J. College for Women, Tenali	Grant to college library for loan of books to students	8,0000
Andhra Jateeya Kalasala, Machilipatnam	Purchase of semi-Micro Analysis equipment	5,0000
College of Engineering, Kakinada	Purchase of Water Cooler	1,0000

Andhra contd.

Maris Stella College, Vijayawada	Grant to college library for loan of books to students	12,000
Akkeneni Nageswara Rao College, Gudivada	-do-	12,000
D.N.R. College, Bhimararam	Financial assistance to teachers for research work in sciences	500
	Total	<u>2,99,881.40</u>

## 5. Annamalai

	Grant towards the scheme of visiting studentships for 1970-71	328,70
	Grant towards staff salaries and maintenance for the scheme of additional facilities for the department of engg.	10,000
	Award of fellowships at the Centre of Advanced Study in Marine Biology	5,000
	Grant-in-aid for field training of M.Sc. Geology Students during 1971-72	1,790
	Total	<u>17,118.70</u>

## 6. Awadhesh Pratap Singh

Affiliated Colleges

Maharaja College, Chhatarpur	Construction of Non-Resident Students' Centre	15,000
Govt. Girls Degree College, Rewa	Purchase of equipment and furniture	20,000
Law College, Shahdol	Construction of library building	5,588
Govt. Science College, Rewa	Grant for programmes of student welfare 1970-71	6,000

n.t.o.

Awadhesh Pratap Singh Contd.

Govt. Sanskrit Degree College, Rewa	Grant for programmes of student welfare 1970-71	2,5000
Chhatrasal Municipal Degree College, Maharajpur	-do-	2,5000
-do-	-do- for 1969-70	2,500
Govt. Science College, Rewa	-do-	5000
Chhatrasal Govt. College, Fanna	-do-	2,500
Maharaja College, Chnatarpur	-do-	5000
	Total	<u>53,0883</u>

## 7. Banaras Hindu

Grant towards salary of staff appointed in Humanities and Social sciences deptts.	5,30,000
Purchase of books and journals for the law deptt	12,500
Equipment grant for the extension of poultry unit for the development of Agriculture studies	25,000
Provision of an A.C. Sheet Shed behind the Traumatic Block of the S.S. Hospital attached to the Institute of Medical Sciences	787,07
Grant for holding a Symposium on "Hypertension and Coronary Heart Diseases"	10,350
Grant towards salaries of additional staff appointed in Science deptts.	5,00,000
Grant towards salaries of staff and maintenance for the introduction of a part-time Postgraduate Diploma course in Business Management	1,00,000
Grant towards educational tours in respect of the IVth year students (batch 1970-71) of various Engrs deptts.	71,964

Affiliated Colleges

Vasant Kanya Mahavidyalaya, Kamachha, Varanasi	Grant for programmes of student welfare 1970-71	2,500
--	---	-------

Banaras Hindu contd.

Vasant Kanya Mahavidyalaya, Kamachha, Varanasi	Grant for programmes of student welfare for 1969-70	250
Vasanta College for Women, Varanasi	Construction of Library building	15,000
	Total	<u>8,68,351.07</u>

## 3. Bangalore

Utilisation of services of retired teachers	3,266.87
--	----------

Affiliated colleges

Sri Renukacharya College of Arts and Science, Bangalore	Purchase of laboratory equipment	5,000
Mount Carmel College, Bangalore	--do--	1,500
College of Arts and Science, Bangalore	--do--	15,000
Mount Carmel College, Bangalore	Construction of Women's Hostel	20,000
--do--	--do--	40,000
B.M.S. College for Women, Bangalore	Purchase of laboratory equipment, furniture and books	10,000
M.E.S. College of Arts, Commerce and Science, Bangalore.	Extension of library and laboratory facilities	23,000
The National College, Jayanagar, Bangalore	Grant for programmes of student welfare 1970-71	5,000
M.E.S. College of Arts, Commerce and Science, Bangalore	--do--	6,000
National College, Basavanagudi, Bangalore	--do--	4,000
Ramanarayan Chellaram College of Commerce, Bangalore	--do-- for 1969-70	500
M.E.S. College of Arts, Commerce and Science, Bangalore	--do--	3,000

p.t.o.

Bangalore contd.

National College, Basavangudi, Bangalore	Grant for programme of student welfare for 1969-70	467,85
The National College, Jayanagar, Bangalore	-do- -	1,000
R.V. College of Engg., Bangalore	-do- for 1970-71	3,916,15
M.E.S. Teachers' College, Bangalore-3,	Special grant for books and journals for development of Teachers Training Programme	2,000
Vijaya College, Bangalore	Grant to college library for loan of books to students (Book banks)	12,000
Sri Renukacharya College of Science & Arts, Bangalore	-do-	12,000
S. Nijalingappa College, Bangalore	-do-	12,000
M.E.S. College of Arts, Commerce, & Science, Bangalore	-do-	17,000
Evening College of Arts and Commerce, Bangalore	-do-	8,000
Ramnarayan Chellaram College of Commerce, Bangalore	-do-	12,000
St. Joseph's College, Bangalore	Award of fellowships for undertaking writing of books at university level	7,500
	Total	<u>2,24,150,87</u>

## Berhampur

Construction of students' Home	30,000
-----------------------------------	--------

Affiliated Colleges

Govt. Science College, Phulbani	Book grant for 1969-70	750
Science College, Hinjlicut	-do-	750
Khallikote College, Berhampur	Improvement of chalkboards	995
Raya Goda College, Rayagoda	Grant for programmes of students welfare 1970-71	2,500
Aska Science College, Aska	Purchase of laboratory equipment	4,000
Govt. Science College, Phulbani	Estt: of Text Book library	500
-do-	Basic grant for purchase of library books	500
Govt. Evening College, Berhampur	Financial assistance to teachers for research work in Humanities & Social Sci	250
	Total	<u>40,245</u>



## 10. Bhagalpur

<u>Affiliated Colleges</u>		
Bharat Sevan Samaj College, Supaul	Grant to students' Aid Fund	1,750
H.S. College, Udakishunganj	Construction of Non-Resident students centre	5,000
T.P. College, Madhepura	Construction of science block	10,000
J.R.S. Mahavidyalaya, Jamalpur	Purchase of science equipment	20,000
A.P.S.M. College, Barauni	Purchase of library books and journals	8,000
Marwari College, Kishanganj	Estt. of Text book library	2,000
Farbesganj College, Farbesganj	Basic grant for purchase of library books	500
T.N.B. College, Bhagalpur	Book grant for 1969-70	1,250
Kumar Kalika Memorial College, Jamui	Grant for programmes of Student welfare 1970-71	2,500
S.K.R. College, Barbigha	-do-	6,000
Farbesganj College, Farbesganj	-do-	4,000
Gorelal Mehta College, Bamankhi	-do-	2,500
K.S.S. Mahavidyalaya, Lakhisarai	-do-	4,000
-do-	-do- for 1969-70	1,000
Gorelal Mehta College, Bamankhi	-do-	1,000
Sahibganj College, Sahibganj	Financial assistance to teachers for research work in sciences	250
Marwari College, Bhagalpur	-do- Humanities	250
Total		<u>70,000</u>

## 11. Bhopal

<u>Affiliated Colleges</u>		
S.S.L. Jain College, Vidisha	Development of postgraduate studies in Humanities and social sciences	10,000
-do-	Grant for programmes of student welfare 1970-71	5,000
Govt. College, Bareilly (Bhopal)	-do- for 1969-70	250
Govt. College, Sehore	-do-	500
S.S.L. Jain College, Vidisha	Purchase of laboratory equipment	42,500
Saifia College, Bhopal	-do-	11,000

Bhopal contd.

Ravindra College, South T.T. Nagar, Bhopal	Book grant for 1970-71	1,360.83
S.S.L. Jain College, Vidisha	-do-	1,625
Lal Bahadur Shastri College, Seronj	-do-	1,125
	Total	<u>73,360.83</u>

## 12. Bihar

Purchase of books and journals for the Law deptt.	15,000
Grant for holding a conference of Indian History Congress	3,000

Affiliated Colleges

Samastipur College, Samastipur	Construction of Library building and purchase of books and furniture	40,000
P.N. College, Parsa	Book grant for 1970-71	750
Dalshringar Baldeo College, Jaynagar	Construction of additional class rooms	10,000
P.N. College, Parsa	Construction of Men's hostel	10,000
S.K.K. Goenka College, Sitamarhi	Construction of Non-Resident Student centre	64,000
M.S.S. Giri College, Areraj	Construction of library building and purchase of books	10,000
Dr. S.K. Sinha Women's College, Motihari	Construction of Women's hostel	20,000
M.L.S. College, Sarisabpahi	Grant for programmes of student welfare 1970-71	2,500
Rajendra College, Chapra	-do- for 1969-70	3,500
M.L.S. College, Sarisabpahi	-do-	250
L.S. College, Muzaffarpur	Financial assistance to teachers for research work in Humanities and social sciences	750
	Total	<u>1,79,750</u>

## 13. Bombay

Grant towards the salary of Professor M.S. Joshi, department of Physics for the period May 14, 1971 to March 31, 1971	17,660
Purchase of books and journals for the Law deptt.	25,000
Grant for holding a seminar of Prakrit Studies	9,200
Grant for meeting the expenditure on the Centre of Advanced Study in Economics	1,13,100
<del>do</del> Mathematics	2,33,333.60

Affiliated Colleges

St. Xaviers <sup>2</sup> College, Bombay	Purchase of library books and laboratory equipment	50,000
Guru Nanak Khalsa College, Matunga, Bombay	Grant for programmes of student welfare 1970-71	6,000
Smt. M.M.K. College of Commerce and Economics, Bombay	<del>do</del>	6,000
Government Dental College and Hospital, Bombay	<del>do</del>	4,000
R. J. Podar College of Commerce and Economics, Bombay	<del>do</del>	6,000
D.G. Ruparel College, Bombay	<del>do</del>	6,000
Carmel College for Women, Nuvem (Goa)	<del>do</del>	2,500
Ramrarain Ruia College, Bombay	<del>do</del>	6,000
St. Xaviers <sup>1</sup> College, Bombay	<del>do</del>	3,000
Guru Nanak Khalsa College, Matunga, Bombay	<del>do</del> for 1969-70	500
Sophia College, Bombay-26	Purchase of laboratory equipment	15,000
Khalsa College, Matunga, Bombay	Grant to students' Aid Fund	3,250
Parle College, Vile Parle, Bombay	<del>do</del>	3,250
Wilson College, Bombay-7	<del>do</del>	3,250
Mithibai College of Arts and Chauhan Institute of Science, Vile Parle, Bombay	<del>do</del>	3,250
M.L. Dahanukar College of Commerce, Vile-Parle, Bombay	<del>do</del>	3,250
The C.S. Sir Sitaram and Lady S. Patkar College, Goregaon, Bombay	<del>do</del>	3,250

Bombay contd.

Kishin Chand Chellaram Law College, Bombay	Book grant for 1970-71	1, 3775
D.G. Ruparel College, Bombay	--do--	1, 6225
C.S.S.S. & L.S. Patkar College, Goregaon, Bombay	Improvement of chalkboards	1, 0000
S.L. Uttamchand College of Arts and Sir Mathuradas Visscaji College of Science, Andheri (East), Bombay	--do--	8550
Goa Medical College, Panaji, Goa	Grant for holding a seminar on Abortion, Infanticide and Suicide in India	10, 7000
Seth G.S. Medical College, Parel, Bombay-12	Grant for holding summer course in Experimental Pharmacology	7, 6000
Institute of Science, Bombay	Grant for holding a Symposium on "Solvent Extraction"	8, 275
S.I.E.S. College of Arts and Science, Sion West, Bombay-22, C.S.S.S. and L.S. Patkar College of Arts & Science, Bombay-62	Grant to college library for loan of books to students (Book banks)	17, 0000
Parle College, Vile Parle, Bombay	--do--	14, 0000
Wilson College, Bombay-7,	--do--	17, 0000
Jai. Hind College, Bombay-20	--do--	17, 0000
D.E. Society's Kirti M. Doongursee College, Bombay-28	--do--	17, 0000
K.C. Law College, Bombay	--do--	8, 0000
H.R. College of Commerce and Economics, Bombay-1, St. Xavier's College, Bombay-1,	--do--	14, 0000
M.L. Dahanukar College of Commerce, Vile Parle, Bombay	--do--	17, 0000
Maharashtra College of Arts and Commerce, Bombay	--do--	14, 0000
Smt. Mithibal Moti Ram Kundnani College of Commerce and Economics, Bandra, Bombay	--do--	14, 0000
Ruparel College, Bombay	--do--	17, 0000
Narsee Monjee College of Commerce and Economics, Vile Parle, Bombay-56	--do--	14, 0000
Maharishree Dayanand College of Arts & Science, Parel, Bombay-12	--do--	14, 0000

Bombay contd.

Mithibai College of Arts and Chuhan Institute of Science, Vile Parle, Bombay-56	Grant to college library for loan of books to students (Book banks)	17,000
R.D. National College and W.A. Science College, Bandra, Bombay	--do--	14,000
Ismail Yusuf College of Arts & science, Jogeshwari, Bombay-60	--do--	8,000
R.A. Podar College of Commerce & Economics, Matunga, Bombay-19	--do--	14,000
Siddharth College of Arts and Science, Bombay	--do--	17,000
D.E.S.K.M.D. College, Bombay-28	Contingency grant for utilisation of services of retired teachers	1,000
Mithibai College of Arts and Chauhan Institute of Science, Bombay	--do--	1,000
St. Xaviers' College, Bombay	Utilisation of services of retired teachers	5,290.32
Ramnarain Kula College, Bombay	--do--	5,750
--do--	Development of postgraduate studies in science subjects	29,000
Kirti M. Doongursew College, Bombay-29	Construction of staff quarters	34,028
S.I.E.S. College of Arts and Science, Eion West, Bombay-22	Construction of library building	20,000
Sophia College, Bombay	Financial assistance to teachers for research work in sciences	500
	Total	<u>9,46,417.92</u>

## 14. Burdwan

Grant for setting up a Botanical Garden for the department of Botany	20,000
--	--------

P.t.o.

Burdwan contd.Affiliated Colleges

Sonamukhi College, Sonamukhi	Grant to Students' Aid Fund	1,750
Burdwan Raj College, Burdwan	Grant to College Library for loan of books to Students (Book Banks)	14,000
Sonamukhi College, Sonamukhi	-do-	3,000
Banwarilal Bhatotia College, Asansol	-do-	12,000
Guskara Mahavidyalaya, Guskara	-do-	12,000
Syam Sunder College, Syamsunder	-do-	3,000
Bankura Sammilani College, Bankura	-do-	12,000
Durgapur Government College, Durgapur	Grant for programmes of student welfare 1970-71	2,500
Banwarilal Bhalotia College, Asansol	-do-	5,000
Bankura Christian College, Bankura	-do-	6,000
Katwa College, Katwa	-do-	6,000
Hooghly Mohsin College, Chinsura	-do- for 1969-70	2,000
Bankura Christian College, Bankura	-do-	3,000
Katwa College, Katwa	-do-	500
Banwarilal Bhalotia College, Asansol	-do-	1,000
Jagannath Kishore College, Turulia	Purchase of laboratory equipment	4,000
Bankura Christian College, Bankura	Construction of Library and Laboratory building	10,000
Trivenidevi Bhalotia College, Raniganj	Construction of Teachers' hostel	10,000
-do-	Book grant for 1970-71	1,625
Raghunathpur College, Raghunathpur	-do- for 1969-70	1,000
Bankura Christian College, Bankura	-do-	1,250
Bejoy Narayan Mahavidyalaya, Itachuna	-do-	2,750
Raja Rammohan Roy College, Radhanagar, P.O. Nangulpara	Financial assistance to teachers for research work in sciences	250
Syam Sunder College, Syamsunder	-do-	250
	Total	<u>1,44,875</u>

## 15 Calcutta

Purchase of books and journals for the Law deptt.	25,000
Grant for organising Orientation course for new/junior college teachers during 1971	3,000
Grant for implementing the three year degree course scheme in the non-govt. colleges	8,919.99
Award of junior fellowships to the students admitted to the diploma course in Computer and Control Engineering at the department of Radio Physics and Electronics	19,000
Grant for maintenance of Life Science centre	10,000
Grant for meeting the expenditure on the Centre of Advanced Study in Ancient Indian History and culture	1,31,269.76
Financial assistance to teachers for research work in sciences	125

Affiliated colleges

College of Leather Technology, Calcutta	Utilisation of services of retired teachers	2,532.26
Egra Sarada Shashi	Grant to Students' Aid Fund	1,000
Bhushan College, P.O. Egra		
Bir Bikram Evening College, Agartala	--do--	3,250
Bagnan College, Bagnan	--do--	2,750
Basirhat College, Basirhat	--do--	3,250
Garhbeta College, Garhbeta	Purchase of laboratory equipment	4,000
Basirhat College, Basirhat	--do--	4,000
Seth Soorajmuli Jalan	Improvement of chalkboards	999.58
Girls College, Calcutta-12.		
Uluberia College, Uluberia	Extension of library and laboratory facilities	30,000
Muralidhar Girls College, Calcutta-29.	Construction of Non-Resident Students centre	40,000
Vijaygarh Jyotish Ray College, Calcutta-32	--do--	20,000

p.t.o.

Calcutta contd.

Bangabasi College of Commerce, Calcutta	Estt. of Text Book Library	5,000
Kharagpur College, Kharagpur	-do-	1,000
Serampore College, Serampore	Grant for programmes of student Welfare 1970-71	6,000
Ramakrishna Sarada Mission Vivekananda Vidya Bhawan, Calcutta	-do-	2,500
Yogada Satsanga Palpara Mahavidyalaya, Midnapore	-do-	4,000
Lal. Baba College, Belur	-do-	6,000
Khudiram Bose Central College, Calcutta	-do-	6,000
Baishnavaghata Dinabandhu Andrews College, Baishnavghata P.O. Garia	-do-	5,000
Women's Christian College, Calcutta	-do-	2,500
Union Christian Training College, Berhampore	-do-	2,500
Sibpur Dinabandhu Institution (College) Sibpur (Howrah)	-do-	6,000
Surendranath College, Calcutta-9.	-do-	5,000
Maharaja Mahinira Chandra College, Calcutta	-do-	5,000
Surendranath Evening College, Calcutta-9.	-do-	6,000
Sunderban Mahavidyalaya, Kakdwip	-do-	2,500
Belur Ramakrishna Mission Sikshan Mandir, P.O. Belur Math	-do-	2,500
Hiralal Mazumdar Memorial College for Women, Dakshineswar, Calcutta-35	-do-	2,500
Fakir Chand College, Diamond Harbour	-do-	6,000
Egra Sarada Shasi Bhushan College, Egra, Distt. Midnapore	-do-	2,500
Sunil Kar College, Goshpur P.O. Champahati	-do-	2,500
Union Christian Training College, Berhampore	-do- for 1969-70	1,000
Surendranath College, Calcutta-9.	-do-	3,500
Sibpur Dinabandhu Institution, (College) Sibpur	-do-	3,500
Surendranath Evening College, Calcutta-9.	-do-	3,500



Calcutta contd.

Maharaja Manindra Chandra College, Calcutta.	Grant for programmes of student welfare for 1969-70	3,319.94
Victoria Institution, Calcutta-9.	--do--	400
Sundarban Mahavidyalaya, Kakdwip	--do--	1,000
Dinabandhan Andrews College, Baishnavghata, P.O. Garia	--do--	3,000
Ramakrishna Sarada Mission Vivekananda Vidyabhavan, Calcutta-55	--do--	250
Left Baba College, Belur(Howrah)	--do--	500
Sanskrit College, Calcutta-12.	--do--	250
Yogada Satsanga Palpara Mahavidyalaya, Palpara	--do--	250
Bangabasi Morning College, Calcutta	Grant to college library for loan of books to students (Book banks)	14,000
Kharagpur College, Kharagpur	--do--	14,000
Kaibalyadayini College of Commerce, Midnapore	--do--	12,000
Bangabasi Evening College, Calcutta	--do--	17,000
Ram Mohan College, Calcutta-9.	--do--	17,000
New Alipore College, Calcutta-53	--do--	12,000
Barasat Govt. College, Barasat	--do--	12,000
Sitananda College, Nandigram	--do--	8,000
Sree Chitanya College of Commerce, Habra	--do--	8,000
Sri Krishna College, P.O. Begonia	--do--	12,000
Vivekanand College for Women, Barisha, Calcutta-8.	--do--	8,000
Shyampur Siddheswari Mahavidyalaya, P.O. Ajodhya, Howrah	--do--	8,000
Behala College of Commerce, Calcutta-60.	--do--	8,000
Mahadevananda Mahavidyalaya, Manirampur, P.O. Barrackpore	--do--	12,000
Kandi Raj College, Kandi (Murshidebad)	--do--	8,000
		p.t.o.

Calcutta contd.

Dum Dum Moti Jheel College, Calcutta-28	Grant to college library for loan of books to students (Book banks)	17,000
Dhrulia Chand Halder College, P.O. Dakshini Barasat	-do-	12,000
Bon-Hooghly College of Commerce, Calcutta-35	-do-	8,000
Bangabasi College, Calcutta	-do-	14,000
Bajkul Milani Mahavidyalaya, P.O. Kismat Bajkul	-do-	8,000
Ranaghat College, Ranaghat	-do-	17,000
Frafulla Chandra College, Calcutta-19	-do-	14,000
St. Xaviers College, Calcutta-16	-do-	17,000
Vivekananda Centenary College, P.O. Bahara	-do-	8,000
Panskura Banamali College, PO Panskura	-do-	17,000
Muralidhar Girls College, Calcutta-29.	-do-	17,000
Heramba Chandra College, Calcutta-19.	-do-	17,000
Maharani Kasiswari College, Calcutta-3	-do-	12,000
Deshbandhu College of Girls, Calcutta-26	-do-	8,000
Charuchandra College, Calcutta-29.	-do-	17,000
Raja Krishnath College of Commerce, Berhampore	-do-	8,000
Prabhu Jagat Bandhu College, P.O. Andul Mouri	-do-	3,000
Pingla Thana Mahavidyalaya, P.O. Maligram	-do-	8,000
Bangabasi College of Commerce, Calcutta-12	-do-	12,000
Raja Narendralal Khan Women's College, Midnapore	-do-	8,000
Seth Anandram Jaipuria College, Calcutta-5.	-do-	17,000
Seth Soorajmull Jalan Girls College, Calcutta-12	-do-	8,000
Egra Sarada Shashi Bhushan College, P.O. Egra	-do-	1,125

Calcutta contd.

St. Xaviers' College, Calcutta-16	Book grant for 1970-71	1,625
Baishnavghata Dinabandhu Andrews College, P.O. Garia Sivanath Sastri College, Calcutta-19	-do-	4,875
Vidyasagar College for Women, Calcutta-16	-do-	1,625
Maharaja Manindra Chandra College, Calcutta	-do-	1,625
Women's Christian College, Calcutta	-do-	1,125
Sitanand College, Nandigram Calcutta Girls' B.T. College, Calcutta	-do- for 1969-70 Construction of library building	1,000 5,000
Presidency College, Calcutta	Financial assistance to teachers for research work in Sciences	250
Bangal Engg. College, Howrah	-do-	250
The Ramakrishna Mission Vidyamandir, DeAurMath	-do- Humanities and Social Sciences	750
M.L.B. College, Agartala	-do-	250
Maulana Azad College, Calcutta	-do-	150
Dum Dum Moti Jheel College, Calcutta-28	-do-	250
Jhargram Raj College, Jhargram	-do-	500
Rishi Bankim Chandra College, P.O. Nishati	-do-	250
S.A. Chakrabarti College, Calcutta-10	-do-	250

Total 8,76,091.53

## Calicut

Financial assistance to teachers  
for research work in Sciences 500

p.t.o.

Calicut contd.Affiliated colleges

Govt. Training College, Trichur	Book grant for 1969-70	750
St. Thomas College, Trichur	-do- for 1970-71	1,625
M.E.S. Mampad College, P.O. Manpad	-do-	1,125
Little Flower College, Guruvyaur	-do-	1,625
St. Thomas College, Trichur	Financial assistance to teachers for research work in Humanities	500
The Guruvayurappan College, Kozhikode-14	Grant to college library for loan of books to students (Book banks)	14,000
Govt. College, Madapally	-do-	12,000
Sree Narayana College, Nattika	-do-	8,000
Sree Kerala Varma College, Trichur	-do-	17,000
M.E.S. Mampad College, Mempad	-do-	8,000
Govt. Arts & Science College, Calicut	-do-	12,000
Govt. College, Chittur	-do-	14,000
Farook College, Feroke	Construction of laboratories and purchase of library books and science equipment	40,000
Pazhassi Raja M.S.S. College, Mattanur	Construction of Men's Hostel	50,000
St. Joseph's College, Devagiri, Calicut-8.	Grant to Students' Aid Fund	3,250
Christ College, Irinjalakuda	Construction of building for the postgraduate department of chemistry	10,000
N.S.S. College, Manjeri	Purchase of laboratory equipment	15,000
Vimala College, Trichur	-do-	5,000
Nirmalagiri College, Nirmalagiri Via Telicherry	-do-	5,000
	Total	<u>2,19,375</u>

## 17. Delhi

Grant towards salaries of lecturers appointed for teaching South Indian Languages for B.A.(Pass) and Honours courses	18,412.53
Purchase of books and journals for the Law department	25,000
Award of junior research fellowships in Buddist Art and architecture	1,800
Purchase of books and journals for development of engineering education and research	25,000
Construction of Science Block for Miranda House	50,000
Grant towards board and lodging expenses of Dr. D. Lewis F.R.S. Visiting Professor to the department of Botany	5,150
Purchase of equipment for the Centre of Advanced Study in Botany	10,000
Grant for organising science Institute in Chemistry (Thermodynamics) and Electro-chemistry of Molten salts) for college teachers during 1971	20,000

Constituent Colleges

St. Stephens <sup>†</sup> College, Delhi-7.	Award of scholarships for postgraduate studies in Science and Humanities to students of Hill areas of North East India	1,438.71
Janki Devi Mahavidyalaya, New Delhi	Award of scholarships for postgraduate studies in Sanskrit during 1971-72	1,175.81
Kalindi College, New Delhi	Purchase of Fire extinguishers for Library Reading Room, Science department	708.75
Mata Sundri College for Women, New Delhi	Purchase of books in connection with the introduction of B.A. (Hons.) course in Punjabi	4,500

Delhi contd.

P.G.D.A.V. College, (Evening Classes) New Delhi	Purchase of furniture, electric equipment and fans	26,000
Maitreji College, New Delhi	Purchase of scientific equipment for B.Sc. (General) Group 'B'	3,750
Janki Devi Mahavidyalaya, New Delhi	Expansion to the Canteen building	10,000
-do-	Construction of Non-Resident students' Centre	8,000
Atma Ram Sanatan Dharma College, New Delhi	Construction of college building	40,000
St. Stephens' College, Delhi	Grant towards expenditure incurred by the college on the Hiking Club- Bara Shigri Expedition	3,000
Lady Hardinge Medical College & Hospital, New Delhi	Purchase of library books and journals	1,000
Ramjas College, Delhi	Financial assistance to teachers for research work in Humanities and Social Sciences	250
S.G.T.B. Khalsa College, New Delhi	-do-	250
Gargi College, New Delhi	-do-	125
Shivaji College, New Delhi	-do-	250
Hindu College, Delhi	-do-	250
Mata Sundri College for Women, New Delhi	Grant for programmes of student welfare 1970-71	5,000
-do-	-do- for 1969-70	250
Kalindi College, New Delhi	-do-	1,500
	Total	<u>2,62,810.80</u>

## 18. Dibrugarh.

Grant towards salaries of staff relating to Humanities and Social Sciences depts.	2,50,000
Purchase of books and journals for the Law deptt.	20,000
Purchase of laboratory equipment for the department of chemistry	20,000

Dibrugarh contd.Affiliated colleges

North Lakhimpur College, North Lakhimpur	Purchase of laboratory equipment	5,000
Sibsagar Girls College, Sibsagar	Grant for programmes of student welfare 1970-71	2,500
M.D.K. Girls College, Dibrugarh	-do-	2,500
Nahar Katiya College, Naharkatiya	-do- for 1969-70	750
C.K.B. Commerce College, Jorhat	Grant to college library for loan of books to students (Book banks)	3,000
D.H.S.K. Commerce College, Dibrugarh	-do-	8,000
Sibsagar College, Sibsagar	-do-	12,000
Bergaon K.D. College, Bergaon	-do-	8,000
Digboi College, Digboi	-do-	8,000
Gargaon College, Sunalunguri	Construction of Teachers' Hostel	5,000
	Total	<u>3,49,750</u>

## 19. Gauhati

Purchase of books and journals for the Law deptt.	25,000
Construction of Guest House-- cum-Staff Club.	4,705
Award of scholarships for research in science and Humanities by the students of Hill areas in North East India	36
-do-	84
-do-	13,20
Financial assistance to teachers for research work in Sciences	250

Affiliated Colleges

North Gauhati College, Gauhati	Construction of Women's hostel	60,000
-----------------------------------	--------------------------------	--------

Gauhati contd.

Nalbari College, Nalbari	Improvement of library and laboratory facilities	7,532
Churachandpur College, Churachandpur	Construction of Mens' Hostel	40,000
Surcharan College, Silchar	Improvement of library and laboratory facilities	10,000
M.S. College, Barepeta	Instt: of text book library	1,000
Sankardev College, Shillong	--do--	2,000
Guruoharan College, Silchar	Basic grant for purchase of library books	500
M.S. College, Barpeta	--do--	500
Sankardev College, Shillong	--do--	500
Biswanath College, Charali; Darrang	Grant for programmes of student welfare 1970-71	2,500
North Gauhati College, Gauhati	--do--	2,500
B.N. College, Dhubri	--do--	5,000
Hojai College, Hojai	--do--	2,500
A.D.P. College, Nowgong	--do--	5,000
Kokrajhar College, Kokrajhar	--do--	4,000
Gauhati Commerce College, Gauhati	--do--	4,000
Mangaldai College, Mangaldai	--do--	4,000
Jarhat Engineering College, Jarhat	--do--	2,500
Bhola Nath College, Dhubri	--do-- for 1969-70	500
Biswanath College, Charali	--do--	1,000
D.M. College, Imphal	Grant to students Aid Fund	3,250
Lady Maane Girls College, Shillong	--do--	3,250
Mangaldoi College, Mangaldoi	Book grant for 1970-71	1,375
Dinapur College, Dinapur	--do--	1,125
Biswanath College, Charali	--do--	3,375
St. Edmunds' College, Shillong	--do--	4,125
Barnagar College, Sarbhag	--do--	1,125
St. Anthony's College, Shillong	Purchase of laboratory equipment	5,000
Mangaldoi College, Mangaldoi	--do--	5,000
Karimganj College, Karimganj	Grant to college library for loan of books to students (Book banks)	12,000
Cachar College, Silchar	--do--	12,000
Gauhati Commerce College, Gauhati	--do--	3,000
D.M. College, Dhubri	--do--	12,000
S.S. College, Hailakandi	--do--	8,000

p.t.o.



Gauhati contd.

G.C. College, Silchar	Grant to college library for loan of books to students (Book banks)	14,000
L.M.S. Law College, Imphal	-do-	8,000
M.C. College, Barpeta	-do-	8,000
Manipur College, Imphal	-do-	12,000
G.P. Women's College, Imphal	-do-	8,000
Mangaldoi College, Mangaldoi	-do-	8,000
Pragjyotish College, Gauhati	-do-	12,000
Lady Keane Girls College, Shillong	-do-	12,000
Kokrajhar College, Kokrajhar	-do-	8,000
Imphal College, Imphal	-do-	12,000
Nalbari College, Nalbari	-do-	12,000
Churchandpur College, Churachandpur	-do-	8,000
Goalpara College, Goalpara	-do-	8,000
Kohima College, Kohima	-do-	8,000
Nowgong College, Nowgong	-do-	14,000
K.M. College, Kakching	Financial assistance to teachers for research work in sciences	500
Arya Vidyapeeth College, Gauhati	-do-	500
	Total	<u>4,18,245.20</u>

## 20. Gorakhpur

Purchase of books and journals for the Law department	25,000
Grant for holding a Symposium on Recent Advances in Thermodynamics	6,350

Affiliated Colleges

K.S. Saket Postgraduate College, Faizabad	Book grant for 1970-71	1,625
Sahkari Degree College, Mihrawan	-do-	1,125

Gorakhpur contd.

R.R. Degree College, A methi, Sultanpur	Book grant for 1970-71	750
Shri Gandhi Degree College, Maltari	--do--	1,125
Shakoldia Degree College, Gorakhpur	--do--	1,125
Shivapathi Degree College, Shoratgarh	--do--	1,125
Raja Harpal Singh Degree College, Singraman, Jaunpur	--do-- for 1969-70	1,125
Digvijai Nath Degree College, Gorakhpur	--do--	1,125
Agrasen Mahila Mahavidyalaya, Azamgarh	--do--	1,125
Ratan Sen Degree College, Bansi	--do--	1,125
Mahatma Gandhi Degree College, Gorakhpur	--do--	1,125
Kamla Arya Kanya Mahavidyalaya, Mirzapur	--do--	750
D.A.V. College, Azamgarh	Purchase of laboratory equipment and furniture	5,000
M.L.K. Degree College, Balrampur	Purchase of library books	20,000
B.L.D. College, Deoria	Construction of Science block	45,000
Jit Narain Degree College, Padrauna	Construction of Men's Hostel	20,000
Jawaharlal Nehru Samarak Degree College, Maharajganj	Construction of Geography laboratory, lecture theatres store and staff room	17,000
Tilakdhari College, Jaunpur	Establishment of Hobby Workshop	2,500
B.R.D. College, Deoria	Construction of Science Block	25,000
Tilakdhari College, Jaunpur	Construction of a Men's Hostel and purchase of furniture	15,000
Satish Chandra College, Ballia	Construction of shooting range	400
Shri Lal Bahadur Shastri Degree College, Gonda	Construction of class rooms	10,000
Town Degree College, Ballia	Estt. of Text Book library	1,000
Udit Narain Degree College, Padrauna	Purchase of science equipment and laboratory furniture	3,225
Sakaldiha College, Sakaldiha	--do--	2,000
K.S. Saket Mahavidyalaya, Faizabad	Grant to students' Aid Fund	3,250
Shree Gandhi Degree College, Maharajganj	--do--	750

Gerakhpur contd.

J.M.S. Degree College, Nabarajganj	Grant to students' Aid Fund	1,000
R.S.K.D. Degree College, Jaunpur	Purchase of laboratory equipment	4,000
B.M.K.B. Degree College, Akbarpur	Grant for programmes of student welfare 1970-71	2,500
Sahkari Degree College, Mihrawan	--do--	2,500
G.S. Degree College, Samodhpur	--do--	2,500
Satish Chandra College, Ballia	--do--	5,000
--d--	--do-- for 1969-70	2,000
Ratan Sen Degree College, Bansi	--d--	2,500
G.S. Degree College, Samodhpur	--d--	1,000
Swami Dayanand Degree College, Mathlor	Purchase of laboratory equipment	11,000
Tilak Dhari College, Jaunpur	--d--	15,000
S.C. College, Ballia	Financial assistance to teachers for research work in sciences	250
Shri Murlidhar Manohar Town Degree College, Ballia	--do--	250
	Total	<u>2,64,225</u>

## 21. Gujarat

Grant for holding seminar on Basic Mathematics of quantum Chemistry at Bhavan's College, Dakor, during 1970-71	89,80
Construction of Readers' and Lecturers' quarters	30,000
Construction of hostel for Men students	50,000
Grant for holding All India Sociological Conference in December 1971	3,000
Grant towards salaries of additional teaching staff appointed in various science departments	1,60,000

p.t.o.

Gujarat contd.Affiliated Colleges

City Law College, Ahmedabad	Purchase of water cooler	500
R.R. Lalan College, Bhuj	--do--	582
City Arts College, Ahmedabad	Grant to students' Aid Fund	2,250
Kalol Municipal Arts and Science, College, Kalol	--do--	1,750
C.U. Shah Science College, Ahmedabad	--do--	2,750
C.U. Shah Commerce College, Ahmedabad	--do--	2,250
Mahudha Arts & Motilal Dabyabhai Shah Commerce College, Mahudha	--do--	750
Bhavan's College, Dakor	--do--	2,250
Sardar Vallabhbhai Arts College, Ahmedabad	--do--	3,250
Smt. B.C.J. College of Education, Cambay	--do--	750
Govt. Science College, Gandhinagar	--do--	750
Shri U.P. Arts College, and Smt. M.G. Panchel Science College, Pilval	--do--	1,750
Seth M.N. Science and Shri and Smt. P.K. Kotawala Arts College, Patan	Book grant for 1970-71	1,221.56
Shri B.P. Brahmhat Arts and M.H. Guru Commerce College, Unjha	--do--	1,125
Municipal Arts and Commerce College, Mehsana	--do--	1,375
Govt. Science College, Gandhinagar	--do--	3,375
M.G. Science Institute, Ahmedabad	--do--	1,625
Ahmedabad Science College, Ahmedabad	--do--	1,625
Bhavan's College, Dakor	--do--	1,625
C.N. Arts and B.D. Commerce College, Kadi	--do--	1,125
Shri I.V. Patel College of Commerce, Nadiad	--do--	1,625
Motilal Nehru Law and Commerce College, Ahmedabad	--do--	1,125
Navgujarat Arts College, Ahmedabad	--do--	2,000
City Arts College, Ahmedabad	--do--	1,375

Gujarat contd.

Navgujarat Commerce College, Ahmedabad	Book grant for 1970-71	2,000
Navgujarat Law and Commerce College, Ahmedabad	--do--	1,000
Kalol Municipal Arts and Science College, Kalol	--do-- for 1969-70	1,125
Navgujarat Commerce College, Ahmedabad	Development of postgraduate studies in Humanities and Social sciences	5,000
Shri B.P.B. Arts and Shri M.H.G. Commerce College, Unjha	Grant for programmes of student welfare 1970-71	2,500
C.U. Shah Commerce College, Ahmedabad	--do--	2,500
Desai C.L.M.L. Arts and Commerce College, Virangam	--do--	2,500
Smt. Shantaben Motilal Panchel Science College, Talod	--do--	2,500
Navjiram Arts & Commerce College, Dohad	--do--	2,000
N.C. Bodiwala Commerce College, Ahmedabad	--do--	2,500
Municipal Arts and Commerce College, Mehsana	--do--	4,000
Secondary Teachers' Training College, Ahmedabad	--do--	2,500
Sheth H.P. Arts and Talod Sahakari Mandali Commerce College, Talod	--do--	2,500
College of Education, Fatan	--do--	2,500
Uni-Trust-Surajba Mahila Arts College, Nadiad	--do--	2,500
M.S. Bhajat and C.L. Sonawala Law College, Nadiad	--do--	2,500
Navgujarat Law & Commerce College, Ahmedabad	--do--	4,000
Sheth M.N. Science and Shri and Smt. P.K. Kotawala Arts College, Fatan	--do--	4,992.50
Shri I.V. Patel College of Commerce, Nadiad	--do--	5,000
C.B. Patel Arts Institute, Nadiad	--do--	4,000
Arts and Science College, Bhadran	--do--	2,500
K.M. Arts and Science College, Kalol	--do--	2,493.20
Shree B.P.B. Arts and M.H.G. Commerce College, Unjhar	--do-- for 1969-70	250

Gujarat contd.

Navjivan Arts and Commerce College, Dohad	Grant for programmes of student welfare 1969-70	11,000
Desai C.L.M.L. Arts and Commerce College, Viramgam	-do-	250
Municipal Arts and Commerce College, Mehsana	-do-	22,000
Sir L.A. Shah Law College, Ahmedabad	Improvement of Chalkboards	1,500
Vivekanand College of Arts, Ahmedabad	-do-	1,500
Vivekanand College of Education, Ahmedabad	-do-	1,500
Vivekanand College of Commerce, Ahmedabad	-do-	1,500
C.U. Shah Commerce College, Ahmedabad	Grant to college library for loan of books to students (Book banks)	8,000
City Law College, Ahmedabad	-do-	8,000
Sir L.A. Shah Law College, Ahmedabad	-do-	8,000
City Arts College, Ahmedabad	-do-	8,000
R.R. Lalal Government College, Bhuj	-do-	8,000
New Law College, Ahmedabad	-do-	8,000
Sardar Vallabhbhai Arts College, Ahmedabad	-do-	12,000
H.A. College of Commerce, Ahmedabad	-do-	14,000
Patel Z.B. Rudewala Arts College and Patel A.M. Rudewala Commerce College, Barsad	-do-	3,000
S.R. Parekh Arts & S.K.B. Commerce College, Cambay	-do-	8,000
Shree Swaminarayan Science College, Ahmedabad	-do-	8,000
Shri Swaminarayan Arts College, Ahmedabad	-do-	8,000
B.V.D. Arts and Commerce College, Ahmedabad	Financial assistance to teachers for research work in Humanities and Social Sciences	500
Shri C.N.P.F. Arts College and D.N. Science College, Dabhoi	Purchase of Semi-Micro Analysis equipment for the department of chemistry	2,000
Shri Sahajanand Arts and Commerce College, Ahmedabad	Construction of Men's hostel	50,000
A.C. Teachers' College, Ahmedabad	Purchase of equipment for Geography room, Audio-visual room Language room and History room	5,000
	Total	<u>5,22,404.00</u>

## 22. Guru Nanak

Assistance for the purchase of water cooler	1,500
--	-------

Affiliated Colleges

Hindu College, Amritsar	Construction of Non-Resident Students' Centre and purchase of laboratory equipment and furniture	20,000
Govt. Training College, Jullundur	Grant to Students' Aid Fund	750
D.A.V. College, Jullundur	-do-	3,250
Ramgarhia College, Phagwara	-do-	3,250
Lyallpur Khalsa College for Women, Jullundur City	-do-	2,250
Hindu College, Amritsar	Grant for programmes of student welfare 1970-71	5,000
Ramgarhia College, Phagwara	-do-	5,000
Mata-Ganga-Girls College, Taran Taran	-do-	2,500
Randhir Government College, Kapurthala	-do- for 1969-70	3,000
Ramgarhia College, Phagwara	-do- for 1969-70	1,987.91
Khalsa College of Education, Amritsar	Construction of Non-Resident Student centre	5,000
Lyallpur Khalsa College, Jullundur	Development of postgraduate studies in Humanities and Social Sciences	10,000
D.A.V. College, Amritsar	Purchase of laboratory equipment	5,000
Phagwara College for Women, Phagwara	Book grant for 1970-71	-1,125
	Total	<u>69,612.91</u>

## 23. Himachal Pradesh

Affiliated Colleges

Government College, Nahan	Purchase of laboratory equipment	15,000
Government Degree College, Chamba	-do-	11,000
Government College, Simla	Grant for programmes of student welfare 1970-71	2,500
	Total	<u>28,500</u>

p.t.o.

## 24. Indira Kala Sangeet

Grant towards the scheme of visiting studentships for 1970-71	2,000
Total	<u>2,000</u>

## 25. Indore

Publication of research works including Doctoral theses	5,000	
Purchase of machinery for the Printing Press	25,000	
Construction of Guest House	10,000	
Construction of Science Block	1,50,000	
<u>Affiliated Colleges</u>		
Indore School of Social Work, Indore	Grant to students' Aid Fund	750
Government Arts & Commerce College, Indore	Grant for programmes of Student Welfare 1970-71	3,000
P.N.B. Gujarati Science College, Indore	-do-	4,000
Holkar Science College, Indore	-do-	5,999.51
Indore Christian College, Indore	Book grant for 1970-71	1,625
Govt. New Girls Degree College, Indore	-do-	1,375
POkar Science College, Indore	-do-	1,601.70
Shri J.S. Institute of Technology and Science, Indore	Purchase of laboratory equipment	22,500
Kasturba Rural Institute, Indore	-do-	15,000
Holkar Science College, Indore	Utilisation of services of retired teachers	5,370.97
-do-	Financial assistance to teachers for research work in Sciences	400
Government Arts and Commerce College, Indore	-do- in Humanities and Social Sciences	300
-do-	Travel grant to Dr. G.C. Kasliwal for attending the annual American Studies Seminar to be held at Manila	1,939.50
Total		<u>2,56,861.68</u>



## 26. Jabalpur

Purchase of books and journals for the Law department	15,000
Establishment of Students' Home	25,000

Affiliated Colleges

St. Aloysius College, Jabalpur	Purchase of laboratory equipment	4,000
New Education Society Science College, Jabalpur	-do-	4,000
C.P. Mahila Mahavidyalaya, Jabalpur	Establishment of Text Book library	500
M.H. College of Home Science for Women, Jabalpur	-do-	1,000
Kamta Prasad Guru Bhasha Bharati, Jabalpur	Book grant for 1970-71	1,125
Katni Mahila College, Katni	-do- for 1969-70	750
G.S. College of Commerce and Economics, Jabalpur	Grant for programmes of student welfare 1970-71	6,000
	Total	<u>57,375</u>

## 27. Jammu

Purchase of books and journals for the Law deptt.	10,000
--	--------

Affiliated Colleges

G.M. Science College, Jammu	Grant for programmes of student welfare 1969-70	500
Govt. College, Poonch	-do-	1,000
M.A.M. College, Jammu	Grant to college Library for loan of books to students (Book banks)	14,000
Govt. College, for women, Jammu	-do-	14,000
Govt. G.M. Science College, Jammu	-do-	17,000
Teachers Training College, Jammu	Special grant for books and journals for development of Teachers' Training Programme	2,000
	Total	<u>58,500</u>

## 28. Jabalpur

Award of junior fellowships to the students admitted to the postgraduate course in Engineering and Technology	177,900
Purchase of equipment for the establishment of a computer centre	1,000,000
Purchase of equipment for postgraduate course in Electrical Engineering	200,000
Grant of extension in the tenure of research fellowships in Humanities	33,000
Purchase of library books for the development of postgraduate course in Tele-communication Engineering	22,000
<del>do</del> Electrical Engineering	52,000
<del>do</del> Chemical Engineering	32,000
Award of studentships to the M.Sc. Applied Geology students	1,300
Total	<u>1,522,700</u>

## 29. Jawaharlal Nehru

Grant towards the Survey work of the university campus through the surveyor General of India	53,000
Purchase of office furniture and equipment	2,75,000
Grant towards salaries of additional staff including research fellowships	30,000
Total	<u>3,58,000</u>

## 30. Jiwaji

Grant towards salaries of additional staff appointed in various science departments	70,000
---	--------

Jiwaji contd.Affiliated colleges

Vijaya Raje Scindia Mahavidyalaya, Bhandar	Grant to students' Aid Fund	750
--do--	Book grant for 1970-71	1,125
Janta Degree College, Dabra	--do--	1,125
G.P. Postgraduate College, Morena	--do--	1,624.72
Government College of Education, Gwalior	Grant towards the school improvement under the scheme for better schools for Madhya Pradesh	2,000
Chhatrasal Degree College, Bichhore	Grant for programmes of student welfare 1970-71	2,500
Madhav Mahavidyalaya, Gwalior	--do--	5,000
--do--	--do-- for 1969-70	3,000
	Total	<u>87,124.72</u>

## 31. Jodhpur

Purchase of books and journals for the Law deptt.	12,500
Grant for organising Summer Institute in Chemistry for School teachers during 1971	6,000
Grant towards the salary and allowances of the Development Officer for the year 1970-71 and 1971-72	14,000
Construction of Non-Resident Students' Centre	1,151
Grant towards the research scheme in Commerce entitled "Delegation of Authority - A comparative study in some companies in public and private sector"	10,000
Grant for holding the third annual conference of Rajasthan Sociological Society	2,000
Utilisation of services of retired teachers	3,450

Affiliated Colleges

Shri Mahesh Teachers' College,  
Jodhpur

Purchase of equipment and audio- visual aids for development of Teachers' Training Programme	3,000
--	-------

Jodhpur contd.

Shri Mahesh Teachers' College,  
Jodhpur

Grant to college library for  
loan of books to students  
(Book banks) 3,000.

Total 60,101

11

## 32. Kanpur

Purchase of library books and  
journals (Humanities) 10,000

Affiliated Colleges

S.N. Shukla Girls Degree College,  
Unnao

Grant for programmes of student  
welfare 1970-71 2,500

Badri Vishal College, Farrukhabad

-do- 4,000

Gandhi Mahavidyalaya, Orai

-do- 2,500

Dayanand Anglo-Vedic College, Kanpur

-do- 6,000

Badri Vishal College, Farrukhabad

-do- for 1969-70 2,000

D.N. Degree College, Fatchgarh

-do- 1,905.96

Karma Kshetra Mahavidyalaya, Etawah

-do- 500

S.N. Sen B.V. Degree College,

-do- 2,000

Kanpur

D.A.V. College, Kanpur

Grant to Students' Aid Fund 3,250

P.P.N. College, Kanpur

-do- 3,250

Bundelkhand College, Jhansi

Construction of Men's hostel 10,000

Guru Nanak Girls Degree

Construction of library building

College, Kanpur

and purchase of library furniture 10,000

Nehru College, Chhibraman

Extension of Science laboratories 10,000

Dayanand College of Law, Kanpur

Construction of Library building 20,000

-do-

-do- 40,000

Pt. Jawaharlal Nehru College,

Construction of cycle shed 5,000

Banda

J.S.V.M. Medical College, Kanpur

Travel grant to Dr. S. S. Nand to  
attend the Silver Jubilee of  
Orthopaedic Surgeons at  
Brussels (Belgium) 3,038.50

Nehru College, Chhibraman

Purchase of laboratory equipment 5,000

R.M.P. Degree College, Sitapur

Grant to College library for  
loan of books to students

(Book banks) 8,000

D.B.S. College, Kanpur

-do- 14,000

D.A.V. College, Kanpur

-do- 17,000

Christ Church College, Kanpur

-do- 14,000

p.t.o.

Kanpur contd.

C.S. Nehru Degree College, Hardoi	Grant to College library for loan of books to students (Book banks)	8,000
Brahmanand Degree College, Kanpur	-do-	8,000
Bipin Behari College, Jhansi	-do-	8,000
V.S. Mehta College of Science, Bharwar, Allahabad	Book grant for 1970-71	1,125
P.P.N. College, Kanpur	-do-	1,625
N.A.K.P. Degree College, Farrukhabad	-do-	1,125
Bipin Behari College, Jhansi	-do-	1,375
D.A.V. College, Kanpur -do-	-do-	1,625
	Development of postgraduate studies in science subjects	32,000
	Total	<u>2,55,825.45</u>

33. Karnatak

Purchase of books and journals for the law deptt	20,000
Construction of extension to the women students hostel on University campus	60,000
Construction of Professors' quarters and readers quarters in the University campus	6,419.50

Affiliated colleges

Diwakar College of Commerce, Karwar	Grant to students' Aid Fund	750
P.C. Jabin Science College, Hubli	Construction of Women's Hostel	40,000
Kittal College, Dharwar	Construction of library building and purchase of furniture	15,000
Basaveshwar Arts College, Bhagalkot	Construction of library building	10,000
S.D.V.S.S. Arts College and T.P. Science Institute, Sankeshwar	..	
Veerasaiva College, Bellary	Construction of Men's Hostel	50,000
Gokhale Centenary College, Ankola	Extension of laboratory building	30,000
	Construction of Library building	15,000

Karnatak contd.

B.A.B. College of Commerce, Raichur	Grant for programmes of student welfare 1970-71	4,000
B.V.B. College of Arts and Science, Bidar	-do-	4,000
Shri Annadaneshwar Arts and Science College, Naregal	-do-	2,500
Basaveshwar Science College, Bagalkot	-do-	4,000
G.I. Bagewadi Arts and Science College, Nipani	-do-	4,000
Basveshwar Arts College, Bagalkot	-do-	2,500
B.R.B. College, of Commerce, Raichur	-do- for 1969-70	1,000
K.R.C.E. Society's Arts and Science College, Baingargal	-do- for 1970-71	2,500
Veerasaiva College, Ballary	-do-	6,000
Shri Anandaveshwar College, Naregal	-do- for 1969-70	250
G.I. Bagewadi Arts and Science College, Nipani	Book grant for 1970-71	1,375
S.B. College of Arts, Gulbarga	-do-	1,375
S.B. College of Commerce, Gulbarga	-do-	1,375
Municipal Arts College, Nargund	-do-	1,125
A.S.P. College of Commerce, Bijapur	-do-	1,375
J.S.S. Law College, Hubli	-do-	1,125
A.S.F. College of Commerce, Gadag	-do-	1,125
K.L.E. Society's B.K. College of Arts and Science, Chikodi	-do- for 1969-70	1,125
Raja Lakhamgondi Law College, Belgaum	-do-	1,125
S.S. Law College, Gulbarga	-do-	1,125
Municipal Arts College, Nargood	Improvement of chalkboards	1,000
Shri Sadguru Shivanand College, Kegvad	Basic grant for purchase of library books	500
Gudlipa Hallikari College, Haveri	Grant to college library for loan of books to students	12,000
Raja Lakhamgonda Science Institute, Belgaum	-do-	12,000
J.T. College, Gadag	-do-	14,000
A.S. Patil College of Commerce, Bijapur	-do-	8,000
S.B. College of Arts, Gulbarga	-do-	12,000
Vijayanagar College, Hospet	-do-	12,000
J.S.S. Arts and Science College, Gokak	-Purchase of laboratory equipment	5,000
J.T. College, Gadag	-do-	5,000
	Total	<u>3,71,669.50</u>

## 34. Kashmir

Affiliated Colleges

Government College, Anantnag	Purchase of laboratory equipment	5,000
S.P. College, Srinagar	Grant for programmes of student welfare for 1969-70	3,500
Govt. College for Women, Nawakadal, Srinagar	-do-	500
Govt. Degree College, Sopore	-do-	1,000
Govt. College for Women, Navakadal(Srinagar)	Book grant for 1969-70	3,375
Govt. College, Anantnag	Construction of Library and laboratory building	10,000
	Total	<u>23,375</u>

## 35. Kerala

Grant towards salaries of additional staff appointed in Humanities departments	30,000
-do- Science department	1,20,000
Purchase of books and journals for the Law department	12,500
Utilisation of services of retired teachers	2,500

Affiliated Colleges

Maharaja's College, Ernakulam	Utilisation of services of retired teachers	2,774.19
Vimala College, Trichur	-do-	4,983.87
University College, Trivandrum	-do-	723.80
Velu Thampi Memorial N.S.S. College, Dhanuvachapuram	Grants to students' aid Fund	3,250
Christian College, Chengamur	-do-	3,250
C.M.S. College, Kottayam	-do-	3,250
Sree Narayana College, Shertallai	-do-	1,750
Mar Ivanios College, Trivandrum	Establishment of Hobby Workshop	1,500
Sree Sankara College, Kalady	Purchase of laboratory equipment and library books	3,955

Kerala contd.

Sacred Heart College, Thevara, Cochin -13	Establishment of Hobby Workshop	2,500
Union Christian College, Alwaye	Purchase of science equipment for chemistry dept. -	15,000
Kuriakose Elias College, Mannanam	Construction of Non-Resident Students' Centre	19,000
Loyola College of Social Sciences, Sreekaryam, Trivandrum	Construction of Women's hostel	30,000
Titus II Teachers' College, Tiruvella	Improvement of blackboards	1,000
St. John's College, Anchal	Book grant for 1970-71	1,825
St. Stephen's College, Uzhavoor	-do-	1,375
St. Berchman's College, Changanacherry	Development of postgraduate department	5,000
Assumption College, Changanacherry	Purchase of laboratory equipment	15,000
All Saints College, Trivandrum	Grant for programmes of student Welfare 1970-71	6,000
Govt. Training College, Trivandrum	-do-	2,500
Bishopmore College, Mavelikara	-do-	6,000
N.S.S. College of Engineering, Palghat	-do-	2,500
St. John's College, Anchal -do-	-do-	5,000
	Grant to college library for loan of books to students' (Book Banks)	12,000
St. Thomas College, Falai	-do-	17,000
Mar Ivanios College, Trivandrum	-do-	17,000
Maharajas' College, Ernakulam	-do-	17,000
Kuriakose Elias College, Mannanam	-do-	12,000
Sanatan Dharma College, Alleppey	-do-	17,000
St. Berchman's College, Changanacherry	-do-	17,000
Christian College, Chengannur	-do-	12,000
St. Alberts' College, Ernakulam	Grant for organising Summer Institute in Mathematics for School teachers during 1971	7,409.18
	Total	<u>4,81,346.04</u>

## 36. Kurukshetra

Purchase of science equipment for the department of geography	16,483
--	--------

p.t.o.



Kurukshetra contd.

Purchase of books and journals for the Law department	25,000
Establishment of Students' Home	20,000
Award of junior research fellowships in sciences	491,340
Establishment of students' Aid Fund	1,020
Financial assistance to teachers for research work in Humanities and Social Sciences	500

Affiliated Colleges

Govt. College of Education,  
Kurukshetra

Grant for programmes of students welfare 1970-71	2,500
--	-------

Total 85,999.40

37. Lucknow

Award of scholarships for postgraduate studies in Sanskrit during 1971-72	1,190.32
Purchase of books and journals for the law deptt.	5,000
Improvement of existing hostel facilities	5,000

Affiliated Colleges

Shashi Bhushan Balika Vidyalaya,  
Lucknow

Nari Shiksha Niketan, Lucknow

Shia College, Lucknow

Grant for programmes of students welfare 1970-71	2,500
Purchase of laboratory equipment furniture and books	15,000
Construction of library building and purchase of library furniture	35,000

Total 63,690.32

38. Madras

Purchase of books and journals for the Law department	12,500
Grant for holding the first annual conference of the Indian Society of Criminology during 1971-72	3,000

p.t.o.

Madras contd

Award of fellowships for undertaking writing of books at University level	8,000
Construction of Postgraduate women students' hostel	10,000

Affiliated colleges

Govt. College for Women, Kumbakonam	Establishment Text Book library	500
P.S.G.R. Krishnammal College for Women, Coimbatore	Construction of library and laboratory building	30,000
-do-	-do-	60,000
Sri Sarada College for Women, Salem	Construction of additional teaching accommodation	50,000
Sri Ramakrishna Mission Vidyalaya, Arts College, Coimbatore	Expansion of library and laboratory facilities	70,000
Holy Cross College, Tiruchirapalli	Expansion of Women's hostel	27,000
The Women's Christian College, Madras	Purchase of Semi-Micro Analysis equipment	4,983.60
Auxilium College, Katpadi Extension	-do-	5,000
-do-	Extension of laboratory facilities	1,50,000
Sacred Heart College, Tiruppattur	Construction of Non-Resident Students' Centre	3,000
Tagore Arts College, Pondicherry	Improvement of chalkboards	981
Madras Christian College, Tambaram, Madras	Grant for organising summer Institute in Physics for school teachers during 1971	5,722.07
Jamal Mohamed College, Tiruchirapalli	-do- Biology	2,689.59
Loyola College, Madras	Grant to students' Aid Fund	3,250
Stella Maris College, Madras	-do-	3,250
A.V.C. College, Mayuram	-do-	3,250
St. Joseph's College, Tiruchirapally	-do-	3,250
St. Christoplers' Training College, Madras	-do-	750
Sacred Heart College, Tirupattur	-do-	2,250
Seethalakshmi Ramaswami College, Tiruchirapalli	-do-	3,250
Regional Engineering College, Tiruchirapally	-do-	2,250
Sri Avinashilingam Teachers' College for Women, Coimbatore	-do-	750
Jamal Mohamad College, Tiruchirapally	Development of postgraduate studies in Humanities and Social Sciences	1,750

Madras contd.

Loyola College, Madras	Development of Postgraduate studies in Humanities and Science subjects	4,913
Seethalakshmi Ramaswami College, Tiruchirappalli	-do-	10,000
Sri Avinashilingam Home Science College, Coimbatore	-do-	18,000.
P.S.G. Arts College, Coimbatore	Implementation of National Service Scheme	13,000
C. Abdul Hakeem College, Melvisharam	Purchase of laboratory equipment	5,000
Sri Sarada College for Women, Angapuram, Salem-4.	-do-	5,000
Sacred Heart College, Tirupattur	-do-	4,000
Sri Vasavi College, Erode	-do-	4,000
The Women's Christian College, Madras	-do-	7,977.77
Nirmala College, Coimbatore	-do-	5,000
P.S.G. Arts College, Coimbatore	-do-	12,000
Auxilium College, Vellore	-do-	5,000
Dwarka Dass Goverdhan Dass Vaishnav College, Madras	-do-	5,000
Government Arts College, Ariyalur	-do-	4,000
Madras Law College, Madras	Grant for programmes of student welfare 1970-71	5,000
Queen Mary's College, Madras	-do-	6,000
Sri Pushpam College, Poondi	-do-	6,000
Stella Matutina College of Education, Madras	-do-	1,957
Women's Christian College, Madras	-do-	3,879.48
N.G. Mahalingam College, Palachi	-do-	5,000
P.S.G. College of Technology, Coimbatore-4.	-do-	1,000
Madras Christian College, Tambaram, Madras	-do-	6,000
Islamiah College, Maniyambadi	-do-	6,000
Government Arts College, Tiruvanamalai	-do-	2,500
Stella Maris College, Madras	-do-	6,000
L.N. Government Arts College, Panneri	-do-	4,000
Chikama Govt. Arts College, Tiruppur	-do-	500
Government Arts College, Coimbatore	-do- for I.D.R.-70	3,500
Government Arts College, Dharampuri	-do-	250
Holy Cross College, Tiruchirappalli	-do-	1,000
Sri Pushpam College, Poondi	-do-	500
Vivekananda College, Mylapore, Madras-4.	College Science Improvement Programme	80,000

Madras contd.

Stella Maris College, Madras	Block grant for 1970-71	1,625
Smt. D.N. Bhatt Vaishnav College, for Women, Chromepet, Madras	-do-	1,375
Avinashitingam Home Science College, for Women, Coimbatore	-do-	1,625
P.S.G.Arts College, Coimbatore	-do-	1,625
Govt. Arts College for Women, North Madras	-do-	1,375
Kandaswami Bandars College, Velur	-do-	1,625
The New College, Madras-14.	Award of scholarships for postgraduate studies in Arabic during 1971-72	1,650
-do-	-do-	1,425
Arignar Anna Government Arts College, Karaikal	Grant to college library for loan of books to students (Book banks)	8,000
Vivekanand College, Madras	Utilisation of services of retired teachers	5,750
P.S.G. College of Technology, Coimbatore	Financial assistance to teachers for research work in sciences	250
	Total	<u>7,34,679.11</u>

## 39. Madurai

Purchase of equipment for science departments	2,70,000
Grant for organising summer Institute in Biology for College teachers during 1971	13,000
Grant towards the introduction of correspondence courses	25,000
Construction of workshop building	15,000

Affiliated Colleges.

Popes' College, Swayerpuram	Construction of laboratory building	50,000
Sarah Tucker College, Palayankotta 1	Construction of Women's hostel	40,000
Saraswathi Narayanan College, Madurai-12	Purchase of laboratory equipment	11,000

Madurai contd.

Sri Meenakshi Government College for Women, Madurai	Purchase of laboratory equipment	4,000
St. Xavier's Teachers' Training College, Palayamkottai	Special grant for books and journals for development of Teachers' Training Programmes	2,000
G.T.N. Arts College, Dindigul 7	Grant to students' Aid Fund	1,750
Lady Doak College, Madurai-2	Grant for programmes of student welfare 1970-71	4,000
Aditanar College of Arts and Science, Tiruchendur	-do-	4,000
Sri Meenakshi Government College for Women, Madurai	-do-	5,000
Algappa College, Karaikudi	-do-	6,000
Sri Paraskthi College for Women, Courtallam	-do-	4,000
V.H.N.S. Nadar College, Virudhunagar	-do-	6,000
Ayyanadar Janki Ammal College, Sivakasi	-do-	4,000
Sri Satguru Sangatha Vidyalaya, Madurai	-do-	2,500
Lady Doak College, Madurai	-do- for 1969-70	500
Raja Dorai Singam Memorial College, Sivaganga	Book grant for 1970-71	1,625
Sri Sathguru Sangatha Vidyalaya, Madurai	-do-	1,125
Sri Palaniandavar College of Indian Culture, Palani	-do-	1,125
Arumugam Pillai Seethai Ammal College, Tiruppattur	Grant to college library for loan of books to students (Book banks)	12,000
Sri Paraskthi College for Women, Courtallam	Book grant for 1970-71	1,375
Sri Palaniandavar Arts College, Palani	Grant to college library for loan of books to students (Book banks)	12,000
St. Xavier's College, Palayamkottai	-do-	14,000
The American College, Madurai-2	-do-	14,000
The Madura Diraviyam Thayumanavar Hindu College, Petai, Tirunelveli-4.	-do-	14,000
	Total	<u>5,39,000</u>

## 40. Magadh

Award of junior research fellowships in Humanities and Social Sciences	997.12
-do- Sciences	1,000

Madadh contd.

Grant towards the scheme of visiting studentships for 1970-71	1,830.16
Grant towards salaries of additional staff appointed in various science departments	2,50,000

Affiliated Colleges

S.N.S. College, Warisaliganj	Book grant for 1970-71	1,125
S.U. College, Hilsa	-do-	1,250
T.P.S. College, Patna	-do- for 1969-70	1,000
S.P. Jain College, Sasaran	Grant for programmes of student welfare 1970-71	6,000
A.N.S. College, Barh	-do-	6,000
S.S. College, Jahanabad	-do-	6,000
T.P.S. College, Patna	-do-	4,000
-do-	-do- for 1969-70	2,000
S.S. College, Jahanabad	-do-	500
Maiti Dhari College, Nawabpur	Construction of Science laboratory	25,000
Satyendra Narayan Sinha College, Tekari	Construction of laboratory building	40,000
S.U. College, Hilsa	Construction of Mens' Hostel	20,000
A.N. College, Patna	Construction of science laboratory and purchase of laboratory, furniture and science equipment	15,000
-do-	Construction of science laboratory building for Zoology and Botany department	15,000
S.V.P. Mahavidyalaya, Bhabua	Purchase of laboratory equipment & / furniture	20,000
H.D. Jain College, Arrah	Purchase of laboratory equipment	15,000
T.P.S. College, Patna	Grant to college library for, loan of books to students (Book banks)	8,000
A.N.S. College, Barh	-do-	17,000
S.U. College, Hilsa	-do-	14,000
Aujabti Singh College, Bikramganj	-do-	17,000
Sri Guru Gobindsingh College, Patna	-do-	3,000
S.S. College, Jahanabad	-do-	17,000
S.N. Sinha College, Warsaliganj	-do-	8,000
S. Sinha College, Aurangabad (Gaya)	-do-	27,000
Kisan College, Sohasarai	-do-	17,000
Sardar Vallabhbhai Patel College, Bhabua	-do-	8,000
	Total	<u>5,62,702.28</u>

## 41. M.S. University of Baroda

Grant towards revision of salary scales of Technical teachers under AICTE Scheme	15,240.01
Recurring grant for staff and maintenance for the introduction of postgraduate courses in Engineering and Technology	3,00,000
Purchase of books and journals for the Law deptt.	12,500
Award of junior fellowships to postgraduate students of Engineering and Technology admitted during 1968-69	2,00,000
-do- 1970-71	67,000
Award of scholarships for postgraduate studies in Arabic and Persian during 1971-72	300
Publication of research works including Doctoral theses	10,000
Implementation of National Service scheme	9,284
Cultural Exchange Programme between India and France for the year 1971-72	47.86

Affiliated Colleges

## Medical College, Baroda

Financial assistance to teachers for research work in Sciences	750
--	-----

Total

6,15,121.87

## 42. Mahatma Phule Krishi Vidyapeeth

Affiliated Colleges

## Agricultural College, Poona

Grant for programmes of Student welfare 1970-71	5,000
---	-------

## College of Agricultural

Engineering, Poona

-do- 2,500

Agricultural College, Kolhapur

-do- 4,000

College of Agriculture, Dhulia

-do- 2,500

Agricultural College, Depoli

-do- 2,500

Bombay Veterinary College,

-do- 2,500

Larel, Bombay

-do- 2,500

Total

19,000

p.t.o.

## 43. Marathwada

Construction of extension to chemistry department building	25,000
Purchase of books and journals for the Law department	5,000
Establishment of students Home	20,000
Establishment of Students' Aid Fund	594
Purchase of library books and journals (Humanities)	9,000
Purchase of books for the Science departments	20,000

Affiliated Colleges

Dayanand Arts College, Latur	Grant to students' Aid Fund	2,250
Nanded Education Society's Science College, Nanded	-do-	2,250
Dayanand Commerce College, Latur	-do-	1,750
Dayanand Arts College, Latur	Grant for programmes of Student Welfare 1970-71	4,000
K.S.P.M.'s Shivaji Mahavidyalaya, Udgir	-do-	4,000
Maharashtra Udayagiri Mahavidyalaya, Udgir	-do-	6,000
Kratishthan Mahavidyalaya, Paithan	-do-	2,500
Government Medical College, Aurangabad	-do-	4,000
Government College of Education, Parbhani	-do-	500
Deogiri College, Aurangabad	-do-	4,000
Milind College of Arts, Aurangabad	-do- for 1969-70	500
Government College of Arts and Science, Aurangabad	-do-	500
Maharashtra Udayagiri Mahavidyalaya, Udgir	-do-	500
R.G.B. Arts, S.B.L. Commerce and R.B. Science College, Jalna	Construction of Men's Hostel	40,000
Shri Chhatrapati Shivaji College of Arts, Science, and commerce, Omerga	Grant to College Library for loan of books to students (Book banks)	12,000
K.S.P.M.'s Shivaji Mahavidyalaya, Udgir	-do-	8,000
Ramakrishna Pramhansa Mahavidyalaya, Osmanabad	-do-	8,000
Science Colleg., Nanded	-do-	8,000



Marathwada Contd.

Dayanand Arts College, Latur	Grant to college library for loan of books to students (Book banks)	3,000
Dayanand Education Society's Dayanand Science College, Latur	Book grant for 1970-71	1,375
The P.E.S. Pratishthan Mahavidyalaya, Paithan	--do--	1,125
The M.S.P. Mandal's Shri Shivaji College of Arts and Science, Prabhani	--do--	1,625
	Total	<u>2,00,469</u>

## 44. Meerut

Implementation of the University Leadership Project in Botany under College Science Improvement Programme for the year 1971-72	2,00,000
Depth Study of the colleges of the University	3,500

Affiliated Colleges

C.S.R. Degree College, Muzaffarnagar	Construction of Library building	14,000
--do--	Purchase of library furniture	13,000
Digambar Jain College, Baraut	Construction of Teachers' Hostel	5,000
A.K.P. Degree College, Khurja	Construction of library building	3,000
S.K.K. Jain Degree College, Khatauli	Construction of Teachers' hostel and principals residence	15,000
--do--	--do--	15,000
A.S. Degree College, Mawana	Construction of laboratory building, purchase of laboratory furniture and library books	10,000
Krishak Degree College, Mawana	Construction of Library building	12,000
Municipal Postgraduate College, Mussoorie	--do--	20,000
Jain Girls Degree College, Muzaffarnagar	Purchase of library books and furniture	15,000
Janta Vedic College, Baraut	Purchase of library books and laboratory furniture	5,000
Municipal Postgraduate College, Mussoorie	Construction of library building	40,000

Meerut contd.

Shri Guru Ram Rai College, Dehradun	Grant for programmes of student welfare 1970-71	4,000
A.K.P. Degree College, Khurja	--do--	2,500
Raghunath Girls College, Meerut	--do--	6,000
Ishwar Dayal Prasandi Devi Degree College, Bulandshahr	--do--	2,500
Durga Prasad Degree College, Anupshahr	--do--	2,500
Dayanand Women's Training College, Dehradun	--do--	2,500
S.M.J.N. Degree College, Hardwar	--do--	2,500
Janta Vedic College, Baraut	--do--	5,000
M.M.H. College, Ghaziabad	--do--	500
D.B.S. College, Dehradun	--do--	5,000
Sanatan Dharam College, Muzaffarnagar	--do--	5,000
Raghunath Girls College, Meerut	--do-- for 1969-70	4,000
Durga Prasad Degree College, Anupshahr	--do--	1,000
A.K.P. Degree College, Khurja	--do--	250
Meerut College, Meerut	--do--	3,500
Shri Guru Ram Rai College, Dehradun	--do--	1,000
D.P. Degree College, Anupshahr	Grant to Students Aid Fund	750
D.A.V. Postgraduate College, Dehradun	Grant for organising Summer Institute in Mathematics for school teachers during 1971	3,726
A.S. Degree College, Mawana	Book grant for 1970-71	1,125
S.M.J.N. Degree College, Hardwar	--do--	1,125
S.K.K. Degree College, Khatauli	--do--	1,125
K.V. Degree College, Machhra	--do--	750
Meerut College, Meerut	Financial assistance to teachers for research work in Sciences	500
--do--	Award of junior research fellowships in Humanities and Social sciences	5,258.00
D.A.V. College, Muzaffarnagar	Development of postgraduate studies in science subjects	23,000
D.A.V. College, Dehradun	--do--	15,000
Maharaj Singh College, Saharanpur	--do--	15,000
Gochar Agriculture Degree College, Rampur	Purchase of laboratory equipment	4,000
Shri Guru Ram Rai College, Dehradun	Establishment of Text Book Library	1,000
D.B.S. College, Dehradun	Grant to college library for loan of books to students (Book banks)	14,000
	Total	<u>5,19,609.06</u>

## 45. Mysore

Grant towards revision of salary scales of university teachers under III Five Year Plan period	3,17,751.17
Contingency grant for utilisation of services of retired teachers	1,000
Purchase of furniture for Zoology Museum	30,000
Construction of additional accommodation for the department of chemistry	20,000

Affiliated Colleges

H.P.S.C. Municipal College, Challakera	Book grant for 1970-71	1,125
Institute of Social Service, Mangalore	-do-	1,125
Sandavillas Law College, Mysore	-do-	1,125
National College, of Commerce, Shimoga	-do-	1,125
National Evening College of Commerce, Shimoga	-do-	1,125
Bhavdarks' Arts & Science College, Coondepur	-do-	1,625
D.V.S. College of Arts and Science, Shimoga	-do-	1,375
St. Philomena College, Philonagar	-do-	1,625
Govinda Dasa College, Suratkal	-do-	1,125
J.S.S. College, Nanjangudi	-do-	1,125
Rural College, Kanakapura	-do-	1,375
Tersian College, Nazarabad	-do-	1,375
Udipi Law College, Udipi	-do-	1,125
Vijaya College, Mulki	-do- for 1969-70	1,375
K.G.F. First Grade College, Oorgaum.	-do-	1,000
B.M. Shetty First Grade College, Konanur	Grant for programmes of student welfare 1970-71	2,500
J.S.S. College, Nanjangudi	-do-	2,500
Sri Jagaduru Chandrase Khare Bharati Memorial College, Sringeri	-do-	2,500
Sree Sidganga Evening College, Tumkur	-do-	2,500
Sree Sidaganga College of Science, Tumkur	-do-	4,000
Bhandarkars' Arts and Science College, Coondepur	-do-	5,000

Mysore contd.

Maland College of Engineering, Hassan	Grant for programmes of student welfare 1970-71	3,998,02
D.V.S. College of Arts and Science, Shimoga	-do-	4,000
Rural College, Kanakapura	-do-	4,000
Vijaya College, Mulki	-do-	4,000
St. Aloysius College, Mangalore	-do-	5,000
Government College, Hassan	-do- for 1969-70	500
Government College, Chickmagalur	-do-	500
Sree Siddaganga College of Science, Tumkur	Grant to Students' Aid Fund	2,750
Sri Mahaveera College, Moodbidri	-do-	1,000
Sri Venkataramana Swamy College, Bantwal	-do-	1,000
St. Anns' Training College, Mangalore		
	Construction of Non-Resident students' Centre	10,000
Sree Siddaganga College of Science, Tumkur	Purchase of laboratory equipment, furniture and library books	5,915
Maharajas' College, Mysore	Construction of Teachers' Hostel	20,000
Sri Mahaveera College, Moodbidri	Purchase of library and laboratory furniture	12,765
-do-	Purchase of library books	7,500
Government College, Kolar	Purchase of science equipment and laboratory furniture	10,000
M.G.M. College, Udipi	Extension of Physics Laboratory and General Library	20,000
Kalpatru College, Tiptur	Construction of Science laboratory for Zoology	50,000
Bhandarkars' Arts and Science College, Coondapur	Purchase of laboratory furniture, Gas, Water and electrical fittings	9,910
Milagres College, Kallianpur	Construction of library building	30,000
Bhandarkars' Arts and Science College, Coondapur	Construction of Principal's quarter tube well and overhead tank	10,000
K.G.F. First Grade College, Gorgan	Purchase of laboratory equipment, furniture and books	10,000
Rural College, Kanakapura	Construction of composite building consisting of library laboratory and lecture theatres	1,25,000
Sri Venkataramana Swamy College, Bantwal	Purchase of laboratory equipment	5,000
Lal Bahadur College of Arts, Science and Commerce Sagar(Mysore)	-do-	5,000
Sri Mahaveer College, Moodbidri	-do-	5,000
Sri Bhuvanendra College, Karkala	-do-	5,000
Kalpataru College, Tiptur	-do-	5,000
K.G.F. First Grade College Gorgan	Basic grant for purchase of library books	500

Mysore contd.

Mahatma Gandhi Memorial College, Udipi	College Science Improvement Programme	80,000
Government College of Education, Chitradurga	Special grant for books and journals for development of Teachers training Programme	2,000
Sri Poornaprajna College, Udipi	Grant to college library for loan of books to students (Book banks)	12,000
Govt. College, Mangalore	-do-	20,000
Govt. College, Mandya	-do-	14,000
Govt. College, Mercara	-do-	8,000
	Total	<u>9,07,810.13</u>

## 4. Nagpur

Grant towards revision of salary scales of technical teachers under AICTE Scheme	10,554
Award of senior research fellowships in sciences	999.13
Purchase of books and journals for the Law dept.,	25,000
Grant towards Guru Nanak Jai Centenary Celebrations	2,000

Affiliated Colleges

S.N. More College of Arts and Commerce, Tumsar	Improvement of chalkboards	860
Lady Amritbai Daga College for Women, Nagpur	Construction of Women's hostel	15,000
Smt. Radhadevi Goenka College for Women, Akola	Construction of Library building	20,000
Shri. Vijanketesh Arts and Commerce College, Denlgaon Raja	Grant for programmes of student welfare 1970-71	2,500
Anrolakchand Mahavidyalaya, Yeotmal	-do-	6,000
The K.E.S. Arts and Commerce College, Arvi	-do-	4,000
The Yeshwant Mahavidyalaya, Wardha	-do-	4,000
Rajasthan Aryan Arts and Mithulalji Kochpliya Commerce College, Washim	-do-	4,000

Nagpur contd.

Nabira Mahavidyalaya, Katol	Grant for programmes of student welfare 1970-71	4,000
P.W.S. College, Nagpur	--do--	4,000
Janata College of Education, Chandrapur	--do--	2,500
J.E.S. College of Arts and Commerce, Jalgaon	--do--	2,500
Yoshwant Mahavidyalaya, Wardha	--do-- for 1969-70	500
The Jijamata Mahavidyalaya, Buldana	--do-- for 1970-71	4,000
D.V.S.P. College, Digras	--do--	500
Mahatma Phule Mahavidyalaya, Warud	--do--	2,500
Arts and Commerce College, Saoner	--do--	2,500
S.N.M. College of Arts and Commerce, Tumsar	--do--	2,500
Government College of Education, Yeotmal	--do--	2,500
Government P.G. Basic Training College, Amravati	--do--	2,500
J.M. Patel College of Arts and Commerce, Bhandara	--do--	5,000
Degree College of Physical Education, Amravati	--do--	2,500
Government College of Education Bhandara	--do--	2,500
Shri Shivaji Education Society's Science College, Congressnagar, Nagpur	--do--	4,000
Bharatiya Mahavidyalaya, Amravati	--do--	4,000
Samarth Mahavidyalaya, Lakhani	--do--	4,000
Smt. Radhadevi Goenka College for Women, Akola	--do--	2,500
Amolak Mahavidyalaya, Yeotmal	--do-- for 1969-70	3,500
Nabira Mahavidyalaya, Katol	--do--	500
Rajasthan Aryan College, Washim	--do--	2,000
Janata College of Education, Chandrapur	--do--	250
The Jijamata Mahavidyalaya, Buldana	Grant to Student Aid Fund	2,250
Smt. Binzani Mahila Mahavidyalaya, Nagpur	--do--	2,250
Samarth Mahavidyalaya, Lakhani	--do--	1,750
Shri Vyankatesh Arts and Commerce College, Denggaon	--do--	1,000
Samarth Mahavidyalaya, Lakhani	Book grant for 1970-71	1,375
Adarsha Mahavidyalaya, (Arts and Commerce), Dhamangaon	--do--	1,125
Degree College of Physical Education, Amravati	--do--	1,125
Janata College of Education, Chandrapur	--do-- for 1969-70	199.39
V.R. College of Engineering, Nagpur	Financial assistance to teachers for research work in sciences	1,000

Nagpur contd.

R.L.T. College of Science, Akola Jhuls ng Naik Mahavidyalaya, Pusad	Purchase of laboratory equipment Grant to college library for loan of books to students (Book banks)	15,000 3,000 3,000
R.L.T. College of Science, Akola	-do-	3,000
P.W.S. College of Arts and Commerce, Nagpur	-do-	8,000
Sri Shivaji College of Arts, Commerce and Science, Akola	-do-	12,000
Sri Shivaji College, Akot	-do-	8,000
Janata Mahavidyalaya, Chandrapur	-do-	14,000
Sit. Binzani Mahila Mahavidyalaya, Nagpur	-do-	8,000
G.S. College of Commerce, Wardha	-do-	14,000
G.S. College of Science and Arts, Khanggaon	-do-	14,000
Anand Niketan College of Science, Arts and Commerce, Warora	-do-	8,000
R.S. Bilkar Arts and Commerce College, Hinganghat	-do-	8,000
S.N. More College of Arts and Commerce, Tumsar	-do-	2,000
Punjabhai Patel College of Education, Gondia	Purchase of equipment and audio- visual aids	5,000
	Total	<u>3,03,271.52</u>

## 47. North Bengal

Financial assistance to teachers  
for research work in sciences ₹50

Affiliated Colleges

Darjeeling Government College, Darjeeling	Grant to students' Aid Fund	2,750
St. Joseph's College, Darjeeling	-do-	1,750
Loreto College, South Field (Darjeeling)	Book grant for 1970-71	3,375
Mathabhanga College, Mathabhanga	-do-	1,125
-do-	Improvement of chalkboards	1,000
Kurseong College, Kurseong	Grant for programmes of student welfare 1970-71	2,500

North Bengal contd.

Darjeeling Government College, Darjeeling	Grant for programmes of student welfare 1969-70	2,000
Government Teachers' Training College, (Postgraduate) Malda	-do-	250
St. Joseph's College, North Point, Darjeeling	Construction of Men's hostel	9,430
Siliguri College, Siliguri	Financial assistance to teachers for research work in Humanities and Social Sciences	350
Darjeeling Government College, Darjeeling	-do-	500
	Total	<u>25,180</u>

## 43. Osmania

Purchase of library books and journals for the development of Engineering and Technological education	40,000
Purchase of books and journals for the Law deptt.	25,000
Construction of additional accommodation at Arts and Science College, Secundrabad	50,000
Construction of building for the department of Geophysics	70,000
Construction of class III & IV staff quarters	75,000
Construction of 90 students hostel for the department of chemical Technology	15,000
Financial assistance to teachers for research work in Sciences	500
Grant towards the salaries of the staff appointed in the Postgraduate centre at Warangal	1,00,000
-do- Science departments	1,50,000
Purchase of books and journals for the Faculty of science	20,000
-do- for the Post- graduate course in Engineering and Technology	1,20,000



Osmania contd.

Grant for meeting the expenditure  
on the Centre of Advanced Study in  
Astronomy during 1971-72 50,000

Affiliated Colleges.

College of Arts and Science, Warangal	Extension of library building	80,000
Andhra Mahila Sabha Arts and Science College for Women, Hyderabad	Construction of Women's hostel	60,000
Women's College, Hyderabad	Improvement of chalkboards	1,000
Sardar Patel College, Secundrabad-25	Grant to Students' Aid Fund	2,250
Nizam College, Hyderabad	Purchase of semi-Micro Analysis equipment for chemistry department	4,000
Muntaz College, Hyderabad	Establishment of Text Book library	1,000
College of Arts and Science, Kamareddy	Grant to college library for loan of books to students(Book banks)	8,000
Badruka College of Commerce and Arts (Hyderabad)	-do-	14,000
-do- (Evening)	-do-	12,000
Girraj Government College, Nizamabad	-do-	8,000
Sardar Patel College, Secundrabad	-do-	12,000
Anwar-ul-Uloom Evening College New Malhappy, Hyderabad	-do-	12,000
-do- (Day classes)	-do-	14,000
New Science College, Narayanguda, Hyderabad	-do-	12,000
Chanda Kanthiah Memorial Arts and Science College, Warangal	-do-	14,000
A.V. College of Science, Arts and Commerce, Hyderabad	-do-	8,000
-do- (Evening Session)	-do-	8,000
Adarsh College of Science, Commerce and Arts, Jammikunta	-do-	8,000
Government Arts and Science College, Mancherial	Book grant for 1970-71	750
K.R.R. Arts and Science College, Kodad	-do-	1,125
Agarwal Evening College, (Science) Hyderabad	-do- for 1969-70	236,35
College of Arts and Science, Kamareddy	-do-	750
Muntaz College, Hyderabad	-do-	750
Anwar-ul-Uloom College, Hyderabad	Grant for programmes of student welfare 1970-71	4,000
		p.t.o.

Osmania Contd.

Sardar Patel College, Secunderabad	Grant for programmes of student welfare 1970-71	2,500
A.V. College of Arts, Science and Commerce, Hyderabad	-do-	2,500
Sardar Patel College, Secunderabad	Purchase of laboratory equipment	15,000
	Total	<u>10,21,361.35</u>

## 49. Punjab

Purchase of books and journals for the Law department	25,000
Grant for organising Summer Institute in Chemistry for College teachers during 1971	3,000
Purchase of books for the departments of Bio-Chemistry, Bio-Physics and Microbiology	6,000
Purchase of library books and journals for science depts.	5,300
Grant towards Teachers' Fellowship Programme at the Centre of Advanced Study in Mathematics during 1971-72	28,200

Affiliated Colleges.

G.H.S. Khalsa College, Gurusar Sadhar	Grant to Students' Aid Fund	2,750
D.M. College, Moga	-do-	3,250
Haryana Mahavidyalaya, Beri	-do-	750
Mohindergarh Degree College, Mohindergarh	-do-	1,750
Hindu College, Sonapat	-do-	3,250
Guru Nanak Khalsa College, Yamunanagar	-do-	1,750
Gandhi Vidya Mandir, Ganpat Rai	Construction of class rooms and lecture theatres	10,000
Rasiwasia College, Charkhi Dabri	Construction of Men's Hostel and purchase of furniture	10,000
Haryana War Heroes Memorial College, Gohana	Construction of library building	3,984
Dev Samaj College for Girls, Ambala City		

Annex contd.

D.S.D. College, Gurgaon	Construction of Men's Hostel	70,000
Dev Samaj College for Women, Ferozepur	Extension of library building	30,000
Ferozpur Bhaygava College, Simla	Construction of Library building	25,000
M.L. National College, Yamunanagar	Establishment of Hobby Workshop	2,500
Dayanand College, Hissar	Construction of Men's hostel (Second phase)	30,000
Khalsa College for Women, Ludhiana	Construction of Teachers' hostel	15,000
D.A.V. College, Chandigarh	Construction of Science Block	20,300
G.V.M.G. R.K. College, Charkhi Dadri	Construction of class rooms and lecture theatres	20,000
G.G.N. Khalsa College, Ludhiana	Purchase of laboratory equipment and furniture	20,000
Guru Nanak Khalsa College, Yamunanagar	Purchase of books	10,000
Government College of Science Education, and Research, Jagraon	Book grant for 1970-71	750
R.S.D. College, Ferozepore	-do-	1,625
Fateh Chand College for Women (Lahore) Hissar	-do-	1,369.97
M.D. College, Mohindergarh	-do-	1,125
D.P.S.M. Girls College, Khanpurkalan	-do-	1,125
D.A.V. College, Malout	-do-	1,125
R.P.C.S.D.B. College, Simla	-do-	1,375
Mehar Chand Mahajan D.A.V. College, for Women, Chandigarh	-do-	1,375
Lajpat Rai Centenary College, Dhudike	-do-	1,125
Mukand National College, Yamunanagar	-do-	1,625
Vaish College, Bhiwani	-do-	1,625
A.L.J. Heros Memorial College, Rohtak	-do-	1,625
Hindu Girls College, Jagadhari	-do-	1,125
G.G.N. Khalsa College, Ludhiana	-do-	1,625
Kamala Memorial Colleg, Narwana	-do-	1,375
D.A.V. College, Abohar	-do-	1,625
Dayanand College, Hissar	-do-	1,625
Govind National College, Govindnagar, P.O. Narangwal	-do- for 1969-70	1,375
Sri Guru Gobind Singh College, Chandigarh	-do-	1,625
Dev Samaj College for Girls (Lahore) Ambala City)	-do-	1,375
Guru Nanak College, Guru Teg Bahadur Garh (Ferozepur)	-do-	750
Gandhi Vidya Mandir, Charkhi, Dadri	Purchase of laboratory equipment	5,000
D.A.V. College, Chandigarh	-do-	5,000

Punjab contd.

Vaish College, Bhiwani	Grant to college library for loan of books to students (Book banks)	12,000
Vaish College, Rohtak	-do-	17,000
J.G.G.S. Khalsa College, Mahilpur	-do-	8,000
Sanatan Dharam college, Ambala Cantt	-do-	14,000
Fatehchand College for Women, Hissar	-do-	8,000
Dev Samaj College for Women, Ferozepur City	-do-	12,000
Arya Girls College, Ambala Cantt	-do-	8,000
Arya College, Ludhiana	-do-	14,000
Ahir College, Rewari	-do-	12,000
A.I. Jat Heros Memorial College, Rohtak	-do-	14,000
Dev Samaj College for Girls, Ambala City	-do-	8,000
Dr. Nacharya S. D. College, Gurgaon	-do-	12,000
Govind National College, Govindnagar, P.O. Narainwal	-do-	8,000
Government College, Ludhiana	-do-	17,000
Government College, Muktsar	-do-	12,000
Government College, Narnaul	-do-	12,000
Government College, Chandigarh	-do-	14,000
Government College for Women, Ludhiana	-do-	12,000
Government College, Hissar	-do-	12,000
Government College, Tanda Umar	-do-	12,000
J.H.G. Khalsa College, Gurusar Sadhar	-do-	12,000
Mujranwala Guru Nanak Khalsa College, Ludhiana	-do-	12,000
Guru Nanak College, Kallianwalli	-do-	8,000
Guru Nanak Khalsa College, Yamunanagar	-do-	8,000
Haryana War Heros Memorial College, Johana	-do-	8,000
I.B. College, Panipat	-do-	8,000
Kamala Memorial College, Narwana	-do-	8,000
Anglo-Sanskrit College, Khanna	-do-	14,000
Government College, Rohtak	-do-	14,000
Khalsa College for Women, Ludhiana	-do-	12,000
Lajpat Rai Memorial College, Jagraon	-do-	12,000
M.R. College, Fazilka	-do-	8,000
Master Tara Singh Memorial College, for Women, Ludhiana	-do-	8,000
Sanatan Dharma College, Palwal	-do-	8,000
R.S.D. College, Ferozepur City	Grant for programmes of student welfare 1970-71	6,000
A.S. College, Khanna	-do-	6,000
Dayanand College, Hissar	-do-	6,000
Sohanlal College of Education, Ambala City	-do-	2,500

Panjab contd.

National College, Sirsa	Grant for programmes of student welfare 1970-71	6,000
Mahila Mahavidyalaya, Kaithal	--do--	2,500
Lajpat Rai Centenary College, Dhudike	--do--	2,500
--do--	--do-- for 1969-70	250
Govind National College, Govindnagar, P.O. Narangwal	--do-- for 1970-71	4,000
Govt. Degree College, Umna	--do--	3,995.15
D.A.V. College of Education, Nawanshahr, Doaba	--do--	2,500
D.A.V. College of Education, Hoshiarpur.	--do--	2,500
Government College, Narnaul	--do--	1,999.57
D.M. Institute of Education, Moga	--do--	2,500
G.G.N. Khalsa College, Ludhiana	--do--	5,000
National College, Sirsa	--do--	2,000
R.S.D. College, Ferozepur City	--do-- for 1969-70	500
Government College, Hissar	--do--	2,000
Government College, Ludhiana	--do--	3,500
Dev Samaj College of Education for Women, Ferozepur	--do--	1,000
A.S. College, Khanna	--do--	500
Sohanlal College of Education, Ambala City	--do--	1,000
M.R. College, Fazilka	Purchase of laboratory equipment	5,000
Lajpat Rai Centenary College, Dhudike	--do--	4,000
S.D. College, Barwala	--do--	4,000
Dev Samaj College of Education for Women, Ferozepur city	Special grant for books and journals for development of Teachers Training Programme	2,000
Malwa Central College of Education, Ludhiana	Construction of Teachers' Hostel	34,000
D.A.V. College of Education, Hoshiarpur	Extension of library building	10,000
Hindu College, Sonapat	Financial assistance to teachers for research work in Humanities and social sciences	250
	Total	<u>8,88,148.69</u>

50 Patna

Award of junior research fellowships in Humanities and Social Sciences	1,000
Purchase of books and journals for the Law department	25,000
Purchase of equipment for the establishment of High Voltage Laboratory at the Bihar College of Engineering	20,000
Purchase of equipment for Health Centre	7,500
Construction of Staff quarters for Readers and Assistant Professors	1,00,000
Utilisation of services of retired teachers	3,016.67
Total	<u>1,56,510.67.</u>

51. Poona

Purchase of library books and journals for Gokhale Institute of Politics and Economics	4,999.17
Grant towards salaries of Russian Language Teachers under Indo- U.S.S.R. Cultural Exchange Programme	6,743.33
Purchase of books and journals for the Law department	12,500
Construction of a composite building for the Geology and Geography departments	1,00,000
Grant for meeting the expenditure on the Centre of Advanced Study in Sanskrit	2,09,900
-do- Linguistics	13,200
Construction of building for Humanities and Social Sciences departments	1,50,000

Affiliated CollegesB.Y.K. College of Commerce,  
Nasik

Financial assistance to teachers for research work in Humanities and Social Sciences	500
--	-----

Poona contd.

C.D. Jain College of Commerce, Shrirampur	Construction of library building and purchase of books	20,000
R.B.N. Borawke College, Shrirampur	Construction of Teachers' hostel and Principals' bungalow	50,000
Nowrojee Wadia College, Poona	Purchase of science equipment	40,000
R.K. Talreja College of Arts Commerce & Science, Ulhasnagar-3.	Grant to college library for loan of books to students (Book banks)	14,000
M.E.S. College of Commerce, Poona-4	-do-	14,000
-do-	Grant for programmes of student welfare 1970-71	5,000
M.E.S. College of Arts and Science, Poona-4.	-do-	6,000
M.U.V.'s College of Education, Mahegaon	-do-	2,500
C.D. Jain College of Commerce, Shrirampur	-do-	2,500
Arts, Science and Commerce College, Bhiwandi	-do-	4,000
Fergusson College, Poona	-do-	6,000
S.S.V.P. Sansthas' Science College, Dhulia	-do- for 1969-70	2,000
C.D. Jain College of Commerce, Shrirampur	-do-	250
P.S. College, Ahmednagar	-do-	2,000
H.P.T. College, Nasik	-do-	500
Tuljaram Chaturchand College, Baramati	Grant to Students' Aid Fund	2,250
College of Education, Jalgaon	-do-	750
S.S.J.M. College of Science, Koparagaon	Purchase of laboratory equipment	15,000
Arts, Science and Commerce College, Bhiwandi	-do-	5,000
Arts, Science and Commerce College, Faizpur	-do-	5,000
Pratap College, Amalner, Jalgaon	-do-	13,000
Femraj Sarda College, Ahmednagar	Improvement of chalboards	1,000
P.V.N. Janata Mahavidyalaya, Fathardi	-do-	1,000
Deccan College, Postgraduate and Research Institute, Poona-6.	Grant towards research project 'A cultural and bio-social study of the Dhangar (Shepherd) Community of Maharashtra	20,000
R.K. Talreja College of Arts, Commerce and Science, Ulhasnagar-3	Grant for holding a summer Institute in Mathematics for School teachers during 1971	204,81
S.S.V.P. Sansthas' M.F.M.A. Commerce College, Dhulia	Book grant for 1970-71	1,625
	Total	<u>7,34,422.31</u>

## 52. Punjabi

	Purchase of books and journals for the Law department	20,000
<u>Affiliated colleges</u>		
Government College, Malerkotla.	Grant towards gas fittings and purchase of furniture for chemistry laboratory	10,000
Shri Sanatan Dharam Girls, Bhatinda	Construction of Girls' hostel	30,000
Patel Memorial National College, Rajpura	Purchase of laboratory equipment and furniture	10,000
Khalsa College, Patiala	Grant for programmes of student welfare 1970-71	5,000
R.B. Multanial Modi Degree College, Patiala	-do-	4,000
Government Medical College, Patiala	-do-	4,000
Guru Khshi College, D. mdama Sahib	-do-	2,500
Government Dental College, Patiala	-do-	2,500
Government Training College, Faridkot	-do- for 1969-70	250
Government Bikram College of Commerce, Patiala	-do-	500
Khalsa College, Patiala	-do-	3,500
Shri G.T.B. Khalsa College, Anandpur Sahib	Improvement of chalkboards	1,000
D.A.V. College, Bhatinda	Purchase of laboratory equipment	15,000
Patel Memorial National College, Rajapura	Book grant for 1970-71	1,125
S.D. College, Barnala	-do-	1,625
	Total	1,10,500

## 53. Rajasthan

	Purchase of books and journals for the Law Department	15,000
	Book grant for 1969-70 in respect of Maharani's College, Jaipur	1,248.68
	-do- University college of Commerce, Jaipur	994.55
	Grant towards celebration of Ghalib Centenary	2,500
	Grant for holding a Summer Institute in Mathematics for College Teachers during 1970	110.73



Rajasthan contd.

Balance grant payable to the Maharani College, Jaipur for purchase of library books and laboratory equipment	1,924.88
--	----------

Affiliated Colleges

Government College, Dhillwara	Financial assistance to teachers for research work in Humanities and Social Sciences	100
S.N.K.P. Government College, Neem-Ka-Thaka	--do--	250
S.P. Medical College, Bikaner	--do-- Sciences	1,000
S.M.S. Medical College, Jaipur	--do--	1,500
S.N.K.P. Government College, Neem-Ka-Thana	Purchase of Semi-Micro Analysis equipment	5,000
Cramothan Vidyapeeth Shiksha Mahavidyalaya, Sangaria	Construction of library building	10,000
Shri Nehru Shardapeeth, Bikaner.	Grant for programmes of student welfare 1970-71	4,000
Kanoria Mahila Mahavidyalaya, Jaipur	--do--	4,000
Bhagwan Das Todi College, Laxmangarh, Sikar	--do--	2,500
Raj Rishi College, Alwar	--do--	6,000
Government College, Sambhar Lake	--do--	2,500
G.V. College of Agriculture (Arts and Science) Sangaria	--do--	2,500
Sharda Sadan College, Mankandgarh	--do--	4,000
Seth Motilal College, Jhunjhuna	--do--	4,000
Bhagwandas Todi College, Laxmangarh	--do-- for 1969-70	2,500
Regional College of Education, Ajmer	--do--	250
Raj Rishi College, Alwar	--do--	2,000
Government College, Tonk	--do--	1,000
Kanoria Mahila Mahavidyalaya, Jaipur	--do--	478.20
Jawahar Lal Nehru Teachers Training College, Kota	--do--	250
Seth G.B. Podar College, Nawalganj	Grant to Students' Aid Fund	2,50
M.L.V. Government College, Dhillwara	--do--	2,750
Sonadevi Sethia Girls' College, Sujangarh	--do--	750
Government College, Sriganganagar	Book grant for 1970-71	1,375
R.L. Saharia College, Kala Dera, Jaipur	--do--	1,375
Shree Jain (Postgraduate) College, Bikaner	--do--	1,375
Bangur College, Pali	--do--	1,125

Rajasthan Contd.

Sharda Sadan College, Mukandgarh	Book grant for 1970-71	1,375
Shri M.L.V. Government College, Bhilwara	--do--	1,625
Sophia College, Ajmer	--do-- for 1969-70	1,125
Government College, Karauli	Grant to college library for loan of books to students(Book banks)	8,000
Sharda Sadan College, Mukandgarh	--do--	8,000
Seth Motilal College, Jhunjhunu	--do--	3,000
Lohia College, Churu	--do--	12,000
Savitri Girls College, Ajmer	--do--	8,000
Raj Rishi College, Alwar	--do--	17,000
S.J.L. Bihari S.D. (Postgraduate) College, Sriganganagar	--do--	8,000
C.B.R. Godhra Government Girls College, Sriganganagar	--do--	8,000
Government College, Dausa	--do--	8,000
Government College, Sriganganagar	--do--	8,000
Regional College of Education, Ajmer	--do--	5,000
Government College, Katputli	--do--	8,000
Agarwal College, Jaipur	--do--	12,000
Dayanand College, Ajmer	Utilisation of services of retired teachers	5,500
M.S. College for Women, Bikaner	Purchase of laboratory equipment	15,000
Regional College of Education, Ajmer	Grant for organising Summer Institute in Physics for School teachers during 1971	5,000
Malaviya Regional Engineering College, Jaipur	Travel grant to Dr. R.S. Saxena for attending a Symposium organised by the International Committee for Pure and Applied Sciences on Biological aspects of Electro Chemistry at Rome	2,617
R.N. Bua Government College, Ramgarh, Shekhawati	Improvement of chalkboards	1,000
	Total	<u>2,40,849.04</u>

## 54. Ranchi

Affiliated colleges

Katras College, Katragarh	Grant for programmes of student welfare 1970-71	2,500
Sindri College, Sindri	--do--	2,500
Krishna Ballav College, P.O. Berno	--do--	2,500
Jamshedpur Workers' College, Jams hedpur	--do--	5,000

Ranchi contd.

Mahila College, Chaibasa	Grant for programmes of student welfare 1970-71	2,500
St. Xaviers' College, Ranchi	-do-	2,500
Krishna Ballav College, Berhampur	-do- for 1969-70	250
Jamshedpur Workers' College, Jamshedpur	-do-	500
Giridih College, Giridih	Grant to college library for loan of books to students (Book banks)	8,000
Ranchi Womens' College, Ranchi	-do-	14,000
Marwari College, Ranchi	-do-	12,000
St. Columbias' College, Hazaribagh	-do-	14,000
Chotanagpur Law College, Ranchi	-do-	12,000
Jamshedpur Cooperative College, Jamshedpur	-do-	17,000
Ganesh Lal Agarwal College, Daltonganj	-do-	14,000
Karim City, College, Jamshedpur	-do-	12,000
St. Xaviers' College, Ranchi	-do-	17,000
Jamshedpur Workers' College, Sakchi, Jamshedpur	-do-	12,000
Regional Institute of Technology, Jamshedpur	Financial assistance to teachers for research work in sciences	250
Jamshedpur Cooperative College, Jamshedpur	-do- Humanities	250
Jamshedpur Workers' College, Sakchi, Jamshedpur	Book grant for 1969-70	1,250
St. Xaviers' College, Ranchi	-do-	1,125
Jamshedpur Workers' College, Sakchi, Jamshedpur	Improvement of chalkboards	1,000
Teachers' Training College, Ranchi	Award of junior research fellowships in Educational Research on Inter-departmental basis during 1971-72	4,600
Giridih College, Giridih	Establishment of Text Book library	5,000
	Total	<u>1,63,725</u>

## 55. Ravi Shankar

Establishment of students' Home 15,000

Affiliated Colleges

Government College of Science, Raipur Financial assistance to teachers for research work in sciences 250

p.t.o.

Ravi Shankar contd.

N.E.S. Jashpur Degree College, Jashpurnagar	Construction of Non-Resident Students' Centre	2,000
Durga Mahavidyalaya, Raipur	Construction of Library building	10,000
Seth R.C.S. Law College, Durg	Grant for programmes of student welfare 1970-71	2,500
Paluram Dhanonia P.J. Commerce and Arts College, Raigarh	-do-	2,500
Government College of Education, Raipur	-do-	500
Government Girls P.G. College, Raipur	-do- for 1969-70	500
Government Arts and Science College, Durg	-do-	3,000
Jranya Bharati Degree College, Kanker	Grant to Students' Aid Fund	1,000
Government College of Education, Bilaspur	-do-	750
N.E.S. Jashpur College, Jashpurnagar	-do-	1,000
Shrimati Narayani Goverdhan Degree College, Mungeli	-do-	750
C.M. Dubey Postgraduate College, Bilaspur	Grant to College library for loan of books to students (Book banks)	17,000
Digvijai Mahavidyalaya, Rajnandgaon	-do-	12,000
Government Girls Degree College, Bilaspur	-do-	3,000
Government Degree College, Ambikapur	-do-	3,000
Government College of Science, Raipur	-do-	12,000
Janjgir Degree College, Janjgir	-do-	3,000
Durga Mahavidyalaya, Raipur	-do-	17,000
J.L.N. Degree College, Sakti	Book grant for 1970-71	1,125
Mahasamund Mahavidyalaya, Mahasamund	-do-	1,125
Paluram Dhanania Commerce College, Raigarh	-do-	1,125
D.E.S. Law College, Raipur	-do-	1,125
Champadevi Jain Matrikalin Mahavidyalaya, Raipur	-do- for 1969-70	1,125
J.L.N. Memorial College, Dongargarh	-do-	67,91
Durga Mahavidyalaya, Raipur	-do-	1,625
J.L.N. Science College, Bematara	Basic grant for purchase of library books	500
Government Degree College, Jagdalpur	Grant for organising Summer Institute in Mathematics for School teachers during 1971	4,942,40

Total

1,34,510.35

p.t.o.

## 6. Roorkee

Grant towards staff salaries for introduction of post graduate course in Architecture	55,000
Construction of Teachers' hostel (Science block)	40,000
Purchase of furniture for the postgraduate course in Applied Geophysics	10,000
Purchase of furniture and fittings for the Chemistry department	30,000
Purchase of books and journals for various science departments	10,000
Construction of building for the department of Geology and Geophysics	15,473
Purchase of equipment for undergraduate course in Electrical Engineering	10,000
Total	<u>1,70,473</u>

## 57. Sambalpur

Purchase of books and journals for the law department	12,500
Grant towards salaries of additional staff approved for science departments for the Fourth Plan period	80,000

Affiliated colleges

Gangadhar Meher College, Sambalpur	Purchase of Semi-Micro Analysis equipment for the department of Chemistry	4,000
S.K. D.A.V. College for Women, Rourkela	Construction of married wardens' quarter.	5,000
Sundergarh College, Sundergarh	Grant for programmes of student welfare 1970-71	4,000
V.S.S. Medical College, Burla, Sambalpur	-do-	4,000
Kuchinda College, Kuchinda	-do-	2,500
Sundergarh College, Sundergarh	-do- for 1969-70	250
Womens' College, Bolangir	Grant to students' Aid Fund	750
Gangadhar Meher College, Sambalpur	Purchase of laboratory equipment	22,500
Total		<u>1,35,500</u>

p.t.c.

## 58. Sardar Patel

	Construction of Botany Block	54,000
	<u>Affiliated Colleges</u>	
B.J. Vanijya Mahavidyalaya, Vallabh Vidyanagar	Grant to Students' Aid Fund	2,750
T.V. Patel Arts College, Vallabh Vidyanagar	--do--	2,750
H.M. Patel Institute of English, Vallabh Vidyanagar	--do--	1,000
Birla Vishwakarma Mahavidyalaya, Vallabh Vidyanagar	--do--	3,250
Nalini & Arvind Arts College, Vallabh Vidyanagar	--do--	3,250
--do--	Book grant for 1970-71	1,625
Birla Vishwakarma Mahavidyalaya, Vallabh Vidyanagar	Grant for programmes of student welfare 1970-71	5,000
H.M. Patel Institute of English, Vallabh Vidyanagar	--do--	2,500
T.V. Patel Arts College, Vallabh Vidyanagar	?	4,000
B.A. College of Agriculture, Anand	--do--	4,999.62
Anand Arts College, Anand	Construction of Women's Hostel	8,000
	Total	<u>93,124.62</u>

## 59. Saugar

	Purchase of books and journals for the Law department	25,000
	Grant towards staff salaries and maintenance for the department of Pharmaceutics	8,189
	Purchase of library books for science departments	25,000
	Award of junior research fellowships in Humanities and Social Sciences	5,741.94
	Award of junior fellowships to the students admitted to the M.Pharm course (Final Merit; 1969-70)	2,500
	<u>Affiliated Colleges</u>	
Narmada Mahavidyalaya, Hoshangabad	Financial assistance to teachers for research work in sciences	250

Saurashtra

Gandhi Memorial Night Degree College, Damoh	Grant for programmes of student welfare 1970-71	2,500
Govt. College, Balaghat	-do-	5,000
Laxman Prasad Tiwari Sanskrit Degree College, Dhana	-do-	2,500
Jawaharlal Nehru Memorial Mahavidyalaya, Sohagpur	-do-	2,500
Narmada Mahavidyalaya, Hoshangabad	-do-	5,000
Shankar Sao Patel Arts and Commerce College, Waraseoni	-do-	2,500
Govt. Degree College, Bina	Grant to students' Aid Fund	1,000
Arts and Commerce College, Chaurai	-do-	750
Narmada Mahavidyalaya, Hoshangabad	Establishment of Hobby Workshop	2,500
S.N. Government Postgraduate College, Khandwa	Purchase of equipment, books and furniture	20,000
Government Degree College, Piparia	Book grant for 1970-71	1,375
Narmada Mahavidyalaya, Hoshangabad	-do-	8,225
Government Degree College, Narsinhpur	-do-	999.28
Seva Sadan Mahavidyalaya, Burhanpur	-do-	1,375
Shrinivas Rao Telang N.E.S. College, Berman	-do- for 1969-70	1,125
Narmada Mahavidyalaya, Hoshangabad	Purchase of laboratory equipment	2,453
Shrinivas Rao Telang N.E.S. College, Berman	-do-	5,000
	Total	<u>1,24,283.22</u>

## 60. Saurashtra

Affiliated Colleges

Shri Shardaapeeth Arts College, Dwarka	Improvement of chalkboards	920
H. & H.B. Kotak Institute of Science, Rajkot	Grant for programmes of student welfare 1970-71	2,500
Kavisiree Botadkar Arts and Commerce College, Botad	-do-	2,500

p.t.o.

Saurashtra contd.

Smt. J.J.K. Arts and Commerce College, Rajkot	Grant for programmes of student welfare 1970-71	2,500
Kamaji Science College and Prataprai Arts College, Amreli	-do-	4,000
Lakhdhiraji Engineering College, Morvi	-do-	4,000
R.G. Teachers' College, Porbandar	-do-	2,500
Kamaji Science College and Prataprai Arts College, Amreli	-do- for 1969-70	2,000
H. & H.P. Mokak Institute of Science, Rajkot	-do-	499
K.H. Madhvani Arts & Commerce College, Porbandar	Construction of library building and purchase of library furniture and books	15,000
Shree M.P. Shah Commerce and Law College, Surendranagar	Construction of additional teaching accommodation	25,000
Maharaja Shree Mahendrasinhji Science College, Morvi	Grant to students' Aid Fund	1,000
Smt. J.J. Kundalia Arts and Commerce College, Rajkot	Grant to College library for loan of books to students (Book banks)	8,000
Shree M.P. Shah Municipal College of Commerce and Law, Jamnagar	-do-	12,000
P.D. Mala viya College of Commerce, Rajkot	Book grant for 1970-71	1,625
K.K.M. Arts and Commerce College, Porbandar	-do-	1,375
Smt. Gulab Ben Jamnadas Sheth Commerce College, Morvi	-do-	1,125
Seth H.J. Law College, Bhavnagar	-do-	1,125
Darbar Gopaldas Shikshan Mahavidyalaya, Aliabada	Special grant for books and journals for development of Teachers' Training Programme	2,000
	Total	39,669

## 61. Shivaji

Purchase of books and journals for the Law department	12,500
Construction of Health Centre- cum-students Home II	30,000



Shivaji contd.Affiliated colleges

Dev Chand College, Arjunnagar	Grant for programmes of student welfare 1970-71	5,000
Chatrapati Shivaji College, Satara	--do--	6,000
Vivekananda College, Kolhapur	--do--	4,000
Rajarishi Chhatrapati Sahu College, Kolhapur	--do--	2,500
Shree Varana Mahavidyalaya, Warananagar	--do--	4,000
Yashwantrao Chavan Mahavidyalaya, Karmala	--do--	2,500
College of Commerce, Kolhapur	--do--	6,000
B.P. Sulekha Commerce College, Barsi	--do--	2,500
Dev Chand College, Arjunnagar	--do-- for 1969-70	500
Chatrapati Shivaji College, Satara	--do--	500
Rajaram College, Kolhapur	--do--	3,000
--do--	Purchase of laboratory equipment	15,000
Law Bahadur Shastri College, Satara	--do--	11,000
Smt. Kasturbai Walchand College, Sangli	--do--	5,000
Dr. J.N. Datar College of Arts, Science and Commerce, Chiplun	Book grant for 1970-71	1,125
Arts and commerce College, Wai	--do--	1,375
Yashwant Rao Chavan Mahavidyalaya, Karmala	--do--	1,125
Dahiwadi College, Dahiwadi	--do-- for 1969-70	750
Shree Varma Mahavidyalaya, Warananagar	Grant to Students' Aid Fund	2,250
Arts, Science and Commerce College, Ichalkaranji	Book grant for 1969-70	750
Dayanand College of Arts & Science, Sholapur	Grant to college library for loan of books to students (Book banks)	17,000
Arts & Commerce College, Miraj	--do--	8,000
Arts, Science and Commerce College, Ichalkaranji	--do--	8,000
Mudhoji College, Phalton	--do--	8,000
Chintaman Rao College of Commerce, Sangli	--do--	8,000
Yeshwant Rao Chavan Mahavidyalaya, Karmala	Improvement of chalkboards	1,000

Total 1,67,375

p.t.o.

## 62. W.N.D.T. Women's University

Construction of a composite building for various departments	1,50,000
Construction of Home Science building; (Second phase) at Poona	50,000

Affiliated Colleges

Smt. C.C. Mahila Arts College, Visnagar	Improvement of chalkboards	1,000
Smt. P.N. Doshi Women's College, Ghatkopar, Bombay-77.	Grant for programmes of student welfare 1970-71	4,000
Smt. N.C. Gandhi Mahila College, Bhavnagar	Construction of additional classrooms	30,000
	Total	<u>2,85,000</u>

## 63. South Gujarat

Grant towards salaries of additional staff appointed in Humanities departments	1,50,000
--	----------

Affiliated Colleges

S.V. Regional College of Engineering and Technology, Surat	Travel grant to Dr. A.P. Verma for attending the International Congress of International Association at Paris	3,000
Shah N.H. Commerce College and Smt. J.J. Shroff Arts College, Bulsar	Grant to Students' Aid Fund	2,750
Shah K.M. Law College, Bulsar	-do-	750
P.T. Sarvajanic College of Science, Surat	-do-	3,250
S.K.M. Law College, Bulsar	Grant for programmes of student welfare 1970-71	2,500
J.M. Shah Arts and Commerce College, Jambusar	-do-	2,500
P.O. Brothers Arts College and Science College, Bardoli	-do-	3,999.90
Government Medical College, Surat	-do-	2,500
Sir K.P. College of Commerce, Surat	-do- for 1969-70	500
V.T. Choksi Sarvajanic Law College, Surat	Book grant for 1970-71	1,125
S.V. Regional College of Engineering and Technology, Surat	Financial assistance to teachers for research work in sciences	& 375
	Total	<u>1,73,249.90</u>

## 64. Srivenkateswara

Grant towards revision of salary scales of teachers of Osmania College, Kurnool	20,143.22
Grant towards salaries of additional staff appointed in Humanities depts.	18,840.27

Affiliated Colleges

Sri Satya Sai Arts and Science College for Women, Anantapur	Improvement of chalkboards.	1,000
-do-	Book grant for 1970-71	1,125
Saradamba Dasa Govindiah Setty College, Hindupur	-do- for 1969-70	1,000
K.V.R. Government College for Women, Kurnool	-do-	1,750
Sri Venkateswara Oriental College, Tirupati	-do-	1,250
Government College of Education, Nellore	Special grant for books and journals for development of Teachers' Training Programme	1,832.88
Sri Govindarajaswami Arts College, Tirupati	Grant to college library for loan of books to students (Book banks)	12,000
S.C.N. Government College, Proddatur	-do-	3,000
K.V. Reddy Government College for Women, Kurnool	-do-	3,000
P.S.V. & K.V.S. Government College, Mandyal	-do-	12,000
S.V. Arts College, Tirupati	-do-	14,000
Jawahar Bharati, Kavali	Construction of laboratories	75,000
S.K.R. Government College, Adur	Purchase of semi-Micro Analysis equipment	5,000
Government College, Guntur	Financial assistance to teachers for research in Sciences	500
College of Engineering, Anantapur	Grant for holding a Seminar on "Modern trends in refrigerations and air-conditioning"	4,221
	Total	<u>1,85,662.38</u>

## 65. Udaipur

Purchase of books and journals for the Law department	12,500
---	--------

p.t.o.

Udaipur contd.

Vidya Bhawan Rural Institute,  
Udaipur  
V.B.S.S. Teachers' College,  
Udaipur  
Udaipur School of Social  
Work, Udaipur  
Rajasthan Vidyapeeth M.V. Shramjeevi  
College, Udaipur  
Bhopal Nobles College, Udaipur  
Vidya Bhawan Govindram Seksaria  
Teachers' College, Udaipur  
-do-

Affiliated colleges

Financial assistance to teachers for research work in Sciences	500
Book grant for 1970-71	714,79
Development of postgraduate studies in Humanities and Social Sciences	13,000
Grant to college library for loan of books to students (Book banks)	8,000
-do-	12,000
Grant towards development of Teachers' Training Programme	25,000
Special grant for books and journals for development of Teachers' Training Programme	3,000
Total	<u>74,714,79</u>

## 66. Utkal

Purchase of library books and journals (Humanities)	10,000
Purchase of books and journals for the Law department	25,000
Purchase of library books and journals (Humanities)	10,000
Grant for promotion and strengthening of research	10,000
Purchase of furniture and fittings for postgraduate department of Zoology	25,000
Construction of Guest House	4,000
Grant towards salaries of staff for Geography department	45,000
-do- for science deptts.	45,381.32
Purchase of library books and journals for science departments	75,000
Utilisation of services of retired teachers	3,000

Affiliated Colleges

Banki College, Banki  
Salipur College, Salipur  
Keonjhar College, Keonjhar  
Ravenshaw College, Cuttack

Construction of Students' hostel	35,000
Construction of Non-Resident Students' Centre	25,000
Purchase of laboratory furniture	15,000
Development of postgraduate studies in Humanities and Social Sciences	15,000

Utkal contd.

S.C.S. College, Puri	Grant to Students' Aid Fund	3,250
Upenra Nath College, Balasore	Grant for programmes of student welfare 1970-71	2,500
S.C.S. College, Puri	-do- for 1969-70	500
Nimapara College, Nimapara	Purchase of laboratory equipment	15,000
Ravenshaw College, Cuttack	-do-	30,000
Mahila College, Puri	Book grant for 1970-71	1,125
Ravenshaw College, Cuttack	Utilisation of services of retired teachers	5,177.42
Numpara College, Numpara	Book grant for 1970-71	1,375
	Total	<u>4,01,308.74</u>

## 67. Vokram

Purchase of books and journals for the Law department	25,000
Contingent grant for utilisation of services of retired teachers	1,000

Affiliated colleges

Lokmanaya Tilak Science College, Ujjain	Purchase of laboratory equipment	5,000
S.N. (P.G.) College, Agar	-do-	5,000
Government College, Jaora	Grant for programmes of student welfare 1970-71	4,000
-do-	-do- for 1969-70	250
Madhav Science College, Ujjain	Purchase of laboratory library and lecture theatre furniture and fittings	30,000
Nagar Palika Law College, Ratlam	Book grant for 1970-71	1,125
Biora Degree College, Biora	-do-	1,125
	Total	<u>72,500</u>

## 68. Visva Bharati

Construction of one block of 4 units of 'B' type flats for lecturers	40,000
Plumbing and sanitary fittings at university quarters	10,000
Construction of hostel No. 2 for Vidya Bhavana	1,00,000
Construction of hostel for 100 students of Shiksha Bhavana	75,000
	p.t.o.

Visva Bharati - contd.

Construction of library building for Centre of Advanced Study in Philosophy	20,000
Award of junior research fellowships in Humanities and Social Sciences	1,350,20
Total	<u>2,46,550.20</u>

INSTITUTIONS DEEMED TO BE UNIVERSITIES1. Gurukul Kangri Vishwavidyalaya,  
Hardwar

Purchase of library books and journals (Humanities)	5,000
-do- for science depts.	5,000
Total	<u>10,000</u>

2. Indian Institute of Science,  
Bangalore

Grant for staff salaries and maintenance of Engineering courses for the year 1971-72	3,00,000
Grant towards working expenses and supporting staff	2,50,000
Purchase of Transport Vehicle (Mini Bus)	45,000
Grant for organising NMR Workshop	26,000
Construction of a building for the department of Aeronautical Engineering	60,000
Construction of building for the department of civil and Hydraulics Engineering	80,000
Grant towards staff salaries and maintenance for science departments	1,75,000
Grant for organising ACS Short courses	7,000
Renovation of the old Industrial Management and N.C.C. Building	72,000
Total	<u>10,15,000</u>

3. Jamia Millia Islamia,  
New Delhi

Award of scholarships for Honours studies in Arabic during 1971-72	832,26
Total	<u>832,26</u>

- NON - PLAN -

1. Aligarh Muslim University

Payment of interim relief to the employees of the University	2,50,000
Total	<u>2,50,000</u>

2. Banaras Hindu University

Payment of interim relief to the employees of the University	3,23,250
Total	<u>3,23,250</u>

3. Delhi

Maintenance grant for 1969-70	47,589
-------------------------------	--------

Constituent colleges

Hastinapur College (Evening  
Classes), New Delhi  
Jeshbandhu College, Kalkaji,  
New Delhi

Maintenance grant for 1971-72	84,368
Total	<u>2,31,957</u>

-10-

p.t.o.

## 4. Jawaharlal Nehru

Maintenance grant for 1971-72 in respect of Centre of Russian studies	1,62,500
-do- School of International Studies	3,25,000
Total	<u>4,87,500</u>

Total Plan	2,03,67,679.53
Total Non-Plan	12,92,707.00
Grand Total of Plan and Non-Plan	<u>2,16,60,386.53</u>



UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: December 1, 1971

Item No. 4 To receive a statement of expenditure incurred by University Grants Commission during 1971-72 (upto 31st October, 1971).

Section I Non-Plan Project	Budget 1971-72	Expenditure upto 31st October, 1971
A Administration Charges (excluding Advances)	39,95,000	20,89,373
B. Block grants to Central Universities	7,21,06,000	5,22,01,750
C. Maintenance Grant to Constituent/ affiliated colleges of Delhi University	2,39,60,000	2,28,11,559
D. Grants to Central Universities for schemes not covered under Block Grants.	33,97,000	7,49,577
Total Section I Non-Plan Projects	<u>10,34,58,000</u>	<u>7,78,52,259</u>
<u>Section II Plan Projects:</u>		
A. Grants to universities for Humanities	2,00,00,000	1,13,04,822
B. Grants to universities for Science	3,30,00,000	1,85,29,197
C. Grants to universities for Engineering and Technology	1,97,00,000	1,04,79,446
D. Grants to Constituent and affiliated colleges.	6,98,45,000	3,64,33,684
E. Grants to universities for Miscellaneous Schemes	8,18,60,000 *85,18,000	3,00,48,644
F. Miscellaneous Expenditure incurred by UGC on Seminars, Conferences etc.	16,81,000	5,36,704
Total Section II Plan Project	<u>23,46,04,000</u>	<u>10,73,32,497</u>
Total Section I & II	<u>33,80,62,000</u>	<u>18,51,84,756</u>

\* Budget Provision for Hospitals attached to Medical Colleges of Aligarh Muslim University & Banaras Hindu University and expenditure thereof, since transferred from Section III to Section II.

Section III-Expenditure out of grants received from Government of India and other Sources for specific purposes.

(i) Grants to universities for construction of Gandhi Bhavans (Gandhi Samarak Nidhi Share).	-
(ii) Evaluation of Books	29,500
(iii) Grants to universities for organising Summer Institutes for School teachers (out of contribution received from N.C.E.R.T.)	7,01,937
(iv) Fellows for Writing of Books	1,16,632
Total Section III	8,48,069

Total Section I, II, III

18,60,32,825

Section IV-Deposits and Advances.

(i) Conveyance	72,350
(ii) Festival Advance	9,000
(iii) House Building Advance	1,35,240
(iv) Fan Advance	500
(v) Purchase of Unesco Coupons	1,21,260
(vi) U.S. Dollar Loan	16,85,296
Total Section IV	20,23,666

Expenditure during 1970-71 upto 31st October, 1970 was as under:

Expenditure upto 31st October, 1970

Section I Non-Plan Project	6,93,39,938
Section II Plan Projects	6,66,46,894
Total Section I & II	13,59,86,832

Confidential.

①

University Grants Commission

Meeting :

Dated : 1st December, 71.

Item No. 5 : To receive a note on the cases of Student Unrest  
for the period September - October, 1971.

-.-.-.-

Reports on cases of students unrest in various universities in the country have been placed before the Commission from time to time. The report for the period July and August, 1971 was placed before the Commission at its meeting held on 6th October, 1971 (Item No. 36). The report for the period September - October, 1971 is attached (Annexure).

E.O.(SA)/D.O(Stat)

Hindustan Times : 1.9.1971 : Bhubaneswar : Interference alleged in Utkal Varsity Affairs : Interference by the Orissa Government in the affairs of Utkal University, particularly in the conduct of the degree examination was alleged here yesterday by the Acting Vice-Chancellor, Dr. Ghanshyam Mohapatra.

Dr. Mohapatra told newsmen how students and "even the State Government pressurised" the university authorities and as a result his predecessor, Dr. Sadasiv Mishra, resigned and the examinees who were allegedly involved in misconduct and had adopted unfair means could not be punished.

Hindustan Times : 1.9.1971 : Simla : H.P. Varsity postings, procedures assailed : The Himachal University which celebrated its first "uneventful" anniversary recently was set up with much fanfare last year. While the people at large had hailed it as a spectacular achievement of the Government for the students and teachers it had served as a morale booster.

Within one year, however, the administrative machinery of the University appears to have been put into the reverse gear. This is attributed to the haphazard manner in which appointments to various key posts were made. At least eleven superannuated persons have secured re-employment in the University. This has led to frustration among the younger aspirants.

Hindustan Times : 1.9.1971 : New Delhi : Professor "forced to resign" by students : The eight day old agitation in the Delhi College of Engineering reached its flash point today when about 100 students reportedly gheraded the head of the civil engineering department, Mr. R. Narayanan, and forced him to write his resignation.

The students, who had been pressing the authorities that he should be sacked, kept Mr. Narayanan to his room in the college for over an hour and then dictated the wording of the resignation letter, it is learnt.

The letter said : "Students do not want me to remain as Professor here (college) and also because I have lost their respect". He put his signatures to it, but the students were not satisfied. They wanted witness to sign the letter as well. So they took Mr. Narayanan to the principal's office where Mr. R.C. Narayanan, the acting principal, signed the letter. They took a carbon copy of the letter and flaunted it around.

The events in the college followed demonstrations outside the Lt. Governor's house and the Old Secretariate. The students met the Chief Executive Councillor, and urged him to ask Mr. Narayanan to quit. Mr. Malhotra's reply was that he would not like to interfere since it was a matter for Delhi University to sort out.

The agitation, which had resulted in strike in the college, since August 24, was touched off by a large number of failures in a subject taught in the third year. The students alleged that it was a "calculated ditching, spitefully done".

③

Mr. Aruna Menon, president of the college Union, who spearheads the agitation, explained the students case thus : "Twelve students of the third year civil engineering class met Mr. Narayanan, the department head, and complained about the inability of a lecturer to teach, and demanded a replacement.

#### Personal affront.

"Mr. Narayanan took this as a personal affront and threatened the students that he would set them right. He proved his threat in the practical examination in concrete technology. Seven of the 12 students failed in the practicals. Among them were four students who are receiving national merit scholarships and had in the earlier semesters been securing 65 per cent to 70 per cent marks in that very practical course.

"An additional proof that the students were victimised was that there were no external examiners present at the examination, as the rules require. Mr. Narayanan himself acted as one.

"That the students were correct in demanding a replacement of the lecturer, who could not teach properly is proved by the fact that in the subject he taught 26 students out of 47 failed in the final examination in April".

Mr. R.C. Narayanan said that external examiners had been appointed, but they did not turn up. Mr. Narayanan then suggested to the University a few other names, but the persons did not agree to the examination duties. He contacted the university again, which said he could appoint anyone locally. A professor was appointed, but he had suddenly to go to Bombay. The University, as a last resort, asked Mr. Narayanan to take over.

#### Who's to blame ?

About the other charges, Mr. R.C. Narayanan said it was difficult to say whether there was any substance in them. During his talks with the students in the last six days, he had suggested that he could appoint a three member committee to inquire into the allegations, but the students did not agree.

It is said in the college that the students are really to blame for the whole affair. They skipped the lecturer's classes and did the same when Mr. Narayanan started taking the classes assigned to the lecturer.

Though the whole agitation was centred round this problem the students propped it up with a demand for a carry-over examination scheme which would allow failures to be promoted to the next class where they could take the supplementary examination.

This demand according to the principal, has practically been conceded.

Hindustan Times : 2.9.1971 : New Delhi : Report awaited on "resignation". Delhi University is awaiting a full report of yesterday's events in the Delhi College of Engineering where students allegedly forced Mr. R. Narayanan, head of civil engineering department to resign.

The acting principal of the college has been asked to send the report soon. When the report is received, the university intends to announce the names of the teachers who will form the committee to look into the academic aspects of the issues raised by the students. The Academic Council had at a meeting last week suggested to the Vice-Chancellor that he should appoint such a committee.

The University, was however, not concerning itself with the students' demand that Mr. Narayanan should be dismissed or transferred, a university spokesman said. This was a problem for the Delhi Administration to tackle as the college was administered by it.

Meanwhile 10 students went on a relay hunger-strike outside the college to begin a new phase of their agitation for the dismissal or transfer of Mr. Narayanan. They also held a rally near Kashmere Gate,

Hindustan Times : 3.9.1971 : New Delhi : Assurance to engineering students :

Delhi University will allow teachers and students of the Delhi college of Engineering to sort out their problems themselves.

This view emerged today after a joint meeting of the Delhi University Teachers Association representatives, teachers of the college and the acting Vice-Chancellor, Dr. V.P. Dutt.

The college teachers reported to Dr. Dutt the formation of an 11 man committee, headed by Prof. Bhim Rao, to start a dialogue with the students agitating for the dismissal of Mr. R. Narayanan, head of the civil engineering department.

The students at their very first session with the committee demanded that they should be allowed to hold a dialogue with Mr. Narayanan. The committee is reported to be considering their request, it is learnt.

Later, Dr. Dutt talked to the students' representatives and assured them that there would be no victimisation. If necessary, he would ask for a re-evaluation of the papers and practicals they had failed in. But before the university did anything, the students should call off the hunger-strike and ease the tension in the college.

Tribune : 4.9.1971 : Allahabad : Strike in Allahabad University : About 600 non-teaching employees of Allahabad University, today went on an indefinite strike protesting against non-fulfilment of their demands.

(5)

Their demands include parity in dearness allowance and interim relief on a par with Government employees and better service conditions.

Tribune : 7.9.1971 : Mogo : Students' body gives State-Wide strike Call :

The Punjab students Federation, which met here under the president ship of Mr. Bant Singh, its General Secretary, last night decided to organise a State-wide strike in all colleges on September 10 in protest against the alleged police atrocities on students of Maktsar College.

Tribune : 7.9.1971 : Hyderabad : Osmania Varsity Colleges Closed : All the campus colleges of Osmania University were indefinitely closed today following clashes between two sections of students in connection with the Students Union elections.

Hindustan Times : 8.9.1971 : New Delhi : Probe into Students' allegations:

Delhi University has appointed a three man committee to look into the allegations of students of the Delhi College of Engineering. It will submit its report by September, 24.

The Committee, headed by Professor U.N. Singh, Dean, Faculty of Mathematics, will examine, among other things, the charges of victimisation, intimidation threats, misuse of authority.

It will consider the question of restoring scholarships of the students who have alleged victimisation. The examination system at the college will also be reviewed.

The Academic Council will consider at its meeting on September 16 the students demand that this year's batch should be covered by the carry-over examination system.

Hindu : 8.9.1971 : Bhubaneswar : Students Force Registrar to Resign : Postgraduate students of Utkal University yesterday abstained from their classes and "gheraoed" the Registrar, Dr. D.P. Barai, in his residence here and forced him to resign.

They were protesting against alleged delay on the part of the Registrar in providing a vehicle on Sunday night to rush to hospital a University teacher who had sustained a bleeding injury at home. They also alleged that the Registrar misbehaved with those who approached him for the vehicle.

Times of India : 9.9.1971 : Dacca : Many Dacca Varsity Professors held :

At least 15 professors and lecturers of Dacca University have been arrested or ordered to report to martial law authorities in the past 2-1/2 weeks, while students are boycotting institutions of higher education throughout East Bengal, authoritative sources said yesterday.

P.T.O.

6

The latest arrests and indictments orders came three days before President Yahya Khan announced a general amnesty for East Bengalis.

The most recently called included Mr. Ahmed Sharif, Reader of the Bengali Department, Mr. Ahsanul Haque, British-educated English lecturer and four unidentified members of the Science Faculty of the University.

Official sources had no comment on the arrest reports.

Hindu : 9.9.1971 : Bombay : Students Gherao Minister : The Maharashtra Education Minister, Mr. M.D. Chowdhari was "gheraoed" by a group of students in the compound of a building at Talkeswar Road in South Bombay this evening.

The Minister was coming out of the building after an informal discussion with principals and head-masters on "student indiscipline when the group surrounded him demanding the release of the nine veterinary College students who were arrested on Sunday last.

Hindu : 10.9.1971 : Gudalore : Peace Committee for Annamalai Students :

The one man Commission enquiring into incidents on July 23 at Annamalainagar was assured by counsel appearing for students (Mr. R. Radhakrishnan - Congress Organisation, Mr. V.P. Kumaravelu - Socialist Party, and Mr. K. Chandru - Student Federation of India) that a committee would be constituted to maintain peace and amity among University Students after its reopening.

Tribune : 12.9.1971 : Rahtak : Students strike in support of Bangla Desh :

Teaching work in most of the colleges here remained suspended yesterday as Students abstained from classes and held demonstrations to demand immediate recognition of Bangla Desh. The call for strike and observing Bangla Desh Day was given by the local branch of the Vidyarthi Parishad.

Times of India : 14.9.1971 : Calcutta : Kalyani Varsity Closed : The Kalyani University in Nadia district has been closed down for an indefinite period, following the action of 'coercion and intimidation' by a section of students inside the University campus.

Announcing the decision taken at the Executive Council meeting held at the Writers Building today, the Vice-Chancellor, Mr. K. Sen, said all examinations will be postponed.

Times of India : 14.9.1971 : Varanasi : 2 Varanasi Varsities closed following student agitation : Banaras Hindu University and Sanskrit University were closed today by their Vice-Chancellors on account of student trouble.

While BHU has been closed for an indefinite period, Sanskrit University is scheduled to reopen on October 24. The BHU Vice-Chancellor, Dr. K.L. Shrimali, is however, hopeful that the university might reopen after Diwali.

P.T.O.



7

All inmates of hostels on the BHU campus have been asked to leave within 24 hours. Students had earlier threatened to hold a demonstration outside the office of the Vice-Chancellor. They had also threatened to go on strike to press their demands.

Fourteen students, including the President and the General Secretary of the Students Union, Mr. Anand Kumar and Mr. Mahavir Prasad, have been arrested on apprehension of a breach of the peace.

are

Hostel students being advanced money out of their caution fee to enable them to return home. Most students are in a difficult predicament.

Students of BHU have been on the war path for the past few weeks. They had forcibly locked several rooms of various facilities. The keys were, however, returned last night when they came to know that the university authorities had sought the help of the district authorities.

Some have been on hunger strike and some others were planning to go on fast for an indefinite period. A student had threatened to immolate himself. All of them have been taken into custody.

The police and the PAC have been posted on the campus and at strategic points in the city.

#### Follow Up Steps.

The Vice-Chancellor hinted at the possibility of abrogation of the constitution of the Students Union which had been a source of trouble on the campus for the past many years.

Addressing a Press conference after the closure of the University for third time in the past 18 months owing to student trouble. Dr. Shrimali said follow up steps would be decided upon by the Executive Council at its meeting on September 18.

Referring to the incidents that led to the closure of the University, the Vice-Chancellor said that he was determined to root out lawlessness by what he called on a "small but militant minority of irresponsible students".

Dr. Shrimali said he had no alternative but to take this unpleasant step as he could not allow life on the campus to be paralysed.

He listed the demands of the students, some of whom even wanted those who had failed more than once to be declared passed. He said he was shocked by the demand for revocation of the expulsion of students who had indulged in violence, stabbing and other criminal acts.

Steps aimed at benefiting a majority of the student community did not suit a small section of Students Union leaders who were out to hamper studies by law-abiding students. This minority had not indulged in an unbecoming and unseemly behaviour, but had resorted to filthy and abusive language.

(8)

'Cherao' and forcible locking up of departments were daily feature. These had led to even misbehaving with the Vice-Chancellor and assault on professors, wardens had been compelled to write resignation letters. These students wanted to drive out the wardens of hostels and capture their suites.

After ordering the closure of Sanskrit University, its Vice-Chancellor, Dr. Satyavrat, left for Lucknow.

Students of the university who have been agitating for the past few days, stoned the Vice-Chancellor's residence, breaking some window panes.

PAC pickets chased away the students. Later there was a minor confrontation between the students and the police. The students dispersed after some time.

According to UNI, Dr. Shrimali said student agitators in the Banaras Hindu University have demanded jobs to the degree holders and decentralisation of the Vice-Chancellor's authority.

The agitators wanted election of the Vice-Chancellor from four constituencies comprising the students, teachers, administrative staff and class IV employees.

He said a student had assumed the "office of the governor-general of hostels".

Hindu : 14.9.1971 : Calcutta : Kalyani Varsity Closed : The Kalyani University has been closed sine die following alleged acts of indiscipline by a section of students.

The executive council of the university at a meeting here today decided on closure. Mr. K.K. Sen, Vice-Chancellor, presided.

Times of India : 15.9.1971 : Bangalore : 48 Bangalore Varsity Colleges Closed ; All the 48 colleges under Bangalore University were today closed indefinitely on account of student agitation.

The Vice-Chancellor of Bangalore University and principals of the colleges, who took the decision at a meeting tonight, said that "under the prevailing circumstances it would not be possible to continue the functioning of the colleges".

Student agitation has become a yearly feature for the last three years disrupting studies they added.

Hindustan Times : 15.9.1971 : Bangalore : 48 Bangalore Colleges Closed :

All the 48 colleges in the city were closed today in view of the students' agitation.

Police made a lathi charge for the second day today a crowd of 300 students near the Government Law College. No one was however injured.

P.T.O.

⑨

Four minor incidents of stone pelting were reported from different parts of the city. Three buses were partially damaged. Three students, taken into custody in connection with the incidents, were released later.

Tribune : 15.9.1971 : Amritsar : POLICE USE LATHIS TO DISPERSE STUDENTS:

Fearing trouble from students who had decided to go on strike to protest against the happenings in Muktsar Government College, all the three arts colleges - the Khalsa College, the D.A.V. College and the Hindu College were closed today.

DAV College and the Hindu College had run for some periods but closed immediately on hearing that a procession of students from the Khalsa College was on its way.

The police were massed in sufficient strength outside the Hall and Sikander Gates.

Between 300 and 400 students marched in procession from the Khalsa College, shouting slogans against the police and throwing stones at a bus. As the procession reached near the DAV College, the students shouted slogans against the police.

According to the police, the students threw stones at them and at an institution.

The police used lathis to chase away the students. Calm was restored in the area after half an hour.

The Principal of DAV College, Mr. C.L. Arora, denied there was any damage caused to his college building by the students.

The Senior Superintendent of Police, in a Press note said: "When the students of the D.A.V. College refused to come out to join the procession with them, the students of the Khalsa College started throwing stones towards the D.A.V. College building thereby breaking three or four glass panes. The police intervened and pushed them back. Brickbats were also thrown on the police. No one was injured & on persuasion, the students retreated and dispersed peacefully.

Times of India : 16.9.1971 : Shrinagar (Garhwal) Students demand Garhwal Varsity : An action committee of young militants has issued a call for a Garhwal bandh, on September 16 demanding a University for the region.

The divisional administration has called additional units of the Provincial Armed Constabulary to meet any exigency.

Times of India : 16.19.1971 : Delhi : 40 Buses stopped by students : Bus traffic on G.T. Road near Alipur remained suspended for a couple of hours today following an altercation between DTU employees and students of Shardanand College.

I.T.O.

The incident took place in the morning when the conductor of a DTU bus detected a student travelling with a pass. The conductor asked the student to purchase a ticket which he refused to do. Near Alipur another student handed the pass to the offending student. The conductor object to this.

Meanwhile the ticket checking staff boarded the bus and there was an exchange of hot words between them and the offending student. During the quarrel of a DTU staff member caught hold of the students shirt front, but another passenger intervened and separated the two.

Tribune : 16.19.1971 : Patiala : Striking Students Start New College :

A new college under the name of Tagore College was started today by students of the Patel Memorial National College, Rajpura, which has continued to be closed for the last 20 days on account of the students' strike. Classes of the new college were held under trees in front of the campus of the Patel Memorial College.

The Action Committee of the Students claimed that several postgraduates had offered their services for the new college in response to an appeal made by the Action Committee formed by parents and publicmen.

Ten students of the Patel Memorial National College were rusticated yesterday by the Principal for "gross misconduct and indiscipline".

Tribune : 18.19.1971 : Chandigarh : Students hold rally before V.C.'s office : A group of students of Punjab University today demonstrated before the office of the Vice-Chancellor again at the alleged disqualification of student from contesting election to the Punjab University Students' Council.

The demonstrators were cordoned off 50 yards away from the Vice-Chancellor's office by the police which was called by the university authority as precautionary measure. They were demanding re-election to the Punjab University Students' Council and amendment of the Council's constitution.

The demonstrators wanted to meet the Vice-Chancellor, Mr. Suraj Bhan, and hand over a memorandum to him. He however, was away, presiding over the meeting of the Academic Council.

Meanwhile, Dr. R.P. Bambah, Dean, University Instruction, and Dr. Gurdev Singh, Dean, Student Welfare, came out from the meeting of the Academic Council to meet the students.

Dr. Bambah, who accepted the memorandum on behalf of the Vice-Chancellor told the demonstrators that their grievance was being looked into.

Later in the evening four representatives of these students met Mr. Suraj Bhan, Dr. R.P. Bambah and Dr. Gurdev Singh. A spokesman of Punjab University told this correspondent that the Vice-Chancellor had assured the student representatives that their "just" demands will be met according to the constitutional provisions of Students' Council".

(11)

The Vice-Chancellor further impressed upon them that the entire student body should cooperate in the functioning of the Students' Council for the welfare of the student community.

Hindustan Times : 16.19.1971 : Varanasi : Send out all undesirable students Shrimali told : The Academic Council of a Banaras Hindu University today asked the Vice-Chancellor, Dr. K.L. Shrimali to eliminate all undesirable students possessing various shades of disruptive political opinion.

At an emergency meeting the members, through a resolution, endorsed the decision of Dr. Shrimali to close the university and expressed full confidence in him.

They asked Dr. Shrimali to open the university only when there was no possibility of academic life being disrupted. "We want that in future such a situation is not repeated."

The teachers, who were assaulted and humiliated by the students gave a full accounts of the entire episode.

The Varanasi bandh call given for today by the student leaders proved a flop. Patrolling by the PAC and the police was heavy.

As precautionary measure, 13 more students, mostly belonging to BHU, were arrested by the police.

Hindu : 17.9.1971 : Tokyo : Police, students Clash near Tokyo : Three policemen were killed and 120 other injured today when riot policemen battled 5200 leftist students opposed to the construction of a new international airport 96 km. east of Tokyo.

Tribune : 17.9.1971 : Jullunder : Students check chain pulling, Ticketless travel : A novel device to prevent pulling of alarm chain and ticketless travel has been launched by the Railways in the Ferozepore Division.

Student volunteers have been pressed into service by the Railways to work in shifts to check chain - pulling and ticketless travel.

The Anti-Chain Pulling and Ticketless Travel Campaign Week - launched by Mr. J.N. Kohli, Divisional Superintendent, yesterday yielded good results.

Hindustan Times : 17. 9.1971 : New Delhi : BHU may reopen soon : The Banaras Hindu University may reopen before long.

The report received by the Education Ministry from the University authorities suggests that the situation presently is "peaceful" and well under control. The hostels have been vacated following the Vice-Chancellors' office.

The Ministry sources regretted that violence should have erupted again in the BHU, necessitating its closure for an indefinite period. The State Government was extending its assistance in restoration of normalcy.

P.T.O.

The BHU Executive Council had been called on September 18 when it would take stock of the situation and go into the various factors responsible for the disturbances. The Centre will render all help needed to promote academic life in the University.

Times of India : 18.9.1971 ; New Delhi ; Violent Students teargassed ; The police teargassed a violent crowd of students outside Dayal Singh College this morning. Nineteen shells were fired as the students tried to burn a car parked a few yards from the college on Lodi Road. They also tried to approach a petrol pump and a DESU sub station in the vicinity.

The students had gathered outside the college which was closed for two days following Thursday's incidents in which a bus was set on fire by the students.

Times of India : 18.9.1971 ; New Delhi ; Centre receives report from Shrimali ; The report of the Vice-Chancellor of Banaras Hindu University Dr. K.L. Shrimali, on the latest situation in the institution and the reasons that led to its indefinite closure has been received by the Union Education Ministry.

It is likely that Dr. Shrimali will visit Delhi in the near future for discussions with the Union Education Ministry.

Officials in the Education Ministry are reported to be greatly perturbed at the ugly turn things have taken at the University, leading to its closure for the third time in 18 months, according to UNI.

Reasons explained.

Dr. Shrimali is believed to have explained in his communication that he was forced to order the closure of the university in the wake of the violence and assaults on professors, expulsion of wardens, forcible locking up of a number of departments, gheraos and threats to his own life.

The Vice-Chancellor said all this had resulted in a serious law and order problem. He has called a meeting of the Executive Council tomorrow to consider follow up steps.

According to Ministry sources, the Government feels that Dr. Shrimali was fully competent to take any action he thought fit to control the situation and at present it has no intention to interfere in the administration of the University.

These sources, however, feel that the chronic ills of the university could be healed by long term measures alone. Such measures would include amendment of the BHU Act in terms of the recommendations of the Gajendragadkar report. All these matters are under active consideration of the Government.

(13)

Tribune: 18.9.1971:New Delhi::Delhi Students Tear-gassed::  
Police today burst tear gas shells to disperse a group of college students who allegedly attempted to set fire to two cars.

The cars were parked near a temple adjacent to the college where a Delhi Transport Undertaking bus was burnt by students yesterday following a quarrel between some students and the Police.

Hindustan Times:19.9.1971:Dhanbad::Principal arrested for 'killing' student::The Principal of the Raja Shiv Prasad College of Jharia, Mr. Srikant Govind and his servant were arrested yesterday following a firing incident in which a student of the college was killed.

The students alleged that the Principal had opened fire.

According to an eye-witness, the trouble had started on the previous day over elections to the college union in the course of which there were fights between two groups of students in which some were injured. Hindu:19.9.1971:Calcutta:Colleges, Universities closed because of Students' strike::All Educational institutions including Calcutta and Jadavpur universities were either closed or could not function today because of a State-wide students' strike.

The strike call was given by seven Leftist students' organisations, including the Bengal Provincial Students' Federation, students' wing of the CPI(M) in protest against the dismissal of the 13 State Government employees.

Hindustan Times: 20.9.1971: Varanasi: Shrimali told to be stern with erring students: The Banaras Hindu University Executive Council has asked the Vice-Chancellor Dr. K.L. Shrimali to strictly deal with the problems of lawlessness among the students. The members, through a resolution authorised the Vice-Chancellor to take further disciplinary action and other measures as may be necessary to restore normal conditions in the university. The council members Dr. H.N. Kunzru and Mr.G.D. Khosla, a former High Court Judge, while speaking to newsmen stated that only first divisioners and high second class holders should find a place in the university. Dr. Kunzru said the Centre should press the State Government to open more degree colleges in Varanasi. The ever increasing rush of students had created a serious law and order problem in the university which was fast losing its all-India character.

Dr. Shrimali said the Centre had agreed to issue an order to all the four Central Universities to admit students on selection and scholarship basis, but it had not been implemented so far.

He said no new college had been opened in Varanasi since independence.

Tribune: 20.9.1971: Varanasi: Executive Council approves BHU's closure - The Executive Council of the Banaras Hindu University which concluded its two-day meeting here today approved the closure of the University by Vice-Chancellor, K.L. Shrimali.

The Council also authorised the Vice-Chancellor to take such further disciplinary and other actions as may be necessary to restore the normal conditions in the University. Dr. Shrimali said that weeding out of some undesirable students and a change in the constitution of their union was immediately needed.

The Vice-Chancellor and two members of the Council - Justice G.D. Khosla and Mr.H.N.Kunzru - told newsmen during an informal talk that the trouble almost always began in the Arts Faculty.

They suggested that the size of the University should be cut down, a security force should watch law and order on the campus, and the State Government should open some colleges in Varanasi so as to ease pressure on the University. These measures they felt, would help conduct the academic work peacefully.

Dr.Shrimali said the students would be consulted if any change was to be introduced in the union constitution.

The three felt that the university had become a regional one, almost losing its national character.

Mr.Kunzru said the reason was the unfortunate insistence on Hindi as the medium of instruction. Besides many new universities had come up and the students preferred to go the nearest one.

The Council members agreed that teachers involved themselves in student politics and groupism. But they felt, it was difficult to establish the charge against them.

Mr.Justice Khosla favoured police entry into schools and colleges to maintain peace. He said the campus should not be treated as a sacrosanct place when there was need to curb unlawful activities.

Meanwhile, Socialist Party leader Prabhu Narain Singh, M.L.C. today suggested joint talks between students, the university administration and the citizens to resolve the crisis facing the University.



(15)

In a statement here, he said a change in the constitution of the students' union would only aggravate the situation.

He demanded the release of arrested students and withdrawal of cases against them.

Bindu: 21.9.1971: Bangalore: Police guarding varsity in Bangalore:

The police are guarding the premises of the Bangalore University which has been closed following students agitation.

Those entering the Central College premises have to satisfy the police sentries that they are staff members or bonafide students wanting to make use of the library. The staff of the college have been issued passes, for identification purposes.

Tribune : 21.9.1971: Simla : All Government colleges in Himachal closed:

All Government Degree Colleges throughout Himachal Pradesh had been closed with effect from tomorrow until October 4, it was officially announced here this evening.

The Government took this step in view of the widespread strike by students against the introduction of the semester system by Himachal University.

Times of India : 22.9.1971 : Jaipur:; V.V.John resigns following gherao:

Jodhpur University's Vice Chancellor, Prof. V.V.John, has resigned, according to official sources, following an all-night gherao by students of the engineering faculty in Jodhpur yesterday.

The gherao took place at a higher secondary school where Prof. John had gone to attend a function in honour of the Chief Minister, Mr. Barkatullah Khan.

After the Chief Minister left, the students gheraoed the Vice Chancellor and did not allow him to leave the place.

Prof. John reportedly declined the police offer to escort him to safety in a police jeep through the rear gates and insisted on leaving in his own car through the main gate.

The gherao ended this morning when Prof. John announced that he had submitted his resignation.

Hindustan Times : 22.9.1971 : Jaipur :: Students' Woes on Delhi Corespondence course: About 800 Rajasthan students on the rolls of the correspondence course of the Delhi University are sore over the "nonchalant and casual" manner the three year degree course is being conducted.

They are not receiving the lessons in time. The University has also failed to arranged for the contact programme under which teachers from Delhi University were to come to Jaipur to hold lectures and meet students to remove their difficulties.

In some cases lessons are received after the examination is over. Students also do not get mark sheets in time. As a result of this many students who failed in a subject could not sit for supplementary examination.

According to Mr. G.D. Mathur, President of the Delhi University Correspondence Course Association, the Department has stopped concessions in rail travelling to students in the State who have to come to Jaipur to attend the contact programme or sit for the examinations.

The University was broadcasting lessons on the B station of All India Radio, Delhi, which was audible in Jaipur. Later, however, it switched to Delhi C station which cannot be heard here. Repeated requests to change the wave length or relay the lessons from Jaipur or other Rajasthan stations have fallen on deaf ears.

Mr. Mathur also complained of the high fees. On an average a student had to pay Rs.600 for the three-year degree course. As most of the students were in service and belonged to poor or lower middle-class families, they could not really afford these fees.

He also wants students to be given scholarships and other facilities like special leave, as recommended by the UGC study team.

The Delhi University was earning, on an average, Rs. 3 to 4 lakhs a year through the correspondence course. "It is a pity that despite this huge profit it has done nothing to provide relief to the students or at least run the course in an efficient manner," Mr. Mathur said.

The University has also not started the MA course despite the UGC's green signal.

Mr. Mathur said the Association had also represented to the Rajasthan Government to provide certain facilities to in-service students but here also there had been little response.

17

Times of India : 23.9.1971 : New Delhi :: High Level talks on student Unrest:

A proposal to set up a special university police force and invest proctors with magisterial powers to deal with trouble on the campus was discussed today at a high level meeting convened by the Union Minister of State for Home Affairs, Mr. R.N. Mirdha.

Among those who attended the meeting were the Lieut-Governor, Mr. A.N. Jha, the Chief Executive Councillor, Mr. V.K. Malhotra, the Vice Chancellor of Delhi University, Dr. Sarup Singh, the DTU General Manager, Mr. Rajinder Singh, the Inspector-General of Police, Delhi, Mr. L.S. Bisht, and senior officials of the Union Ministries of Home Affairs, Education and Transport and Delhi Administration.

The meeting which lasted about two and a half hours, discussed causes of student unrest. It was generally agreed that there was immediate need to improve bus services. Both Mr. Jha and Mr. Malhotra said that at least 590 new buses should be added to the DTU fleet without delay.

It was also felt that the law and order authorities should check lawlessness by students in colleges and on the campus. In cases where student resorted to violence, hijacked buses or damaged them, the police should take action without waiting for permission from the educational authorities.

In cases where students clashed with the college or campus administration, the police should interfere only at the request of the university authorities.

The proposal for a second university to reduce the size of the student community was also discussed but no decision was arrived at.

Times of India : 23.9.1971 : New Delhi :: Jamia Millia boys hijack 7 DTU buses :: Students of the Jamia Millia in Okhla today hijacked seven DTU buses in protest against inadequate bus services in their area. They detained the buses in the college premises for about three hours and tried to set fire to one of them.

The trouble started around 9.30 a.m. when some students gathered outside the college, started stopping the DTU buses and later hijacked them into the college compound.

The students agreed to release the buses after DTU officials had assured them that the services in the area would improve.

p.t.o.

Tribune : 23.9.1971 : Patiala : Science Teachers in private colleges face retrenchment : Science and mathematics teachers employed in privately managed colleges of Punjab are facing retrenchment on account of the continued decline in the number of science and mathematics students, according to Mr. H.S. Metha, General Secretary of the Punjab College Teachers' Association.

Hindustan Times : 24.9.1971 : Imphal : Chief Secretary gheraoed: About 500 students gheraoed Manipur Chief Secretary, D.G. Bhave in his office in the secretariat building this afternoon demanding an assurance that the Government would issue weekly ration of six kgs of rice per adult.

The gherao is continuing.

According to police, the students have conveyed to the Chief Secretary that they would not withdraw until their demand was conceded.

Tribune : 24.9.1971 : New Delhi : Teachers, students demonstrate before US Embassy : about 100 students and teachers of Delhi University today demonstrated outside the American Embassy to protest against the "illegal detention" of American Negro leader Angela Davis.

Tribune : 24.9.1971 : Bhubaneswar : Utkal Varsity students suspend stir :

The Utkal University Post-graduate Students' Action Committee yesterday suspended the nine-day old strike till October 10 in response to the appeal by the Chancellor, Mr. Jogendra Singh and Vice Chancellor, Mr. Ghanashyam Mahapatra.

Two students, who had launched hunger strike since September 18 to back up the demand of the Action Committee for immediate acceptance of the resignation of the University's Registrar, Mr. D.P. Barai, also gave up their fast.

Hindustan Times : 25.9.1971 : New Delhi : V.C. meets P.M. : Delhi University Vice Chancellor, Sarup Singh today called on Prime Minister Indira Gandhi.

He is reported to have discussed the problem of students, violence in the Capital and the "inadequate" bus service on routes touching the university colleges.

Tribune : 25.9.1971 : Simla : 2 Students' Petitions Against Denial of Admission allowed : Striking down the restriction of domicile for admission to the Himachal Pradesh Medical College, a Division Bench of the Himachal Pradesh High Court, comprising Chief Justice M.H. Beg and Justice Chet Ram Thakur yesterday allowed two writ petitions with costs against the Himachal State challenging denial of admission to the Medical College, Simla, to two petitioners, namely, Manju Bawoja and Rajesh Kumar Abby.

(19)

Tribune : 25.9.1971 : Jaipur :: Rajasthan Govt. denies Jodhpur V.C.'s charge: The Rajasthan Government today described as "absolutely incorrect" the Press reports that police had failed to render assistance to Jodhpur University Vice Chancellor, V.V. John when he was gheraoed by Engineering College students at Jodhpur on September 20.

It also denied reports that the district authorities did not take any notice of the situation.

In a Press note, the Government emphasised that the police was throughout present and vigilant to prevent the situation from deteriorating further.

Tribune : 26.9.1971 : Saigon :: Saigon students burn three American cars :

Fire-bomb throwing students today burnt at last three American cars and two South Vietnamese police jeeps in a fresh outbreak of anti-Government violence in Saigon.

Scores of combat police firing riot-quelling gas dispersed the students in a series of running battles through the streets of the capital's residential quarter.

Hindustan Times : 26.9.1971 : New Delhi :: Politics main cause of campus unrest : Kerala varsities benefit from student participation :: Politics and union rivalries inspired by political parties are largely responsible for trouble in colleges, according to a study our correspondents have conducted.

In many States colleges and universities have been closed in the wake of student riots, but where universities have shown imagination students have responded with a sense of responsibility and earnestness.

Student unrest in Kerala University has been on the decline for some time, mainly because of student participation in university affairs. The Kerala Government has provided for student representation in university bodies such as the Senate. University authorities give students due recognition. Student leaders are consulted on policy decisions, and they feel honoured.

During this year and in the recent past there has been no major trouble. There were stray clashes with bus operators, but these went almost unnoticed.

There has been no strike in all the 135 colleges affiliated to Rajasthan University, the biggest of the three universities in the State. The other two universities are Jodhpur and Udaipur.

A university official explained "We tackled the problem of admissions by opening correspondence courses for post-graduate students. Denial of admission has been the chief reason for frustration amongst students."

The university refused to intervene in fees disputes. It told principals that collection of fees was their headache.

Tamil Nadu was a pioneer in keeping students away from politics. But this effort has been useless, it seems in retrospect. In 1956 Mr. C.Subramaniam, the then Education Minister, convened an all party meeting which unreservedly tabooed political influences on students. But this idea never worked. The DMK rode to power in the State on the crest of a massive student wave against Hindi in 1965.

Students of Osmania University are in danger of losing a second academic year because of the agitation for a separate Telengana State. Clashes between the Vidyarthi Parishad backed by the Jan Sangh had a students' union with Congress support led to the closure of the university recently.

There have been instances of good academic schemes leading to trouble because students and teachers were not taken into confidence. The closure of colleges in Himachal Pradesh on the issue of the semester system in an instance.

In Bengal at the time of the study all colleges and universities were closed for the Puja holidays. From Gujarat came the report that all is quiet and the peaceful character of the people was cited as the reason. In Jammu and Kashmir all colleges were working normally. The following are the details :

Hyderabad: Osmania University which was closed after clashes among students may reopen shortly to close again because of a new and powerful factor : the demand for a separate Telengana State.

The students are likely to lose one more year of study They lost one year because of their agitation to back the same demand in 1969. The students continued the agitation for five months when politicians took over. For nine months they boycotted classes.

Last month the Agricultural University was closed for a few days because of student clashes on the occasion of union, elections. The causes lay deeper - in the Telengana State or united Andhra Pradesh demand.

A vast majority of the supporters of Telengana are Reddies and of Vishal Andhra non-Reddies. The clashes in the university has also turned out to be a fight between Reddies and non-Reddies. At the height of the Telengana agitation there was a big clash between separatists and integrationists. Non-Telengana boys left their hostels

(21)

for safer places and refused to go back to their classes. Parallel classes were opened in university colleges in the Andhra and Rayalaseema regions to help them pursue their studies.

The main trouble with the Agricultural university has been, it is said, the autocratic manner in which its Vice Chancellor, Mr. O. Pulla Reddy, conducts its affairs.

After the Telengana agitation, Osmania students got back to their classes only in July. Elections to college unions went off peacefully, but the election results sparked trouble in the Gandhi Medical College. The winners were beaten up outside the college.

Osmania students belong either to the Youth Congress or the Vidyarthi Parishad, the Jan Sangh student wing. The aim of each group is to capture as many college unions as possible. The annual election to the apex union is slated for November. The Vidyarthi Parishad backs the separate Telegana demand, and the Youth Congress opposes it. On the campus the Vidyarthi Parishad is in the lead, but in some of the integrated colleges the Youth Congress has greater backing.

The recent political developments regarding Telengana have upset the students. But it is difficult to predict how they will behave hereafter.

Jaipur : By and large the current academic year has been free from trouble in Rajasthan colleges. There have been fewer strikes, and all colleges and university caulties - barring two institutes, the engineering faculty of Jodhpur University and the law college of Udaipur University - are working peacefully.

Students of the Ayurvedic College at Jaipur went on strike some weeks ago and some of them offered dharna outside the house of Chief Minister Barkatuallah Khan to press their demands. They wanted the vaidacharya degree to be made equal to the MBBS degree, better pay-scales for voids and higher stipends for Ayurvedic graduates during their internship. The police ~~ca~~-charged the students when they became rowdy.

The strike was called off when Mr. Barkatullah Khan conceded some demands which had nothing to do with the university but were the concern of the State Government.

The Law College of Udaipur University was closed indefinitely on August 20 following clashes between the students and the university authorities on some "frivolous" demands. The college is still closed.

(22)

Students of the engineering college of Jodhpur University went on strike in the middle of last month to press their demands including rescheduling of college timings. They wanted the university to revert to morning hours rather than for the whole day.

On the eve of the departure of Mr. V.V. John, Vice Chancellor, to Ghana, to attend the conference of Commonwealth Vice-Chancellors on August 27, some 50 students held a demonstration at the railway station and went on a rampage on the campus, broke glasspanes, damaged scooters and set fire to university property. The college was closed indefinitely.

On September 20 Mr. John was gneraoed in a school building at Jodhpur. He had gone there to attend a function in honour of the Chief Minister.

The district authorities and a police force watched as students belonging to the engineering faculty refused to let Mr. John leave a school building. Next morning Mr. John handed over his resignation to Governor Hukam Singh in protest against the "inaction of the district authorities."

Jodhpur is the Chief Minister's home town. The district authorities obviously did not want to create a law an order problem there.

Mr. John tried to contact police officials and the additional district magistrate, but they reportedly avised him to escape through the back door in a police jeep. He did not agree. He told them he would leave the school by the front door and in his own car.

The Jodhpur University Teachers' Association has expressed concern at the inaction of the officials.

Madras: The residential Annamalai University has remained closed since June 23 and it is not known when it will reopen. Chief Minister Karunanidhi had been invited to deliver a convocation address and receive a doctorate. Students held a demonstration to back their demand for employment opportunities, Police made a lathi charge.

A man was drowned in the university water tank. Following this the authorities ordered closure of the university which has 6000 students.

The commission inquiring into these incidents was told that the university would reopen by September, 20, but the assurance was not fulfilled. Students fear the university may remain closed until the end of this year or at least until the commission completes its task.



(23)

The university and the Government have been criticised for the closure, which has prevented students from giving evidence.

In Madras the Government arts college was closed a month ago. Trouble started after elections to the students' union. Two students with Congress (O) persuasion were elected to key positions. A small section owing allegiance to the DMK opposed this. The principal was gheraoed and furniture was smashed.

In similar circumstances six colleges in Tiruchirapalli Pudukkottai and Madurai were closed down a fortnight, but these have since been reopened. Student trouble is ascribed to political divisions. The Congress, the CPM and the DMK are the principal political influences on students. Recently student leaders successful in union elections were treated to a party and political talk by film star Sivaji Ganesan who toes the Congress (O) line. Mr. Kamraj spoke to students and congratulated them on their "patriotic fervour". Three days later the DMK played host to a student conference in Coimbatore. The SPM is holding a study session - the sixth in eight months - for students in Marxism-Leninism.

A seminar on the character of State power in India is being organised in Madras by a student body with Marxist leanings. Mr. P. Sundarayya of the CPM will be one of the speakers.

Trivandrum : Universities in Kerala are at present free from student trouble but most have remained closed for the past one week because of a strike by the teaching staff of private colleges.

Eighty per cent of the colleges in Kerala are private-owned. Only some women's colleges and training colleges are unaffected by this strike.

The teachers went on an indefinite strike on Sept. 15 demanding direct payment of their salary by the Government and retirement benefits. Government-owned colleges and departments of the Kerala and Calicut universities are functioning normally.

Bhubaneswar Orissa has three universities - teaching and affiliating at Vani-vihar in Bhubaneswar, Sambalpur and Berhampur.

Utkal University established at Cuttack in 1943 shifted to Vani-vihar on the outskirts of Bhubaneswar. This university had jurisdiction all over Orissa until 1967 when the other two universities were established.

Utkal University was closed this week following charges of mass copying at degree examinations. The University Senate reversed its decision and cancelled the examination in the face of pressure from examination centres and colleges. But this decision was rescinded because of pressure from the Government, examines and guardians and the entire examination was declared in order.

The first phase of the student trouble was over without the examinees involved in copying being penalised.

The second phase related to the alleged misbehaviour of the registrar of Utkal University. This was confined to the university campus. The Registrar refused to spare a car to take a teacher to hospital. Students gheraoed the registrar and forced him to resign. The Chancellor, Dr. S.S. Ansari, neither accepted the resignation nor returned the letter. The students boycotted classes from September, 13 protesting against this. The strike was confined to post-graduate classes in arts, science and commerce on the campus.

Faced with a virtual closure of the classes, the acting Vice Chancellor, Dr. Ghanshyam Dass Mohapatra, advanced the Puja holidays by a week.

The Vice Chancellor, Dr. Sadasiv Mishra, resigned last month protesting against the alleged interference of the State Government in the university's affairs, particularly on matters relating to degree examinations. Yesterday, the students and Dr. Mahapatra met the acting Chancellor, Mr. Jogendra Singh and gave him a full picture of the situation. Mr. Jogendra Singh received a delegation of students who demanded acceptance of the resignation of the registrar forthwith.

Mr. Jogendra Singh revealed his mind but following his request the students have "postponed" their strike until the reopening after the holidays.

Simla : Himachal Pradesh is new to students trouble. If this malady has struck this State students are not to be blamed.

All 23 colleges except the faculties of the university have been closed till October 4 following an agitation by students for abolition of the semester system of examination introduced by the university this year.

Opposition was voiced last week at the Government College, Bilaspur and it spread. Students in all colleges abstained from their classes and demanded that the system be scrapped.

25

The peaceful agitation became violent when students of the Government College, Dharamsala, clashed with police who made a lathi-charge. Students in all colleges took out processions and demanded a judicial probe.

Before the system was introduced the universities did not take teachers or students into confidence. Most students are still unaware of the good points of the system. Some principals had been consulted, but they failed to allay the students' fears.

Vice Chancellor A.K. Singh is now holding discussions with teachers.

Bangalore: Come September, come strike. It is the month of hoodoo for the Bangalore University. This is the third successive September when the University has had student unrest and strike.

In September 1969 the agitation was directed against the then Vice Chancellor, Dr. V.K. Gokak. Last year the student guns were trained on the Government sponsored delegation to Expo 1970 in Japan. This time it is against the University administration and the Vice Chancellor T.K. Tukol, a former judge of the Mysore High Court. A factor contributing to strike and agitations, particularly during September, can very well be the eagerness of those aspiring to become Senators to steal the limelight on the eve of the elections to the Senate usually held in October-November.

There is no denying that all is not well with the Bangalore University, the fourth in the State, the other three being the Mysore, Karnatak and Agricultural Universities. Its examination wing, for instance, is none too efficient as can be seen from the fact that five students, at first declared as having passed the B.Sc. degree examination were later declared as having failed. This resulted in one of the five committing suicide.

Defaultation in the University Library is another case in point. The Vice Chancellor himself has admitted misappropriation of Rs.1200/- but unofficial estimates put the figure at ten times more.

Following student strikes and agitations all the 46 colleges of the Bangalore University in the city now remain closed affecting about 45,000 students.

It is expected that following Governor Dharma Vira's assurance that he was prepared to order an independent probe into the affairs of the University, a settlement should not be far off.

p.t.o.

Shillong : Calm prevails in the three universities in Assam, Gauhati Jorhat and Dibrugarh.

Most of the university or college unions are dominated by the moderate leadership.

Student agitators are by and large, concerned with campus affairs like lack of boarding facilities, proper transport, adequate seats in colleges and above all, their representation in university councils.

Gauhati University has been the main centre of student movement since 1949. The university students unions recent movement for a place in the University Council succeeded when the Vice Chancellor. Mr. B.K. Nehru, assured the union leaders of a fair deal.

Then followed the students of Dibrugarh University and the Jorhat Agriculture University. But their movement petered out for lack of concerted effort among the students.

In fact, there is no co-ordination among the student unions of the three universities.

Patna: Except Jheria, the coal town of Chotanagpur, no other part of Bihar has reported any major student violence this month.

There are seven universities, 200 colleges and 2000 high schools in the State. And only the Jheria College of Ranchi University has been closed for the Puja ahead of schedule.

Student union elections triggered the trouble in Jheria. It took a violent turn on September 17 when the college principal allegedly opened fire from his revolver fatally injuring one of the agitators.

Earlier, some minor incidents of demonstration and picketing were witnessed by the Bihar, Bhagalpur and Patna universities to get nomination dates extended.

First year engineering students of Patna succeeded in this.

But the final degree course students of Bhagalpur University drew a blank.

Delhi : Apparently, the root cause of the present wave of student indiscipline in Delhi is due to an inadequate public transport service. With an aging fleet, mounting operational costs, and frequent complaints of rudeness on the part of conductors towards passengers, the DTU has become the most discredited service institution - a fountainhead of public wrath.

(27)

It is, therefore, not a surprise, though such an attitude can hardly be condoned, that the public and political parties have prepared to remain discreetly silent than to condemn acts of vandalism and violence by students.

At a high level meeting of university professors and the Academic Council members, the blame was surely put on the DTU. It was stated that unless the DTU fleet was substantially increased, student-DTU tension was unlikely to ebb.

Excepting in two cases, violence has been caused by warring groups of students and DTU employees. During the first three weeks of this month, clashes occurred at the rate of one a day. Rampaging students burnt five DTU buses and damaged about 20 others after driving them inside college premises. Conductors and drivers protesting against student high-handedness struck work one day paralysing the city transport. About 100 students, DTU employees and police officials were injured in the clashes.

More than one dozen colleges were involved and these were closed down from three days to one week to prevent further trouble.

Excepting perhaps the DTU Chairman and the General Manager, nobody seems to share their equanimity that DTU buses were adequate in number, and that only a minority among the students "motivated by mischief" are holding the transport service to ransom.

Such an escapist assessment is shared neither by the Central Government nor by the Chief Executive Councillor, nor the Mayor. While the Central Government is reported to be thinking of taking over the DTU and converting it into an autonomous corporation, the CEC and the Mayor have told that DTU Chairman, who incidentally is a Congress Councillor, that if the fleet is not increased by at least 500 buses by the end of October, certain routes will be denationalised and given to private operators.

But can better transport bring a sea change in the situation? The strike in two colleges - the Delhi Engineering College where students gheraced the principal and compelled him to resign and recently at the Delhi Arts College where the germ of trouble lay in rivalry between students in the morning and the evening shifts - had nothing to do with the D.T.U.

The fundamental problem is that with a phenomenal increase in the number of students, the student-teacher ratio has deteriorated. Students interested in obtaining degrees get infuriated when they get failed. They believe they have not received adequate coaching (at least this was the case in the Engineering College); the new colleges hastily opened to meet the admission rush lack recreational facilities, libraries, play-grounds and open spaces.

Some weeks ago, the Vice-Chancellor told a Rotary meeting that the university was "fast becoming a slum". There are nearly 97,000 students on the rolls. This number is likely to swell to over 1,25,000 by 1973.

The large number of students in off campus colleges (some of them are in the thick of residential localities) are a mediocre lot. They were denied admission in the campus colleges. They are out of the mainstream and coffee house aura and perhaps because of it they look for "thrills" which they get in an ample measure by stoning or burning buses.

It has been stressed that the proposal for setting up a second campus in South Delhi should be implemented without delay. All the scattered colleges in South and West Delhi can then be accommodated at one place. This will be beneficial in two ways. The DTU will be in a happier position to provide service for students covering at one point. Secondly, more recreational facilities can be planned.

It has also been suggested that some selectivity must be introduced at the university level without denying the others an opportunity to pursue higher education in a manner best suited to their talents and pockets. Also, if more students take up correspondence course, it will lessen the burden on the university. Such courses should not only be confined to general arts or science subjects but also to vocational and technical trades.

Tribune: 26.9.1971: New Delhi: Student rally at P.M.'s residence: About 200 Delhi University students today demonstrated outside the Prime Minister's residence to protest against the "inadequate" bus service in the capital.

Tribune: 26.9.1971: Bilaspur: Students reject Himachal Varsity options: Mr. Yogesh Gambhir, General Secretary, H.P. Students' Action Committee, today rejected the Vice-Chancellor R.K. Singh's option to students either to adopt the semester system or the old system of examination.

Tribune: 27.9.1971: Simla: HE Varsity decides to give option to students. Himachal Pradesh University today decided to permit the students to exercise an option whether they would like to be examined in accordance with the provisions of semester system or would like to take the annual examination at the end of year.

Tribune:- 27.9.1971: Simla: Students & continue stir against Semester system: Students of SDE College, Government College and University Evening College, Simla, observed Black Day today and held a rally in response to the decisions taken by Vice-Chancellor of Himachal University without taking the Action Committee into confidence.

Times of India: 27.9.1971: Varanasi: Dilemma of foreign students at VSU: About 60 foreign students are facing an accommodation problem at Varanasi Sanskrit University, which was closed some time ago till October 22, following student trouble and staff strike.

The students have accused the university authorities of "maltreating" them. They say their hostel was not only closed at the orders of the Vice-Chancellor, but the belongings of some of them were removed from locked rooms. The authorities have failed to answer representation for return of the students' belongings.

These foreign students met the Governor, Mr. Gopala Reddy, during his visit to the city last month. The Governor assured the students that their grievances would be redressed, and in his capacity as Chancellor sent for the Vice-Chancellor, Dr. Satyavrat Singh. But nothing has been done so far.

The trouble began in May when the Vice-Chancellor ordered the boarders to leave their rooms before the vacation. The foreign students requested the Vice-Chancellor that they be allowed to stay on during the vacation, as in previous years, because they could not go to their homes. But as they did not get a sympathetic reply from the Vice-Chancellor, they left the hostel, keeping their belongings in locked rooms. On June 22, the university authorities went to one of the two international hostels, got the locks broken open and removed all belongings.

A research student from Ceylon said he could have easily gone to a police station and lodged a report about his missing belongings. But he did not as it would have tarnished the image of the institution. While the foreign students obeyed the Vice-Chancellor's order, it is said, some who are not even students have stuck to their hostel rooms.

The former hostel is used to house the university staff.

The Vice-Chancellor said that as there were allegations of smuggling in the international hostel, its abolition was the only course left to him.

Incidentally, no report about any smuggling by foreign students has been lodged with the police.

Hindu: 29.9.1971: Chidambaram:: Flea to reopen Annamalai University: The Chidambaram Rotary Club has appealed to the authorities to reopen the institution. The University reopened on July 8 after the summer vacation but was closed indefinitely on July 24 following student police clashes and the recovery of a dead body of a youth in one of the reservoirs of the university.

Times of India: 5.10.1971: Simla: Himachal Students end strike: Himachal University has decided not to introduce the semester system in colleges until the next academic year.

The decision was taken by the university authorities yesterday after negotiations with representatives of the Students Action Committee.

The Students' strike was also called off following the decision. The Vice-Chancellor, Dr. R.K. Singh, told newsmen that all colleges would be opened on October 5.

In a statement read out at the Press conference, the Vice-Chancellor said that the University had decided not to hold examinations at the end of the first semester this year as teaching work had to be suspended earlier because of floods. The annual examinations would be held in May 1972.

The new pattern of examination papers for the semester system, devised and recommended by the National Council for Educational Research and Training, would be introduced from the next academic year. In the meantime, the university would arrange for setting model question papers in all subjects so that students and teachers could familiarise themselves with the new pattern before the university switched over to the semester system.

Internal Assessment:

The University would declare the results of the B.Sc. (Pt.I) examination by June 30 and that of B.A. B.Sc. final by the end of June. This would enable students to seek admission to professional courses or to other universities.

The Vice-Chancellor also announced that the internal assessment system would be confined to science and commerce classes as before.

The Chairman of the Students' Action Committee, Mr. Kuldip Kaul, called upon students to withdraw the strike and resume studies in right earnest.

In a signed statement, representatives of various colleges expressed satisfaction with the agreement reached between the university and students representative.

Earlier the three students, who had been on hunger strike, broke their fast by taking fruit-juice by the Director of Education, Mr. G.L. Sharma.

Hindustan Times: 14.10.1971: Bhubaneswar: Utkal Varsity students raid V.C.'s Office: Some 300 students of four affiliated colleges of the Utkal University yesterday raided the University premises here and ransacked the Office of Vice-Chancellor, Dr. Ghanashyam Mohapatra, to "protest" against the decision of the Syndicate to cancel papers on some subjects of the pre-university examination for alleged mass copying in those centres. Dr. Mohapatra was away for luncheon.

Students later attempted to set fire to his chamber but the staff foiled the bid. On request from Dr. Mohapatra, the police arrived on the scene and prevented further damage. On Dr. Mohapatra's return he was first gheraoed and then locked in his office for two hours and was allowed to come out only when he assured the rowdy students that the Syndicate will consider the issue on its next meeting.



(31)

Hindustan Times: 14.10.1971: Trivandrum: Participation in affairs urged: The University Grants Commission member, Professor A.B.Lal, said here yesterday the UGC had accepted in principle the Gajendragadkar Commission's recommendations for allowing students participation in the University Administration.

Inaugurating the "Inter-University Seminar on students participation in university administration" Professor Lal said the changing characteristics of the society made it inevitable. This, he said would not only help in reducing the gap between the teachers and students, but would also make the latter feel more responsible in their academic career itself.

Mr. Lal said the students, while participating in administrative affairs, should maintain respect for the autonomy of the institution and safeguard its sanctity from "extraneous elements."

Times of India: 18.10.1971: Tokyo: Japanese students demonstrate: Thousands of left-wing students and workers took to the streets in noisy but peaceful demonstrations tonight as the Japanese Parliament convened for a crucial extraordinary session.

The demonstrations were against the terms of the U.S. Japan agreement, returning the strategic Pacific island of Okinawa to Japanese control, which Parliament has to ratify.

An estimated 8000 protestors paraded through central Tokyo under the watchful eye of police riot squads who ringed the U.S. Embassy and key Government buildings.

The demonstrations are expected to intensify and become more violent as Parliament considers the vital Okinawa agreement, which also goes to the U.S., Senate next month for similar ratification.

Hindustan Times: 20.11.1971: Bombay: Students want right to assess teachers' work: Student leaders in the city have demanded the right to "evaluate" their teachers' performance before confirmation.

The demand was made at a two-day conference of the General secretaries of various university students bodies which concluded here yesterday.

Placing the suggestion, among others, before the Bombay University, Vice-Chancellor, Dr. P.B. Gajendragadkar, the student leaders asked him to "notify" the difficulties in implementing them before November 30.

Times of India: 28.10.1971: Bangalore: Mysore V.C. to probe students' allegations: The Governor, Mr. Dharma Vira, told reporters today that he had asked the Vice-Chancellor of Mysore University to look into the allegation of some students that a lecturer of a college had written to one of his colleagues in charge of valuation of examination papers asking him to see that some candidates passed and some others failed.

The student wing of the Jana Sangh had circulated among reporters-Photostatic copies of the alleged letter. The letter also contained the respective register number of the candidates in question.

Hindustan Times: 31.10.1971: New Delhi: Students problems to be discussed: A Chhatra Shakti Nagar of tents and shamianas, has sprung up at the Ferozshah Kotla Ground to accommodate about 4,000 students and teachers who are here to attend the 19th All India Congress of the Bhartiya Vidyarthi Parishad.

The "township" has amongst its inhabitants 500 girls from various states.

Speaking to newsmen here today, a spokesman of the Parishad said the three-day conference would discuss several problems relating to the educational system.

The need for increasing student participation in the administrative affairs of the universities and social and economic affairs of the country will also come up for discussion. Besides, the conference will dwell at length on the dangers of "politicalisation" of the universities, he said.

The Vidyarthi Parishad was a totally non-political organisation and had achieved success in recent elections in various universities, the spokesman said. Five students members from Bangla Desh, who are living in Calcutta, have arrived to attend the conference.

UNIVERSITY GRANTS COMMISSION

(33)

Meeting;

Dated: 1st December '71.

Item No.6: To receive a note on the suggestions for practical action by Member States and National Commissions on the 1971-72 Programme of Unesco.

The Indian National Commission for Cooperation with Unesco in the Ministry of Education, Government of India has forwarded a copy of the publication entitled "Suggestions for Practical Action by Member States and National Commission on the 1971-72 Programme" to the UGC for such action as may be considered necessary. A copy of the publication is attached (Annexure), wherein it has been suggested that action on the following lines may be of interest to the universities;

1. National Commissions could collaborate in the courses organised by the Regional Office for training planning specialists and teaching staff, in particular by helping the Regional Office to disseminate information about the organization of these courses;
2. Member States and National Commissions are invited to initiate the establishment of bodies to study and take possible action on certain problems confronting the development of higher education in their countries; counselling and guidance of students in choosing their careers, students participating in university governance, part-time higher education, reform of the educational system, access to higher education, etc;
3. Member States and particularly their National Commissions should support and participate in literacy work by taking action in two main directions:
  - a) study, dissemination and application of the idea of functional literacy in the context of national literacy programmes that are linked with economic and social development; and
  - b) continuation, strengthening and extension of the world literacy programme.
4. To encourage Member States to undertake, with the assistance of National Commissions, studies and research designed to define their youth policy in the fields of Unesco's competence, and to index all the resulting information in documentation centres on youth;

34

- 5) National Commissions might increase the participation of young people in the regeneration of the content of education in the promotion of science, in cultural activities and in the use of the mass media. For this purpose assistance will be afforded to Commissions chosen to implement projects likely to encourage the participation of young people in these fields.
- 6) National Commissions might organise symposia and meetings of specialists to bring home the fact that education can only be made universally accessible if its institutional machinery, techniques, methods, content and indeed its outlook are thoroughly reformed;
- 7) Member States are invited to make sure that their respective national science policy-making bodies are ready to welcome science planning specialists from other countries with a view to exchanging mutual experience in the methodology of national science policy-making;
- 8) Member States, especially developing countries, are invited to make use of the possibilities of obtaining assistance in training and research, particularly in basic sciences;
- 9) National Commissions could do much to foster the establishment of study groups, etc., related to pilot projects, and to further the holding of national or local workshops which follow up regional activities;

Member States and National Commissions are invited to:

- 1) Encourage the establishment in universities of philosophy societies, inter-disciplinary in outlook and concerned mainly with the following three points:
  - a) the situation of philosophy between the traditional past and present changes;
  - b) problem of man-definition, situation and values - from the point of view of the various disciplines which concern him and which vary from country to country;
- 10) Member States and National Commissions have a significant role to play with regard to the celebration of the INTERNATIONAL BOOK YEAR in 1972. At its sixteenth session, the General Conference, in proclaiming by acclamation International Book Year, stressed the importance of national initiatives in the preparation and conduct of celebrations during 1972 (resolution 4.121). Member States were specifically invited, together with competent and interested international non-governmental organisations

"To initiate and carry out programmes of activities designed to promote the writing, production, circulation and distribution of books and to make International Book Year a national reading year;

To establish committees, in co-operation with National Commissions, for the preparation and conduct of International Book Year on a national basis;

To formulate the principles of book policies, taking into account the objectives of Unesco and the particular role of the printed word for the transmission of knowledge and the stimulation of ideas;

11) National Commissions, in co-operation with competent organisations and specialists, might make an inventory of their national resources in library, documentation and archive services, and a survey of their needs, with a view to improving such services, preferably through appropriate integration into the framework of their national plans for social and economic development.

The matter is placed before the Commission.

DS(18)/EC(Sp.11)

UNITED NATIONS EDUCATIONAL,  
SCIENTIFIC AND CULTURAL ORGANISATION

SUGGESTIONS  
FOR  
PRACTICAL ACTION BY MEMBER STATES  
AND NATIONAL COMMISSIONS  
ON THE  
1971-1972 PROGRAMME

I. EDUCATION

Conferences on education at ministerial level

1. National Commissions are invited to co-operate in the intellectual preparation of their respective countries for the Regional Conference of Ministers of Education and those responsible for Economic Planning to be held from 31 March to 7 June 1971 in Singapore, and the Conference of Ministers of Education and those responsible for Science and Technology to be held in Latin America in January 1972.

The Conference in Asia will review the situation of education in the Asian Member States in the light of the recommendations of the Second Regional Conference (Bangkok, 1965) and of developments during the preceding decade. It will study the needs of education in Asia and the directives and perspectives for its development in the Second Development Decade. The conference will give special attention to the quantitative development and qualitative improvement of education, particularly science education, and the role of education in rural development.

The conference in Latin America will review the progress made in education since the Conference of Ministers of Education and Economic Development (Buenos Aires, 1966). It will also study the reform and democratization of secondary education - with particular reference to the development of science teaching - and regional co-operation with regard to higher education, notably in science and technology.

2. National Commissions are also invited to encourage their respective countries to implement the resolutions approved by the ministerial conferences already held: in Africa, the Nairobi Conference on Education and Scientific and Technical Training in relation to development (1963), and in the Arab States, the Conference of Ministers of Education and Ministers responsible for Economic Planning, held in Marrakesh, 1970.

Aid for developing strategies for education

Member States and National Commissions are invited to:

- (i) Keep Unesco Headquarters systematically informed of all reforms, new education systems and innovations in education policy, accompanying such information with relevant texts and documents for transmission to the International Bureau of Education;
- (ii) notify experiments conducted in application of new policies which have resulted in achievements of a type suitable for evaluation, should the governments concerned consider this desirable.

International Convention against Discrimination in Education

National Commissions are invited to encourage their governments to adhere to the International Convention against Discrimination in Education and to implement the measures set forth in the Convention and the Recommendation.

In national meetings on education, they might stress the importance of integrating the various aspects of the Convention in general plans for educational development. They might also convene meetings to study the democratization of education, with particular reference to any changes which may have occurred in the socio-economic distribution of pupils in secondary schools and to the elimination of obstacles in educational systems likely to prevent pupils from moving up from the primary to the secondary level.

Prospects in education

In so far as they are responsible for supplying information on fellowships and transmitting candidatures, the National Commissions might in particular inform educational circles and women's organizations of fellowships offered to candidates of both sexes as well as those reserved for women, with a view to providing for a higher percentage of fellowships to be granted to women.

They might also encourage the undertaking of inquiries and the holding of study meetings of certain problems concerning the access of women to education on which Unesco has recently carried out comparative studies and which were also the subject of a series of country studies, as for example, the access of women to scientific and technical education, co-education and literacy. In 1971-72, similar studies will be undertaken on education in the context of rural development. Some National Commissions might also follow the activities of experimental projects carried out in their regions and, where appropriate, suggest that their governments initiate similar projects.

National Commissions are invited:

- (i) to supply names of possible authors and contributions for "Prospects in Education";
- (ii) to take an active part in the "national relays" for the selection, adaptation, translation and dissemination of the articles contained in "Prospects in Education".

National Commissions are also invited to pursue and strengthen the activities begun during International Education Year, and to carry out in the early months of 1971 a preliminary assessment of the results achieved during that year (see resolution 1.101 of the sixteenth session of the General Conference).

At its sixteenth session, the General Conference adopted a resolution on life-long education which was addressed to Member States (resolution 1.121). National Commissions could also stimulate reflection on the subject of life-long education by holding meetings or seminars, or encouraging studies to define the scope and content of life-long education.

#### Training abroad

National Commissions have a vital role to play in the efficient planning and implementation of Unesco's programme for training abroad.

They could assist by giving publicity to Unesco fellowships (or study grants) and with the selection of the suitable candidates. Their help in the preparation of the dossiers of the selected candidates (particularly medical papers, diplomas and degree transcripts and language certificates) may sometimes be indispensable. They could also contribute to the briefing of the selected candidates about Unesco and the countries where they are to study, and to the organization - when needed - of special training programmes aimed at raising the academic standard of the candidates, or improving their proficiency in a foreign language before going abroad.

It is suggested also that a National Commission maintain contact with their nationals while the latter are studying abroad on a Unesco fellowship (or study grant) and provide all possible advice and support for the success of their training.

On their return fellows often need to be assisted by their National Commissions so that they may be properly employed at home. Likewise, they could give valuable assistance to National Commissions in the development of Unesco's programme in their country.

National Commissions are invited to assess Unesco's fellowship programme in their respective countries from the very beginning to the present date. Details and assistance regarding this assessment may be obtained from the Division of Training Abroad (EDV).

p.t.o.



National Commissions are also invited to furnish Unesco with information on outstanding study facilities in the respective countries, for individual or group training, indicating at the same time the dates for which such training is available.

The Division of Training Abroad(EDV) could also give interested National Commissions all the information and available assistance that Unesco can provide to Member States who are willing to formulate a national training policy in fields pertaining to Unesco's activities and to draw up training programmes for development projects which are not solely conceived in terms of fellowships or study grants.

#### Regional Office for Education

National Commissions could collaborate in the courses organized by the Regional Office for training planning specialists and teaching staff, in particular by helping the Regional Office to:

disseminate information about the organization of these courses;

choose qualified participants, in co-operation with the respective governments;

subsequently allot to these participants posts suitable to their qualifications.

Working with the Regional Office, National Commissions could help in the intellectual and material organization of courses and national seminars, especially in the choice of subjects, the selection of participants and the circulation of the final reports.

A close link could be established between the Regional Office's documentation service and the National Commissions, who could distribute certain of the Bureau's publications and documents and in return inform the Bureau regularly as to the main educational trends in their respective countries.

#### School and higher education

In order to develop further the activities included in paragraphs 1189-1194 of 16 C/5, National Commissions are encouraged to organise seminars, arrange for the preparation of suitable teaching materials, and study the possibility of extending the ASSOCIATED SCHOOLS PROJECT with a view to generalizing the results of the work of the institutions now taking part in this project. The co-operation of National Commissions in the evaluation of projects will be welcomed. National Commissions might consider also the possibility of initiating this activity in Member States not participating in the project and propose a group of educational institutions(primary or secondary schools or teacher-training institutions or all three) for participation in the project. They are also encouraged to undertake action for the improvement of school textbooks.

Member States and National Commissions are invited to initiate the establishment of bodies to study and take possible action on certain problems confronting the development of higher education in their countries: counselling and guidance of students in choosing their careers, students participation in university governance, part-time higher education, reform of the educational system, access to higher education, etc. The needs of society should of course be considered in the institutions' structures and programmes. On the regional and international levels there is a need for policies to be formulated in regard to equivalence of diplomas and degrees.

Member States are invited to encourage the development of national production centres and to introduce the production of simple scholastic materials as well as involve teachers in the preparation of the teaching materials to be employed; develop textbook policies, examine and evaluate their present textbooks in use, in the light of current educational needs and development of new teaching methods. It would be desirable for Member States to train national personnel in programmed instruction so as to permit them to participate in fairly advanced current experiments. Experiments could be developed using the new systems approached to define the place and function of such media as broadcasting in education.

Literacy

It is desirable that Member States and particularly their National Commissions should support and participate in literacy work by taking action in two main directions:

- (a) the study, dissemination and application of the idea of functional literacy in the context of national literacy programmes that are linked with economic and social development; and
- (b) the continuation, strengthening and extension of the world literacy programme.

In Member States in which a large proportion of the population is still illiterate, National Commissions are invited to promote the mobilization of greater human and financial resources, with a view, in particular, to:

intensifying and improving the training of literacy teachers and the production of satisfactory materials;

encouraging industrial concerns to participate directly in literacy work in the context of development priorities;

organizing micro-experiments in functional literacy teaching;

disseminating and encouraging the study of data and documentation on functional literacy teaching;

41

promoting legislative and structural reforms likely to contribute to the development of literacy programmes;

supporting the action taken by the regional centres (ASPEC, CREFAL) and to encourage regional co-operation, particularly regarding the translation of documentation into the regional languages (Spanish, Arabic, etc.) and the initiation of joint literacy undertakings;

enlisting the support of organisations of all kinds and of the population in general for literacy work and encouraging their participation in it.

The Member States for which illiteracy no longer constitutes a major problem are invited to intensify their technical and financial participation in literacy work in developing countries (bilateral programmes, multilateral assistance, etc.). To this end, the National Commissions might assist by:

- (i) encouraging the commitment of industrial and financial circles in literacy undertakings and that of institutions and individuals able to contribute to research and experimentation in their field, and classifying these human resources;
- (ii) continuing the promotion and diffusion of information, designed to foster understanding of and assistance to the literacy needs of developing countries. Such assistance might take the form of materials (notebooks, pencils, paper, printing presses) or of funds, and might come from a wide range of sources in developed countries. For the promotion and diffusion of information on literacy, it is suggested that National Commissions:
  - (a) provide or make arrangements for printing facilities needed for brochures, functional literacy materials, etc;
  - (b) disseminate Unesco's literacy material;
  - (c) stimulate research in universities and institutes;
  - (d) prepare list of firms which might be interested in functional literacy programmes in order that appropriate material could be sent by Unesco;
  - (e) contribute to creation or animation of national literacy committees;
  - (f) give encouragement to national non-governmental organizations and assistance in the co-ordination of NGO literacy work;

- (iii) encouraging public opinion to adopt a favourable attitude towards participation in literacy work with the assistance of non-governmental organizations and by the greatest possible use of the mass information media;
- (iv) seeking and proposing concrete means of participation in the literacy effort;
- (v) contributing to the selection of applicants for literacy prizes and to the planning and execution of concrete action on International Literacy Day (3 September).

The celebration of International Literacy Day and the presentation of the prizes awarded for outstanding efforts in literacy work will provide excellent opportunities for mobilizing public opinion and developing activities to support and participate in the literacy effort, in particular with regard to the Special Account for Voluntary Contributions.

### Adult Education

Member States and National Commissions will have a particularly important part to play in the preparations for the Third World Conference on Adult Education (1972). The work plan makes provision that with this Conference in view, Member States will be encouraged to carry out comparative studies and research and will be asked to set up appropriate machinery for providing relevant information and enabling those concerned to give their opinions about the present and future state of adult education. Suggestions relating to this will be sent to the National Commissions at the beginning of 1971, and those who have not yet set up adult education committees could take this opportunity to do so.

National Commissions will be called upon to co-operate in implementing the Participation programme with a view to improving adult education institutions and methods and supporting adult education activities which will promote development. The implementation of this programme will concern the projects for (a) the institutionalization of adult education, (b) better utilization of existing educational establishments and the setting up of institutions of a new type, (c) the use of new methods and techniques, (d) the equipment of national centres and the publication of textbooks in the mother tongue, (e) the co-ordination of the activities of documentation services and the professional press.

Unesco's programme for 1971-72 is mainly concerned with the development of adult education institutions and practice, but this development must at the same time be based on recent research findings.

National Commissions and interested institutions in Member States should therefore continue to give their full attention to the encouragement of educational, psychological and sociological research into adult education.

(43)

National Commissions are also invited to take part in projects to be launched by non-governmental organizations for training adult education specialists and developing syllabuses for refresher courses intended, in particular, for middle-level personnel. They will continue to be associated with the preparation and organization of study tours for members of workers' organizations and adult education associations.

At this sixteenth session, the General Conference adopted a resolution concerning the co-operative movement (resolution 9.15). National Commissions would contribute to the achievement of the objectives of Unesco's programme in the field of out-of-school education by creating or strengthening their contact with the co-operative organizations in their respective countries. Co-operatives can play an important role in developing adult education and literacy, as they have the human and material resources necessary to do so.

#### Participation of young people in development

National Commissions might increase the participation of young people in the elaboration and implementation of development programmes. They will accordingly be invited to study methods of promoting greater participation by young people in such projects.

#### Development of education activities for peace

An international seminar (Category VII) will be organised on the role of education and the contribution which youth can make in the struggle for peace, friendship and understanding between peoples. National Commissions might cooperate in ensuring that the recommendations adopted by the seminar are effectively put into action.

#### Action in support of the struggle by young people against colonial domination and racial discrimination

National Commissions will be invited to associate young people closely with the various activities undertaken with a view to the elimination of racial discrimination.

#### Increased participation of youth in the operation and work of Unesco

This project is aimed at associating young people more directly, through National Commissions, with Unesco activities in Member States. National Commissions will be invited to make more room for young people from different environments and to get young people to participate in elaborating their projects and commenting on Unesco's programme, in particular 17 C/4 and 17 C/5. Encouragement will also be given to the establishment of Youth Committees under National Commissions, whose membership would include representatives of youth organizations, student associations, non-governmental organizations, etc.

Action taken on these lines will be notified to other National Commissions by the Unesco Secretariat.

p.t.o.

In addition, National Commissions which wish to have young people participate in their regional meetings will be entitled to receive any necessary financial aid from the Organization. National Commissions are invited to include more young people in their delegations to the General Conference and other important Unesco meetings.

#### Promotion of a better knowledge of youth problems and attitudes

The purpose of this project is to encourage Member States to undertake, with the assistance of National Commissions, studies and research designed to define their youth policy in the fields of Unesco's competence, and to index all the resulting information in documentation centres on youth. National Commissions might play a useful part in stimulating joint action by public and private bodies with a view to drawing up a realistic youth policy.

National Commissions will be invited to supply information on (a) research undertaken on the problems of young people; (b) the existence of documentation centres for youth; and (c) meetings planned on topics related to the problems of young people in the fields of Unesco's competence.

Financial assistance will be granted to National Commissions chosen to prepare ~~organize~~ establish or strengthen documentation centres and hold meetings.

National Commission will also be associated with the preparatory work for the International Conference on the Attitude of Youth to the Major Problems of Education, Science, Culture and Communication to be held in 1973/74, in particular through the organization of a regional meeting of young people in Latin America (1971) and in Africa (1972).

#### Participation of youth in education, science, culture and communication

National Commissions might increase the participation of young people in the regeneration of the content of education, in the promotion of science, in cultural activities and in the use of the mass media. For this purpose assistance will be afforded to Commissions chosen to implement projects likely to encourage the participation of young people in these fields.

In co-operation with six National Commissions, studies will be undertaken in institutions of secondary and higher education on the participation of young people in the regeneration of education.

#### Educational planning

With the help of professional bodies dealing with educational matters, National Commissions can help to focus attention on the two major needs of our time - the democratization and the regeneration of education

particularly by disseminating publications which show that in all cases a qualitative improvement in education should accompany quantitative expansion. National Commissions might organise symposia and meetings of specialists to bring home the fact that education can only be made universally accessible if its institutional machinery, techniques, methods, content and indeed its outlook are thoroughly reformed; in this way it will be possible to encourage qualitative studies of the content of education and enlist the assistance of specialists in educational planning, which is essential if such planning is to be a major instrument of change. Similarly, by disseminating the idea of life-long education, they can help those who are professionally and politically responsible for ensuring that education services are improved and expanded to meet the needs and aspirations of all men in whatever social group; and by holding meetings with professional groups and stimulating contacts between educational and other authorities - for example, in connexion with rural development and urban replanning schemes - they can help in guiding national activity and enlisting public participation and support for the planners' aim - to channel towards the objectives of educational regeneration the increasingly large capital sums which must be included in planning budgets. At the same time they can place in its proper moral perspective the need for paying increased attention to the problems of educational management with a view to the rationalisation of budget options and effective administrative organisation, questions which are merely the technical aspects of the effort all must make to reconsider both the aims of education and the methods it should employ.

With this in mind, National Commissions can contribute towards the effective development of school building programmes by supporting the activities of school building services, at either national or regional level, within the general framework of educational planning. For example, they might aim at giving wide publicity to the aims and objectives of the investigations and studies conducted by regional school building centres on "national development teams".

## II. NATURAL SCIENCES

### Information on the national science policy of Member States

Member States and National Commissions are invited to keep Unesco informed of important science policy decisions taken by the governments of Member States. Information of use would concern:

- (i) government machinery for national science policy;
- (ii) the country's network of institutions for science and technology;
- (iii) the inventory of the national scientific and technological potential, particularly the State's operational budget for scientific and technological research, together with data on human resources in science and technology; and lastly

- (iv) the country's major priorities in scientific and technological research proper.

All this information, which is analysed regularly by Unesco and in some cases published in the series "Science Policy Studies and Documents", will enable Member States to gain a fuller knowledge of each other's respective possibilities with regard to international scientific co-operation and also to judge what technical assistance the developing countries need in order to increase their scientific and technological potential.

Stimulation activities in the field of science policy

(i) Member States and National Commissions are invited to stimulate national interest in science and technology so as to create a favourable atmosphere for the development of national scientific communities. Particular importance should be attached to improving the status of scientists and technologists.

(ii) In order to undertake such stimulation activities in an efficient way the national science policy bodies of Member States should be represented at least by one "ex officio" member of their respective National Commissions for Unesco.

Technical assistance activities in the field of science policy

Scientifically advanced Member States are invited to ascertain from their national science policy bodies:

- (i) the possibility for Unesco's science policy experts to accomplish - before departing to their field duty station - short training periods in science planning within such national organisations for governmental science policy formulation and decision-making in highly-developed countries;
- (ii) the possibility for Unesco's science policy fellowship holders to work as trainees for periods of three months to one year in national science policy-making organizations of highly-developed Member States.

Exchange activities

Member States are invited to make sure that their respective national science policy-making bodies are ready to welcome science planning specialists from other countries with a view to exchanging mutual experience in the methodology of national science policy-making.



International co-operation in scientific research

Member States, especially developing countries, are invited to make use of the possibilities of obtaining assistance in training and research, particularly in basic sciences.

In the past, high-level (e.g. post-graduate) training courses in basic science were organised in developed countries. It is now desirable to organise them in developing regions as well. Member States and National Commissions are therefore invited to encourage their scientific communities to make proposals for such activities.

National Commissions are also invited to collaborate with the Secretariat in creating permanent links among research institutions of developed and developing countries.

In order to promote the progress of basic research in developing countries, it is desirable to strengthen existing national research activity. There is a possibility of giving these centres some financial support, and Member States are therefore invited to display initiative and interest in this question.

Collection and exchange of information

National Commissions are invited to give wide publicity to the existence of Unesco's science teaching publications, and also to collect information on the type of Unesco science teaching publications needed locally, and to transmit this information to the Secretariat.

Implementation of decisions reached at Unesco-sponsored international conferences and workshops

National Commissions are invited to draw to the attention of the appropriate authorities (both governmental and professional) the relevant recommendations of Unesco-sponsored international conferences and workshops, as well as their documents, etc., and to act as a "catalyst" in the implementation of such recommendations.

Follow-up of regional activities (pilot projects, workshops, etc.)

National Commissions could do much to foster the establishment of study groups, etc., related to pilot projects, and to further the holding of national or local workshops which follow up regional activities.

International Hydrological Decade

The co-operation between Unesco and the National Committees for the International Hydrological Decade could be greatly strengthened through representation of the IHD Committees on the National Commissions.

Oceanography

Member States interested in co-operating in marine investigations within the long-term and expanded programme of oceanographic research and which are not yet members of the IOC are invited to give consideration to requesting membership.

It is also recommended that Member States operating medium and large research vessels should make available places for foreign scientists and advanced students, especially from developing countries.

III. SOCIAL SCIENCES, HUMAN SCIENCES AND CULTURE

philosophy and interdisciplinary co-operation

Member States and National Commissions are invited to:

1. Encourage the establishment in universities in philosophy societies, inter-disciplinary in outlook and concerned mainly with the following three points:
  - (a) the situation of philosophy between the traditional past and present changes;
  - (b) problem of man - definition, situation and values - from the point of view of the various disciplines which concern him and which vary from country to country;
  - (c) communication between individuals and between human groups.
2. Create or develop links between national learned societies and the International Council for Philosophy and Humanistic Studies.
3. Encourage subscriptions to and distribution of "Impact", which is published in English, French and Spanish, and of "Diogenes" which is published in Arabic, English, French, Hindi, Japanese and Spanish.

Social sciences

Member States and National Commissions are invited to:

1. Encourage the establishment and strengthening of professional associations and their affiliation to and participation in the activities of the appropriate international non-governmental organizations.
2. Encourage the exchange of information on social science teaching and research and professional activities particularly through liaison with clearing houses or other appropriate centres and through the supply of documentation to the Unesco Social Science Information Centre.

3. Assist in the dissemination of periodical and non-periodical Unesco publications in the social sciences.
4. Stimulate teaching of social science disciplines at the university level and training in these disciplines in other appropriate institutions with special emphasis on management sciences, international law, operations research and teaching about socio-economic development.
5. Stimulate by all suitable means the advancement of social research and the application of modern methods, with particular emphasis on comparative international and intercultural research.
6. Stimulate systematic studies on the place of the social sciences in national science policies.
7. Encourage and undertake at the national level and through their appropriate institutions: research and teaching of problems of peace (for example, the role of institutions of higher learning in promoting these fields and studies on the social premises of international peace and co-operation); research on human rights.
8. Encourage and sponsor work in the world-wide field of development, in particular the study and collecting of socio-economic indicators and manpower statistics. Attention is drawn to the many possibilities of applying the social sciences to development, development planning and the identification of obstacles to development.
9. Stimulate interdisciplinary studies, for example, on micro-environment of everyday life in rural and urban areas with special reference to the dynamics of value systems and behaviour resulting from changing man-environment relationships as well as on environmental economics.
10. Encourage and sponsor specific activities in the field of population and family planning.
11. Participate in the commemoration of the International Year against Racial Discrimination. Use may be made of the Unesco Statement on Race (1967), and the collected work for Statements on Race - with introductory comments, as well as the report of the meeting on the role of the mass media in a multiracial society, and Unesco publications on this subject (for example, "Apartheid. Its effects on education, science, culture and information".)

### Culture

1. National Commissions can make an important contribution to the programme for the international dissemination of culture, in particular:

by co-operating in the yearly preparation of bibliographies of translations which have been published on their initiative, for inclusion in the Index Translationum; in increasing archives of reproductions of paintings, and in collecting records to be used for the Unesco Record Collection;

by encouraging the dissemination of translations of representative works, art books, and record collections produced under Unesco sponsorship;

by assuming responsibility for the circulation in their country, of travelling exhibitions organised by the Secretariat.

2. As regards the cultural studies it would be desirable for Member States and National Commissions to take practical steps to implant or develop in their country national or regional institutions for studying and exhibiting their cultures, both historically and as they exist today, and for fostering appreciation for other world cultures. These might be, for example, university institutes or departments, centres for inter-disciplinary research, or learned associations. It would be particularly useful if such institutions were promoted in Central Asia, South East Asia and in Africa, for example by the opening of centres or archives for the collection, study and publication of oral traditions, considered both as historical source material and as reflecting the ethical and philosophical values or representing the languages and literatures of Africa.

3. National Commissions are invited to keep Unesco informed of national activities and provisions in the field of cultural policies.

4. Member States and National Commissions can contribute to the programme on the promotion of standards for the conservation and presentation of cultural property in the following ways:

(a) Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property, adopted by the General Conference at its sixteenth session. Member States are required by virtue of the Constitution of Unesco to submit this Convention for ratification by their competent national authorities within 12 months from the close of the session of the General Conference at which it was adopted. They are also required to submit to Unesco, two months before the opening of the seventeenth session of the General Conference, a preliminary report on the steps they have taken.

(b) Instrument for the protection of sites and monuments of universal interest. At its sixteenth session, the General Conference agreed that the protection of sites and monuments of universal interest should be regulated on an international basis by a recommendation and a convention to be adopted to that end at the seventeenth session. Member States are invited to

submit comments in 1971 on two draft instruments which will have been drawn up by the Secretariat, and to take part in a meeting of governmental experts to be held in 1972 to study these drafts.

- (c) Convention and Protocol for the Protection of Cultural Property in the Event of Armed Conflict (The Hague 1954). Fifty-nine Member States and three States which are not members have so far ratified or acceded to this Convention. All but six of these States are also Parties to the Protocol. Unesco Member States are invited to become parties to these two instruments, which recommend inter alia the introduction of a system of protection in time of peace, consisting principally of the regulations for entering refuges, monuments or centres containing monuments of very great importance in the "International Register of Cultural Property under Special Protection".
- (d) The International Centre for the Study of Preservation and Restoration of Cultural Property in Rome has over fifty Member States. Its programme in promoting research, in training architect/restorers, is expanding rapidly. It will soon begin a new project to train laboratory technicians at the intermediate level. Member States of Unesco, which have not yet joined the Rome Centre are to be encouraged to do so. Annual contributions amount to 1% of the contributions of a Member State to Unesco in a given year.
- (e) Inventories of sites and monuments are an important measure for the development of national programmes to preserve their material cultural heritage. Member States which have not yet established such inventories are encouraged to begin this task, which would call for several years of work and aid may be obtained through the Participation programme.

#### IV. COMMUNICATION

##### Free flow of information and international exchanges

1. Member States and National Commissions have a significant role to play with regard to the celebration of the INTERNATIONAL BOOK YEAR in 1972. At its sixteenth session, the General Conference, in proclaiming by acclamation International Book Year, stressed the importance of national initiatives in the preparation and conduct of celebrations during 1972 (resolution 4.121). Member States were specifically invited, together with competent and interested international non-governmental organisations:

"To initiate and carry out programmes of activities designed to promote the writing, production, circulation and distribution of books and to make International Book Year a national reading year;

To establish committees, in co-operation with National Commissions, for the preparation and conduct of International Book Year on a

national basis;

To formulate the principles of book policies, taking into account the objectives of Unesco and the particular role of the printed word for the transmission of knowledge and the stimulation of ideas;

To encourage an appreciation, particularly among young people, of the best in thought, philosophy and literature by making books generally and cheaply available."

To assist Member States, National Commissions and other national bodies, a list of suggested activities for International Book Year was approved by the General Conference ( 16 C/83 revised). The list is not intended to be exhaustive, but rather to stimulate national initiatives. It follows the four main objectives of the Year, which has an overall theme of "Books for All". The objectives are: encouragement of authorship and translation, with due regard to copyright; production and distribution of books, including the development of libraries; promotion of the reading habit; and books in the service of education, international understanding and peaceful co-operation.

Within that framework, Member States might, under the first objective: proclaim national book and reading years in the context of International Book Year; issue commemorative stamps; establish national committees for International Book Year; consider tax dispensations to encourage authorship and translation; encourage the transfer of certain elements of copyright by developed countries to developing ones, through the establishment of national and regional copyright information centres and other measures.

Under the objective of promoting production and distribution, governments might consider adhering to, or applying more liberally, Unesco agreements or other international agreements and recommendations on the free flow of books; apply the Unesco Book Coupon Scheme, which enables countries with a shortage of hard currency to purchase coupons and use them to obtain needed books; contribute to revolving funds, coupon schemes and other devices to overcome currency obstacles to the purchase of books in developing countries; include book production in national development plans; establish new national institutions dealing with books, such as national book councils; reduce domestic taxes on books; make a special effort to gather information on books, including data on production, distribution and circulation of books; develop library systems and services.

To promote the reading habit, an in-depth survey of the situation of books and readership might be undertaken; specific research projects might be financed such as ones into the avoidance of the lapse into illiteracy, measures to lower the costs of books; award special prizes, e.g. literary, school essay, etc.; promote national, regional and international book fairs and itinerant book exhibits; encourage national press, radio and television services to make a special effort during International Book Year to promote books and the reading habit through book reviews, contests, interviews with authors, etc.

Under the final heading, Member States might request educational authorities to incorporate International Book Year themes in school curricula; give renewed attention to the possibility of free distribution of textbooks and the promotion of textbook production; link national teachers meetings as well as those of literary groups and graphic artists to International Book Year; call upon Unesco Associated Schools, youth clubs and other youth movements to participate in their fashion during International Book Year.

It is suggested also that National Commissions place the subject of International Book Year on the agendas of their national meetings, as well as of regional, sub-regional and inter-regional meetings.

2. The attention of Member States and National Commissions is drawn also to the fact that the Secretariat will submit to the General Conference at its seventeenth session suggestions for action to promote the free flow of information and international exchanges. Accordingly, the Secretariat is interested in receiving reports on national activities linked to Unesco's programme in this field which include the following subjects; development of information media, the use of postal and telecommunication, professional training in the mass media, use of communication for education, the content of news, the circulation of educational, scientific and cultural materials, and the exchange of persons.

#### Mass communication

1. It is foreseen in the Approved Programme and Budget for 1971-72 that Unesco should promote an international programme of research on the effects of mass communication on society (16 C/5 Approved, para. 4059). National Commissions could assist in the planning of this programme by encouraging contacts between representatives of the mass communication media and the universities, social scientists and research workers, in order to identify areas for research of direct relevance to their countries' needs and interests.

2. Within this programme of the Department of Mass Communication, early in 1971, Unesco will convene an advisory panel to define broad research items and formulate a four years' programme of studies, which could be undertaken and coordinated in a larger international research programme. The carrying out of these studies will depend entirely upon the active co-operation of Member States. In May or June 1971, Unesco will therefore circulate to the Commissions information on the proposed programme and invite the participation of national institutions in this co-operative effort. The practical assistance of the National Commissions will be essential to the success of this programme.

3. The media of mass communication have a particularly important role to play in bringing about public awareness of the support for development tasks at the national level. At the beginning of the Second Development Decade, Unesco is making renewed efforts to assist Member States in mobilizing communication services for both purposes of education and development. The success of such efforts depends entirely, however, upon determined action of each individual country. The mass media

will be able to play their full role only if there is a co-ordination of activities between the media on the one hand and the various ministries and other public and private bodies concerned with development on the other. In this respect, another item of interest in the Unesco programme is that (referred to in paras. 4064, 4065 and 4066 of 16 C/5 Approved) concerning communication policies. A number of National Commissions already have within their structures, sub-commissions dealing with communication which have proved effective in drawing attention to the need for planning based upon a realistic communication policy. It is suggested that in view of the growing importance of communication to national development programmes, many more National Commissions may wish to convene such groups, which can play a vital and active part in the Unesco programme for the study and development of functional communication systems.

4. National Commissions could promote and undertake studies of the present and potential role of the mass media in the light of advancing technology as channels for the spread of education, science and culture, and thus contribute to the elaboration of communication policies designed to ensure that maximum benefits are obtained for the new possibilities becoming available. The countries where the information media are still quantitatively insufficient, National Commissions could initiate studies of the need for the development of mass communication, including the provision of trained personnel, and encourage governments to include in their communication plans provision for such development.

Public information and international understanding.

1. It is suggested that Member States and National Commissions take active measures to encourage the use of the means of mass communication for the promotion of international understanding and co-operation in the service of peace and human welfare, and for spreading knowledge of the Organization's activities towards these ends. This might be done with the advice and help of committees, constituted within National Commissions, consisting of individuals working in the mass media and representatives of professional mass media institutions and associations. National press, radio, television and film institutions should be provided regularly with information about the Organization's current objectives and about national activities in the implementation of the programme. National Commissions may wish to concentrate their efforts on the presentation of activities of particular relevance to their country's own problems and aspirations, within the international framework of the Organization's programme.

2. It is suggested that National Commissions should make special efforts to provide teachers, youth leaders, students and voluntary organisations with information about the work of Unesco. National Commissions can produce, distribute, translate and adapt information materials that will enable institutions and voluntary groups, and in particular, Unesco Clubs, to undertake information programmes. These clubs can be of great use in undertaking information activities on behalf of National Commissions, which should therefore promote their development, either in relation to



Associated Schools or in other contexts. A handbook on the organization of Unesco Clubs is being prepared and will be available towards the end of 1971.

3. National Commissions are invited to send brief information items at regular intervals (monthly or quarterly) in order that the Unesco Chronicle may report on their activities. Emphasis should be laid on new ventures, projects and organised events which might provide useful examples for other National Commissions. In addition, National Commissions might ensure that editors and programme directors receive and use Unesco press communiques and Unesco Features.

4. National Commissions are invited to promote the dissemination of the Unesco Courier in their countries in one or more of the twelve languages in which it is at present issued.

5. The Unesco Gift Coupon Programme provides individuals and organisations with a means of effectively contributing towards Unesco's work, and National Commissions are invited to promote this programme in their countries.

6. Public information can be specially efficacious if it is linked to specific events or anniversaries. In this connexion it should be emphasised that 4 November 1971 will mark the 25th anniversary of Unesco. It should also be noted that the United Nations Organisation has designated 1971 as International Year for Action to Combat Redalism and Racial Discrimination, and that, as indicated above, 1972 will be International Book Year.

#### Documentation, libraries and archives

1. National Commissions, in co-operation with competent organisations and specialists, might make an inventory of their national resources in library, documentation and archive services, and a survey of their needs, with a view to improving such services, preferably through appropriate integration into the framework of their national plans for social and economic development. This may well provide an opportunity for increasing the awareness of the importance for national development, of a well-integrated network of library and documentation services in all fields of learning. They might find it appropriate to stimulate legislation for establishing and improving these services.

2. National Commissions might promote the development, extension and improvement of training facilities for librarians, documentalists and archivists at various levels and encourage proper recognition of their professional status.

3. National Commissions might co-operate in, and contribute to the promotion of research in documentation, by stimulating research projects in this field in their own country and by providing information on their national documentation activities.

4. The Convention concerning the International Exchange of Publications and the Convention concerning the Exchange of Official Publications and Government Documents between States have now been ratified by 31 Member States in the case of the former and 30 in the case of the latter. National Commissions of Member States which have not ratified these Conventions might urge their governments to take the necessary steps to do so in the near future. Activity reports received from participating Member States will be published, in whole or in part, in the Unesco bulletin for libraries.

#### Statistics

In view of the fact that the kind of support which is given at the national level, by specialized professional organisations and in other ways, to statistics on population, industry, agriculture, trade, etc., is often lacking for the fields of statistics for which Unesco is responsible (education, science, culture and communication), National Commissions can play a decisive role in urging the strengthening of the statistical programmes in these fields in their respective countries, especially with respect to the utilization and analysis of such statistics for planning purposes, with in the framework of integrated economic and social planning. Another function for National Commissions, of immediate practical importance, is to provide for full, speedy and efficient communications between all the relevant agencies in their countries dealing with the above-mentioned fields of statistics and Unesco, so as to attain maximum co-operation for the improvement and development of such statistics both at the national and the international level. As a direct step to further such development, National Commissions might ensure that statisticians working within the Unesco fields of competence are adequately represented in their own membership.

#### V. INTERNATIONAL STANDARDS, RELATIONS AND PROGRAMMES

National Commissions are invited to encourage Member States to become parties to the conventions and other agreements, or to implement recommendations adopted by the General Conference or by intergovernmental conferences convened by Unesco.

#### VI. RECRUITMENT AND BRIEFING OF FIELD STAFF

With regard to the recruitment and briefing of field staff, National Commissions might engage in the following activities:

1. Standing co-operation with Unesco, in their capacity as a source of recruitment, in order to select qualified candidates for field posts. In acting as a source of recruitment, National Commissions are responsible for encouraging suitable candidates to come forward, and selecting from among their nationals persons capable of successfully accomplishing the proposed missions.

2. The organisation at national level of a briefing service for newly-recruited staff. The briefing of staff, before their arrival in Paris for the Unesco briefing, might include various useful elements for training candidates, such as language classes, seminars on the cultural, social and economic aspects of the countries in which they are to serve etc. To this end each National Commission might contact the Swedish International Development Authority or the Ministry of Overseas Development in London, these being institutions which have developed such briefing facilities on a large scale in preparation for appointments to international and bilateral posts.
3. The regular forwarding of publications to Unesco, Staff Training Division, and possibly the preparation of a document, providing introductory information on the country of assignment.
4. A verbal briefing for all new experts on their arrival in the country of assignment, to complete the briefing given in Paris and that normally provided locally by the Chief of Mission or other Unesco representative.
5. Arrangements for all necessary contacts during the expert's mission in order to obtain statistics or documents, facilitate interviews, etc.
6. Invitations to experts to take part in the round tables, seminars, etc., which are frequently held by National Commissions.
7. Providing experts with publications and reports held by National Commissions, in order to facilitate the execution of the projects to which they are assigned.
8. Assisting the Secretariat in supporting the experts' requests for the extension of their secondment by their university or national administration. While it is the Director-General who decides on prolonging appointments, the prolongation of secondment is a matter to be settled between the expert and his university or national administration.

## VII. NATIONAL COMMISSIONS AND UNESCO PUBLICATIONS

Publications have always been considered as one of the chief media of Unesco's action, and a large part of the Organization's budget is devoted to them. It is essential that, as a vehicle of information and of thought, the written word should rapidly reach all those than can use it.

Guided by this principle, the Director-General has appealed constantly to National Commissions, either in a general manner or in particular cases, with a view to obtaining their help in ensuring that works or periodicals published by the Organisation are adequately disseminated.

1. Free distribution of publications to National Commissions

The practice followed in this matter is based upon the classification of Unesco's publications in three categories, as agreed by the General Conference.

Category A: Publications reserved for sale

In principle only one copy of each publication is sent to the National Commission. Additional copies may, however, be distributed in cases where this appears justified with a view to sales promotion (exhibitions, press services, etc.).

Category B: Publications for mixed distribution, i.e. wider free distribution and sale

A wider free distribution is made, but National Commissions are requested to encourage the public to purchase this type of work in order to reduce to the minimum the number of copies distributed free.

Category C: Publications for free distribution

The quantities which National Commissions may receive are limited only by the supply available. National Commissions are therefore requested to ensure that these publications are put to the best possible use, and to correlate their orders with actual distribution capacity.

2. Sale of publications to National Commissions

National Commissions may purchase publications directly from the Organisation without going through the sale agents, and are entitled to a 50 per cent reduction in price. Special arrangements have recently been devised whereby National Commissions and official bodies in developing countries may make bulk purchases of Unesco publications on even more favourable terms.

3. Sales agents

The Secretariat has established a wide network of sales agents which covers the majority of Member States. Many of them have achieved excellent results. The responsibility of choosing and appointing a sales agent rests with the Secretariat, but National Commissions can be very useful in this respect. Suggestions and advice which they can offer, based on their intimate knowledge of local conditions, should enable the Secretariat to make its choice as judiciously as possible.

The action of a sales agent would in itself be insufficient if it were not stimulated and seconded by National Commissions.

4. Some practical suggestions

In the case of a specialised work, the aim is to inform the greatest possible number of specialists in the field concerned in each country; in the case of a work intended for a wider public, to give it the maximum possible publicity.

(a) Specialized works

Specialists can be informed by sending out appropriate publicity material to them personally, by reviews in professional journals, or by exhibitions at meetings or congresses held by their organizations or at their place of work (universities, foundations, etc.).

National Commissions can assist the Secretariat in all these ways, particularly as their members are mostly representatives of their countries' organisations of specialists, or well-known influential personalities in their discipline. In practice, various methods may be used.

(i) Information services

Despatch of leaflets or prospectuses produced either by National Commissions or by Unesco, to the members of professional organisations. This work can be done directly by the Secretariat of the National Commission, or by that of the professional organisations themselves. Obtaining lists of members of professional associations for transmission to the Secretariat, which may assume responsibility for sending out information material.

Communication to the Secretariat of the names of appropriate professional organisations, and contact with such organisations to facilitate their collaboration with the Secretariat.

(ii) Use of bulletins or journals

Most National Commissions which issue a bulletin publish reviews or lists of recent works. Some even produce a bulletin dealing specially with such publications. This is extremely useful and should be extended wherever possible. Basic texts relating to all publications may be obtained on request from the Secretariat. In any case, National Commissions automatically receive such texts in the monthly leaflet "Just published ... to be published".

National Commissions might also make use of the specialized journals or bulletins published by specialist associations, by requesting them to include notices and reviews. Extra copies of publications which may be needed for the purpose can be supplied, on request, by the Secretariat.

(iii) Exhibitions

Whenever possible, Unesco publications should be displayed at congresses of the major national organisations of specialists (educational p.t.o.

congresses, teachers' conferences, etc.). The Secretariat, in co-operation with the sales agent, can help National Commissions to carry out projects of this sort.

(b) Publications intended for a wider public

All the usual methods can be used for these publications, including commercial publicity, the popular press, radio and television. It should be pointed out that sales agents, owing to the great profits from this type of publication, can take a larger share in the advertising of such works.

5. Possibilities of developing countries

In certain developing Member States the methods advocated above may not meet requirements or may be difficult to apply, either because sales agents are hard to find, or because newly-established National Commissions are faced with urgent and complicated tasks and are obliged to limit their activities; or again, because organisations of specialists frequently lack or have only limited resources.

It would be very useful if the National Commissions in these countries would select a few Unesco publications which may be of immediate interest (for instance, the Unesco Source Book for Science Teaching, *Eduquer et Instruire*, the Unesco Courier, etc.) and recommend that the appropriate authorities acquire them for distribution to teachers. The substantial discounts mentioned above mean considerable savings in budgets for the purchase of books or teaching materials.

In some countries there is a pressing need for reading materials of a general character, especially for first-grade teachers. The Unesco Courier could cover this need. Experiments conducted in a number of countries prove that a great number of teachers would be ready to take out a subscription if they were able to see a specimen copy. The Secretariat could place at the disposal of National Commissions considerable quantities of past numbers of the Unesco Courier (in English, French and Spanish) if the Commissions undertook to send them to members of the teaching profession accompanied by a subscription bulletin and letter of introduction. Very much reduced subscription rates are charged in developing countries.

6. Translations

While the most specialized publications can generally achieve their objective in the original language (English, French, sometimes Spanish), this is not the case for works addressed to a wider public. In their case the language may be a major obstacle to their full use, and translation is necessary.

National Commissions can play a threefold role in this respect;

61

choosing the publications it would be useful to translate into their own national language, and notifying the Secretariat thereof;

participating directly in translation and publication in the national language;

indicating to the Secretariat publishers in their country who might be interested in translating and publishing such works.

Financial provision has been made, as part of the assistance afforded to National Commissions, to enable them to translate and publish a certain number of works of their choice. Such assistance usually covers translation and part of the printing costs. Since, however, the funds available for this purpose are limited and cannot satisfy all requests, the choice of priorities for translation, depending on the needs of the country, has a decisive influence on efficiency.

To facilitate this choice, a selected list of works is forwarded to National Commissions approximately six months before the beginning of each biennium, in order that requests for assistance may reach the Secretariat at the very beginning of the financial period. This arrangement is very important; it enables the Secretariat to make a fair allocation of available funds, and gives National Commissions sufficient time thereafter to execute the projects before the end of the financial period.

In countries where the publishing industry is highly developed and the market for books a large one, it would be advisable for National Commissions to encourage certain publishers to translate and publish Unesco works on a strictly commercial basis. Very good results have been achieved in this way in certain countries.

---

'VK'

Confidential

UNIVERSITY GRANTS COMMISSION

(62)

Meeting :

Dated : 1st December 1971.

Item No. 7

To receive the minutes of the meeting of the Committee appointed by the University Grants Commission to consider the role and functions of the University Grants Commission Advisory Committee of Vice-Chancellors.

....

The University Grants Commission at its meeting held on 2nd September 1970, while receiving the proceedings of the meeting of the UGC Advisory Committee of Vice-Chancellors held on 2nd July 1970, accepted the recommendations of the Advisory Committee that a Working Group may be appointed to consider the role and functions of the Advisory Committee of Vice-Chancellors. The Commission accordingly appointed a Working Group with the following compositions.

1. Dr. P.B. Gajendragadkar
2. Prof. A.B. Lal
3. Shri N.D. Sundaravadivelu
4. Dr. S.N. Sen
5. Shri Suraj Bhan

The group met on 6th October 1971 in the UGC. A copy of the minutes of the meeting of the Working Group is attached (Annexure).

The Group strongly supported the setting up of the Advisory Committee and felt that it served a distinctly useful purpose. With regard to the composition of the Advisory Committee, the Group felt that it should have 15-20 members, with such an arrangement that within 5-10 years all the universities may have an opportunity to be associated with the Advisory Committee. The present, the past and the President to be of the IUB may be included in the Advisory Committee (in their individual capacity). The Secretary, IUB may also be invited to the meetings of the Advisory Committee.

The matter is placed before the Commission for consideration.

EC(CD)

'VK'



Minutes of the meeting of the Working Group held on  
6th October 1971 in the UGC

The meeting of the Committee appointed by the UGC to consider the role and functions of the UGC Advisory Committee of Vice-Chancellors was held on 6th October 1971 at 3 PM. The following were present:-

1. Chairman, UGC
2. Dr. P.B. Gajendragadkar
3. Dr. S.N. Sen
4. Dr. K.L. Shrimali
5. Shri N.D. Sundaravadivelu
6. Shri Suraj Bhan
7. Dr. A.S. Adke
8. Dr. A.G. Kavar
9. Prof. Tapas Majumdar
10. Prof. A.B. Lal
11. Dr. Amrik Singh
12. Shri R.K. Chhabra
13. Shri L.R. Mal

It was pointed out at the UGC meeting held in December 1969 that there was need for an informal committee of about 10-15 Vice-Chancellors, which could meet two or three times a year to advise the UGC regarding policy matters and also on development of higher education and coordination between different universities (on regional and all-India basis) for specialised facilities for postgraduate studies and research and other major problems engaging the attention of the Universities and the Commission. The Commission had at a subsequent meeting decided that a Working Group may be set up to consider the role and functions of the UGC Advisory Committee of Vice-Chancellors.

The Chairman stressed the importance of close "contacts" between the UGC, and Universities and the Inter-University Board. In a real sense the UGC was a part of the university system. The Advisory Committee of Vice-Chancellors can play a very useful role in strengthening contacts and cooperation between the UGC and the universities and in advising the UGC about important policy matters and contributing to formulation of policy about relative priorities operation of visiting committees and various matters.

A suggestion was made that with a view to associating the Inter-University Board of India and Ceylon with the working of the UGC, the Standing Committee of the IUB may take-over the functions of the Advisory Committee of Vice-Chancellors. It was pointed out that such contacts should be through meetings of the IUB Standing Committee and the UGC. The IUB Standing Committee could not function as 'advisory body' to another agency such as the UGC which is a statutory body.

(64)

In the composition of the Advisory Committee the present, the past and the President to be of the IUB may be included (in their individual capacity). The Secretary, IUB may be invited to the meetings.

With regard to the composition of the Advisory Committee, it was felt that it should have 15-20 members, with such an arrangement that within 5 to 10 years all the Universities may have an opportunity to be associated with the Advisory Committee. The Advisory Committee may discuss all important matters either referred to it by the UGC or suggested by the members of the Advisory Committee. It would not be desirable to limit the scope of the Advisory Committee.

The members present strongly supported the setting up of the Advisory Committee and felt that it served a distinctly useful purpose.

UNIVERSITY GRANTS COMMISSION

(65)

Meeting:

Dated: 1st December, 1971.

Item No:8 To receive a note on the constitution of Task Forces in the field of education to review past developments and formulate proposals for the Fifth Five Year Plan.

....

The Government of India, Planning Commission have constituted the following task forces in the field of education to review the past developments and to formulate proposals for the 5th Five-Year Plan:-

1. Elementary Education
2. Secondary Education.
3. University Education
4. Vocational and Technical Education
5. Adult and Out-of-School Education
6. Programmes and problems of Youth
7. Education and employment
8. Art and Culture
9. Language Development, Book Production and libraries.
10. Educational Finance.

The terms of reference of the Task Force are as under:-

1. To take stock of the position as is likely to be reached by the end of the Fourth Plan to identify bottlenecks and to suggest remedial measures.
2. To suggest a perspective of development from 1973-74 to 1988-89 in the light of the overall development perspective envisaged in the Fourth Plan.
3. To formulate proposals for the Fifth Plan in the light of the perspective, indicating priorities, policies and financial costs.

The Composition of the Task Force is attached  
(Annexure)

The matter is reported to the Commission.

Annexure to Item No: 8.Task Force-Elementary Education

1. Shri T.R.Jayaraman, Joint Secretary, Ministry of Education and Social Welfare, New Delhi. Chairman
2. Shri J.P.Naik, Adviser, Ministry of Education and Social Welfare, New Delhi. Member
3. Prof.S.V.C.Aiya, Director, National Council of Educational Research and Training, New Delhi "
4. Shri N.D.J.Rao, Education Secretary, Bihar, Patna. "
5. Shri A.K.N.Nambiar, Director of Education, Kerala "
6. Mrs.C.Naik, Chairman, Secondary School Certificate Board, Government of Maharashtra. "
7. Prof.B.N.Rath, Director of Public Instruction, Orissa "
8. Smt.O.Joshi, Director of State Institute of Education, Rajasthan. "
9. Dr.A.Vaidyanathan/Shri S.S.Ahluwalia, Planning Commission, New Delhi. "
10. Shri A.H.Hemrajani, Director(Education), Planning Commission, New Delhi. Convener.

(67)

Task Force - Secondary Education

1. Shri T.R. Jayaraman, Joint Secretary, Ministry of Education and Social Welfare, New Delhi Chairman
2. Shri A.E.T. Darrow, 13A, Fer ozeshah Road, New Delhi Member
3. Prof. S.V.C. Aiya, Director, National Council of Educational Research and Training, New Delhi ""
4. Shri B.L. Ahuja, Education Secretary, Haryana Government, Chandigarh. ""
5. Mrs. C. Naik, Chairman, Secondary School Certificate Board Government of Maharashtra, ""
6. Shri S.V. Chitti Babu, Director of Public Instruction, Madras. ""
7. Miss A. Chari, Commissioner, Central Schools Organisation, Nehru House, 4, Bahadur Shah Zafar Marg, New Delhi-1 ""
8. Dr. D.D. Pant, Director of Education, Government of Uttar Pradesh, Lucknow (U.P.) ""
9. Mr. Asok Sen, Vice-Chairman, Board of Secondary Education, Panjab, Chandigarh. ""
10. Prof. P.K. Roy, Principal, Central Institute of Education, 33 Chhatra Marg, Delhi. ""
11. Shri S.A. Khuraishi, In-Charge, Department of Agriculture, Regional College of Education, Mysore-6. ""
12. Dr. K.G. Desai, Professor of Education, Gujarat University, Ahmedabad. ""
13. Mr. Prahlad Singh, Principal, Haryana Shakti Higher Education School, Kanjahwala, Delhi-41. ""
14. Dr. A. Vaidyanathan/Shri S.S. Ahluwalia, P.P. Division Planning Commission, New Delhi. ""
15. Shri A.H. Hemrajani, Director (Education), Planning Commission, New Delhi. Convener.

Task Force- University Education

- 1. Prof.M.V.Mathur, Director, Asian Institute of Educational Planning and Administration, New Delhi. .. Chairman
- 2. Shri R.K.Chhabra, Secretary, University Grants Commission, Bahadur Shah Zafar Marg, New Delhi. Member
- 3. Dr. S.M.S. Chari, Joint Educational Adviser, Ministry of Education and Social Welfare, New Delhi "
- 4. Dr. Amrik Singh, Secretary, Inter University Board, Rouse Avenue, New Delhi "
- 5. Dr. V.P. Dutta, Pro-Vice-Chancellor, Delhi University, Delhi "
- 6. Dr. A.R. Verma, Director, National Physical Laboratory, New Delhi "
- 7. Dr. Rais Ahmed, Head of the Department of Physics, Aligarh Muslim University, Aligarh, U.P. "
- 8. Shri K. Madhav Menon, Director of Collegiate Education, Kerala "
- 9. Professor P.K. Roy, Principal, Central Institute of Education, 33, Chhatra Marg, Delhi-7. "
- 10. Professor R.P. Dambah, Head of the Mathematics and Statistics Department, Punjab University, Chandigarh "
- 11. Professor R.C. Paul, Head of the Chemistry, Department Punjab University, Chandigarh "
- 12. Dr. A.N. Agarwala, Head of the Commerce Department, University of Allahabad, Allahabad, U.P. "
- 13. Dr. A. Viadanathan/Shri S.S. Ahluwalia, P.S. Division, Planning Division, New Delhi "
- 14. Shri J.L. Azad, Director (Education), Planning Commission, New Delhi. Convener

'VK'

Task Force - Technical Education

(69)

1. Mr. L.S. Chandrakant, Educational Adviser (Technical), Ministry of Education & Social Welfare, New Delhi Chairman
2. Mr. G.D. Damodaran, Hony. Director, P.O.D. College of Technology, Coimbatore Member
3. Dr. M.V. Deshpande, Director of Technical Education, Maharashtra "
4. Col. S.G. Fensle, Director of Training, Directorate General of Employment & Training, New Delhi "
5. Professor A.P. Jambulingham, Principal, Technical Teachers' Training Institute, Adyar, Madras "
6. Dr. D.J. Nandekar, Additional Manpower Officer, Government of Maharashtra, Sachivalaya, Bombay "
7. Mr. K.N. Butani, Director, Institute of Applied Manpower Research, Indraprastha Estate, New Delhi "
8. Mr. Ishwar Chandra, Director General of Employment and Training, New Delhi "
9. Dr. C.P. Gautam, Deputy Director General, Indian Council of Agricultural Research, Krishi Bhavan, New Delhi "
10. Mr. Anwar Divecha, 1113, Prasad Chambers, Charlie Road, Bombay-4. "
11. Mr. S. Hamid, Joint Secretary, Directorate of Manpower, Ministry of Home Affairs, New Delhi "
12. Dr. A. Ramachandran, Indian Institute of Technology, Madras "
13. Professor S.N. Ramaswamy, National Institute of Training in Industrial Engineering, Bombay "
14. Professor C.R. Mitra, Director, Birla Institute of Technology, and Science, Pilani, Rajasthan "
15. Dr. Kamla Chaudhury, Indian Institute of Management, Ahmedabad "
16. Dr. A. Vaidyanathan/Shri S.S. Ahluwalia, P.F. Division, Planning Commission, New Delhi "
17. Shri J.L. Azad, Director (Education), Planning Commission Convener.

'VK'

Task Force - Adult and Out-of-School Education

(70)

1. Dr. Mohan Singh Mehta, Jaipur Chie
2. Shri J.C. Mathur, Additional Secretary, Ministry of Food and Agriculture, New Delhi Mem
3. Dr. S.N. Saraf, Director, Pilot Projects and Adult Education, Ministry of Education and Social Welfare, New Delhi "
4. Dr. P.A. Koshy, Head of the Department of Adult Education, Ministry of Education & Social Welfare, New Delhi "
5. Shri B.R. Patil, Joint Director of Education, Directorate of Education, Government of Maharashtra, Poona "
6. Shri K.S. Munuswamy, Secretary, Mysore State Adult Education Council, Bangalore, P.B. No. 2, Krishnamurthipuram, Mysore "
7. Dr. N.P. Jain, Director, Adult Education, Department of Community Development, Ministry of Food & Agriculture, Krishi Bhavan, New Delhi "
8. Shri G.K. Goakar, Secretary, Bombay City Social Education Committee, Bombay-25 "
9. Shri S.C. Dutta, Nony. Secretary, Indian Adult Education Association, Indraprastha Estate, New Delhi "
10. Shri Satyen Mitra, Bangal Social Services, 1/6, Raja Dhirendra Street, Calcutta-9, "
11. Shri Chunilal R. Bhatt, Secretary, Gujarat State Social Education Committee, Surat(Gujarat) "
12. Head of the Department of Adult Education, Rajasthan University, Jaipur "
13. Director General, A.I.R, or his nominee "
14. Shri J.C. Saxena, Research Officer, Manning Commission, New Delhi Conven

'VK'



Task Force - Programmes & Problems of Youth

(7)

1. Shri Kanti Chaudhury, Joint Secretary, Ministry of Education & Social Welfare, New Delhi Chairman
2. A representative of the University Grants Commission, New Delhi Member
3. Dr. N.P. Jain, Director, Department of Community Development, Ministry of Food and Agriculture, Krishi Bhavan, New Delhi "
4. Director, Employment Exchanges, Ministry of Labour and Employment, Shram Shakti Bhavan, New Delhi "
5. Col. P. Dayal, Director-General, National Fitness Corps, Ministry of Education and Social Welfare, New Delhi "
6. Shri R.L. Anand, Director, National Institute of Sports, Motigarth Palance, Patiala. "
7. Dr. G.L. Bakshi, Director of Public Instruction, Government of Punjab, Chandigarh "
8. Shri R.L. Sen Gupta, Director of Public Instruction, Government of West Bengal, 6, Council House Street, Calcutta-1. "
9. A representative of the Y.M.C.A., New Delhi "
10. Shri P.T. Kuria Kose, Director, International Youth Centre, New Delhi "
11. A representative of the Bharat Yuvak Samaj, New Delhi "
12. Baba Ampte, Somnath Camp, via Railway Station Mul, District Chandrapur, Maharashtra "
13. Director of Youth, Mysore. State, Bangalore "
14. Principal Shanti Narain, Dean of Students, Hans Raj College, Delhi University, Delhi-7. "
15. Professor J.P.S. Uberoi, Professor of Sociology, Delhi University, Delhi. "
16. Shri J.C. Saxena, Research Officer, Planning Commission, New Delhi Convener

72

Task Force - Education & Employment

1. Shri V.L. Gidwani, Employment Commissioner & Secretary, Cabinet Secretariat, New Delhi Chair
2. Shri S. Hamid, Joint Secretary, Directorate of Manpower, Ministry of Home Affairs, New Delhi Member
3. Shri Ishwar Chandra, Director General, Employment and Training, Shram Shakti Bhavan, New Delhi "
4. Shri Bimen Sen, Deputy Educational Advisor, Ministry of Education and Social Welfare, New Delhi "
5. A representative of the University of Grants Commission "
6. Shri K.N. Butani, Director, Institute of Applied Manpower and Research, Indraprastha Estate, New Delhi "
7. Shri Rama Kant Rath, Education Secretary, Government of Orissa, Bhubaneswar "
8. Director of Technical Education, Government of Maharashtra, Bombay "
9. Vice-Chancellor, Rajasthan University, Jaipur "
10. Mrs. Padma Ramachandran, Education Secretary, Government of Kerala, Trivandrum "
11. Director, Labour & Employment Division, Planning Commission, New Delhi "
12. Mr. I.Z. Bhatti, Director, National Council of Applied Economic Research, New Delhi "
13. A representative of Federation of Indian Chambers of Commerce and Industry, Federation House, New Delhi "
14. Dr. Ram K. Vora, Director, Appropriate Technology Cell, Ministry of Industrial Development, Udyog Bhavan, New Delhi. "
15. Dr. A. V. Jeyanthan / Shri S.S. Ahluwalia, P.P. Division, Planning Commission, New Delhi. "
16. Dr. T.N. Dhar, Senior Research Officer, Planning Commission, New Delhi. Convener.

Task Force - Art & Culture

73

1. Mr. Karl Khandalavala, Chairman, Lalit Kala Academy,  
Rabindra Bhavan, New Delhi Chairman
2. Dr. Nihar Rajan Ray, Member of the Third Pay Commission,  
New Delhi Member
3. Shri A.B. Chandiramani, Joint Educational Adviser,  
Ministry of Educational & Social Welfare, New Delhi "
4. Secretary, Sahitya Akademi, New Delhi "
5. Secretary, Sangeet Natak Akademy, New Delhi "
6. Secretary, Lalit Kala Akademy, New Delhi "
7. Dr. P.N. Chopra, Editor, Gazetteers, Ministry of Education  
and Youth Services, New Delhi "
8. Director General, Archaeological Survey of India, New Delhi "
9. Director, National Museum, New Delhi "
10. Director, National Archives of India, New Delhi "
11. Dr. (Mrs.) Kapila Vatsyayan, Ministry of Education and  
Youth Services, New Delhi "
12. Shri Inam Rehman, Secretary, Indian Council for Cultural  
Relations, Azad Bhavan, New Delhi-1, "
13. Shri E. Malkazi, Director, National School of Drama &  
Asian Theatre, Rabindra Bhavan, Ferozeshah Road, New Delhi "
14. Mrs. Rukmini Arundale, Kalakshetra, Adyar, Madras "
15. Shri P. Shankar, Senior Research Officer, Planning  
Commission Convener

Task Force - Educational Finance

(74)

1. Prof. M.V. Mathur, Director, Asian Institute of Educational Planning & Administration, Indraprastha Estate, New Delhi-11 Chairman
2. Prof. D.T. Lakadwala, Director, Sardar Patel Institute of Economics & Social Research, Ahmedabad Member
3. Professor H.K. Manmohan Singh, Professor of Economics, Panjabi University, Patiala "
4. Professor A.N. Misra, Dean of Education Faculty, Saugar University, Saugar "
5. Prof. G.S. Bhalia, Professor of Economics, Punjab University, Chandigarh "
6. Dr. S.N. Mehrotra, Coordinator of Studies, Asian Institute of Educational Planning and Administration, Indraprastha Estate, New Delhi "
7. Shri P.S. Kalwachwala, Director of Technical Education, Government of Gujarat, Ahmedabad "
8. Shri N.D.J. Rao, Education Commissioner & Secretary, Government of Bihar, Patna "
9. Shri J. Veeraraghavan, Internal Financial Adviser, Ministry of Education & Social Welfare, New Delhi "
10. Shri R.K. Chhabra, Secretary, University Grants Commission, Bahadur Shah Zafar Marg, New Delhi-11 "
11. Dr. Sada Shiv Misra, Ex-Vice-Chancellor, Utkal University, Cuttack, Orissa "
12. Mr. A.S. Narayanswami Naidu, Principal, G. Venkataswamy Naidu College, Post Box No. 3, Kovilpattai, Tamil Nadu "
13. Dr. K.S. Gill, Adviser (H), Planning Commission, New Delhi-11 "
14. Shri J.L. Azad, Director (Higher Education), Planning Commission, New Delhi-11 Convener

Task Force - Language Development, Book Production  
and Libraries.

75

1. Dr. Wattanayak, Director, Indian Institute of Languages,  
Mysore Chairman
2. Dr. Krishnamurty, Head of the Linguistics Department,  
Osmania University, Hyderabad, Andhra Pradesh Member
3. Mr. Subhash Mukopadhyya, 5-B, Dr. Sarat Banerji Road,  
Calcutta-25 "
4. Dr. Satya Brat, Professor of Sanskrit, Delhi University,  
Delhi "
5. Mr. D.R. Kalia, Librarian, Central Secretariat Library,  
New Delhi "
6. Mr. J.C. Mehta, Secretary, Indian Libraries Association,  
New Delhi "
7. Shri K.S. Dugal, Secretary, National Book Trust,  
5-A, Green Park, New Delhi-16 "
8. Shri T.S. Krishnamurthy, Deputy Secretary, Ministry of  
Education and Social Welfare, New Delhi "
9. Shri Girja Kumar, Librarian, School of International  
Studies, Ferozeshah Road, New Delhi-1 "
10. Shri M. Shankar, Senior Research Officer, Planning  
Commission, New Delhi Convener.

(76)

Task Forces -- Terms of Reference

---

1. To take stock of the position as is likely to be reached by the end of the Fourth Plan; to identify bottlenecks, and to suggest remedial measures.
2. To suggest a perspective of development from 1973-74 to 1980-89 in the light of the overall development perspective envisaged in the Fourth Plan.
3. To formulate proposals for the Fifth Plan in the light of the perspective, indicating priorities, policies and financial costs.

UNIVERSITY GRANTS COMMISSION

77

Meeting :

Dated : 1st December 1971.

Item No. 9 : To receive a note on the field studies in Geography and other subjects and to consider further the guidelines proposed by Delhi University for purposes of payment of T.A. & D.A. to students of B.A. (Hons.)/ B.A. (Pass) Course in Geography for field work excursion.

The Commission at its meeting held on 7th October 1970 (Item 14(ii)) considered the proposal of Delhi University for treating expenditure incurred on excursion of students offering Geography as a subject for undergraduate course as approved expenditure for purposes of maintenance grant to colleges affiliated to Delhi University and agreed to assist Universities as regards study tour/field work of geography students, and desired that guidelines for the same may be prepared and placed before the Commission.

The guidelines suggested by Delhi University for the purposes of payment of T.A./D.A. to students of B.A. (Hons.) and B.A. (Pass) course in Geography for field excursion were considered by the Commission at its meeting held on 7th April 1971. (Item 18(ii) Annexure I) and the Commission was of the view that field studies in geography and other subjects (where field work was an important part) should be encouraged. It was also desired that a comprehensive note may be placed before the Commission at a later meeting.

Information in so far as they have a bearing on University Grants Commission's assistance has accordingly been collected regarding the field work which is being done in different faculties of Universities.

There are two centres of advanced studies in Geology - One at the University of Saugar and the other at Punjab University where field work is organised. Besides making provision for the payment of recurring and non-recurring grants to the centres, the Commission has also made the following provisions for meeting expenditure on field work such as T.A. and D.A. of students and staff.

77a

<u>Centres</u>	<u>Contingent grant</u>	<u>Travel grant</u>	<u>Other expenditure</u>
Punjab University Geology	Rs. 15,000/-	Rs. 10,000/-	Rs. 15,000/-
Saugar University Geology	Rs. 3,500/-	Rs. 20,000/-	Rs. 6,500/-

The contingent grant admissible to fellows/Scholars at these Centres could also be utilised by them for field work/travel in connection with approved projects. T.A. and D.A. are paid to the students and research staff undertaking field work by the Universities in accordance with the University rules.

Participants at the college level Summer Institutes in Biology are required to do some field work. Norms to be observed for incurring expenditure on the organisation of Summer Science Institutes for the year 1971 for college teachers are placed at Annexure II.

According to the information collected from Central Universities, the rules regarding T.A. and D.A. payable to students undertaking field work and other studies and the teachers accompanying them are as given below:-

Aligarh Muslim University

T.A. to students proceeding on approved Excursions.

Field work or any other Academic Activities.

Students proceeding on excursion/field work or any other academic activities approved by the University will be paid III class rail fare from Aligarh to destination and back. For journey by road they will get 0.19 paise per mile from the place of residence to the place of duty and back. Halting allowance admissible is Rs. 3.00 per day but it will be raised to Rs. 5.00 per day for visits to Delhi, Simla, Madras and Jammu and Kashmir, and to Rs. 6.00 per day for visits to Bombay and Calcutta.

T.A. to teachers accompanying students

A teacher going on tours with students shall be allowed railway fare which will be at concessional rate where such concession is permissible under the Railway Rules, of the class to which he may be entitled according to his grade.

Visva-Bharati

The students undertaking field work are granted first class Railway fare both ways or actual expenses incurred if the journey is performed by road and halting allowance @ Rs. 10/- per day for a period



7.6

not exceeding 10 weeks. As regards teachers, T.A. & D.A. are paid to them as per T.A. rules of the University prescribed for the members of the staff.

The Visva-Bharati has also framed special rules for village workers/Field-men which are as given below:-

Village workers of Talli Sangathan Vibhaga and other sponsored institutions and Fieldmen of Agro-Economic Research Centre, when they visit different villages on university business and if the distance exceeds five miles (8 kilometer) from the Headquarters shall be allowed mileage and daily allowance at the following rates:

Mileage Allowance:- Actual rail fare in the third class or actual bus fare whichever is less. If no public conveyance is available, actual rickshaw or cart-hire, provided such journey is performed with prior approval of the Controlling Officer.

Daily Allowance:- At Rs. 2/- (Rupees two only) per day when the halt exceeds 12 hours. When the continuous halt at any particular place exceeds 10 days, the payment of D.A. will be regulated under Rule 31 of T.A. and D.A. rules of the Visva-Bharati.

Rule 31 is reproduced below:-

Daily allowance for continuous halt exceeding 10 days. Daily allowance may not be drawn for a continuous halt of more than 10 days at any one place, provided that the Upacharya may grant general or individual exception from the operation of this rule on such conditions as he thinks fit, i.e. if he is satisfied that prolonged halts are necessary in the interest of the University.

Daily allowance under this rule shall be regulated as follows:-

- 1) At full rates for the first 10 days.
- 2) At 3/4th of the full rate for the next 20 days.
- 3) At 1/4th of the full rate thereafter; provided that the total number of days in any half year for which daily allowance is drawn does not exceed 90 days.

#### Banaras Hindu University

According to information furnished by Banaras Hindu University, only 3rd class Railway concessions are issued to students of the University for educational tours. Teachers accompanying such tours are paid T.A. and D.A. as per university rules.

The Commission has also been assisting universities for undertaking field studies in the subjects given below:-

(770)

1) In the year 1960 A report was submitted by the Expert Committee appointed by the Commission for the development of training facilities in Geology in Indian Universities which was considered by the Commission at its meeting held on 11th/12th February 1960. The Committee inter-alia recommended that for bringing improvement in the teaching personnel in Geology and applied Geology besides giving better salaries and providing other amenities to teachers, steps should be taken to arrange facilities for inservice training like holding field training camps with the cooperation of the Geological Survey of India and Indian Bureau of Mines.

The Expert Committee had further recommended in its report that the expenditure incurred on field Training should be treated as approved expenditure and this should include railway fare, transport charges of tents, camp furniture, rock specimens and wages of the staff engaged during the camp. The Commission accepted the recommendations of the Committee on the development of Applied Geology at its meeting on 11/12th February 1960.

Accordingly, the Commission was providing grants on a 50% basis subject to a maximum of Rs. 3,000/- p.a. to Andhra, Annamalai, Jadavpur, Karnatak, Nagpur, Osmania, Rajasthan, Roorkee and Saugar Universities for this purpose upto the end of Third Plan period. These grants are also being continued during the Fourth Plan as decided by the Commission at its meeting held on 3rd August 1966 (item 10).

ii) In pursuance of the recommendation made by the Panel of Scientists at its meeting held on 23rd and 24th September, 1968 at New Delhi, a sub-Committee of the Earth Sciences Panel was constituted to identify important areas in each Science which have an inter-disciplinary content including geology, geomorphology, geochemistry and geophysics and to indicate areas in which the students could profitably work for their Ph.D. degree so as to make a worthwhile contribution for location and development of the mineral and other natural resources in the country.

The Sub-committee met on 30th January 1969 and submitted its report (Annexure III) which was considered by the Commission at its meeting held on 2nd April 1969. The Commission generally accepted the report to identify important areas in the Earth Sciences which have an inter-disciplinary content for development of coordinated university research programmes and agreed that a beginning be made with the following scheme:

"An integrated scheme to study the Deccan Trap in the Malwa Region and to the north of the Narmada Valley."

A provision was made for 20 fellowships of the value of Rs. 300/- per month and a contingent grant of Rs. 1,500/-. It was noted that the expenditure on the scheme would be about Rs. one lakh per annum for a period of five years. In pursuance of this decision, fellowships have been allotted as follows under the above programme.

(77d)

Bombay University	3
Poona University	2
Vikram University	2
Saugar	3
B.H.U.	3
NGRL., Hyderabad	3
Reserve	<u>1</u>
Total	<u>20</u>

The Commission has also been assisting universities for educational tours of students under the following schemes:-

i) During the year 1962, the AICTE had recommended that every engineering student should go on educational tours not exceeding 4000 miles round trips during the course of his training for the first degree in Engineering. The Commission, had, therefore, agreed in the case of state Universities to treat the expenditure on the transport etc. (including that of the staff accompanying the students) as approved expenditure for the purposes of grant-in-aid on 50% sharing basis. In the case of Central Universities, the Commission was paying adequate grants to cover the additional expenditure, which the University had to incur over and above the sum spent by it on an average during the preceding three years from its block grant.

During the year 1963, the Commission had extended the concession of educational tours to the students studying for diploma course in Engineering subjects, and agreed to treat the expenditure on transport only as approved recurring expenditure for the purposes of payment of grant subject to the terms and conditions stipulated in the Annexure IV attached.

ii) Under the scheme of allocation of Unassigned grant, the Commission has been giving assistance for travel grant as given below:-

1) Travel grant to teachers/ Scholars/technicians for Visiting centres of research or to attend academic conferences/ seminars within India	T.A. & D.A. according to University rules  OR  First-class railway fare both ways or actual expenses incurred if the journey is performed by road and halting allowance at Rs. 15/- per day for a teacher and Rs. 10/- per day for others for a period not exceeding 10 weeks.
--	--

p.t.o.s

772

2. Travel grant to research scholars in connection with their work at other research centres. T.A./D.A. as above U.C contribution will be the actual expenditure

2ii) Under the scheme of visiting studentships, a ceiling grant of Rs. 5,000/- is admissible to each University during the year 1971-72 to enable its students to know the country by visiting other universities. The guidelines prescribed for this scheme is given in Annexure V<sub>2</sub>. Under this scheme the visiting students will be paid third class (sleeper) railway/bus fare for travel from the place of their duties to the place of visit and back. Incidental charges at the rate of Rs. 10/- each way and daily allowance of Rs. 10/- per day is admissible to the students. The students are however, expected to avail of the railway concession for the purpose.

The guidelines prescribed by Delhi University for payment of T.A. and D.A. to students of B.A. (Hons.) and B.A. (Pass) courses in for field work excursion are again placed before the Commission for consideration.

Geography

AS(CU)/FO.

'VK'

Annexure I to item No. 9.

Copy of the note placed before the Commission at its meeting held on 7th April 1971 vide item No. 18(ii).

The Commission at its meeting held on 7th October 1970 vide item No. 14 considered the proposal of Delhi University for treating the expenditure incurred on the excursions of students offering the Geography as a subject for undergraduate course as approved expenditure for purposes of maintenance grant to the colleges and agreed to assist universities as regards study tour/field work of Geography students, and desired that the guidelines for the same may be prepared and placed before the Commission.

The Delhi University has suggested the following guidelines for purposes of payment of TA/DA to students of the B.A. (Hons.)/B.A. (Pass) courses in Geography for Field Work/Excursions:

1. Rail Travel and travel by special bus in selected areas during the long excursion i.e. outside the home region - expenditure not exceeding Rs. 80/- per student. This will cover travel within a radius of three hundred miles from Delhi.
2. DA at the rate of Rs. 2/- per student per day subject to a maximum of Rs. 20/-.
3. Rs. 10/- per student for Excursion in the home region - where the Department has to engage special buses as the areas selected for study may not always be on the Bus routes or on rail routes.

As far as the teachers accompanying the students on field work/excursion are concerned, the University has intimated that, since they would be on duty, they would be paid TA/DA as admissible in accordance with the TA rules.

The matter is placed before the Commission for consideration.

Annexure II to item No. 9,

NORMS TO BE OBSERVED FOR THE OPERATION OF  
SUMMER SCIENCE INSTITUTES TO BE HELD DURING  
1971 FOR COLLEGE TEACHERS.

1. Board & Lodging  
Rs. 7/- per head per day for boarding only.  
  
Lodging has to be provided free of cost by the host institution.
2. T/ & Incidental Charges  
First and second class railway fare will be paid to the participants on production of cash receipts/ Ticket No. In other cases, third class fare by rail or other means of transport in vogue in the area and Rs. 10/- per participant for incidental expenses during each day.
3. Out-of-pocket allowance  
Rs. 2/- per participant per day.
4. Books  
Rs. 150/- per participant. and Rs. 1,000/- for Reference Library  
Only new institute staff and new staff members of 'old' institutes are entitled to books from the Institute funds. However, new books wherever used may also be given to the staff members.
5. Laboratory supplies  
Rs. 3,000/- for Biology, Chemistry and Physics Institutes (Item like Typewriter, duplicating machine, projector and airrah are not permissible)
6. Miscellaneous & Contingencies  
Rs. 1,000/- for stationery, postage etc.
7. Field Trips:\*A  
a) Rs. 500/- for Chemistry & Physics Institutes.  
b) Rs. 1,500/- for Biology Institutes.
8. Academic Staff:  
Not exceeding 7 members including the Director (who is the Chief among the academic staff) and consultants if any.  
  
Rs. 800/-                    Director  
Rs. 500/-                    Each Academic Staff, ,

It may be noted that consultants, wherever available for the institute, should fall within the permissible ceiling of 7.

9. Guest Lecturers: -Not exceeding Rs. 1,500/- for TA and DA (Hospitality) (Only in case of special institutes) of Guest Lecturers. As far as possible, they should be drawn from neighbouring areas except in very special cases.

Guest Lecturers are permitted only for special institute provided the lectures given by them are directly related to the instituted programme and in such areas where there are no experts on the staff of the host institute. The guest lectures may be considered as academic staff on a part-time basis and honoraria paid to them in proportion to their work out of the provision as in 8 above. For this purpose the institute can reduce the number of academic staff from 7 to 6 or 5 according to needs and thus release Rs. 500/- or Rs. 1,000/- as the case be out of the above Head for payment of honoraria to them in relation to their work.

10. Secretarial, Technical and Class IV and Medical Expenses: Rs. 1,500/- for Biology, Chemistry and Physics Institutes and Rs. 500/- for Mathematics Institutes.
- The number of staff under this category may be as follows:-

	<u>Biology, Physics and Chemistry Institutes</u>	<u>Mathematics Institutes</u>
--	--	-------------------------------

Demonstrators for Lab. Work	2 or 3	-
Lab. Attendants/Store Keeper/Field Collector/Mechanic/Glass Blower/Clerk-cum-Typist, Deon-Sweeper	7 or 8	3
Projectionist (Part-time)	1	

\*A Foot Note: Field trips wherever approved should contribute in a tangible way to the academic programme. A well-planned short trip to a nearby location may accomplish more than a long, tedious one. Regardless of the nature of the trip, its content must be well defined in advance, and there should be an effective follow-up. Prior to a field trip the members of the staff should prepare cyclostyled notes to direct the attention of the participants to specific features of the trip.

Annexure III to Item No.9

Minutes of the Proceedings of the Sub-Committee of the U.G.C. Earth Sciences Panel appointed to prepare a scheme for the employment of Earth Scientists in Integrated Studies of Selected Regions, held on 30.1.1969 at the U.G.C. New Delhi.

.....

Present: Dr. Hari Narain, National Geophysical Research Institute.

Prof. R.L.Singh, Banaras Hindu University.

Prof. R.C.Sinha, Patna University.

Prof. W.D.West, Saugar University (Convenor)

Dr. D.Shankar Narayan, Joint Secretary, U.G.C. was present by invitation during part of the meeting.

The Sub-Committee was appointed at a meeting of the U.G.C. Science Panels held on the 23rd and 24th September, 1968 to make recommendations with regard to the employment of students of the earth sciences to assist in the development of the natural resources of the country, and to indicate areas where integrated studies having an inter-disciplinary content, including Geology, Geography, Geomorphology, Geochemistry and Geophysics, could be undertaken, and in the course of which studies could work for their Ph.D. degrees.

It was decided to recommend that the following programme of integrated studies should be launched by the U.G.C.:

A. One Major Integrated Scheme

A five-year integrated study of the Deccan Trap in the Malwa region in and to the north of the Narmada valley, to be undertaken jointly by Bombay (3), Poona (2), Vikram (2), Saugar (5) and Banaras (4) Universities and by the National Geophysical Research Institute (3) a total of 19 fellowships, plus 1 extra in reserve - 20 Chief Coordinator - Prof. W.D.West.

To plan the working of the scheme, representatives of the six institutions should be invited to meet in Saugar in March 1969.



### B. 7 Minor Integrated Schemes

1. A study of the Mirzapur - Bhojnathpur area by Banaras University (5 geog., 3 geol., 3 geophys., 1 geochem.) total 12 fellowships.
2. A study of the pegmatites of Bihar by Patna University and the Indian School of Mines, Dhanbad (2 geol., 2 geophys., 2 geochem) Total 6 fellowships
3. A study of the Eastern Ghats by Andhra University (4 geol., 3 geog., 3 geophys., 2 geochem)- Total 12 fellowships
4. A study of part of the Cuddapah basin by Osmania University (4 geol., 3 geog., 3 geophys., 2 geochem.) Total 12 fellowships
5. A study of area of Dharwar, not so far investigated in detail by Karnatak and Mysore Universities - Total 6 fellowships
6. A study of the Santhal Parganas by Calcutta and Jadavpur Universities - Total 4 fellowships
7. A study of an area in the palamau district by Patna University (4 geol., 4 geochem., 2 geophys., 2 geog.) Total 12 fellowships

### C. Seven Individual Schemes

1. A study of the south side of the Assam plateau by Gauhati University (2 geol., 2 geog) Total 4 fellowships.
2. A study of the S.W. end of the Aravalli Range by Baroda University (2 geol., 2 geog) Total - 4 fellowships.
3. A programme of instrumental development by Roorkee University (2 geophys) Total 2 fellowships.
4. Two fellowships to each of the following universities to be used in schemes of their own selection. Lucknow, Jammu and Kashmir, Annamalai and Sri Venkateswara - Total 8 Fellowships.

It was recommended that the above number (102) of the U.G.C. Junior Fellowships be sanctioned by the U.G.C. and that after three years those fellows who had done meritorious work might be considered for promotion to senior research fellowships.

It was further recommended that the participating universities should select their research fellows after

(3)

advertising the posts, and that preference should be given to those awarded a first division in their postgraduate examination.

It was also recommended that in addition to the fellowships each fellow should be given a contingent grant of Rs.1,500 p.m. to cover approved field expenses. The purchase of camp equipment may also have to be sanctioned in some cases. It was recommended that the schemes should start functioning from the beginning of the 1969-70 academic session.

'VK'

Annexure IV to Item No.9

Conditions for admissibility of Education Tours  
by Diploma Students in Engineering subjects.

1. Expenditure on educational tours will be shared in the ratio of 50:50 between the Commission and the State University or State Government concerned but in the case of Central Universities the entire expenditure on transport will be borne by the Commission.
2. Educational tours should not exceed the distance of 4000 miles round trips during the educational/training period of a diploma student in Engineering subjects.
3. Education tours should be arranged within the country and the expenditure incurred on tours outside the country would be considered inadmissible.
4. Students should travel in parties, accompanied by at least one member of the teaching staff. For parties consisting more than 15 number of students there should be two members of the staff. Expenditure incurred on other than teaching staff, accompanying the party would be considered inadmissible.
5. Students should travel in Third class on the Indian Railways at student's concessional rates and in the lowest class on buses for places not connected with railways at concessional rates, if available.
6. In the interest of discipline, security of the students and to promote better understanding between the teachers and the students, the whole party should travel in the same class.
7. Expenditure on hiking, short sight seeing trips, boarding, lodging and other incidental charges as well as expenditure on contingencies would be inadmissible.
8. After the tour is over, the Head of the Institution concerned should submit a detailed report to the Commission indicating the places visited, the number of students and teachers forming the party and the total expenditure incurred on the tour.
9. An audit certificate to the effect that the grant paid was utilised for the purpose for which it was given and in fullfilment of the conditions attached thereto, should be furnished to the Commission at the end of the financial year.

Annexure V to Item No.9

Copy of letter No.F.1-1/69(G) dated July 1971  
from the Secretary, U.G.C. to Universities

.....

Subject: Scheme of Visiting Studentships for  
1971-72.

The Commission introduced the scheme of visiting studentships in 1969-70 under which a ceiling grant of Rs.5,000 was made available to each University to enable its students to know the country by visiting other universities. The Commission has agreed to continue the scheme. The guide-lines of the scheme are indicated below:

1. Generally, the students under the programme may visit places/universities in another State.
2. Not more than two places may be covered under the programme so that the visiting students may come in close contact with the students and teachers and the community of the host university and have intimate knowledge about the developments-academic, cultural or industrial, around the place of their visit. The two places to be visited need not be far away from each other so that the time of contact/visit is spent meaningfully.
3. It was considered necessary that a teacher/ teachers accompany the students and his expenses on travel etc., be met out of the UGC grant under the scheme (according to the rules).
4. The programme is best organised with a cultural object than with an academic aim. The duration of the visit could be about two weeks and the visiting students should be paid-guests of students and teachers in the host institution. The visiting students could be provided with board and lodging in the students' hostel on payment to enable them to live with the students of the host university and to share their way of living and to know them intimately.
5. The host university should be involved in the organisation of the programme and to arrange lectures, discussions and visits to places of academic, cultural and other interest.
6. The sponsoring university should make arrangements pertaining to board, lodging, programme etc. in consultation with the host university. The programme is expected to include visit to the neighbouring rural and industrial areas to enable

a.t.o

the visiting students to know about their way of life, their aspirations and the culture. It would be of benefit and value if the visiting students with their teachers, before the conclusion of the visit, meet the students/teachers of the host institution in a group discussion or seminar of 2 days to share each others' experience arising out of the visit.

7. The selection of the students, the choice of the host university/ the places to be visited and the time of the visit should be left to the discretion of the sponsoring and the concerned host university.
8. Visit to places like Ladakh may not be feasible due to travel difficulties and the expenditure involved.
9. At the conclusion of the visit, each sponsoring university should submit a brief report (as prepared by the teacher and the visiting students) to the U.G.C. indicating the impact of the visit on the students and their suggestions for further improvement in the implementation of the programme.
10. The maximum number of students which will participate in the scheme is limited to 50 and the Commission's contribution in any case shall not exceed Rs.5,000/- per annum.
11. The duration of the programme will be about two weeks.
12. The visiting students will be paid third class (Sleeper) railway/bus fare for travel from place of their study to the place of visit and back. Incidental charges at the rate of Rs.10/- each way and daily allowance of Rs.10 per day will be paid to the students. The students should avail of the railway concession for the purpose.

It is requested that specific proposals in this connection may kindly be sent to the Commission, alongwith the consent of the host university, latest by 31st August 1971 in the light of guide-lines indicated above for the consideration of the Commission.

The receipt of this letter may please be acknowledged.

Confidential

78

UNIVERSITY GRANTS COMMISSION

Meeting :  
Dated : 1st December 1971.

Item No. 10 : To consider further the reference from the Ministry of Education and Social Welfare relating to setting up of a special Institute or a separate University for foreign students.

The University Grants Commission at its meeting held on 4th August 1971 received a reference from the Ministry of Education and Social Welfare relating to the setting up of a special Institute or a separate University for foreign students. A copy of the note placed before the Commission is attached (Annexure I). The Commission desired that this may be discussed with the Ministry/ICCR.

The matter was accordingly discussed in a meeting held in the Ministry of Education and Social Welfare on 14th October 1971. A copy of the minutes is attached (Annexure II).

The Committee was not in favour for setting up either a University or an engineering college for foreign students. The provision of seats in medical colleges could be mutually settled between the Ministry of External Affairs and the Ministry of Health.

The matter is reported to Commission.

10(CD).

Annexure I to item No. 10.

Copy of the note placed before the Commission  
at its meeting held on 4th August 1971 vide  
item No. 48.

79

The University Grants Commission at its meeting held on 3rd February 1971 had considered a reference from the Ministry of Education and Social Welfare regarding the setting up of a special institute or a separate university for foreign students. The Commission expressed the view that setting up of a separate institute/university for foreign students was not desirable both academically and culturally. The Commission desired that the question of improving facilities for foreign students may be discussed with the Indian Council for Cultural Relations, in the first instance.

The matter was discussed by the Secretary, UGC with the Secretary, ICCR. The latter pointed out that the main facility which the foreign students desire apart from adequate hostels is provision of food to suit their normal habits. He suggested that instead of foreign students being distributed all over the country it would perhaps be desirable if a few universities could be selected in different parts of the country where they could be placed for their studies. The universities suggested were Aligarh, Banaras, Delhi, Bombay, Calcutta, Madras, Poona, Bangalore, Karnatak and Panjab. He further suggested that in view of the large number of foreign students coming to India, it would be desirable that sufficient hostel accommodation is provided by the Universities for them so that they are not forced to stay in unhealthy places. He agreed that it would be a distinct advantage if the Indian and foreign students could live in the same hostel, but stressed that while doing so, provision should be made for the particular type of food the foreign students would like to have in such hostels.

The matter is reported to the Commission. The Ministry of Education and Social Welfare have also been apprised of the position.

Copy of the minutes of the Committee held on 14th October 1971 in the Ministry of Education and Social Welfare.

An inter-departmental meeting was held at 3 PM on October 14, 1971 to consider the proposals received from the Ministry of External Affairs, for the establishment in India of (i) a university, substantially if not exclusively, for the foreign students and (ii) and engineering college and a medical college for foreign students. The following were present:-

Ministry of Education & S.W.

1. Dr. S.M.S. Chari, Joint Educational Adviser.
2. Shri H.D. Gulati, Assistant Educational Adviser.

UNIVERSITY GRANTS COMMISSION

3. Shri R.K. Chhabra, Secretary

Ministry of External Affairs.

4. Smt. Rukmini Menon, Joint Secretary
5. Shri V.P. Singh, Deputy Secretary.
6. Shri Nikhilesh Prasad, Under Secretary.

Ministry of Health & Family Planning

7. Shri M.C. Mesra, Director

Sarvashri Biman Sen, (Ministry of Education) and Inam Rahman (ICCR) were unable to attend the meeting.

2. Initiating the discussion, Dr. Chari explained that the proposed university could, under the circumstances, only be a central University. Since the Ministry of Education and Social Welfare was, as a matter of policy, against establishing any more central universities for the present, the question of setting up of a central university substantially, if not exclusively, for foreign students did not arise. As for the Engineering College, the existing institutions had sufficient intake capacity to admit even foreign students. Further establishment of separate professional colleges for foreign students would not be a healthy proposal academically as it would lead to isolation of foreign students from their Indian counter-parts.



3. Smt. Menon pointed out that the Ministry of External Affairs had received requests for arranging admission in medical and engineering courses for a number of self-financing foreign students. These requests were mostly from such countries as did not have adequate facilities for such courses and were unwilling to send their students to USA and such other countries where cost of education was beyond the students' reach. She quoted, as an instance, the immediate demand for provision of 10 seats in medical colleges (including two in dental colleges) for students from Tobago and Trinidad. Experience had shown that it was difficult to accommodate such demands in the existing institutions. It was, therefore, necessary to establish separate colleges which could reserve about 75% seats for self-financing foreign students and throw the remaining seats open to Indian students. Such an institution would be in the nature of a joint venture where foreign countries would meet the cost in proportion to the seats required by them. Smt. Menon emphasised that the Ministry of External Affairs attached considerable importance to this matter in the interest of better inter-cultural contacts.

4. Shri Mishra stated that the Government of India had reserved a certain number of seats in the medical colleges for allotment to foreign students, students from Union Territories, children of Armed Forces personnel, etc. But the state Governments were opposed to such reservation as this resulted in the local students with better marks being left out. They were of the view that the Government of India should pay for the seats they required since the entire expenditure on the medical colleges providing undergraduate courses was met by the State Governments. He therefore suggested that if the Ministry of External Affairs desired certain seats to be reserved for foreign students they will have to pay the cost thereof. That may it should not be difficult to provide the required number of seats for foreign students. At the same time Shri Misra was opposed to the idea of having a separate medical college for foreign students, even partially.

t.

5. Shri Chhabra was not in favour of the proposal on academic grounds. He pointed out that the foreign student would not be able to communicate with the patients, mostly Indians, on account of the language difficulty. As a result, both the students and the patients would stand to suffer. Shri Chhabra suggested that additional seats could be provided in the medical colleges attached to central universities, at the cost of the Ministry of External Affairs. This would enable the foreign students to live and mix with their Indian counter-parts.

6. Smt. Memon favoured the concentration of foreign students at Delhi not only because the student did not want to move to outside places but also because this arrangement would enable the Ministry of External Affairs to keep a close eye on them.

7. As to the cost of providing additional seats Shri Misra stated that, based on the norm of 7 hospital beds per admission, the cost . . .

82

would vary from Rs. 20,000/- to Rs. 25,000/- (roughly) per student per annum. This included about Rs. 8,000/- towards the recurring expenses and the balance for non-recurring items such as laboratory equipment, hospital equipment, staff, etc.

8. After further discussion it was agreed that Shri Misra would send to the Ministry of External Affairs a complete list of medical colleges in India and also suggest names of suitable institutions which could provide adequate facilities in the form of hostel accommodation, etc. and where additional seats for foreign students could be created. Shri Misra also agreed to make arrangements, as far as possible, for the immediate admission of 10 students from Tobago and Trinidad.

9. Summing up, Dr. Chari said that while there was no necessity for setting up either a university or an engineering college for foreign students, the provision of seats in medical colleges could be mutually settled between the Ministry of External Affairs and the Ministry of Health.

10. The meeting ended with a vote of thanks to the Chairman.

Confidential

UNIVERSITY GRANTS COMMISSION

(83)

Meeting :

Dated : 1st December 1971.

- Item No. 11 : To consider a reference from the Government of India, Ministry of Education and Social Welfare relating to cooperation between Oberlin College, USA and Indian Universities. (Ref. U.O. No. 18-2/71 RHEI)

The University Grants Commission at its meeting held on 5th May 1971 had considered a reference from Madurai University for approval of the UGC and the Government of India to the programme of assistance proposed by Oberlin College, Ohio, USA. A copy of the note placed before the Commission is attached (Annexure). The Commission while welcoming the intent of the Oberlin College to assist the Madurai University felt that it would find it difficult to recommend in its present form the Oberlin-Shansi Programme as it was not in line with the general guidelines relating to foreign assistance for educational purposes.

The University Grants Commission at its meeting held on 3rd March 1971 had agreed with the following guidelines for processing proposals for cases of assistance by foreign foundations/agencies to universities and colleges in India:-

"Foreign Foundation of Agencies which wish to give financial assistance to Universities/Colleges, may indicate their areas of interest, the amount of assistance and the period for which it would be available, and other relevant information. They may indicate their preference as regards institutions to which assistance is to be given by them. The UGC would prepare an overall plan for utilisation of the proposed assistance in consultation with representatives of the Foundation offering assistance. The plan would be submitted to the Government of India for clearance. Foreign assistance to institutions should be for specified purpose and period. The selection of institutions to be assisted would be made by the Commission keeping in view the preferences, if any, indicated by the Foundation/Agency.

- (a) The foreign assistance to University/Colleges would ordinarily be used for books and journals, and for equipment not available indigenously.
- (b) Foreign assistance should ordinarily not be used for appointment of staff, award of scholarships, and for construction of buildings.
- (c) Proposals for visits abroad or inviting persons from abroad, as also the need for such visits, should be clearly indicated in the proposed plan for assistance."

The Government of India, accordingly, addressed the President, Oberlin College, Oberlin, Ohio, U.S.A. It has been suggested by the College that they are interested in establishing a programme of educational exchange with an Indian University. An extract from the letter dated 20th July 1971 received from the President, Oberlin College, Oberlin is reproduced below:-

"1. Oberlin College and the Oberlin Shansi Memorial Association are interested in establishing a program of educational exchange with an Indian University. The resources which we have to offer and which we hope to receive are primarily junior and senior staff. We are prepared also to make available some funds for such things as books, journals, and equipment not available in India. All together the cost of such a program will be in the vicinity of \$40,000 per year and will be borne by Oberlin College and the Oberlin Shansi Memorial Association. We will be pleased to receive recommendations from the University Grants Commission.

2. Our proposal is that the program of exchange and mutual assistance should continue for a period of five years and that it should then be reconsidered by the institutions and the Government of India to determine whether the program should be terminated, modified, or whether it should be transferred to another Indian University.

3. In view of Oberlin's experience and contacts in Madurai, our preference is for a program in conjunction with Madurai University. We would, however, be glad to consider another university suggested by the University Grants Commission."

The College has not given any indication of the items on which the allocation of \$40,000 per year would be utilised. The Government of India, Ministry of Education and Social Welfare have been requested to find out from the Oberlin College whether they

85

have decided any basis for apportioning the available funds per year to exchange of teachers, books, journals and equipment or it would be left to the discretion of the receiving University.

The matter is placed before the Commission for consideration.

EO(CD)

'VK'

Copy of the note placed before the Commission at its meeting held on 5th May 1971 vide item No. 20.

The Madurai University had approached the Commission for the approval of the UGC and the Government of India to the Oberlin Shansi Programme being implemented by the Oberlin College, Ohio, USA with the cooperation of the American College and the Lady Doak College, Madurai since 1951. Under this programme, it had been stated, two young graduates of the Oberlin College came and stayed in the two colleges in Madurai for a period of two years and participated in a programme of special educational and co-curricular activities. In recent years, they had been helping by developing useful methods and materials for teaching the English Language to the students in these two colleges. The Oberlin Shansi Association had been extending financial assistance to the two colleges towards the expenditure for which the UGC and the State aid are not adequate for improving the facilities available to the students and staff of the colleges. The University further pointed out that apart from creating understanding and goodwill between India and U.S.A., the programme was of immense benefit to the students of the colleges, especially in learning English.

On a reference to the University, it had been intimated that the Oberlin Shansi Programme had been in operation since 1951 i.e. long before the Central Government permission was required and hence no formal permission had been obtained. The Ministry of Education used to call for details of this programme from time to time when visa applications were made for U.S. representatives to come to India under this programme and full information was supplied each time. The Central Government was aware of this programme and had been granting visas to the US representatives to come to India and Indian representatives to go to U.S.A. The details of the assistance so far given to the American College and the Lady Doak College, Madurai, under this programme, the projects for which the assistance was given, and the nature of the programme, its scope and mutual benefits to the participants accruing from the programme, as intimated to the University by the two colleges, are indicated in the statements attached (Appendices I to V).

The matter was considered by the University Grants Commission at its meeting held on 2nd September 1970. The Commission agreed that this may be discussed with the Ministry of Education and Youth Services.

The UGC again considered the question of laying down guidelines for assistance from foreign foundations and organisations to universities and colleges in India in the light of the discussion with the Ministry of Education & Youth Services at its meeting held on 3.3.71. The Commission generally agreed with the following guidelines for processing proposals for cases of assistance by foreign foundations and agencies to universities and colleges:-

\*Foreign foundations or agencies which wish to give financial assistance to universities/colleges may indicate their areas of interest, the amount of assistance and the period for which it would be available and other relevant information. They may indicate their reference as regards institutions to which assistance is to be given by them. The UGC would prepare an overall plan for utilisation of the proposed assistance in consultation with the representatives of the Foundation offering assistance. The plan would be submitted to the Government of India for clearance. Foreign assistance to institutions should be for specified purpose and period. The selection of institutions to be assisted would be made by the Commission keeping in view the preferences, if any, indicated by the Foundation/Agency.

- a) The foreign assistance to universities/colleges would ordinarily be used for books and journals<sup>22</sup> and for equipment not available indigenously.
- b) Foreign assistance should ordinarily not be used for appointment of staff, award of scholarships<sup>22</sup> and for construction of buildings.
- c) Proposals for visits abroad or inviting persons from abroad, as also the need for such visits<sup>2</sup>, should be clearly indicated in the proposed plan for assistance.<sup>4</sup>

The President, Oberlin College, Ohio, who is a Trustee of the Oberlin Shanti Memorial Association, has now proposed a programme of cooperation between the Oberlin College and the Madurai University. The earlier programme of cooperation was between the Oberlin College and the two affiliated colleges of Madurai University (American College and Lady Doak College, Madurai). The programme would now cover all the affiliated colleges of Madras University. A copy of the letter received from the President, Oberlin College, Ohio is attached (Appendix VI). The details of the proposed programme are indicated in the Appendix to the letter from the President, Oberlin College. A copy of this letter is stated to have been sent to the Vice-Chancellor, Madurai University, also. The programme is proposed to be implemented for a period

of five years in the first instance. Thereafter, it would be reviewed by the participating institutions and the Government of India. There is no indication in the letter whether a copy of the letter has also been sent to the Government of India.

The matter is placed before the Commission for consideration.

'VK'



Financial assistance given by the Oberlin Shansi Association to the American College, Madurai, and the projects for which such assistance was given, since the establishment of the programme in 1952--

- 1. Rs. 22,275/- Received in 1960 towards furnishing the College Auditorium.
- 2. Rs. 19,262/- In 1961, towards the construction of a high voltage transformer.
- 3. Rs. 32,468/- In 1962, towards the purchase of a motor van for the College use (student excursions etc.)
- 4. Rs. 1,74,630/- During 1963-67 towards the Postgraduate development in Chemistry, Zoology and Physics (Capital expenditure)
- 5. Rs. 28,261/- In 1968 towards equipment for Postgraduate Departments.
- 6. Rs. 9,989/- In 1969, towards Postgraduate equipment.

In addition to the above, two further grants have been promised.

\$ 4000 p.a. for a period of 5 years from 1970, towards payment of professional salaries to faculty members with Ph.D. qualifications, so that we may be able to retain them in service in this college, against competition from other Institutes.

\$ 1200 p.a. for three years from 1970, in order to enable one senior member of staff to go on a year's leave with full salary, for the purpose of undergoing a Refresher course or Retraining Programme for a year in his own field of study.

The last two items are intended to help us to upgrade our faculty in order to maintain quality and excellence in our work. They are given for limited periods, the intention being that we would develop our own resources within that period so as to carry on the load by ourselves thereafter.

'Vg'

THE EDUCATIONAL AND CULTURAL EXCHANGE PROGRAMME OF  
THE OBERLIN SHANSI MEMORIAL ASSOCIATION IN MADURAI

---

The educational and cultural exchange programme between the Oberlin Shansi Memorial Association of Oberlin College, U.S.A., and the American College and Lady Doak College of Madurai has been in existence for almost 20 years. The programme was started in 1961 when the first representatives from Oberlin came to Madurai. Later the programme was broadened to allow members of the faculties of the two colleges in Madurai to send their representatives to Oberlin. Now the Oberlin College graduates come to Madurai every year, to stay for two or three years, and one or two representatives from Madurai go to Oberlin every year.

The programme envisaged in this exchange is one of cultural cooperation in the field of education. It is purely non-religious. In selecting candidates as Oberlin Representatives to Madurai or Indian Faculty Fellows to Oberlin, no questions are asked regarding their personal faith.

CULTURAL ACTIVITIES

The Oberlin Representatives who come to Madurai are encouraged to study Tamil and perhaps some other aspect of South Indian culture. Different representatives have taken up Carnatic music, architecture, Tamil literature, Indian philosophy and religion, dance, or the life and culture of the area in general. They are encouraged to share their own cultural heritage also through the exchange of ideas and experience. Projects like research seminars, group discussions, book reviews, play production, and group singing are some of the activities which the Oberlin programme has promoted among students and staff at the two colleges. Similarly, the faculty members from Madurai who go to Oberlin may undertake further higher studies but are also expected to share their Tamil culture. Some have taught Tamil, or music or have participated in discussions and seminars, or have taken part in dramas.

EDUCATIONAL ACTIVITIES

The Madurai faculty members at Oberlin generally take courses of study in their own fields, though some have also taught classes of undergraduate students. Some have continued their higher studies at other American Universities and have taken advanced degrees. The Oberlin Representatives in Madurai have spent part of their time in teaching extra-syllabus remedial English language classes at both

(92)

colleges. The Director of the programme in Madurai has had special training in Teaching English as a Second Language and has supervised the Representatives' Work. The Director and the Representatives have also assisted with other classes according to their training and ability. The Oberlin Shansi Memorial Association in Oberlin has assisted both the colleges in several special projects to improve educational or academic standards and physical facilities.

#### LONGER RANGE EFFECTS OF THE PROGRAMME

All the Oberlin Representatives who have come to Madurai have been profoundly influenced by their experience. Many have returned to the U.S. to pursue higher studies related to India and particularly South India. The attached list shows what some of the Representatives have done after leaving India. It should be noticed that several have gone into university teaching where their influence in promoting an interest in India among their student is multiplied. And a good number of Oberlin Students who could not come to Madurai have still been influenced to go into Indian studies by their association with the Oberlin Shansi programme in Oberlin. The Civilisation of India syllabus, drawn up by two representatives, Joseph Elder and Willard Johnson, is widely used in many American universities and even some high schools.

Assumed  
responsible  
position  
in the two  
colleges and have

Almost all the Indian Faculty Fellows have returned to the two colleges to teach, though some have gone on to other Indian Colleges. A few are still in the United States continuing their studies. Those who have returned have enriched the colleges by their broadened experience. The attached list shows what some of the Faculty Fellows have done since returning from the United States.

List No. 1 FORMER REPRESENTATIVES TO INDIA.

<u>Representatives</u>	<u>Year in Madurai</u>	<u>Present Occupation</u>
Dr. Joseph Elder	1951-53	Professor of Sociology, University of Wisconsin, Director of Wisconsin Year in India Programme, Madison, Wisconsin. Director of Wisconsin South Asia Studies Programme Co-author of widely used Civilt. Structure of India Syllabus.
Mr. Richard Dudley	1951-54	Professor of Political Science at Women College, California-Presently Coordinator of Wisconsin Year in India - Programme Delhi
Mr. David Gallup	1952-55	Chaplain, American College
Mr. Charles A. Ryerson	1955-58	Candidate for Ph.D. degree Columbia University (Indian Philosophy & Religion). Occasional participant in India bound Peace Corps orientation programmes and frequent lecturer on Indian subjects, particularly Tamil Nadu
Mr. Charles G. Gosselink	1957-59	Director, Oberlin Shansi Programme, Madurai
Mr. David Lockwood	1958-60	Former Research Assistant U.S. Library of Congress candidate for Ph.D. degree, Instt. of International Affairs, Washington, D.C. Indian Govt. & Politics. Science)
Mr. Dennis Hudson	1961-63	Candidate for Ph.D. degree presently at Harvard University (Indian Religion and Philosophy).

(94)

Mr. Willard Johnson	1961-63	Candidate for Ph.D. degree University of Wisconsin (Indian Philosophy)
Mr. James Lindholm	1962-65	Candidate for Ph.D. degree University of Chicago Linguistics, with concentration Dravidian languages & Tamil) Presently coordinate of Great Lakes College Assn. Tamil study programme at Madurai University.
Miss Margaret Rhile	1963-65	Candidate for Ph.D. degree University of Wisconsin (Indian Sociology)
Mr. & Mrs. Robert Kidder	1964-68	Candidates for Ph.D. degree University of Wisconsin (Indian Sociology)
Mr. Franklin Presler	1965-67	Candidate for Ph.D. degree University of Chicago (Indian Political Science).

List No. 2 Former Madurai Faculty Fellows to Oberlin.

<u>Faculty Fellow</u>	<u>Year in Oberlin</u>	<u>Present Occupation</u>
Miss Mary Koilpillai	1959-60	On return taught at Lady Doak College before returning abroad for further study. Presently back in India waiting for appointment to College faculty position.
Mr. A.J. Harris	1960-61	Professor of Physics, Undergraduate Department of Physics, American College.
Miss Ida Doraisamy	1961-62	Vice-Principal and Professor of Mathematics Department, Lady Doak College.
Mr. J.C.B. Abraham	1962-63	Professor of Zoology, Undergraduate Department of Zoology, American College, Ph.D. candidate, Madurai University.
Dr. A.R. Venkataraman	1963-64	Professor of Chemistry, Postgraduate Department of Chemistry, American College.
Mr. J.D. Samuel	1965-66	Professor of Mathematics, Bishop Heber College, Trichy
Miss Indrani Michael	1966-67	Dean of students and Lecturer in Botany, Lady Doak College.
Mr. R.P. Nair	1967-68	Lecturer in English, American College.
Miss Ramani Solomon	1968-69	Lecturer in English, Lady Doak College.
Mr. D.P. Jeyapandian	1969-70	Lecturer in Physics, American College, (returning in 1971).
Miss. T.M. Lakshmi	1970-71	Professor of Botany, Lady Doak College, (Returning after study period)

Copy of letter dated 31st March 1971 received  
from the President, Oberlin College, Ohio.

---

Since our conversations in New Delhi at the end of December, I have been discussing with the Trustees of the Oberlin Shansi Memorial Association ways in which a program of cooperation might be implemented between Oberlin College and an Indian university. In these discussions the suggestions which you made to me have been invaluable.

The upshot is that the Oberlin Shansi Memorial Association has now approved a proposal for a program of cooperation between Oberlin College and Madurai University. While we would, of course, consider the possibility of working in another university in another part of India, there are important reasons why we would like during the next two years to work with Madurai University. We have years of experience there to build on, we have many friends there, and we think that these considerations are of great importance as we contemplate shifting our program from two particular colleges to the University itself and other colleges associated with it. I should note that I am also sending a copy of our proposal to the Vice-Chancellor of Madurai University, Dr. M. Varadarajan (Enclosure).

If these proposals, as revised to accommodate the views of Indian officials and Madurai University, should be approved, they will be implemented through the Oberlin Shansi Memorial Association which is legally separate from Oberlin College, yet for all practical purposes is an integral part of the total Oberlin community. I am a Trustee of that Association, and a majority of the other Trustees are officers and faculty members of Oberlin College.

The Chairman of the Board of Trustees of the Oberlin Shansi Memorial Association is Professor Clyde Holbrook of Oberlin College, and correspondence concerning the proposal should be addressed to him.

You may be sure that as President of Oberlin College and a Trustee of the Oberlin Shansi Memorial Association, I will take a keen interest in the further development of these proposals, and that I will be actively involved in the relationship between Oberlin College and India.

We hope very much that this proposal or a proposal incorporating new ideas from the Indian end will be accepted and approved so that we may look forward to many more fruitful years of collaboration with Indian educators.

Finally I would like to express my personal gratitude for your very great kindness to me when I was in India and for your interest in this project.

'VK'

PROPOSAL FOR A PROGRAM OF COOPERATION BETWEEN OBERLIN  
COLLEGE AND MADURAI UNIVERSITY AND ITS AFFILIATED COLLEGES  
UNDER THE AUSPICES OF THE OBERLIN SHANSI MEMORIAL ASSOCIATION

BACKGROUND : THE HISTORY OF THE MADURAI-OBERLIN RELATIONSHIP

Oberlin College and the Oberlin Shansi Memorial Association are very fortunate to have had an educational relationship with India for the past twenty years. This association began in 1951, when three young A.B.'s from Oberlin were sent to Madurai, with modest funding from the Oberlin Shansi Memorial Association, to assist in English language teaching in two secondary schools. Two more followed in 1952. By 1955 the teaching had shifted from the secondary to the college level at American and Lady Doak Colleges, where the Oberlin representatives assisted in the departments of English.

In 1958, American and Lady Doak Colleges made a formal proposal to Oberlin College and the Oberlin Shansi Memorial Association. Under this proposal, Oberlin A.B.'s continued to assist the colleges in teaching a supplementary program of English, both language and literature, under the supervision of a mature scholar, either Indian or American. Secondly, a cultural exchange program was developed to enrich the knowledge and experience of the students and staff of the participating colleges. The next year, a member of the Lady Doak faculty was invited to Oberlin for a year of study. Each year since then a member of the faculty of Lady Doak or American College has come to Oberlin, returning to Madurai at the end of the year or upon completion of his course of study.

This program has been mutually rewarding to all three institutions, both in its academic aspects and through the personal involvement and relationships which it has made possible. The Indian faculty members have returned to their teaching positions professionally enriched. The young Oberlin graduates have taken advantage of their two to three years in Madurai by immersing themselves in the study of Indian religions, language and culture, and they have returned to Oberlin to share what they have learned with the college community.

With the gradual adoption of English language syllabi by Madurai University, however, there appears to be somewhat less need for the kind of supplemental English language assistance which the Oberlin graduates have been providing. It therefore seems appropriate at this time to bring Oberlin's present program to an end and to seek guidance from authorities in India as to alternative areas in which cultural exchange might be fostered.



(98)

With this in mind, Dr. Robert Fuller, President of Oberlin College, travelled to India in December of 1970, on behalf of the Oberlin Shansi Memorial Association, to confer with officials of the Ministry of Education and Youth Services and the University Grants Commission, in order to determine what kinds of educational exchange might be mutually beneficial. He returned convinced that because of the long and mutually rewarding experience which Oberlin and the colleges of Madurai have enjoyed, it would be most appropriate to continue some sort of association, at least for the time being. At the same time, it seemed clear that since through an historical accident Oberlin has been limited in its contacts with Madurai University to American and Lady Doak Colleges, a future Oberlin program should allow room for broadening the exchange to include other colleges within the University.

Accordingly, the officers of Oberlin College have requested the Oberlin Shansi Memorial Association to devise, present, and implement the proposal that follows.

**PURPOSE OF THE PROPOSAL:** The general purpose of the program here proposed is to further the educational objectives of both participating institutions through a reciprocal exchange of persons at the faculty and student levels. The program is designed not as a foreign assistance plan but as a true educational exchange, based on the knowledge that Madurai University and Oberlin College have much to learn from each other and that each can contribute to meeting the other's needs.

**OUTLINE OF THE PROGRAM :** The program will consist primarily of an exchange of persons at two levels. First, there will be an exchange of academically qualified and experienced teachers who will be able to contribute to the specific needs of the host institutions. The main goal of this part of the program will be the mutual benefit of the participating institutions. Second, there will be an exchange of recent graduates or younger faculty members, who will continue their studies at the host institutions. The main goals of this part of the program will be the educational experience of the participants and the enrichment of the cultural life of the host institution.

The graduates and faculty of Oberlin College and of Madurai University and of its affiliated colleges will be eligible to participate in the program. Care will be taken to ensure that the exchange is as even and reciprocal as possible, given the availability of funds and qualified people for the two different levels of exchange.

#### **PART I: EXCHANGE OF QUALIFIED AND EXPERIENCED TEACHERS**

A. On the advice and request of Madurai University, Oberlin College will attempt to recruit faculty members who can make a needed contribution in Madurai. It is expected that Madurai University's request will be primarily for qualified teachers in the fields of science and mathematics, but not limited to those fields.

American professors will reside in Madurai for periods of up to one year. Final selection and approval of candidates will rest with Madurai University.

B. On the advice and request of Oberlin College, Madurai University will attempt to recruit faculty members from its affiliated colleges who can contribute to Oberlin's academic needs. It is expected that Oberlin will ask especially for faculty qualified in Indian music, dance, language, literature, history, economics, philosophy, and religion to supplement the colleges offerings in Asian studies. Indian professors will reside in Oberlin for periods of upto one year. Final selection and approval of the candidates will rest with Oberlin College.

PART II: EXCHANGE OF GRADUATES OR YOUNG LECTURERS

A. Oberlin Shansi Memorial Association may recommend recent A.B.'s for two-year fellowships at Madurai University, where they will, if accepted, be enrolled as casual students. On the one hand, they will concentrate on language study and their own particular field of interest, under the direction of an advisor assigned by the University; on the other, they will be given some practical experience as intern tutors or demonstrators, working in one of the affiliated colleges under an Indian faculty member. In no case, however, will the Oberlin fellow be given a position which would otherwise be filled by an Indian tutor or demonstrator.

Candidates must meet the established admission standards of Madurai University, which will have the right of final selection. Madurai University will make all arrangements for the students' study and internship program and, at the end of his two-year term, will provide a written evaluation of his achievement which may be used in applying for further study in the United States. He may then return to Oberlin for an additional year of study.

B. Young Lecturers in Madurai University may apply for positions as graduate assistants in those departments at Oberlin College which offer the M.A., or as special graduate students in the college. Those accepted as graduate assistants will be enrolled in a two-year program leading to an M.A. degree. Special graduate students will be admitted for one year on a non-degree basis.

Candidates must meet the established admission standards of Oberlin College. Oberlin College will make all arrangements for the student's program of study and will provide a written evaluation of his achievement at the end of his term of study. It is expected that he will return to a teaching position at Madurai University or its affiliated colleges after his study in the United States.

(100)

**FUNDING:** The travel expenses and stipends for all persons participating in both parts of the exchange program will be borne by Oberlin College and Oberlin Shansi Memorial Association.

**OTHER ASSISTANCE:** From time to time, depending on the availability of funds, the Oberlin Shansi Memorial Association may be able to consider special requests from Madurai University and its affiliated colleges for books and equipment not available in India. Any assistance given in response to these requests will be cleared through the regular channels established by the Government of India.

**COORDINATION:** In order to supervise the day to day operations of the exchange program, help in the selection of participants, and act as a liaison between Madurai University and Oberlin College, a Program Coordinator will be appointed by the Oberlin Shansi Memorial Association with the advice and approval of Madurai University and Oberlin College.

**DURATION:** It is hoped that the program will be approved by the Government of India for an initial period of five years. At the end of that period, the program will be reviewed by the participating institutions and the Government of India. The program may then be renewed in Madurai or revised to meet changed needs and objectives.

Confidential

UNIVERSITY GRANTS COMMISSION

(101)

Meeting :  
Dated : 1st December 1971.

Item No. 12 : To receive a report regarding the engagement of Shri R.M. Mehta, Central Government Counsel to pursue the case in the High Court of Delhi in Criminal Appeal Nos. 103 & 104 of 1971 filed by the Accused Directors of the Commercial University Limited, Delhi,

The Commission at its meeting held on the 3rd and 4th December 1958 (Item No. 7) noted the steps taken by the UGC in consultation with the Law Ministry and the Public Prosecutor to file complaint in the competent court against the Commercial University Limited, Delhi which had violated Section 23 of the UGC Act. The Commission also noted that the Chairman had authorised the then Administrative Officer to file complaints in the court on behalf of the Commission and also to appear there, if necessary.

In April and May 1971 the Additional Sessions Judge, Delhi pronounced two judgments convicting three directors of the Commercial University Limited under section 24 of the UGC Act for contravening the provision of Section 23 of the said Act and sentenced them to pay the fines or in default, undergo simple imprisonment varying from one to two months. The accused have now filed appeals in the High Court of Delhi against the above judgments of the Additional Sessions Judge, Delhi which have been registered as Criminal Appeals No. 103 and 104 of 1971. In order to pursue the case in the Delhi High Court, the UGC in consultation with the Ministry of Law has engaged Shri R.M. Mehta who is the Central Government Counsel for litigation work in the High Court of Delhi as its Counsel in the above Criminal Appeals.

The Chairman has authorised the Secretary, UGC to sign the 'Vakalatnama' on behalf of the Commission which was to be given to Shri Mehta.

Shri R.M. Mehta has desired that in order to meet

p.t.o.

(102)

the legal requirements it would be necessary that the Commission adopts a resolution approving his engagement as UGC Counsel and authorising the Secretary, UGC to sign the Vakalatnama in favour of Shri Mehta on behalf of the Commission.

The matter is placed before the Commission.

AS(AI)/FO.

'VK'

Confidential

UNIVERSITY GRANTS COMMISSION

103

Meeting  
1st December 1971

Item No. 13: To consider the report of the Committee appointed to examine the proposals of (i) Shri C.N.P.F. Arts & Dabhoi Nagarpalika Science College, Dabhoi and (ii) Bhavan's Arts and Science College, Dakor (Gujarat University) for the development of their postgraduate departments of Chemistry.

The Gujarat University forwarded proposals from Shri C.N.P.F. Arts College and Dabhoi Nagarpalika Science College, Dabhoi and (ii) Bhavan's Arts and Science College, Dakor for the development of their postgraduate Chemistry departments during the Fourth Plan period. A committee consisting of the following members was appointed to examine the proposals:

1. Prof. B.D. Jain,  
Department of Chemistry,  
Delhi University.

Officer of the Commission

2. Dr. M.L. Mehta,  
Education Officer,  
University Grants Commission

The Committee visited the Colleges on the 28th June, 1971 and held discussions with the College authorities, staff members and postgraduate students of the Colleges. The Committee also met the Vice-Chancellor, Gujarat University, Ahmedabad. The main recommendations of the Committee are as follows:

1. The University of Gujarat has permitted a number of Colleges to undertake postgraduate teaching in science subjects on the condition that the colleges will appoint at least two full-time teachers who will fulfil the conditions laid down by the university's syndicate for recognition as postgraduate teachers. In addition to two full-time teachers for postgraduate classes, the colleges invite visiting lecturers from neighbouring colleges in the zone. The visiting lecturers are paid Rs. 15/- per lecture plus I.A. and D.A. by the university and are expected to take care of specialisation papers for which the college may not have adequate teaching arrangements.

2. The postgraduate centres are run by the colleges on behalf of the university, but the university is not consulted either in the matters of appointment of teachers or in the admission policy of the colleges. There is no university representative on the selection committees appointed by the Colleges.

(104)

3. The university has no control over the admission of the students in the colleges except that it has fixed the maximum number of students to be admitted to each course.

4. Some students obtain M.Sc. degree by doing only research work without their being required to attend any lectures or present seminar discussions etc. It is generally acknowledged that the training that a student obtains at the first degree stage in the science subjects is not adequate to enable a student to start a research career. In view of this, the students permitted to do M.Sc. by research are given short-term problems which they could possibly solve during the course of an academic year and the thesis so submitted are evaluated by teachers recognised for postgraduate work in the university. The results these dissertations so produced do not generally get published in any of the recognised scientific journals.

The M.Sc. results are extremely poor (12 to 15%). This compares very unfavourable with the average pass percentage for postgraduate examination on an all-India level.

5. The committee feels that the present system of post-graduate education in affiliated colleges of Gujarat University does not appear to be a very satisfactory arrangement. The committee is of the opinion that the Gujarat University could be well advised to take urgent effective steps in consultation with the University Grants Commission to improve the standards of postgraduate teaching and research. The present arrangement under which courses are offered without any admission policy and provision for close student-teacher contact in tutorials and seminars, are far from satisfactory.

The Committee has recommended that the following grants may be provided to the two colleges for the development of their postgraduate departments of Chemistry during the Fourth Plan period:

1. Shri C.N.P. P. Arts College and Dabhoi Nagarpalika Science College, Dabhoi.

Department	Purpose	Total Rs.	UGC share Rs.	College share Rs.
1. Chemistry	Equipment	24,000	18,000	6,000
	Building	80,000	40,000	40,000
	Books & Journals	10,000	7,500	2,500
	Workshop equipments.	10,000	7,500	2,500
Total:		1,24,000	73,000	51,000

2. Bhavan's Arts and Science College, Dakor.

Department	Purpose	Total Rs.	UGC share Rs.	College share Rs.
i) Chemistry	Laboratory equipments	60,000	45,000	15,000
	Workshop equipments	10,000	7,500	2,500
	Books & Journals	10,000	7,500	2,500
Total:		80,000	60,000	20,000

The report of the Committee is attached as annexure.

The matter is placed before the Commission for consideration.

E.O. (Sc.I)/D.C.(S)



Annexure to Item No. 13

Report of the Visiting Committee to Shri C.N. Patel  
Fartikuiwala Arts College and Dabhoi Nagarpalika  
Science College, Dabhoi for assessing the proposals  
for assistance for the Postgraduate Department of  
Chemistry under the UGC scheme of development of  
Postgraduate studies in science subjects in affi-  
liated colleges during the fourth five year plan.

Shri Chunibhat Nagjibhai Patel Fartikuiwala Arts College  
and Dabhoi Nagarpalika Science College, Dabhoi forwarded proposals  
to the University Grants Commission through the University of Gujarat  
for assistance for its postgraduate department of chemistry under  
the UGC scheme of assistance for development of postgraduate  
studies in science subjects in affiliated colleges during the  
fourth plan period. The proposal involves an expenditure of  
Rs. 1,66,500/- for the construction of the laboratory buildings  
and Rs. 32,000/- for the purchase of equipment. The proposal has  
been recommended by the Gujarat University,

The matter was considered by the Commission and it was desired  
that an expert committee may visit the college to discuss the  
proposals with the college authorities. Accordingly a committee  
consisting of : (1) Professor B.D. Jain, Department of Chemistry,  
Delhi University and (2) Dr. M.L. Mehta, Education Office, UGC  
was constituted. The committee visited the college on 28th June,  
1971 and held discussions with the Principal, staff members and  
Postgraduate students of the college. The committee also met  
the Vice-Chancellor, Gujarat University, Ahmedabad. The committee  
saw the laboratories of the college, its central library and went  
round the campus of the college.

The college was established in June, 1958 and the science  
courses were started in June, 1962. This was followed by commerce  
in June 1966 and education in June, 1970. The college is managed  
by the Baroda District Education Society. The college provides  
teaching facilities upto first degree in arts, science, commerce  
and education. At present the science section of the Arts and  
Science College undertakes teaching of chemistry only as the  
principal subject.

The student enrolment in science subjects is nearly 390  
as indicated below:

	<u>1968-69</u>	<u>1969-70</u>	<u>1970-71</u>
Pre-Science	090	110	110
F.Y.B.Sc.	104	099	117
S.Y.B.Sc.	086	096	046
T.Y.B.Sc.	<u>053</u>	<u>070</u>	<u>086</u>
	<u>343</u>	<u>375</u>	<u>359</u>
M.Sc. P.I.	017	030	026
M.Sc. P.II.	<u>0</u>	<u>0</u>	<u>003</u>
	<u>017</u>	<u>030</u>	<u>029</u>

(107)

There are 18 teachers in the college engaged in science teaching. The subjectwise breakup is given below:

<u>Chemistry</u>	2 professors, 2 lecturers, 3 junior lecturers &
<u>Physics</u>	1 lecturer, 2 junior lecturers
<u>Botany</u>	2 lecturers, 2 junior lecturers
<u>Mathematics</u>	1 lecturer, 1 reader

In addition, two visiting professors deliver lectures to Postgraduate students in chemistry.

The results of the science courses during 1969-70 are given below:

Class Pre.	Total appeared	Total pass				Per. centage	Univ. Results
		I	II	III	Total		
Pre. Sc.	090	10	39	10	59	65.5%	-
F.Y.B.Sc.	104	16	32	34	82	85.5%	-
S.Y.B.Sc.	085	07	33	19	59	86.58%	-
T.Y.B.Sc.	062	04	25	24	53	85.48%	-
M.Sc. I	017	-	02	-	02	13.33%	-

The Gujarat University has established a postgraduate centre for M.Sc. course in the subject of Inorganic Chemistry at Dabhoi Naropalika Science College, Dabhoi. The college provides facilities for the M.Sc. degree examination.

### Observations

1. The University of Gujarat has permitted a number of colleges to undertake postgraduate teaching in science subjects on the condition that the colleges will appoint at least two full-time teachers who will fulfil the conditions laid down by the university's syndicate for recognition as postgraduate teachers. In addition to two full-time teachers for postgraduate classes, the colleges invite visiting lecturers from neighbouring colleges in the zone. The visiting lecturers are paid Rs. 15/- per lecture plus T.A. and D.A. by the university and are expected to take care of specialisation papers for which the college may not have adequate teaching arrangements.
2. The postgraduate centres are run by the colleges on behalf of the university, but the university is not consulted either in matters of appointment of teachers or in the admission policy of the colleges. There is no university representative on the selection committees appointed by the colleges.
3. The following qualifications have been laid down by the syndicate of the Gujarat University for the recognition of the teachers for postgraduate classes.

Bachelor's degree		Master's degree in the subject	Doctorate degree		Teaching experience as a lecturer in the subject
1.		2.		3.	4.
1.	First and	First	-	-	Three years
2.	First and	Second	-	-	Five years
3.	Second and	First	-	-	Five years
4.	First and	First	and	Ph. D.	Two years
5.	First or	First	and	Ph. D.	Three years
6.	Second and	Second	-	-	Seven years
7.	Second and	Third	and	Ph. D.	Five years
8.	Third and	Second	and	Ph. D.	Five years
9.	Second and	Second	and	Ph. D.	Three years
10.				D.Sc. or D.Litt on Published Work	Three years
11.	Third and	Second	-	-	Nine years
12.	Second and	Third	-	-	Twelve years
13.	Third and	Third	-	-	Fifteen years
14.	First and	Third	-	-	Ten years
15.	Third and	First	-	-	Seven years
16.	Third and	Third	and	Ph. D.	Six years

It will be seen from the above that even candidates who secured a third class at both the B.A. and M.A. examinations are eligible for appointment provided they have the necessary teaching experience for a specified number of years.

4. The university has no control over the admission of the students in the colleges except that it has fixed the maximum number of students to be admitted to each course.

5. Some students obtain M.Sc. degree by doing only research work without their being required to attend any lectures or present seminar discussions etc. It is generally acknowledged that the training that a student obtains at the first degree stage in the science subjects is not adequate to enable a student to start a research career. In view of this, the students permitted to do M.Sc. by research are given short-term problems which they could possibly solve during the course of an academic year and the thesis so submitted are evaluated by teachers recognised for postgraduate work in the university. The results of these dissertations so produced do not generally get published in any of the recognised scientific journals.

6. The M.Sc. results are extremely poor (12 to 15%). This compares very unfavourably with the average pass percentage for postgraduate examination on all-India level.

7. The committee feels that the present system of postgraduate education in affiliated colleges of Gujarat University does not appear to be a very satisfactory arrangement. The committee is of the opinion that the Gujarat University could be well advised to take urgent effective steps in consultation with the University Grants Commission to improve the standards of postgraduate teaching

(109)

and research. The present arrangement under which courses are offered without any admission policy and provision for close student-teacher contact in tutorials and seminars, are far from satisfactory.

Recommendations:

The space available for laboratories in the college is highly inadequate. The committee feels that assistance from the UGC would help the college considerably in providing the building.

The committee observed that the college do not have standard glass apparatus which is essential for postgraduate teaching. There is no workshop in the college. Special chemicals are also not easily available. Library needs more books and journals.

While the committee feels that the present system of postgraduate teaching in affiliated colleges of Gujarat University is not a satisfactory arrangement, yet in the interest of students it suggests that the following assistance may be given to these colleges. The committee suggests that the University Grants Commission may provide following assistance to the college on usual sharing basis:

on usual sharing basis.

<u>Item</u>	<u>Total Expenditure</u> Rs.	<u>UGC share</u> Rs.	<u>College Share</u> Rs.
Equipment	24,000	13,000	6,000
Buildings	80,000	40,000	40,000
Books & Journals	10,000	7,500	2,500
Workshop	10,000	7,500	2,500
Equipment			
	<u>1,24,000</u>	<u>73,000</u>	<u>51,000</u>

The college may be allowed to utilise upto 10% of the equipment grant for the purchase of special chemicals. The college may appoint a technician for the workshop from its own funds.

The committee suggests that the report of the committee be sent to the university and the college authorities with a request that university may undertake concrete steps in order to adopt a policy which may raise the standards of teaching and research at postgraduate level in the colleges of Gujarat University.

The committee puts on record its sincere thanks to the Vice-Chancellor, Gujarat University, Principal, staff members of the college and university authorities for facilitating the work of the committee.

Report of the Committee to Bhavan's Arts and Science College, Dakor, Gujarat University to consider their proposals for assistance for the postgraduate department of chemistry under the UGC scheme of development of postgraduate studies in affiliated colleges in science subjects.

-----

The Bhavan's Arts and Science College, Dakor submitted proposals to the University Grants Commission through the University of Gujarat for assistance for its postgraduate department of chemistry under the UGC scheme of assistance for development of postgraduate studies in science subjects in affiliated colleges during the fourth plan period. The proposal involved an expenditure of Rs.1,33,300/- (UGC's share = Rs. one lakh) for purchase of equipment for the postgraduate department of chemistry.

2. The matter was considered by the University Grants Commission and it was desired that a committee may visit the college to discuss the proposals with the college authorities. Accordingly a committee consisting of (1) Professor B.D. Jain, Department of Chemistry, Delhi University, Delhi and (2) Dr. M.L. Mehta, Education Officer, UGC was constituted. Mr. R.C. Shah of the Gujarat University was associated with the work of the committee as the representative of Gujarat University.

The Committee visited the college on 29th June, 1971 and held discussions with the Principal, staff members and Post-graduate students. The committee also met the Vice Chancellor, Gujarat University. It visited the laboratories of the science departments as also the Central Library.

The Bhavan's College of Arts and Science, Dakor was established in June, 1962 by the Bharatiya Vidya Bhavan, Bombay. It provides teaching facilities in the subjects of Arts, Science and Commerce. Teaching in Chemistry, Physics, Mathematics, Biology and Statistics at B.Sc. level was started in 1962. M.Sc. classes in Inorganic Chemistry were started in 1968 and in Mathematics in 1969. The college also provides facilities for study in Sanskrit upto M.A. Level.

The college has a student strength of about 1000 of which 250 students are women students. There is a hostel for boys in the college campus with a capacity of 60. The subjectwise enrolment in science subjects during 1967-71 is given in the following table.

Year	Total Enrolment	T.Y.B.Sc.		M.Sc.	
		Chemistry	Maths.	Chemistry	Maths.
1967-68	491	75	10	-	-
1968-69	518	74	22	20	-
1969-70	494	88	16	21	10
1970-71	367	86	13	26	5

P.T.O.

(11)

In M.Sc. Chemistry, students are from other states such as Mysore, Andhra and Kerala.

The college has a staff strength of 24 in science subjects as indicated below:

<u>Subject</u>	<u>Number of teachers</u>
Chemistry	9 (one professor, three lecturers, two tutors and three demonstrators)
Physics	3 lecturers, 3 demonstrators
Mathematics	1 professor, 3 lecturers, one tutor
Biology	1 professor, 1 lecturer, 1 tutor, 1 demonstrator,

Two staff members of the chemistry department have research qualifications (Th.D.) from the University of London. One of the staff members is in the United States undergoing further training. In addition to the permanent staff, there are two visiting professors to deliver lectures to postgraduate students in the chemistry department.

The results of the science courses during 1971-72 are given in the following table:

<u>Class</u>	<u>1970-71</u>			
	<u>Chemistry</u>	<u>Physics</u>	<u>Biology</u>	<u>Maths.</u>
Pre. Science	98.5%	77.4%	94.2%	89.1%
F.Y.B.Sc.	74.7%	71.8%	83.3%	77.4%
S.Y.B.Sc.	79.31%	90.43%	-	100%
T.Y.B.Sc.	98.8%	-	-	85.7%
M.Sc. Part I	15.3%	-	-	75.0%
M.Sc. Part II	50.0%	-	-	100%

The college has spent nearly Rs. 40,000/- as the recurring expenditure and about Rs. 30,000/- as non-recurring expenditure from its own funds during the last three years on the science courses.

The Gujarat University has recognised Bhavan's College, Dakor as a postgraduate centre for M.Sc. courses in Inorganic Chemistry. The students preparing for the M.Sc. degree of the Gujarat University are allowed to submit dissertation in lieu of the practical work. The research work at present is being done on Metal-chelates, measurement of the magnetic moments of the complexes and their absorption spectra etc.

#### Observations:

1. The University of Gujarat has permitted a number of colleges to undertake postgraduate teaching in science subjects on the

condition that the colleges will appoint at least two full-time teachers who will fulfil the conditions laid down by the university's syndicate for recognition as postgraduate teachers. In addition to two full-time teachers for postgraduate classes, the colleges invite visiting lecturers from neighbouring colleges in the zone. The visiting lecturers are paid Rs.15/- per lecture plus T.A. and D.A. by the university and are expected to take care of specialisation papers for which the college may not have adequate teaching arrangements.

2. The postgraduate centres are run by the colleges on behalf of the university, but the university is not consulted either in the matters of appointment of teachers or in the admission policy of the colleges. There is no university representative on the selection committees appointed by the colleges.

3. The following qualifications have been laid down by the syndicate of the Gujarat University for the recognition of the teachers for postgraduate classes.

Bachelor's degree		Masters' degree in the subject		Doctorate degree	Teaching experience as a lecturer in the subject.
1.		2.		3.	4.
1. First	and	First	-	-	Three years
2. First	and	Second	-	-	Five years
3. Second	and	First	-	-	Five years
4. First	and	First	and	Ph. D.	Two years
5. First	or	First	and	Ph. D.	Three years
6. Second	and	Second	-	-	Seven years
7. Second	and	Third	and	Ph. D.	Five years
8. Third	and	Second	and	Ph. D.	Five years
9. Second	and	Second	and	Ph. D.	Three years
10.				B.Sc. or D.Litt. on Published Work	Three years
11. Third	and	Second	-	-	Nine years
12. Second	and	Third	-	-	Twelve years
13. Third	and	Third	-	-	Fifteen years
14. First	and	First	-	-	Ten years
15. Third	and	First	-	-	Seven years.
16. Third	and	Third	and	Ph. D.	Six years.

It will be seen from the above that even candidates who secured a third class at both the B.Sc. and M.Sc. examinations, are eligible for appointment, provided they have the necessary teaching experience for a specified number of years.

(173)

4. The university has no control over the admission of the students in the colleges except that it has fixed the maximum number of students to be admitted to each course.

5. Some students obtain M.Sc. degree by doing only research work without their being required to attend any lectures or seminar discussions etc. It is generally acknowledged that the training that a student obtains at the first degree stage in the science subjects is not adequate to enable a student to start a research career. In view of this, the students permitted to do M.Sc. by research are given short-term problems which they could possibly solve during the course of an academic year and the thesis so submitted are evaluated by teachers recognised for postgraduate work in the university. The results of these dissertations so produced do not generally get published in any of the recognised scientific journals.

6. The M.Sc. results are extremely poor (12 to 15%). This compares very unfavourable with the average pass percentage for postgraduate examination on all-India level.

7. The committee feels that the present system of postgraduate education in affiliated colleges of Gujarat University does not appear to be a very satisfactory arrangement. The committee is of the opinion that the Gujarat University could be well advised to take urgent effective steps in consultation with the University Grants Commission to improve the standards of postgraduate teaching in colleges. The present arrangement under which courses are offered without any admission policy and provision for close student-teacher contact in tutorials and seminars are far from satisfactory.

#### Recommendations:

1. The committee observed that the proposal of the Bhavan's College includes purchase of a few sophisticated items of equipment needed for the research work being done by them in their postgraduate chemistry laboratories. The college needs (1) Magnetic balance of the Guoy Type; (2) Spectrophotometer Coleman Junior-II; (3) Single-pan balance Mettler of Bausch Type; (4) Potentiometer; (5) Books and Journals; (6) Rare Chemicals. The revised proposals submitted by the college at the time of the visit of the committee amounted to Rs.74,000/-. The equipment, as stated by the college is required for their M.Sc. teaching. It was stated that students have to study at M.Sc. Part-I (chemistry) the topic of "Paramagnetism of atoms, ions and molecules." A magnetic balance will enable the students to perform experiments on magnetic moment and thereby improve their understanding of the subject. In M.Sc. Part II, the students offer dissertations in lieu of practical work over and above the three theory papers. For this dissertation, the students put in some research work. The dissertation, being in lieu of practical work, is a part of M.Sc. examination by papers. Since the college does not have equipment for either of these two determinations the students go to Sardar Patel University which is about 22 miles from Daker. For the Theory papers for M.Sc. Part II, all the students



of the college offer co-ordination compounds as their subject. Lot of discussion of magnetic properties of such compounds is required. The college does not have facilities for either of these measurements. The committee discussed in detail the list of equipment with the staff members of the department. The committee is of the view that in case investigations relating to metal chelates etc., are to be undertaken, it would be desirable for the college to have the equipment such as magnetic balance, spectrophotometer etc.

While the committee is of the opinion that the present system of postgraduate teaching in affiliated colleges of Gujarat University is rather unsatisfactory, yet in the interest of the students, the committee feels that the college needs assistance. The committee suggests that the University Grants Commission may provide following assistance to the college on usual sharing basis:

<u>Item</u>	<u>Total expenditure</u>	<u>UGC share</u>	<u>College share</u>
Equipment	60,000	45,000	15,000
Workshop Eqpt.	10,000	7,500	2,500
Books & Journals	10,000	7,500	2,500
	<u>80,000</u>	<u>60,000</u>	<u>20,000</u>

The college may be allowed to utilize upto 10% of the equipment grant for the purchase of special chemicals. The college should appoint a technician for the workshop from its own funds.

The committee desires that its report be sent to the university with a request that university may undertake concrete steps in order to adopt measures which may raise the standards of teaching at the postgraduate level in the colleges of Gujarat University.

The committee puts on record its sincere thanks to the Vice-Chancellor, Gujarat University, Principal, staff members of the college and university authorities for facilitating the work of the committee.

## UNIVERSITY GRANTS COMMISSION

Confidential

(115)

Meeting:

Dated: 1st December, 1971.

Item No. 14:- To consider the report of the Committee appointed to examine the proposals received from the P.P.N. College, Kanpur (Kanpur University) for the development of Postgraduate studies in Science subjects.

.....

On the recommendations of the Visiting Committee which in May, 1968 examined the proposals of the P.P.N. College, Kanpur for development of postgraduate departments in Chemistry and Mathematics, the Commission had approved and sanctioned a grant of Rs. 1,19,500/- (non recurring) to the college (Chemistry Department - Rs. 75,000/- Mathematics Department - Rs. 44,500/-). The assistance provided has been fully utilized by the college. The college has approached the Commission for further assistance for development of the new Physics department and for strengthening of the Chemistry and Mathematics Departments. The proposal was examined by an Expert Committee. The report of the Committee is attached as Annexure-I.

The Committee has recommended the following grants to the college during the remaining period of the Fourth Plan (upto 31-3-1974).

<u>Physics Department.</u>	<u>UGC's share</u> Rs.	<u>College's share</u> Rs.	<u>Total</u> Rs.
Equipment	60,000/-	20,000/-	80,000/-
Books and Journals	9,000/-	3,000/-	12,000/-
<u>Mathematics Department.</u>			
Books and Journals.	2,000/-	1,000/-	4,000/-
<u>Chemistry Department.</u>			
Equipment.	30,000/-	10,000/-	40,000/-
Books and Journals	4,500/-	1,500/-	6,000/-
<b>Total:</b>	<u>1,06,500/-</u>	<u>35,500/-</u>	<u>1,42,000/-</u>

The Committee has recommended introduction of the system of cooperative teaching among the several postgraduate colleges at Kanpur and establishing close contacts between the colleges on the one hand and the corresponding department of the I.I.T. and the University Science Department on the other.

The matter is placed before the Commission.

E.O.(Sc.I)/DO(S)

SCG.

(14)

Report of the Committee appointed to examine the  
4th Plan development proposals for postgraduate  
teaching in Physics, Chemistry and Mathematics  
at PPN College, Kanpur.

The PPN College, Kanpur, submitted proposals to the University Grants Commission for additional assistance for the development of postgraduate departments in Physics, Chemistry and Mathematics during the 4th Plan period under the UGC scheme of assistance to affiliated colleges for the development of postgraduate studies in science subjects. Accordingly, the Commission constituted a Committee consisting of the following members to visit the college and assess its requirements of Physics, Chemistry and Mathematics departments during the Fourth plan period.

1. Professor BD Jain,  
Department of Chemistry,  
Delhi University
2. Professor S. Lokanathan,  
Department of Physics,  
Rajasthan University,  
Jaipur.

Officer of the Commission

3. Shri IC Menon,  
Development Officer  
University Grants Commission

The Committee visited Kanpur on 21st August, 1971 and had discussions with the Principal, Heads of the Physics and Chemistry Departments and other teachers. The Head of the Mathematics department, due to indisposition, could not participate in the deliberations.

The college was established in 1959 in memory of Pandit Prithi Nath by the PPN College Trust and Management Society, UP which controls and manages the institution. The college started with courses at undergraduate level in arts (BA) and social sciences (English, Hindi, Sanskrit, Economics, Sociology, Political Science, Psychology, Geography, military studies, Mathematics and in the sciences (B.Sc.) in Physics, Chemistry, Mathematics, Zoology and Botany.

M.Sc. Courses in Chemistry and Mathematics started in 1966-67, in Physics during 1969-70. At the time of the visit of the Committee in August 1971 the enrolment was 1650 but the Principal expected that some students would drop out in the course of the month resulting in an effective enrolment of around 1600.

For the last five years enrolment in the M.Sc. classes is as follows:

<u>Department</u>	<u>1967-68</u>	<u>1968-69</u>	<u>1969-70</u>	<u>1970-71</u>	<u>1971-72</u>
Mathematics	81	60	45	39	32
Chemistry	64	49	50	50	51
Physics	-	-	11	20	16

(17)

Examination results for H.Sc.(Fin.) 1970 and 1971 are given below:

<u>M.Sc.</u>	<u>No. appeared</u>	<u>Passed</u>	<u>Pass %</u>	<u>No. appeared</u>	<u>Passed</u>	<u>Pass %</u>
Mathematics	14	13	93%	12	7	58.3%
Chemistry	22	18	83	21	29	95.2%
Physics	-	-	-	8	7	87.5%

No assistance was provided to the college during the Third Plan period. During the 4th Plan, the requirements of the postgraduate departments of Chemistry and Mathematics were assessed by a visiting committee in May 1968 and on the recommendations of this Committee, the Commission approved an assistance of Rs.1,19,500/- (non-recurring) as UGC's share for the two departments as detailed below:

Chemistry

	Rs.
Building	25,000/-
Furniture	5,000/-
Equipment	25,000/-
Books & Journals	<u>20,000/-</u>
Total:	75,000/-

Mathematics Department

	Rs.
Building	15,000/-
Furniture	2,000/-
Equipment	7,500/-
Books & Journals	<u>20,000/-</u>
	<u>44,500/-</u>

The assistance provided has been fully utilised by the college which has now approached the Commission for further assistance:

Physics Department

	Rs.
Building	60,000/-
Furniture & Equipment	1,35,000/-
Books & Journals	<u>25,000/-</u>
Total:	<u>2,20,000/-</u>

Chemistry Department

Building	nil
Furniture & Equipment	80,000/-
Books & Journals	<u>20,000/-</u>
Total:	<u>1,00,000/-</u>

Mathematics Department

Building	nil
Furniture & Equipment	26,800/-
Books & Journals	<u>14,000/-</u>
Total;	<u>40,800/-</u>

Department of Physics

The courses taught at the M.Sc.(Prev.) are:

(1) Mathematical Physics (2) Classical mechanics (3) Classical electro-dynamics and electronics (4) Electro magnetic theory and quantum mechanics. Every student is required to perform any 20 experiments out of the prescribed list of 27. For the M.Sc. (Fin.) the courses are: (i) Atomic and molecular spectra and Solid State Physics. (ii) Relativity and advanced quantum (iii) nuclear Physics and particle physics (iv) Electronics. The college would like to offer Solid State Physics as an optional subject in addition to electronics.

Physics M.Sc. Course was started during 1969-70 with 11 students. During 1971-72, 10 students have been admitted by 20th August in M.Sc. (Prev.) and another two are expected to join by the end of August 1971. There are six students in M.Sc.(Final). One Research scholar has registered for Ph.D. in the department.

At present the department has equipment worth Rs.1,10,000/-, 502 books and 7 journals. There are 7 staff members, three of them having Ph.D.

The college recently appointed a Ph.D. in the Physics department as Head of the Physics department who has specialised in Solid State Physics. It will not be judicious for the college to start another special paper in Solid State Physics within two years of starting M.Sc. in Physics. The staff is not strong enough to handle two special subjects electronics and Solid State Physics.

The M.Sc. (Physics) experiments in previous and final require more sophistication than at present. Some investment will have to be made to strengthen these.

The Committee feels that the introduction of another optional paper in M.Sc. (Fin.) or an increase in enrolment is not necessary and desirable at this stage and hence in the near future assistance for any additional space for building is not envisaged. However, the Committee suggests that a grant of Rs.60,000/- may be given by the University Grants Commission for purchase of equipment and for strengthening the existing facilities to enable the department to set up a few Solid State Physics experiments for the general laboratory. A grant of Rs.9,000/- for books and journals is also recommended for the Physics department. It is suggested that before placing the order for journals the college may keep in mind the journals that are available in other institutions at Kanpur. The staff may seek active help and guidance from IIT Kanpur in its instructional and research programmes:

Financial assistance recommended for Physics Department

	<u>UGC Share</u>	<u>College's Share</u>	<u>Total</u>
	Rs. -	Rs.	Rs.
Equipment	60,000/-	20,000/-	80,000/-
Books and Journals	9,000/-	3,000/-	12,000/-

Department of Mathematics

A conspicuous feature of the Mathematics department is the steady decline in enrolment from 81 in 1967-68 to 32 in 1971-72. The Principal stated that this was mostly due to lack of employment prospects for M.Sc.s in Mathematics. The results of the 1970-71 examination of M.Sc. (Prev.) in Mathematics show that pass percent was 32% whereas for M.Sc. (Final) it was 93%. It is hoped that there would be no indiscriminate increase in the M.Sc. enrolment and it would be stabilised at 32.

The department with 4 teachers (all of them First class M.Sc.s) has equipment worth Rs.10,000/-, books worth Rs.2,300/- and it subscribes to five journals. The courses for M.Sc. (Previous) are: - (1) real and complex analysis (2) mathematics methods (3) Linear Algebra and Topology (4) Analytical Geometry, Statistics and Dynamics, and for M.Sc. (Fin.) are: (1) Analysis and Modern Algebra (ii) Dynamics and Hydro Dynamics (iii) Linear Algebra (iv) Topology. (v) Special functions and advance complex analysis.

The College has sought assistance for books, journals, typewriters, cyclostyling and calculating machines. In view of the fall in the enrolment, the Committee does not recommend additional calculating machines. However, for books and journals an expenditure of Rs.4,000/- is recommended:

Financial assistance recommended for the Mathematics Deptt.

	<u>UGC Share</u>	<u>Colleges Share</u>	<u>Total</u>
	Rs.	Rs.	Rs.
Books & Journals	3,000/-	1,000/-	4,000/-

Department of Chemistry

Enrolment in Chemistry which was 64 in 1967-68 has remained about 50 during the last three years and is 51 at present. There are 11 staff members three of whom are Ph.D. In 1968 there was no Ph.D. in the department. There are 6 research scholars in the department including some staff members. All the three branches of Chemistry are taught. In M.Sc. (Fin.) there is specialisation in Physical as well as organic Chemistry. The department has three spacious laboratories and two lecture halls.

Research work is being done in the field of electro-phoresis, polarography and surface Chemistry. The Department has equipment worth Rs.1,70,000/- 1500 books and seven journals. Some of the popular books are in multiple copies which appeared to be in excess of actual requirements.

The Department needs strengthening by addition of modern books to the library from time to time as well as additional equipment. The following assistance is recommended:

	<u>Total</u>	<u>UGC Share</u>	<u>Colloge Share</u>
	Rs.	Rs.	Rs.
Equipment	40,000 -	30,000 -	10,000 -
Books & Journals	6,000/-	4,500/-	1,500/-

The Committee is of the view that space utilisation for class room and laboratory work could be better planned and be more efficient and with the existing space available for the Physics, Chemistry and Mathematics departments no additional building is needed at the present stage of development of the college.

Financial implications of the recommendations

<u>Deptt.</u>	<u>Physics</u>	<u>Chemistry</u>	<u>Mathematics</u>	<u>Total</u>
<u>Purpose</u>				
Equipment		Chemistry	Mathematics	Total
Equipment	60,000	30,000	-	90,000
Books & Journals	9,000	4,500	3,000	16,500
Total:	69,000	34,000	3,000	1,06,500

General Observations of the Committee

There are several colleges at Kanpur doing postgraduate teaching in science and it may be helpful if the system of cooperative teaching could be introduced utilising the services of qualified postgraduate teachers available in the colleges. The Committee hopes that with the establishment of the School of Physical Sciences and in collaboration with other technological institutions (IIT and UBTI), Defence establishments and industry, cooperative teaching and research could be fruitfully developed. The University may, therefore, initiate early action to prepare and integrate a plan of cooperation and coordination with affiliated colleges and other institutions like IIT, particularly. Through such cooperation, books and journals as also sophisticated and costly equipment available in one institution could be used by staff and students, for teaching and research, whenever required. Teachers and research workers would also benefit by holding periodically joint meetings, seminars and symposia under the auspices of associations of scholars in various disciplines.

UNIVERSITY GRANTS COMMISSION

(121)

Meeting:

Dated: 1st December, 1971.

Item No. 15 : To consider further the report of the Committee appointed by the University Grants Commission to examine the proposal of Gujarat Vidyapith for the development of the Department of Education.

.....

The Commission at its meeting held on 4th August, 1971 considered the report of the Committee appointed by it to examine the proposal of Gujarat Vidyapith for the development of the Department of Education (item No. 14). A copy of the note placed before the Commission is attached (Annexure-I). The Commission desired that the comments of the Gujarat Vidyapith may be invited on the report of the Committee. Accordingly, the Gujarat Vidyapith was requested to give its comments on the report of the Committee.

The Vidyapith has indicated that the assistance recommended by the Committee is very inadequate to meet the needs of the department and has requested that the Commission may provide some more additional facilities. It has requested that a provision of Rs. 1,80,000/- may be made for construction of a workshop type building to accommodate Phonetic laboratory, Craft equipment for three crafts and cubicles for the additional teaching and research staff of the department. The Commission may provide five fellowships of Rs. 200/- per month for attracting good students for M.Ed. course in tribal education. The Vidyapith is of the view that the provision of only one Demonstrator recommended by the Committee for teaching three crafts is insufficient and, provision of three demonstrators may have to be made. However, if the Lecturer of Craft education, who will be appointed by the Vidyapith against a post recommended by the Committee, also knows one of the crafts then it may be possible to cope with one Lecturer and two demonstrators. The Vidyapith has, therefore, requested that the Commission may approve two posts of Demonstrators instead of one recommended by the Committee and the total provision for craft equipment may be raised to Rs. 36,000/-. It has also requested that at least one field organiser may be provided in the fourth plan for undertaking work on Co-operative programme during the Fourth Plan period.

The Gujarat Vidyapith has requested for the following:-

(a)	<u>Tribal Education Course:</u>	<u>Total Cost</u>	<u>U.G.C.'s Share</u>
	1 Reader (2½ years)	30,000/-	30,000/-
	2 Lecturers (2½ years)	36,000/-	36,000/-
	1 Field Assistant (2½ years)	12,500/-	12,500/-
	1 Statistical " "	12,500/-	12,500/-
	Phonetic equipment.	35,000/-	35,000/-



(128)

	Rs.	Rs.
(b) <u>Strengthening Craft Education:</u>		
1 Lecturer	10,000/-	(50%) 5,000/-
2 Demonstrators.	12,500/-	(50%) 6,250/-
Equipment	36,000/-	(66 $\frac{2}{3}$ %) 24,000/-
(c) <u>Co-operative Programme:</u>		
1 Field Organiser.	12,500/-	(50%) 6,250/-
2 Programme expenses.	15,000/-	(100%) 15,000/-
(d) Building for workshop:	1,80,000/-	(66 $\frac{2}{3}$ %) 1,20,000/-
	<hr/>	<hr/>
	3,92,000/-	3,02,500/-
	<hr/>	<hr/>

A copy of the reply received from the Vidyapith is attached (Annexure-II). It may be mentioned that the Committee appointed by the Commission had recommended that assistance amounting to Rs. 1,79,0000/- may be provided to the Gujarat Vidyapith outside the fourth plan allocation, as given below:

(a) <u>Tribal Education.</u>	<u>Total Exp.</u>	<u>U.G.C. Post-graduate and Research.</u>
Reader (I)	36,000/-	36,000/-
Lecturers(2)	48,000/-	48,000/-
1 Field Assistant for Planning field work in Tribal areas.	15,000/-	15,000/-
1. Statistical Assistant.	15,000/-	15,000/-
Phonetic equipment for research in tribal dialects and folk lore.	35,000/-	35,000/-
	<hr/>	<hr/>
	1,49,000/-	1,49,000/-
	<hr/>	<hr/>

(b))	<u>Craft Education.</u>	Total Exp.	<u>U.G.C. Share.</u>
	One Lecturer in craft Education to teach methodology of teaching craft.	24,000/-	12,000/-
	One Demonstrator for teaching actual crafts.	15,000/-	7,500/-
	Equipment for craft Education	15,750/-	10,500/-
	Total (b)	54,750/-	30,000/-
	Grand Total (a) & (b)	2,03,750/-	1,79,000/-

The matter is placed before the Commission for consideration

E.O. (H.II) /D.O. (H)

Copy of note placed before the ~~commission~~ at its meeting held on 4th August 1971 vide item No. 14.

....

The University Grants Commission appointed a visiting Committee, consisting of the following members to examine the proposal of the Gujarat Vidyapeeth, Ahmedabad for the development of its Department of Education during the Fourth Plan period.

1. Dr. K.L. Shrimali,  
Vice-Chancellor,  
Banaras Hindu University,  
Varanasi.
2. Dr. N.V. Thirtha,  
Head of the Education Department  
Bangalore University,  
Bangalore.
3. Dr. S.C. Dube,  
Head of the Department of Sociology,  
and Social Anthropology,  
Saugar University.

Officer of the Commission.

Dr. S.C. Goel,  
Education Officer,  
University Grants Commission.

The Committee visited the Gujarat Vidyapeeth, Ahmedabad on 26th May, 1971 and discussed the proposal of the Vidyapeeth with Shri Ram Lal Parikh, Shri I.J. Patel, Shri P.A. Patel, Professor of Education and other members of the staff. The report of the Committee is attached (Appendix).

The main recommendations and observations of the Committee are as follows:

- (a) The present enrolment in the Department of Education of the Gujarat Vidyapeeth is 157 of whom 130 are in B.Ed., 24 are in M.Ed. and 3 are registered for Ph.D. No candidate has obtained the Ph.D. Degree in education from the Vidyapeeth during the past five years.
- (b) The staff in the Department of Education consists of 16 members (excluding the Principal) of whom 2 are Readers and 14 are Lecturers. No teacher in the department has a doctoral degree. Six teachers are, however, guiding students in their research work. The members of the staff have also undertaken some research projects and have brought out a number of books.

(125)

(c) The Vidyapeeth has been organising training programmes for primary teachers including craft teachers, Hindi teachers and general primary teachers, ever since its inception in 1920. A Faculty of Education was set up in 1962 with the starting of the Hindi Teachers Training College. The College of Education was established in 1965 with emphasis on training teachers for primary schools. The College trains about 80 teachers every year.

(d) The Commission has approved the posts of two Readers and one Lecturer, and books and equipment grants amounting to Rs. 70,000/- for the Department of Education at the Gujarat Vidyapeeth during the Fourth Plan period.

(e) The Committee discussed the proposal of the Vidyapeeth to appoint additional staff consisting of one Professor, one Reader and two Lecturers, with a view to admitting more students to the M.Ed. course and taking up research projects in the field of basic education and other related areas. In this connection, the Committee felt that the existing staff of one Professor, 2 Readers, 14 Lecturers is adequate considering the present enrolment and the fact that Vidyapeeth offers only one specialisation in the M.Ed. course in the field of basic education.

(f) The Vidyapeeth proposed to make the M.Ed. course more broad-based by introducing two more specialisation groups viz. tribal education and Social Education. The Committee has recommended that in the present Plan period, the Vidyapeeth may concentrate its resources and efforts on the development of tribal education. The Institute has already a good museum, and facilities for training and research for this purpose.

(g) The Committee has supported the proposal of the Vidyapeeth to introduce the special methods of teaching craft education in the B.Ed. course, with special reference to Vastra Vidya, agriculture and carpentry. Assistance for the purpose may be provided on the usual sharing basis.

(h) The proposal of the Vidyapeeth to appoint a field organizer and for a provision of Rs. 30,000/- for co-operative programmes in the schools may be considered in the next plan period.

(i) The financial implications of the recommendations of the Committee are as under:-

P.T.O.

((A) <u>Tribal Education.</u>	<u>Total Exp.</u> Rs	<u>U. G. C. Share.</u> Rs	<u>Postgraduate &amp; Research.</u>
Reader (1)	36,000/-	36,000/-	
Lecturers (2)	48,000/-	48,000/-	
1 Field Assistant for Planning field work in Tribal areas.	15,000/-	15,000/-	
A Statistical Asstt.	15,000/-	15,000/-	
Phonetic equipment for research in tribal dialects and folk lore.	35,000/-	35,000/-	
Total (A)	1,49,000/-	1,49,000/-	

(B) <u>Craft Education.</u>	<u>Total Exp.</u> Rs	<u>U. G. C. Share.</u> Rs
One Lecturer in craft education to teach methodology of teaching craft.	24,000/-	12,000/-
One Demonstrator for teaching actual crafts.	15,000/-	7,500/-
Equipment for craft education.	15,750/-	10,500/-
Total ( B)	54,750/-	30,000/-
Grant Total (A) &(B)	2,03,750/-	1,79,000/-

The matter is placed before the Commission for Consideration.

Appendix

Report of the Committee appointed by the University Grants Commission to examine the proposal of the Gujarat Vidyapeeth for the development of the Department of Education during the Fourth Plan.

.....

The University Grants Commission appointed a visiting Committee, consisting of the following members to examine the proposal of the Gujarat Vidyapeeth, Ahmedabad for the development of its Department of Education during the Fourth Plan.

1. Dr. K.L. Shrimali,  
Vice-Chancellor,  
Banaras Hindu University,  
Varanasi.
2. Dr. N.V. Thirtha,  
Head of the Education Department,  
Bangalore University,  
Bangalore.
3. Dr. S.C. Dube,  
Head of the Department of Sociology  
and Social Anthropology,  
Saugar University.

Officer of the Commission.

4. Dr. S.C. Goel,  
Education Officer,  
University Grants Commission.

The Committee visited the Gujarat Vidyapeeth, Ahmedabad on 26th May 1971 and discussed the proposal of the Vidyapeeth with Shri Ram Lal Parikh, Shri I.J. Patel, Shri P.A. Patel, Professor of Education and other members of the staff. The report of the Committee follows.

1. Enrolment.

The present enrolment in the Department of Education of the Gujarat Vidyapeeth is 130 in B.Ed., 24 in M.Ed. and 3 in Ph.D. No candidate has obtained the Ph.D. degree in Education from the Vidyapeeth during the past five years.

P.T.O.

2. Examination Results.

	B.Ed.			M.Ed.	
	1968-69	1969-70	1970-71	1968-69	1969-70
Number appeared	84	100	133	5	2
Number passed	83	88	131	4	1
Ist Division	3	15	15	2	-
2nd Division	55	52	90	2	1
3rd Division	15	21	26	-	-

3. Admission

The following table gives the division obtained by students enrolled in the Vidya-peth for B.Ed. and M.Ed. in 1970-71 at the qualifying examination.

	No. of B.Ed students 1970-71 : 130.	No. of M.Ed. students 1970-71 : 11.
Ist class in B.A./B.Sc./B.Com.	6	
2nd class	58	
3rd class	53	
Ist class in M.A./M.Sc./M.Com.	-	
2nd class	8	
3rd class	5	6
Ist class in B.Ed.	-	5
2nd class	-	-
3rd class	-	-

4. Staff.

The staff in the Department of Education consists of the principal, two readers and 14 lecturers. No teacher in the department has research qualifications. Six teachers are, however, guiding students in their research work.

The main fields of specialisation of the members of the staff are (a) Hindi Language Teaching, (b) Philosophy of Education, (c) Science Education, (d) Basic Education, (e) Educational Psychology, (f) Psychometrics, (g) Child Psychology, (h) Audio-visual education and (i) Problems of Indian Education.

5. Research work by the staff.

The members of the staff of the Education Department have brought out a number of books such as teaching of Hindi as a second language, teaching of Indian languages, hand-book for the teachers of Hindi of Fifth standard, teaching of Gujarati, teaching of social studies, Teachers' hand-book for mathematics for first standard, Teachers' hand-book for science of first standard etc. The Vidyapeeth has completed three research projects on the integral teaching of Hindi and Gujarati, common vocabulary of Hindi and Gujarati and the teaching of Samaj Nav Nirma. Some research projects are under investigation viz. socio-educational Survey of Sabarnati and Life-centered Teaching of Science.

6. Special features of the department.

Since its inception in 1920, the Vidyapeeth has been organising training programmes for primary teachers including craft teachers, Hindi teachers and general primary teachers. A faculty of Education was set up in 1962 with the starting of the Hindi Teachers' Training College. The college specialises in the methodology of Hindi teaching and trains about 80 teachers every year. There are two courses one for matriculate teacher trainees and the other for graduate teachers. The College of Education was established in 1965 with emphasis on training teachers for primary schools.

7. Fourth Plan Visiting Committee.

The Fourth Plan Visiting Committee of the University Grants Commission which examined the development proposals of the Department of Education observed as under.

The postgraduate Department of Education, the Committee was informed would devote greater attention to the problems of elementary education and rural and social education. A special committee of experts was working out details of the courses. Care was being taken to ensure that the new syllabus evolved by this committee, apart from providing new orientation, would focus special attention on the above aspects. There was great demand for postgraduates in education from high schools, teacher training colleges, education departments and panchayats. The Vidyapeeth required a Reader and two Lecturers for this course which was proposed to be started in the existing building of the Vidyapeeth. It was also proposed that an extension wing would be necessary for the development of selected elementary and secondary schools and for this, the Vidyapeeth would require two extension officers in the senior lecturer's grade and some administrative assistance e.g. assistants, typists and equipment on educational aids and furniture. The Committee after considering the proposal felt that the Teacher Training Department was at present training only eighty teachers for the B.Ed. course. This was a small number. The Committee was of the view that the Vidyapeeth should increase the intake in B.Ed. As for the proposed M.Ed. course, the committee felt that the programme suggested was more or less on the lines followed in other training institutions.



Since Gujarat University was also offering M.Ed. course, the proposed course in the Vidyapeeth may be a duplication. It was therefore, necessary to distinguish M.Ed. course at the Vidyapeeth from other institutions by orienting it to (a) Rural Education (b) Primary Education. The Vidyapeeth agreed to this. The Committee noted that the Vidyapeeth proposed to admit 10 students every year in the two year part-time M.Ed. course and felt that the Vidyapeeth should start with atleast 15 students and aim at having 20 or 25 students in the future years. The Committee recommended that for the proper organisation of the course two posts of readers would be necessary. Besides, the committee also agreed to a post of lecturer for the extension wing and a grant of Rs. 20,000/- for equipment and Rs. 10,000/- for books and journals for the department.

#### 8. Fourth Plan assistance.

Assistance approved by the Commission to the Department of Education at the Gujarat Vidyapeeth during the Fourth Plan is as follows.

Two Readers, one Lecturer, books Rs. 10,000/-, equipment Rs. 20,000/- Special book grant Rs. 20,000/- and special equipment grant Rs. 20,000/-

#### 9. Development proposals of the Department of Education.

The development proposals of the Gujarat Vidyapeeth include (a) strengthening and diversification of courses of the Department of Education, (b) strengthening craft education and (c) Co-operative programmes with schools.

##### (a) Strengthening and diversification of courses of the Postgraduate Department of Education.

The M.Ed. course offered by the Gujarat Vidyapeeth has three compulsory papers viz. philosophical and sociological foundations of education, research methodology and administration of education and one optional group for specialization in basic education, in addition to a dissertation carrying 200 marks. There are three papers in the basic education group viz. principles of basic education, child psychology and techniques of basic education. The Vidyapeeth proposes to strengthen the existing department to enable it to admit more students and take up research projects in the field of basic education and other related areas and has requested for the appointment of one Professor, one reader and two lecturers for the purpose. In this connection, the committee felt that the existing staff of one professor, two readers and fourteen lecturers is adequate considering the present enrolment of 24 in M.Ed. and 130 in B.Ed. and the fact that the Vidyapeeth offers only one specialisation group in the M.Ed. course in the field of basic education. The immediate need of the Vidyapeeth is to make the M.Ed. course more broad based and with this end in view, the committee suggested and the Vidyapeeth agreed that a specialisation group in tribal education may be offered as an alternative to basic education. In fact, the Vidyapeeth is keen to introduce a specialisation group in social education also.

While appreciating the interest of the Vidyapeeth in the special field of tribal education and social education, the committee was of the view that in the present plan period, the Vidyapeeth may concentrate its resources and efforts on the development of tribal education. This is specially important in view of the excellent work being done in the tribal research and training institute of the Vidyapeeth. The institute has a good museum and facilities for training and research. It is recommended that the following facilities may be approved to enable the Vidyapeeth to introduce a specialisation group in tribal education in the M.Ed. course.

1. Reader	Rs. 36,000/-
2 Lecturers.	Rs. 48,000/-
1 Field Assistant for planning field work in tribal areas.	Rs. 15,000/-
1 Statistical Assistant.	Rs. 15,000/-
Phonetic equipment for research in tribal dialects and folk lore.	Rs. 35,000/-
	1,49,000/-

(b) Strengthening craft education.

In view of the importance of craft education in Gujarat involving 20,000/ primary schools and 2500 secondary schools, the Vidyapeeth proposes to introduce the special methods of teaching vastra vidya, agriculture and carpentry as one of the subjects in the B.Ed. course.

It is suggested that a grant of Rs. 54,750/- may be approved for the purpose as detailed below, on the usual sharing basis of 50% for recurring expenditure and 66-2/3% for non-recurring expenditure.

	<u>Total Exp.</u> Rs.	<u>U.G.C. Share</u> Rs.
One lecturer in craft education to teach methodology of teaching craft	24,000/-	12,000/-
One Demonstrator for teaching actual crafts.	15,000/-	7,500/-
Equipment for craft education	15,750/-	10,500/-
	54,750/-	30,000/-

(132)

(c) Co-operative programmes of the schools.

The Vidyapeeth has adopted thirty schools of Ahmedabad city for cooperative programmes for practice teaching by the teachers trainees. It is suggested that the proposal of the Vidyapeeth to appoint a field organiser for the programmes and for a provision of Rs. 30,000/- for undertaking projects may be considered in the next plan period.

10. The financial implications of the above recommendations of the Committee are as under:

(a) Tribal Education	Rs. 1,49,000/-
(b) Craft Education.	Rs. 30,000/-
	<u>Rs. 1,79,000/-</u>

The Committee recommends that assistance amounting to Rs. 1,79,000/- may be provided to the Gujarat Vidyapeeth outside the Fourth Plan allocation.

\*/Goel.

Copy of letter No. 1673/71-72 dated September 22, 1971  
from the Registrar, Gujarat Vidyapeeth to the Secretary  
University Grants Commission.

(23)

Sub: Grants to the Universities for the development of teachers education and research.

With reference to your letter No. F.25-33/69(H.II) dated 27th August, 1971, the Vidyapeeth have considered the report of the Committee appointed by the U.G.C. to examine the proposal of the Gujarat Vidyapith for the development of the Teacher Education during 11th Plan, in consultation with the Standing Committee of its Academic Council, and I am directed to intimate following comments :-

(1) Information in Para 6 of the report may kindly be corrected as follows:-

" The College of Education was established in 1965 with emphasis on training teachers for primary teachers training colleges and post-basic schools as well as primary schools".

((2) While the Vidyapith gratefully appreciates the assistance recommended by the Committee it feels that the amount proposed to be allocated is very inadequate to meet the needs of the department for meeting even its basic requirements like building etc. for the Education Department. It is imperative to provide more space for accommodating new staff, phonetic equipment and craft equipment. It is therefore necessary to provide Rs. 1,80,000/- for construction of atleast a workshop type building to accommodate phonetic laboratory, craft equipment for three crafts, and research cabins for the additional teaching and research staff of the department.

(3) In view of the fact that the subject of Tribal Education at M.Ed. level is being introduced for the first time in the whole of the country, it is requested to provide atleast 5 fellowships of Rs. 200/- p.m. for attracting best students for M.Ed. course in Tribal Education. This would need a provision of Rs. 24,000/- for two years of IVth Plan period (1972-73 & 1973-74).

(4) The Vidyapith feels that the provision of only 1 Demonstrator for teaching three crafts would not be practical. Since three crafts are to be taught, three demonstrators would be required. However if the lecturer of craft education knows one of the crafts and is willing to act as a demonstrator as well for one of the craft in addition to his theory work as a method-master, it may be possible to cope with one lecturer and two demonstrators. This means one additional posts recommended by the Committee. The total provision for craft equipment needs to be raised to Rs. 36,000/- (Rs. 10,000/- for Vastravidya, Rs. 10,000 for Carpentry and Rs. 16,000/- for agriculture including equipment for agricultural tool workshop).

Post of demonstrator will be required over and above the

- (5) The Committee's recommendation to defer the proposal of Cooperative Programme during IVth Plan needs reconsideration. The Vidyapith feels that atleast 1 Field Organiser could be provided in the IVth Plan for this type of vital work. A modest beginning could be made in this plan itself by providing 1 Field Organiser and Rs. 15,000/- for programme expenses.

If the above comments of the Gujarat Vidyapith are incorporated in the report, the revised financial implications of total cost would be as follows :-

- (a) Tribal Education Course:

	Total Cost. Rs	UGO's share Rs
1 Reader (2½ years)	30,000/-	30,000/-
2 Lecturers (2½ years)	36,000/-	36,000/-
1 Field Assistant (2½ years)	12,500/-	12,500/-
1 Statistical " "	12,500/-	12,500/-
Phonetic equipment	35,000/-	35,000/-

- (b) Strengthening Craft Education:

1 Lecturer	10,000/- (50%)	5,000/-
2 Demonstrators.	12,500/- (" )	6,250/-
Equipment	36,000/- (66⅔%)	24,000/-

- (c) Cooperative Programme :

(i) Field Organiser	12,500/- (50%)	6,250/-
(ii) Programme expenses	15,000/- (100%)	15,000/-

- (d) Building for workshop
- |  |                   |            |
|--|-------------------|------------|
|  | 1,80,000/- (66⅔%) | 1,20,000/- |
|--|-------------------|------------|

Total	3,92,000/-	3,02,500/-
-------	------------	------------

It is hoped that this will receive your earliest consideration and necessary sanction for appointment of staff would be given to us to enable us to implement the scheme from October, 1971.

Revised

UNIVERSITY GRANTS COMMISSION

Confidential

(135)

Meeting:

Dated: December, 1971.

Item No. 16. To consider a report on the visit of the buildings constructed with UGC grant at Vaish Degree College, Shamli ( Meerut University ).

.....

The University Grants Commission approved the following projects for the Vaish Degree College, Shamli:

<u>Project</u>	<u>Total approved cost</u> Rs	<u>UGC Share</u> Rs	<u>Grants Released.</u> Rs
Construction of Library	57,000	38,000	34,000
Construction of Men's Hostel	1,22,000	61,000	37,000
Non-Resident Students Centre.	53,470	35,000	25,000
Purchase of books and Furniture	30,000	20,000	16,000

In September, 1961 anonymous complaints regarding the affairs of this college were received, copies of which were sent to the Agra University for comments and necessary action. The Agra University appointed a Committee to look into the affairs of the college. The University Grants Commission deputed its Accountant to look into the question of the utilization of grants paid to the college.

In April, 1962, the Vice-Chancellor Agra University intimated that there was a conflict between the Principal and the Secretary.

On 24th February, 1965 the College reported that construction of the library was completed, that the building of the Non-Resident Students Centre would be completed by the end of the month and the work of the hostel had started. The completion documents in respect of the library and N.R.S.C. were received.

p.t.c.

136

In December, 1966 the college was transferred to the Meerut University. In April, 1967, the Inspection Team of the Meerut University found the affairs of the college were in an unsatisfactory state.. Consequent on an objection raised to the utilization of grants by the A.G.C.R., the UGC approached the Accountant General, U.P. to undertake special audit of the grants paid to the college and also requested the Chief Engineer, U.P. P.W.D. to evaluate the buildings constructed by the College with UGC grants. The accounts could not be audited as the records of the college were in the custody of the court in connection with a legal suit between the college and its Principal. The Chief Engineer, U.P., P.W.D. also did not evaluate the buildings.

The college was visited by a Committee consisting of an officer of the Commission and the Registrar of the Meerut University along with the Executive Engineer of the University on 30-8-1971. The report of the Committee is attached. The following points have been emphasised:-

1. All the three buildings viz; Non-Resident Students Centre, Library building and hostel building are not complete in all respects.
2. Owing to certain changes made by the college in the plan originally accepted by the Commission, the total built-up area has increased. The sizes of the rooms, doors and windows etc, have also been changed. These changes have been made without the prior approval of the Commission and have raised the costs.
3. The approximate cost of the incomplete works would be of the order of Rs. 60,000/-
4. The college has requested for some more time to complete these buildings:-

The matter is placed before the Commission for consideration.

E.O.(C-II)/J.S.(C)

Report of the inspection of the Buildings constructed with U.G.C. grants at Vaish College, Shamli (Muzaffarnagar).

.....

We visited the Vaish College, Shamli on 30th August, 1971 for an on spot inspection of the buildings constructed with U.G.C. grants. The U.G.C. accepted the proposals of the college relating to the construction of N.R.S.C., Library and the Hostel buildings during the Second and Third Five Years Plans.

We found that all the three buildings are not completed in all respects. The Library building is complete except water and sanitary fittings and is being used. The University Executive Engineer who also accompanied us has given a list of items which are yet to be completed, indicating the cost of each item, also the changes made in the specification of certain items provided by the college in the plan and the estimates accented by the U.G.C. The report of the Engineer is enclosed. (Appendix).

We discussed the matter in detail with the Secretary, Managing Committee and the Principal. The Secretary explaining the position stated that "the college has been passing through a period of crisis for the last 5 or 6 years owing to its involvement in legal suits filed by the Ex-Principal of the college and the University. If some more time is allowed to the college, the buildings will be completed in all respects. So far as changes introduced in the specifications of certain items like wood work, sizes of the rooms, doors and the windows etc., the position can not be rectified at this stage and these mistakes have occurred owing to lack of supervision of the construction work". In any case the cost of the construction of the buildings is not reduced owing to these changes." We told the Secretary that the changes have been made in the plan and other specifications without the prior approval of the U.G.C. The buildings have been constructed at a higher cost than the original estimates, only because of the delay made by the college in the completion of the buildings and the U.G.C. is not responsible for it. It is worth noting that in spite of the higher expenditure the buildings are still lying incomplete and the approximate cost of incomplete works would be of the order of Rs. 60,000/- when these could easily be completed at a cost of Rs. 40,000/-. The Secretary assured that on hearing from the Commission they would make an all out effort to complete the unfinished works as early as possible.

-  
/In some cases the total built up area has increased owing to these changes."

It was also made clear to the college that unless the college completes these buildings and follows the Acts and Statutes of the Meerut University, no help from the University and the U.G.C. would be available to the college.



Confidential.

138

Appendix

A copy of letter No. dated 31st August, 1971, from the R.S. Shukla, Executive Engineer to the Registrar, Meerut University, Meerut.

.....

Subject: Inspection of Buildings constructed with U.G.C. grant by Vaish College, Shamli, Muzaffarnagar.

I inspected the Library building, Hostel building and the N.R.S.C. building constructed with U.G.C. grants by Vaish College, Shamli on 30th August, 1971. A statement indicating present position of the buildings alongwith estimated cost of each item according to estimates originally submitted by the college and accepted by the U.G.C. is enclosed(Enclosure). It would be seen that the total cost of incomplete works comes to Rs. 39,863/- according to old rates and to Rs. 60,000/- approximately according to prevailing rates.

Sd/---  
R.S. Shukla  
Executive Engineer.

SCG

Confidential

Enclosure

139

## 1. LIBRARY BUILDING

Value of the incomplete work according to the original estimates.

11.	The Plan accepted by the U.G.C. has been generally followed except changes made in the size of the toilet block by extending it towards the corridor.	
22.	Sizes of windows have been changes here and there.	
33.	Fittings in toilets have not been provided except W.C.Seats.	Rs.1100-00
44.	Water supply has not been provided.	Rs.1200-00
55.	Shutters in doors and windows have been provided of kail wood instead of teakwood.	Rs.1450-00 (Approx)
6.	Provision has not been made for expanded metal.	Rs. 498.00
	Total	<u>Rs. 4248.00</u>

## 2. HOSTEL BUILDING

Following changes have been made in the plan accepted by the U.G.C.:

- (a) Size of Common room has been changed from 25'-1 $\frac{1}{2}$ 'x31'-10 $\frac{1}{2}$ ' to 24'-2'x31'.
- (b) In the common room the size of the windows, have been reduced from 7'x5' to 4'x9'x4'-6'''.
- (c) In the Dining Block the Virandah on the North of the Fitchan has been covered and extended providing there by a bigger room.
- (d) In the Warden's Quarter the size of store has been extended.
- (e) A room for Sweepers has been added to the toilet blocks in both the North and South wings after taking out same area from the toilet originally provided.
- (f) Size of Windows has been changed in most of the rooms.

p.t.o.

(140)

2.	The building is incomplete in the following respects.	
	1. Water supply has not been provided.	) Rs. 9,000/-
	2. So far as sanitary fittings are concerned only three seats in W.C.s. have been installed.	
3.	Mosaic flooring has been substituted by ordinary cement floor.	Rs. 200/-
4.	Shutters in doors and windows have been provided of kail/Shisham instead of teak wood.	Rs. 500/-
5.	Glazed door has not been provided	
6.	Doors and Windows have not been painted.	Rs. 500/-
7.	Cement Jali has not been provided on the stair case.	Rs. 341/-
8.	Roof treatment has not been done on about 70' long span on the South wing.	Rs. 300/-
9.	Stair cases are unfinished.	Rs. 500/-
10.	Electrical fittings are not complete.	Rs. 500/-
11.	Furniture has not been provided.	Rs. 5,174/-
12.	Glass pans have not been provided in the windows and ventilators.	Rs. 200/-
	Total	<u>Rs. 17,215/-</u>

The workmanship is of a poor quality. Structural defects have also been noticed, such as, in the common room cracks of foundation settlement were noticed. Reinforcement in roofs slabs does not appear to be adequate. However engineer incharge may satisfy himself about the stability of the structure.

NON - RESIDENT STUDENT CENTRE

1.	Water supply and Sanitary fittings have not been provided.	Rs. 5,000/-
2.	Mosaic flooring has been replaced with simple cement floor in about 20% of the area.	Rs. 500/-

(141)

33.	Septic tank has not been provided.	
44.	Shutters in doors and windows have been provided of Shisham wood instead of teak wood.	Rs. 500/-
55.	Electrical fittings have not been completed	Rs. 4,000/-
66.	Furniture, crockery and utensils have not been purchased.	Rs. 8,400/-
	Total,	<u>Rs. 18,400/-</u>

REMARKS:

Thus a work of Rs. 39863/- (Approx.) on old rates, which is now going to cost atleast Rs. 60,000/- is yet to be done before buildings can be treated as completed.

Sd/---  
R.S. Shukla  
Executive Engineer.

Confidential

UNIVERSITY GRANTS COMMISSION  
NEW DELHI

(142)

Meeting: -

Dated: December, 1  
1971.

Item No. 17 To consider the recommendations of the Standing Committee on Library Development regarding the proposals from the universities for additional grants for books & Journals during the fourth plan period.

The University Grants Commission at its meeting held on 7th April, 1971 considered the question of allocation of additional grants to the universities for the purchase of books and journals. The Commission was of the view that in view of the high priority it attaches to the development of libraries of the universities, the question of providing additional grants to the universities for the purchase of books and journals may be further examined and the matter brought up again before the Commission (Resolution No. 34 dated 7th April, 1971).

The proposals received from the universities were again considered by the Commission at its meeting held on 2nd July, 1971. The Commission agreed that there was a real and immediate need to provide additional grant to the universities for strengthening libraries and desired that a Standing Committee on Library Development may be constituted and the proposals for additional assistance to the universities for the purchase of books and journals may be referred to it. (Resolution No. 66 dated 2nd July, 1971).

The Standing Committee on the development of University and College Libraries considered the matter at its meeting held on 5th October, 1971, and appointed a sub-committee consisting of Dr. B.V.R. Rao, Dr. Jagdish Sharma and Dr. J.N. Kaul to suggest suitable norms for allocating grants to the universities for the purchase of books and journals.

The Committee felt that for the purpose of allocating grants for the purchase of books and journals, due consideration should be given to (i) number of undergraduate students; (ii) number of post-graduate students; (iii) number of research scholars; and (iv) number of teachers in the university teaching departments and constituent colleges of the university.

The sub-committee further suggested that the universities should be divided in six categories and book grants should be allocated to them in the ratio of 0.5, 1.0, 1.5, 2.0, 2.5 and 3.0. The classification of universities on this basis would be as under:

I (0.5) Category

Rabindra Bharti, Varanaseya Sanskrit Vishwavidyalaya, Gujarat Vidyapith, Gurukul Kangri, Jamia Millia, Kashi Vidyapith

P.T.O

(143)

II (1.0) Category

Berhampur, Bhagalpur, Bihar, Burdwan, Dibrugarh, Kanpur, Magadh, North Bengal, Ravi Shankar, Saurashtra, South Gujarat, Tata Institute of Social Sciences, Bombay, Himachal Pradesh, Simla.

III. (1.5) Category

Agra, Annamalai, Gorakhpur, Guru Nanak, Calicut, Indore, Jabalpur, Jiwaji, Kalyani, Kurukshetra, Madurai, Meerut, Panjabi, Ranchi, Roorkee, Sambalpur, Sardar Patel, Saugar, Shivaji, S.N.D.T., Birla Institute of Technology & Science, Pilani.

IV. (2.0) Category

Allahabad, Bangalore, Gauhati, Gujarat, Jadavpur, Jammu, Jodhpur, Karnatak, Kashmir, Kerala, Lucknow, Marathwada, Nagpur, Sri Venkateswara, Udaipur, Utakal, Vikram, Visva-Bharti.

V. (2.5) Category

Andhra, M.S. University of Baroda, Mysore, Osmania, Panjab, Patna, Poona, Indian Institute of Science, Bangalore, Rajasthan.

VI (3.0) Category

Aligarh, Banras Hindu University, Bombay, Calcutta, Delhi, Jawaharlal Nehru University, Madras.

Grants to the universities for the purchase of books and journals may be allocated to the universities in six categories as detailed above, as and when additional funds are available with the University Grants Commission. Such grants should, however, be allocated only to those universities which have a utilisation ratio of 0.8 or more in regard to the purchase of books and journals including basic grants for the central library and departmental books.

The basis on which the above classification has been suggested need not be intimated to the universities and should be for the confidential use of the University Grants Commission.

The matter is placed before the Commission consideration.

E.O.(H)/D.O.(H)

Confidential

UNIVERSITY GRANTS COMMISSION

(144)

Meeting:

Dated : 1st December, 1971.

Item No.18 To consider further the report of the Visiting Committee appointed by the Commission to assess the Fourth Plan requirements of the Birla Institute of Technology and Science, Pilani and the proposals for the development of Bio-Science and the Central Instrumentation facility centre.

.....

The University Grants Commission at its meeting held on 6th October, 1971, considered the report of the Visiting Committee appointed by the Commission to assess the 4th Plan requirements of the Birla Institute of Technology & Science, Pilani. A copy of the Report of the Committee is attached (Annexure). The Committee recommended assistance as under:-

1) for schemes continuing from 3rd plan.	..	Rs.48.47 lakhs
2) for new proposals	..	Rs.29.24 lakhs
Total	..	<u>Rs.77.71 lakhs.</u>

Apart from recommending grants for books and equipment, the Committee had recommended assistance for additional staff for the faculties of Science and Humanities, a teachers' hostel, a non-resident student centre and a health centre. The Committee had also recommended that the proposal of the Institute to introduce Postgraduate courses in Chemical Engineering with an intake capacity of 10 (and not 20 as suggested by the Institute) may also be accepted as a priority scheme. The recommendations of the Committee with regard to new proposals are indicated in Appendix II of the Report.

The Committee had also discussed the difficulties of the Institute regarding maintenance expenditure in respect of the following four schemes sanctioned in the 3rd plan.

- (i) Introduction of Degree Course in Chemical Engineering
- (ii) Reorganisation of Degree Course in Pharmacy;
- (iii) Expansion under National Emergency;
- (iv) Introduction of Postgraduate Courses in Engineering.

n.t.o.

(145)

The estimated expenditure on these Schemes after the completion of the 5 years as plan schemes worked out to Rs.9.97 lakhs. The State Government had expressed its inability to share any committed maintenance expenditure in respect of these schemes. The BITS, Pilani also expressed difficulty in meeting this expenditure. Of this amount, the Institute agreed to bear their share to the extent of Rs.1.76 lakhs and for the balance of Rs.3.21 lakhs, the Institute made a special request that the University Grants Commission may provide this amount.

The University Grants Commission after considering the report of the Visiting Committee desired that the views of the Ministry of Education regarding payment of maintenance grant to the Institute on account of additional Recurring expenditure to be covered after the Commission's assistance ceased may be obtained, and the report along with the views of the Ministry placed before them again. After protracted correspondence, the Ministry of Education & Social Welfare have intimated that the question of maintenance grant to BITS, Pilani is under consideration separately and that this question may not be linked with the implementation of the development schemes recommended by the AICTE and approved by the University Grants Commission, for which no grants seem to have been released by the Commission.

The University Grants Commission at its meeting held in December, 1970 accepted the recommendations of the AICTE for the development of postgraduate courses in Engineering and Technology at the BITS, Pilani and sanctioned grants as under:

Non-Recurring:

Equipment	Rs.4.50 lakhs
Library	Rs.0.30 lakhs
Furniture	Rs.0.30 lakhs
Total:	<u>Rs.5.10 lakhs</u>

Recurring:

Professors	5)	
Readers	5)	Rs.1.75 lakhs p.a.
Non-teaching staff		Rs.0.27 lakhs "
Maintenance		Rs.0.85 lakhs "
Scholarships		Rs.5.10 lakhs "
Library books		Rs.0.10 lakhs "
Total:		<u>Rs.8.07 lakhs "</u>

The Commission's share for the scheme is on 100 p.c. basis. The Commission sanctioned a grant of Rs.3 lakhs for library books and journals for the Institute. Besides, the Commission also accepted the proposal of the BITS, Pilani for assistance



to the extent of Rs.50,000/- for the establishment of a Health Centre.

Recently, the Commission has agreed to release the following grants to the Institute:-

- i) Equipment for Science Departments: Rs.1.50 lakhs
- ii) Equipment for Chemical Engineering Rs.4.00 lakhs
- iii) Equipment for the department of Pharmacy. Rs.1.50 lakhs.

The Birla Institute of Technology & Science, Pilani has also sent the following two proposals for the consideration of the Commission:

(a) Development of Biological Sciences:

Non-recurring Rs.8.65 lakhs  
Recurring Rs.2.39 lakhs p.a.

(b) Setting up of instrumentation service facilities

Non-recurring Rs.8.50 lakhs  
recurring Rs.2.00 lakhs

A copy each of the two schemes sent by the Institute is attached(Annexures II and III).

The matter is placed before the Commission for consideration

E.O.(C.D.)

REPORT OF THE VISITING COMMITTEE ON THE FOURTH PLAN  
PROPOSALS OF THE BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE,  
PILANI.

(147)

.....

The University Grants Commission appointed a Visiting Committee with the following members to look into the Fourth Plan proposals of the Birla Institute of Technology and Science, Pilani:

1. Prof. N.R. Srinivasa Iyengar,  
Vice-Chancellor,  
Andhra University.
2. Dr. V. Puri,  
Principal,  
Meerut College,  
Meerut
3. Dr. K.N. Gain,  
Professor of Pharmacy,  
Panjab University,  
Chandigarh.
4. Dr. D.N. Singh,  
Principal,  
Bihar College of Engineering,  
Patna,
5. Prof. T.V. Mahalingam,  
Department of History,  
Madras University
6. Prof. R. Rath,  
Department of Psychology,  
Utkal University,  
Bhubaneswar.

Officers of the Commission

Dr. J.N. Kaul,  
Development Officer,  
University Grants Commission.

Shri S.P. Gupta,  
Education Officer,  
University Grants Commission,

Shri M.P. Balakrishnan,  
Education Officer,  
University Grants Commission.

The Committee visited the Institute on the 9th and 10th November, 1967 and held discussions with the Director, Heads of Departments and members of the teaching staff of the Institute. The Committee visited the Institute's library, workshop, various departments located in the campus, hostels, auditorium, museum and playgrounds. The committee also met students and staff to ascertain their

views on matters concerning the academic and welfare programmes of the student community and the campus life.

The Birla Institute of Technology and Science, Pilani, was deemed to be University in 1964 and incorporates the erstwhile Birla College of Science, Commerce and Pharmacy, Birla College of Arts and Birla College of Engineering. The campus of the Institute has an area of over 400 hectares. The main academic building has a frontage of 335 metres and covers an area of 34,000 sq. meters. Spacious accommodation has been provided for the Engineering and Science Laboratories, class-rooms, drawing halls, faculty and seminar-rooms. The Central Auditorium has a seating capacity of 2,200 persons and is equipped with a large stage for extra-curricular and other cultural functions. The Civil Engineering Department is in a separate building (7,897 sq. metres) and the Chemical Engineering Block (3,252 sq. metres) has recently been constructed. A new block for post-graduate course in Engineering has been constructed. The workshop (3,252 sq. meters) used for training the students as well as for manufacture of equipment is well equipped.

The Library is housed in two big halls in the main academic building.

The Central Museum of the Institute - the first scientific and technical museum in the country - is meant for visual education in Arts, Science and Technology. All the exhibits are working models giving a realistic representation of different machines, methods and operations in modern technology.

The Institute is completely residential both for teachers and students. There are 11 hostels (including one for women students) having 1,808 single-seated rooms with ceiling fans in each room and two common rooms in each hostel. The hostels have six large Dining Halls with kitchens attached. Every hostel is in charge of Warden who resides in an adjacent quarter.

The Institute has a faculty Club, Ladies Club and a Children's park. Shopping facilities are available within the campus.

There is a dispensary on the campus with a resident medical officer to attend to the students, members of the staff and their families. This is a diagnostic centre and cases of minor illness are also treated.

There is a Gliding Club with a hanger for accommodating three gliders. The landing ground can receive Dakotas and smaller aircrafts.

Extensive play-grounds have been laid out for all games and sports. The Central Gymnasium is well equipped with apparatus for physical culture.

The Institute has an agricultural farm and dairy.

## II. COURSES OF STUDY AND ADMISSIONS:

The Birla Institute of Technology and Science admits students from all States in India and also from neighbouring countries like Nepal, Malaysia, etc. The Institute offers courses in Engineering, Science, Pharmacy, Humanities, Social Sciences, and Business Administration. The Engineering degree course has 300 seats in Civil Engineering, Chemical Engineering, Electrical Engineering, Electronics Engineering and Mechanical Engineering. Postgraduate Engineering instruction is available in Civil Engineering, Electrical Engineering, Electronics Engineering and Mechanical Engineering.

The Faculty of Science imparts instruction for Bachelor's and Master's degree in Physics, Chemistry, Mathematics, Zoology, Botany and Pharmacy.

The Faculty of Humanities and Social Sciences provides undergraduate and Post-graduate courses in English, Hindi, Sanskrit, Economics, Political Science, History and Business Management and Administration.

Ph.D.

The Institute admits students for Ph.D. in all the courses offered by it.

III. ENROLMENT :

Student enrolment for the year 1964-65 to 1967-68 is given below:

Faculty	Number of Students on rolls			
	1964-65	1965-66	1966-67	1967-68
<u>Engineering and Technology</u>				
Undergraduate	1272	1449	1529	1620
Postgraduate	17	48	60	88
Ph.D.	-	1	1	4
<u>Science and Pharmacy</u>				
Undergraduate	233	218	259	293
Postgraduate	120	145	145	141
Ph.D.	18	19	30	38
<u>Humanities and Social Sciences</u>				
Undergraduate	86	4	29	50
Postgraduate	20	18	34	53
	-	1	1	7
	1761	1903	2088	2304

Twenty-five students are from other countries like Nepal, Uganda East Africa, Malaya, Singapore, Kenya, Ceylon and Thailand.

EXAMINATION RESULTS:

The Examination results for the year 1964-65 to 1966-67 are shown in the table below:

Examination	1964-65	1965-66	1966-67
	(in percentage)		
B.A.	100	-	-
M.A.	100	100	100
B.Com.	100	-	-
M.Com.	100	100	-
B.Sc.	97	96	49
M.Sc.	86	91	83
B. Pharm.	70	83	55
M. Pharm.	100	100	-
B.E.	100	100	92
M.E.	89	89	-

V. TEACHING STAFF

The total sanctioned strength of the teaching staff is 283. Of these, 240 teachers were in position, as given below:-

<u>Name of the Faculty</u>	<u>Sanctioned</u>	<u>In position</u>
<u>Faculty of Engineering</u>		
Professors	15	11
Assistant Professors	36	22
Lecturers	37	35
	118	98
<u>Faculty of Science</u>		
Professor	11	11
Assistant Professors	24	21
Lecturers	68	62
	103	94
<u>Faculty of Humanities &amp; Social Sciences</u>		
Professors	5	4
Assistant Professors	10	7
Lecturers	47	36
	62	47
Grand Total	283	240

BLITS - MIT - FORD FOUNDATION CO-OPERATIVE PROGRAMME.

The M.I.T. and the Ford Foundation are assisting the B.I.T.S. to develop into an advanced technological institutes. The Programme of cooperation includes:-

- (a) Assignment of visiting Professors from M.I.T. and other American Universities to the Institute to take part in teaching and research.
- (b) Training of Faculty Members of the Institute in methods of teaching and higher studies at M.I.T.
- (c) Supply of laboratory equipment and library books not available in India and
- (d) Joint Programme of research.

LIBRARY:

The Departmental Libraries have been abolished. The Institute has a Central Library which is at present housed in two halls in the academic building and has 87,000 books, including back volumes. The Institute has 475 current journals. The stock accommodation covers an area of about 7,700 sq.ft. and the reading room with an area of 3,600 sq.ft. can accommodate 200 readers at a time.

RESEARCH

The B.I.T.S. is implementing 30 research projects sponsored by the University Grants Commission and the Council of Scientific and Industrial Research, etc. Of these, three are U.G.C. projects, one in Physics Department, one in Chemistry Department and one in Hindi Department, viz:

- (i) Study of the function of collecting electrode in a Van DeGraef generator.
- (ii) A.C. Polarographic and tensametric studies of organic compounds.
- (iii) A dictionary of Rajasthan Proverbs.

Laser and Maser Research Project and a Project on increased manufacturing productivity and reduced production cost have also been taken up in collaboration with M.I.T. The number of candidates conducting research for the Ph.D. degree of the Institute is 79.

INDUSTRIAL RELATIONS PROGRAMME

Under this programme, industrialists are invited to send their representatives to select candidates for employment in the industries. Paid apprenticeships are also obtained for students in the industries. A number of teachers are deputed to industries for industrial experience during the vacation. Business executives are also invited to give lectures to the students and to acquaint with them the trends, development and research in industry.

STUDENTS' GOVERNMENT AND COUNSELLING PROGRAMME

The Institute has a student union of which all bonafide students of the Institute are members. The annual subscription is Rs. 10/- payable by

all students at the commencement of the Session. The management of the Union is entrusted to an Executive Committee. Excepting certain ex-officio members, the office bearers are elected by the students.

The Union organizes all extra-curricular (cultural and social) activities of the Institute. The activities of the Union include dramatics in English and Hindi, debates in English and Hindi, Music Club, Orchestra, Photographic club, Fine Arts Club etc. There is also a Cinema Club. All functions and activities relating to the running of the above are managed and controlled by the Students Union.

Students are represented on the management of co-operative Stores, Central Cafeteria and night canteen.

With effect from the session 1967-68, the Institute has introduced the Students Counselling Programme. To begin with, Freshmen Counselling Service has been introduced which covers all the First Year students of the undergraduate course in the Institute. There are 30 Counsellors selected from the faculty. About 16 students have been put in charge of each Counsellor. The role of the Counsellor in relation to his students is that of a guide and friend. The first year programme includes a schedule of orientation for all freshmen and new students, giving them information about academic, residential and extra-curricular items. The second aspect of the programme includes individual counselling which has been divided into two categories:

- (i) Academic and (ii) personal.

Under the academic counselling, two major aspects are borne in mind, viz. remedial help to improve study habits and use of study time. Personal counselling includes personal problems and anxieties, emotional behaviour, personal growth and overall intellectual development.

The Student Counselling programme is intended to be extended gradually so as to cover year by year all the students of the Institute.

DISCUSSIONS WITH THE STAFF

In the discussions that the Committee had with the Director, Deans and Heads of Departments, the following points were highlighted:

- (1) The environmental advantages and the availability of a wide variety of programmes help the students to keep themselves occupied with worthwhile activities. This has helped to make the students genuinely interested not only in co-curricular studies but also in their studies.
- (2) Reform in the examination system: The reorganization brought about in the assessment system by the Institute provides for increased assessment and consequently the teaching-learning process has improved considerably. The terminal examinations and internal examinations have also been closely related to each other. Special additional classes are organised for weak students. Examination and assessment have been treated as part of the teachers job and no fees are allowed for examination under the new system adopted by the Institute and no extra remuneration is paid to the teachers for marking the examination scripts.
- (3) The dissertations of post-graduate and doctorate students are, however, assessed by external group of experts.
- (4) As for the social relations between the students and teachers, it was said that the students generally do not go to their teachers to discuss their personal problems.

(5) There is growing realisation that the intake of undergraduate courses should not be increased but that of post-graduate courses should be increased, to facilitate improvement of standards and maximum utilization of facilities.

(6) New courses should be introduced in several disciplines to provide for skilled workers readily absorbed by the economy of the country.

(7) The products of the Institute have done well in foreign universities. It was pointed out in this connection that one of its engineering graduates has recently stood first in the postgraduate examination at the Columbia University.

DISCUSSIONS WITH THE STUDENTS

The discussion with the students brought forth the following points:

- (a) There was genuine concern among the students regarding their prospects of employment.
- (b) The dead-wood from the Syllabi of various courses has still to be cut, though some changes have been recently introduced.
- (c) The courses of study offered by the Institute are not very helpful to many students to compete for All India Competitive Examinations like I. A.S.

(d) While the degrees of the Institute are readily recognised by foreign universities, there is a discriminatory approach within the country. The M.Sc.s. from the Institute have to spend one more year before they are admitted to Research, whereas the M.Sc.s. of I.I.T's are admitted to research courses without such conditions.

(e) The community life in the hostals needs to be better organised. The informal teacher-student contacts have to grow both in numbers and programmes.

DIFFICULTIES OF THE INSTITUTE REGARDING MAINTENANCE EXPENDITURE

During the Third Plan period, the University Grants Commission approved introduction of the following additional courses at the Birla Institute of Technology and Science:

<u>Name of the Scheme</u>	<u>Purpose</u>	<u>Year of implementation</u>
1. Introduction of Degree Course in Chemical Engineering.	Intake of 30 students in Chemical Engg. for Degree Standard.	November 1963-64
2. Reorganisation of Degree Course in Pharmacy.	Intake of 30 students in Degree Course in Pharmacy and extension of course from 3 years to 4 years.	1965-66
3. Expansion under National Emergency.	Increased of intake by 30 students in each of the Technical and Elect. Branches for Degree Standard.	1963-64
4. Introduction of Post-graduate courses in Engineering.	Intake of 10 students in each of the Civil, Elect., Mechanical and Electronics braches for the postgraduate standard.	1965-66



154

As these four development schemes were started in later years of the Third Plan period, they extend to a number of years in the Fourth Plan period. The financial implication of the estimated committed expenditure in respect of these development schemes after completion of five years as plan schemes, is indicated below:-

Name of the Scheme	Year of completion since commencement	Total net deficit after taking into account income from fee etc. (Rs. in lakh)		
		1968-69	1969-70	1970-71
1. Introduction of Degree Course in Chemical Engg.	October 1968-69	0.74	1.40	1.54
2. Reorganisation of Degree Course in Pharmacy	1969-70	-	-	0.96
3. Expansion under National Emergency	1967-68	2.94	3.30	3.62
4. Introduction of Postgraduate course in Engg.	1969-70	-	-	3.85
Total		3.68	4.70	9.97

Of the four schemes mentioned above, the State Government has agreed to share 25 p.c. of the net deficit of recurring expenditure during the currency of the Fourth Plan period for two schemes only, viz., (a) Introduction of Degree Course in Chemical Engineering and (b), Expansion under National Emergency. For reorganisation of Degree Course in Pharmacy 50 p.c. of recurring expenditure is paid by the University Grants Commission, and the remaining 50 p.c. is borne by the Institute. In respect of the schemes of introduction of Postgraduate courses in Engineering, the University Grants Commission has been paying grants on 100 p.c. basis.

The State Government has expressed its inability to share any committed maintenance expenditure in respect of these schemes, and the Birla Institute of Technology and Science also finds it beyond its resources to meet the maintenance expenditure on these schemes. The ultimate recurring expenditure on the aforesaid four schemes in the year 1970-71 amounts to Rs. 9.97 lakhs. Of this, the Birla Institute of Technology and Science has to find additional resources to the extent of Rs. 8.21 lakhs to meet the expenditure as detailed below:-

Name of scheme	Ultimate re- curring expen- diture(1970-71)	Share of BITS on existing basis	Amount for which additional resour- ces are required
(Figures in lakhs of rupees)			
1. Introduction of Degree Course in Chemical Engg.	1.54	0.38 (25%)	1.16
2. Reorganisation of Degree Course in Pharmacy	0.96	0.48 (50%)	0.48
3. Expansion under National Emergency	3.62	0.90 (25%)	2.72
4. Introduction of Postgraduate courses in Engineering	3.85	—	3.85
Total	<u>9.97</u>	<u>1.76</u>	<u>8.21</u>

The Birla Institute of Technology and Science has made a special request that the Commission may help the Institute with adequate financial aid and also may recommend lump-sum recurring grant of Rs. 8.21 lakhs to this Institute, to meet the committed maintenance expenditure in respect of the above scheme.

PROGRESS IN THE THIRD PLAN

During the Third Plan, the University Grants Commission sanctioned grants to the erstwhile colleges and later on to the Institute for the development of studies in Sciences, establishment of text-book library, introduction of degree course in Chemical Engineering, introduction of postgraduate courses in Engineering and Technology, reorganisation of degree course in Pharmacy and expansion of Engineering courses under National Emergency. The expenditure approved and incurred on these schemes is shown in (Appendix).

FOURTH PLAN PROPOSALS

The Fourth Plan proposals of the Institute relate to the provision of funds for the purchase of equipment, books and journals and strengthening of staff for post-graduate and research work in the existing departments. The Institute also proposes to increase the intake in the existing postgraduate departments in Engineering besides introducing postgraduate courses and research in Chemical Engineering. Some facilities for campus development have also been proposed. The total outlay for the Fourth Plan as proposed by the Institute amounts to Rs. 135 lakhs, as follows:

		Recurring for 3 years (1968-71)	Non-recurring
		(Rs in lakhs)	
1.	Staff	15.45	
2.	Maintenance and Stores	5.40	
3.	Scholarships	10.80	
4.	Books and Journals	00.90	2.20
5.	Equipment		49.68
6.	Furniture		1.55
7.	Buildings		48.93
Total		32.55	102.36

Grand Total 'R' and 'NR' Rs 134.91 lakhs  
 Say Rs 135.00 "

RECOMMENDATIONS OF THE COMMITTEE

The Committee makes the following recommendations for new development schemes at the Birla Institute of Technology and Science:

LIBRARY

A sum of Rs. three lakhs may be allocated for the development of the Institute's library for buying books and journals in Science, Humanities, Technology and Engineering subjects as a priority programme. Of this, a sum of Rs. 50,000/- each may be earmarked for buying books and journals on subjects in Science and Humanities.

Faculty of Science

A sum of Rs. 3.80 lakhs may be provided for equipment for the different science laboratories, i.e. Rs. 65,000/- each for the Physics, and Chemistry laboratories and Rs. 50,000/- each for the laboratories of Bio-Chemistry, Bio-Physics, Botany, Zoology and Mathematics.

A sum of Rs. 87,000/- may be approved for salaries of 3 new Assistant Professors, one each in Bio-Physics, Bio-Chemistry and Pharmacy for 3 years i.e. 1968-71.

A sum of Rs. 1.39 lakhs may be provided for additional accommodation for laboratories, class-rooms and staff rooms of the Science Faculty (a built-up area of 6,950 sq.ft.). The Committee feels that the above requirements are the minimum that are needed for strengthening and improving the existing Science Departments and as such the Institute has to take these programmes on a priority basis.

Faculty of Humanities:

A sum of Rs. 1.00 lakhs would be needed for purchasing equipments needed for the Departments of Experimental Psychology and Statistics (Economics).

A sum of Rs. 58,000/- is needed for the salary of two Assistant Professors required to be appointed in Statistics and Industrial Psychology with a view to strengthening the Departments of Statistics and Psychology.

Engineering and Technology

The following programmes are suggested to be taken up on priority basis for strengthening and improving the postgraduate and research departments.

With a view to improving the teaching of the post-graduate courses in Pharmacy, it is necessary for the Institute to obtain equipments worth Rs. two lakhs. This will include items like Gas Chromatograph, I.R. Spectro photometer and Rotary Tablet Machine.

The proposal of the Institute to introduce postgraduate courses in Chemical Engineering with an intake capacity of 10 (and not 20 as suggested by the Institute) deserves priority consideration and for this a sum of Rs. ten lakhs would be necessary for equipment as follows. For the process control and process Dynamics Laboratory (Rs two lakhs), for Thermodynamics and reaction Engineering Laboratory Rs. 2.00 lakhs, Research Projects Laboratory Rs. 2.00 lakhs and Materials Science Laboratory Rs. 4 lakhs.

One Professor, two Readers and one Lecturer would be necessary for this. The cost would be Rs. 1.50 lakhs for the period 1966-71. The Junior Fellowships @ Rs 250/- p.m. to the Postgraduate students in Chemical Engineering will amount to Rs.1.50 lakhs.

General Schemes:

A sum of Rs. 3.00 lakhs may be provided for the Teachers' Hostel for 40 teachers. Besides, the Institute needs a non-Resident Students' Centre to be built up on the usual cost pattern (Rs 35,000) and a Health Centre (Rs 25,000).

The proposals made by the Institute for increasing the intake of postgraduate courses in Civil Engineering, Mechanical Engineering, Electrical Engineering as also the proposals placed before the Committee for strengthening the Postgraduate and Research activities in Electronics and for strengthening the Computer Laboratory may be considered later.

158

CONCLUSION:

A sum of Rs. 41.27 lakhs is payable to the Institute as the commitment of the Third Plan on account of Engineering and Technology programmes and an amount of Rs 7.20 lakhs in respect of schemes in Science and Humanities and Engineering already approved for the Fourth Plan. Thus the total commitment of old and new schemes already approved comes to Rs 48.47 lakhs. These new proposals recommended by the committee will involve Rs 29.24 lakhs (Appendix II). The total outlay for 1966-71 as recommended by the committee would thus amount to Rs 77.71 lakhs.

The Committee places on record its thanks to the authorities of the Birla Institute of Technology and Science, Pilani, for the cooperation they have extended to it in the examination of the Fourth Plan proposals of the Institute.

(154)

Appendix-I

Statement indicating the progress of (non-recurring expenditure) accepted by  
the Commission during the Third Plan which would be completed during Fourth Plan  
(Rupees in lakhs)

Name of Project	Date of sanction	Approved cost		Expenditure upto the end of the Third Plan i.e. March 1966		Amount required from the Commission during the Fourth Plan for the completion of the project				Total 1966-71	Remarks	
		Total	UGC share	Total	UGC share	66-67	67-68	68-69	70-71			
Introduction of F.3-10/65(T) dt.14.6.65												
Chemical Engg. course												
Building		6.44	2.72	1.30	0.65	1.16	0.91	-	-	-	2.37	
Equipment		6.80	3.40	1.63	0.84	2.16	0.39	-	-	-	2.55	
National Emergency F.3-16/65(T) dt.14.6.65												
		0.50	0.25	0.30	0.15	0.06	0.03	-	-	-	0.09	
Introduction of F.6-5/65(T) dt.25.6.65												
Postgraduate course												
Building		2.51	2.51	-	-	2.19	0.32	-	-	-	2.51	
Equipment		9.00	9.00	1.03	1.03	2.25	2.86	2.86	-	-	7.97	
Chandrakant Sch., Ministry of												
Building	S.R. & C.A.	-	9.16	6.84	-	-	-	-	-	-	-	Completed
Equipment	letter No.	-	5.11	-	0.09	2.20	-	-	-	-	2.37	
Furniture	F.2-2/58	-	0.69	4.59	-	-	-	-	-	-	-	
Library	T 4 dated 24.11.58	-	0.50	-	-	-	-	-	-	-	-	
Reorganisation of F.3-10/64												
Degree course in (T) dated 14.6.65												
Pharmacy												
Building		2.71	-	-	-	-	-	-	-	-	-	
Equipment		3.20	3.23	0.43	0.24	0.17	1.72	1.00	-	-	2.90	
Furniture		0.35	-	-	-	-	-	-	-	-	-	
Library & Aids		0.20	-	0.17	0.09	0.01	-	-	-	-	-	
						<u>8.00</u>	<u>8.51</u>	<u>3.86</u>	<u>-</u>	<u>-</u>	<u>20.46</u>	

NEW PROPOSALS RECOMMENDED BY THE COMMITTEE FOR  
IMPLEMENTATION DURING THE FOURTH PLAN.

	<u>Recurring</u>	<u>Non-recurring</u>
(Figures in lakhs of rupees)		
1. <u>Library</u>		3.00
Books and Journals		
2. <u>Faculty of Science</u>		
a) <u>Equipment for</u>		
Physics		0.65
Chemistry		0.65
Bio-Chemistry		0.50
Bio-Physics		0.50
Botany		0.50
Zoology		0.50
Mathematics		0.50
Pharmacy		2.00
b) Reader in Bio-Chemistry - 1	0.29	
c) Reader in Bio-Physics - 1	0.29	
d) Reader in Pharmacy - 1	0.29	
e) Building 6250 sq.ft.		
3. <u>Faculty of Humanities:</u>		1.39
<u>Experimental Psychology &amp; Statistics</u>		
Equipment		1.00
Assistant Professors - 2	0.58	
4. <u>Engineering</u>		
<u>Postgraduate Course in Chemical Engineering</u>		
Equipment -		
Professor - 1 )	1.50	10.00
Readers - 2 )		
Lecturer - 1 )		
Junior Fellowship	1.50	
5. <u>General Schemes</u>		
Teachers' Hostel		3.00
Non-Residential Students' Centre		0.35
Health Centre		0.25
	4.45 (R)	24.79(N.R)
Grand Total: (R) + (N.R) =		Rs. 29.24 lakhs.

BIOLOGICAL SCIENCES AT BITS

(151)

A brief history of the department:

A department of biology with a single yet a very reputed zoologist of the time, Dr. B.C. Mahendra, D.Sc., came into existence in 1944, catering to the needs of the students of the I.Sc. and the B.Sc. classes. With the opening of the facilities for postgraduate studies in zoology and botany in 1947 and 1949 respectively, two independent departments, namely departments of zoology and botany replaced the department of biology, and the departments maintained their separate existence until May, 1970, when they were merged to a single department of biological sciences. The academic activities of the departments during the period until 1964 were in accordance with the system which prevailed in the University of Rajasthan.

With the inception of the Institute in July, 1964, the departments of Zoology and botany set a new objective of attracting workers from all branches of science and technology, for our total knowledge of bio-biology has been enriched, and the knowledge is successfully exploited for the good of mankind by the participation of men of various disciplines in biology. In a community like BITS it is extremely important that this awareness spreads, breaks the barrier between the interdisciplinary fronts, and evolves a new way of thinking. In this connection a senior faculty of the department of biology, Professor A.N. Datta Gupta, was deputed to work for a year in the department of biology at MIT with a view to acquaint himself with MIT's way of organising biology, and to reorient the program of biology at BITS. Also a few renowned American professors namely, Cyrus Levinthal, Chairman of Biology department of Columbia University, Horice S. Fox, Professor of genetics at MIT, have worked in collaboration with BITS' faculty for periods ranging from one week to a few years on the program of coordination of biology in BITS. The Professors were unanimous about the crucial role of biology in science and engineering education. In BITS biology can and indeed should have a key place, and accept the challenge of the time.

A necessary preparation for the first stage of reorganisation was a drastic revision of the programs of studies and the courses in 1965. The current freshmen biology course, which is given to the engineering, science, and humanities students, is a significant deviation and, in a way unique, compared with similar courses catered by the universities of this country. The course deals with the living system in general as an aggregate of orderly arranged molecules typical to biological system, and for the purpose the best understood living organism *escherichia coli*, a commonly occurring bacteria of human colon. The revised program at the postgraduate level includes such unconventional courses as general microbiology, biological chemistry, and specialisations in the area of physiology, ecology, and soil biology. As a result the major stress shifted from the conventional descriptive aspects of plants and animals to a more dynamic aspect, namely the life processes, such changes had a



162

dual purpose; to provide a student with a firm basic from which to examine the manifold phenomenon of the world of life, and to convince him of the crucial importance of the physical sciences to the study of the living systems. The changes are already having the desired impact; the courses are of stimulating interest to the students, and our M.Sc.s are absorbed in situations which used to be closed to them heretofore.

The revised Master's courses in zoology and botany incorporated some features of modern biology. Notwithstanding, the postgraduate studies have yet to combine several other features in order to raise biology to the level of its modern intellectual version. While the merger of the departments of zoology and botany is an organisational expression of the preparation to meet the challenging task, and integrated approach to biology leaves little room for fragmentation, especially at the postgraduate level, that tends to keep science education confined, undesirably though, to petty mechanical packets.

The department acquired in recent years a few major equipments primarily for use in research, and they are Fonbrune micromanipulator, Leitz Panphot, Zeiss photomicroscope, Linhoff camera, Beckman DB Spectrophotometer, and a cryostat. Besides, Institute's central or extra-departmental facilities for UV and IR spectrophotometry, X-Ray diffraction analysis, polarography, radio-chemical analysis, sterilization use of laser, and computer analysis, have been at the disposal of all users. The department has built a tradition of research activities, and during the period under review 12 students took their doctorate degree working in the department, while the results of 7 more are awaited. Around 150 research papers have been published during the period on the basis of the work the authors did in the department. The recent International Symposium on the biology of Sipuncula in Kotor, Yugoslavia (June 1970), is a result of conjoint effort of this department and the Smithsonian institution.

#### The role of the department of biological sciences in BITS:

For too long a time the universities have pursued a program of biology whose material and intellectual value in today's world is very little (c.f. Curriculum Reform 16.26: Report of Education Commission, page 402, 1966). There has been certain attempts to bring in changes in the old order, but compared with the present need such changes are insignificant. For example, biochemistry and microbiology are admittedly the necessary pre-requisites for a study of Cytology, genetics, physiology, ecology, soil biology, radiation biology and many such recently evolved courses that are actively pursued in our contemporary universities. It is, therefore, essential for a centre of biological studies to have adequate facilities for biochemical or microbiological study and research. The UGC Review Committee in its report on biochemistry in Indian Universities (1963) stressed the importance of biochemistry and microbiology in biological study.

The committee remarked in chapter 4, "Even in our science education, the biochemical bias, and the biochemical atmosphere is lacking particularly in undergraduate education in chemistry and biology". In the same chapter it recommends, "the young mind should be nurtured in a biochemical environment and the course of university education at the degree level, in chemistry and biology, should have as an integral part a compulsory syllabus as some of the salient features of biochemistry". The Education Commission (1966 p.662) recommended that "In the field of biology, the study of micro-organisms and their role in medicine and agriculture deserves much more attention than is generally the case". The program of studies in the field of biology at BITS reflects the features of the Committee's observation and recommendation.

For a reasonable proficiency in biochemistry or microbiology adequate exposure to physics, chemistry and mathematics is essential. Any attempt to modernise biology consequently warrants, deeply concerted efforts to organise preparatory subjects necessary for an effective pursuit of modern biology. Such efforts involve introduction or innovation of new curricular material consistent with the academic objective of the department in particular and Institute in general. There should, therefore, be an impelling need to discard the obsolete component of the prevailing conventional program of zoology and botany in order to make room for subjects that are absolutely necessary for a biologist of today. The immediate task of the department is to develop its faculty and to organise courses and the laboratories. In other words, to create the very desired atmosphere conducive to the participants' academic excellence and motivation for useful occupation. This is a necessary preparation which cannot afford to wait.

The department of biology has another important task. BITS is perhaps the only technological institute in the country that houses a well organised department of biology. This is perhaps the only institute in the country where an introductory course in modern biology is a basic requirement for certain sections of engineering and humanities students. Presently institute-wide discussions are being held to have a fresh look at the undergraduate program as a whole. Evidently, the future curriculum will include a core program consisting of physics, chemistry, mathematics, biology, and humanities, and certain traditionally recognised engineering courses like, drawing, graphic work, workshop, etc., which will form around 50% of the total requirement for graduation. The latest thinking of the core-curriculum committee is to make this biology course compulsory for all undergraduate students and the implementation is within the competence of the Institute. For advanced biology program preparatory courses which have been visualised are: organic chemistry, physical chemistry, thermodynamics, plant and animal groups, salient features of biochemistry and microbiology, and basic concepts of ecology. Also, there are opportunities for students of any branch of discipline to register for courses in the area of biology. Increasing awareness will lead to identification of areas of mutual interest between biology and engineering. As a result of such

contacts and interaction between biology and engineering, areas of interdisciplinary interest will grow further. A significant role of the department of biology in a technological institute is to promote participation of engineers in biological studies and ensure a much wider involvement in biology across the Institute. Active pursuits are visualised in the fields of biochemical engineering or bio-electronics. To achieve that goal it would be extremely important to interact and evolve courses in bio-electronics, bio-energetics, cybernetics, biophysics and bio-polymers and the material science that includes biological material. The department of biology should be able to open new avenues for engineers to explore and work. Biology therefore has to play its much awaited meaningful role in an environment of technology.

Consistent with the program of studies it is extremely necessary to strengthen the following sections: (1) biochemistry and physiology, (2) microbiology and genetics, (3) agricultural biology (ecology, parasitology, plant pathology included), and (4) biophysics. Each section headed by a competent person will form a nucleus around which academic activities will grow. One important activity will be to explore wider involvement of the different branches of science and technology in biology. The head of the department (which will be filled by rotation) will look into the successful coordination of the entire academic program, planning and development.

Proposed program:

The faculty in the department of biological sciences has been seriously considering for some time a master's program in biology. The program, as has been visualised, would be broad based with the provision of opportunities for specialisation in an area of biology namely biochemistry, microbiology, ecology, physiology and soil biology. It is conceivable within the frame work of a fair range of courses in terms of basic requirements, intra-departmental electives, extra-departmental electives, seminar on advanced professional topics, and thesis for the degree of Master of Science in biology. Such courses will be drawn from the departments of science, engineering and humanities. It is nonetheless assumable that the departmental courses would be the major components of the total prescribed requirements: relative to extra-departmental courses pertaining to the area of physics, chemistry, mathematics, or such other branches traditionally reorganised as engineering. The department hopes to draw students from the two main streams of science graduates namely, the physical and the biological. There will be courses outside the prescribed total requirement as necessary prerequisite for a program of biology.

An integrated program of biology has earlier been recommended by the University Grants Commission, and the proposal outlined here is very much what the UGC envisaged a long time ago. In recent time the UGC has given encouraging support and generous grant to such departments who are prepared to pursue a program of biology worthy of the time.

The department of biological sciences looks forward to take the responsibility of coordinating an undergraduate program of 3 years duration in food science after the 3 years course leading to graduation. The department has been giving freshman and advanced level courses to students of pharmacy ever since pharmacy education was introduced in this Institute. The projected food science program can be regarded as an extension of the existing facilities and should be an inter-disciplinary activity, a professional course like pharmacy within the faculty of science. The requests that have been made to the UGC in this proposal would add to the available expertise for a program of study of food science and nutrition in this Institute. Students registered for a 3-year food science program will take courses offered by science, engineering, and humanities departments. Such interdisciplinary activity will be very much within the scope offered by the department of biological sciences. Besides, this is an area in which the broad concept of biology coupled with those of technology and humanities can effectively generate new ideas and new interests consistent with the country's efforts in food output.

In conclusion the problem of rehabilitation of biological sciences in India demands immediate attention of all concerned. In the process of the development of this branch the conventional aspects of the hitherto pursued enquiry in zoology or botany will only have a secondary role. The emphasis will be on opportunities for contributions from biology and its applications. It is important to appreciate the vital need to reinforce biological education in the context of our growing society and its economy. Never before was there such a veritable crisis in teaching biology as it is today, crisis for personnel, instructional subjects, books and material and above all the right atmosphere. Throughout the world there is the growing tendency of biology interacting with basic, and applied sciences. The education Commission in its report (1966 - P.662 (11) held that "the need of the day is to bring science and technology closer together in our educational system ". Biology plays an inestimable role in every sphere in the contemporary world. The scale of operation in such a task is apt to be vast, and the problems involved innumerable. Notwithstanding, a beginning can and should be made, and BITS by virtue of its size and structure is particularly amenable for the purpose.

Budgetary requirements in order to strengthen the department:

<u>A. Nonrecurring</u>	<u>Rs. in lacs</u>
1. Equipments	5.00
Fraction collectors 2, pressure dialysis apparatus, chromatographic chambers 10, refrigerators 2, refrigerated baths 2, incubators 4, phase contrast microscope, preparative ultracentrifuge, density gradient fractionator, recorders 2, colorimeters 4, AC Voltage stabilisers 4, liquid scintillation counter, sonic disintegrator, digital voltmeter, electrometer amplifier, potentiostat, fast rise time storage oscilloscope, VTVMs 2, Pulse generator, thermistors, resistors, transistors, Photocells, power supplies and accessories, ultramicrotome.	

166

ii. Lab facilities 2.00

Cold room (included in central facilities),  
aseptic inoculation chamber, temperature &  
light controlled chamber, media making room,  
cold storage, air conditioners.

Total 7.00

B. Recurring:

i. Teaching staff 0.75

ii. Staff: technical, clerical,  
lab. assistants 0.40

iii. Predoctoral research scholarships 0.15

iv. Postdoctoral fellowships 0.12

v. Maintenance 0.25

Total 1.67

Budgetary requirements for the projected program:

A. Nonrecurring

Rs. in lac

i. Equipments for students lab. 1.45

Electrophoresis equipment, colorimeters 4,  
warburg respirometer, lab. centrifuges 2,  
flame photometer, warning blendorm electric  
baths 4, electric ovens 2, thin layer  
chromatography kits 2, thermostatic baths,  
PH meters, oscillators H.F., densitometer,  
torsion balance 2, deep freezer for storage  
of bio-chemicals, potentiometers, low  
voltage meters, power supply sources,  
Co2 and N2 cylinders, lead chambers, molecular  
plastic models, etc., titrimeters, micro-  
kjeldahl's digestion & distillation units.

ii. Additional: Lab. fittings and store  
facilities. 0.20

Total: 1.65

B. Recurring:

i. Student Scholarship	0.25
ii. Predoctoral research scholarship	0.15
iii. Postdoctoral fellowship	0.12
iv. Maintenance	0.20
1. Cost and maintenance of animals	
2. Chemicals, glassware & Supplies	
3. Radioactive chemicals & Photographic materials	
Total	<u>0.72</u>

It may be noted that the need of the department in terms of space, general maintenance, library, faculty, development, and class room improvement, has not been presented here. The overall need of the Institute with regard to the aforesaid items have been presented in separate reports.

Summary of budgetary requirements:

<u>A. Nonrecurring:</u>	<u>Rs. in lacs</u>
(1) To strengthen the department	7.00
(2) For the projected program	<u>1.65</u>
	<u>8.65</u>
 <u>B. Recurring:</u>	
(1) To strengthen the department	1.67
(2) For the projected program	<u>0.72</u>
	<u>2.39</u>

A SCHEME FOR SETTING UP A CENTRAL INSTRUMENTATION AND SERVICE FACILITY.

Since the formation of Birla Institute of Technology & Science (BITS), the various departments of the Institute have been procuring sophisticated measuring instruments and specialised equipment. With the acquisition of such sophisticated instruments, the job of maintenance and servicing has ceased to be routine in nature. The expertise needed for the proper maintenance cannot be had within a single department. No department can afford to employ highly specialised technicians required for servicing these instruments.

At present, most of the departments are compelled to send the sophisticated instruments to servicing centres which are far away from Pilani. This procedure involves considerable delay, frequent damage in transit and prohibitive servicing charges. Very often, the progress of important laboratory work or research projects is hampered due to unforeseen breakdown of instruments for which no substitute can be had within the Institute. For full and effective utilisation of the costly equipment, prompt and efficient servicing facility within the Institute is vital, especially in a place like Pilani where external servicing agencies do not exist in the neighbourhood as in the case of urban areas.

What is needed is a team of intelligent and highly skilled technicians with compatible salary who in the process of servicing such sophisticated equipment will develop adequate know-how. The expertise of this team is further proposed to be utilised for development of indigenous instruments. All India Council for Technical Education (AICTE) has been inviting institutions to undertake this task.

The requirements of the various departments can be broadly classified into the categories of maintenance, servicing and calibration facilities for:

1. Electrical and Electronics instruments
2. Optical instruments
3. Vacuum and refrigeration equipment
4. Instruments used in chemical analysis
5. Instruments used in material testing
6. Reprography and duplicating equipment
7. Desk calculators
8. Audio visual equipment

Currently, the department of electrical and electronics engineering and the central workshop are carrying out part of the maintenance jobs listed above to the extent possible. With the limited resources of test facilities, expertise and man power at their disposal, it has not been possible for these two departments to cope with the demands from the whole Institute. Hence there is an urgent and acute need for a full-fledged central maintenance organisation.

The proposed instrumentation and servicing section will be a central facility for the Institute departments. This section will be entrusted with the work of:

(169)

- A. Breakdown maintenance
- B. Preventive maintenance
- C. Major overhaul of equipment
- D. Reconditioning and modifying obsolete equipment.

For discharging the above functions, this section needs the services of competent technicians and field engineers who will have the required expertise to undertake the job. Further, the section should be equipped with calibration standards, test equipment and limited precision workshop facility to make it a self-contained unit. A summary of the essential requirements is appended herewith.

As a part of this facility it is envisaged that instrumentation projects will be taken up. With the increased tempo of interdisciplinary research projects the central instrumentation and service facility will have to undertake indigenous instrumentation for specific project requirements. While no detailed specific proposal for this aspect of the facility is presented, it is hoped that recognition and fund support will be given. This is consistent with the thinking of educational planners like AICTE and University Grants Commission (UGC) who have been calling upon Institutes of Technology to develop instrumentation.



Requirements for Central Instrumentation  
and Service Facility.

(170)

S U M M A R Y

	Rs. in Lacs
Equipment	7.50
Space	<u>1.09</u>
Total Non-recurring	<u>8.50</u>
<u>Recurring Expenses (Annual)</u>	
Personnel	1.50
Working Expenses (including cost of replacement of spares and accessories)	0.50
Total Recurring expenses	<u>2.00</u>

(171)

Personnel:

The requirements will be for four sections (i) electrical and electronics section, (ii) optical section, (iii) refrigeration and vacuum section, and (iv) precision workshop.

<u>Designation</u>	<u>Grade.</u>	<u>No. of positions reqd.</u>	<u>Recurring expense Rs. in lacs</u>
Senior Engineer	700-1250	4	0.60
Junior Engineer	400-950	4	0.48
Foreman	300-600	4	0.32
Helper	150-300	2	0.10
		Total.	<u>1.50</u>

<u>Space</u>	<u>Rs. in lacs</u>
Approximate area required	225 sq. mts.
Building cost at Rs. 270/- per sq. mt.	0.60
Air conditioning (part area only)	0.20
Services, furniture (30% of building cost)	<u>0.20</u>
	<u>1.00</u>

List of equipment

<u>Item of equipment.</u>	<u>Cost Rs. in lacs.</u>
Bridges	0.50
Electrical standards	0.50
Oscilloscopes, VTM, Waveform generators, and Wave analysers	1.50
Recorders	0.50
Stabilised power supplies and constant voltage transformers	0.50
Multimeters.	0.10
Frequency counters	0.50
Tensometer & pressure capsules	0.40
Optical pyrometer, L & N bar photometer, filters and standard lamps	0.50
Leak detector, pressure gauge calibrator, vacuum pumps, air compressor	0.50
High precision potentiometer, constant temperature bath, standard electrodes and buffers, standard thermometers	0.50
Precision workshop facility	1.00
Miscellaneous accessories and spare parts.	0.50.
Total.	<u>7.50</u>

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated : 1st December, 1971.

Item No. 19: To consider the recommendations of the AICTE for the development of Undergraduate and Postgraduate Courses in Pharmacy at Jadavpur University.

The Pharmaceutical Education Committee of the All India Council for Technical Education set up to advise the Council on development of facilities for education in Pharmacy had Inter alia recommended that post-graduate courses in Pharmacy should be introduced at selected institutions including Jadavpur University. The selected institutions were requested to send detailed proposals for organising post-graduate degree course in this subject.

The proposal received from the Jadavpur University has been examined by a Visiting Committee appointed by the Eastern Regional Committee of the All India Council. Report of the Committee is enclosed Annexure. From the report it will be seen that the Committee has recommended post-graduate course in Pharm. in the following three fields of specialisation with a total intake of 15 students.

1. Pharmaceutical Chemistry
2. Bio-Chemistry & Micro-Biology
3. Pharmacology & Pharmaceutics.

It may be mentioned, in this connection, that the university had started this course with an intake of 2 students in 1966 pending sanction from the U.G.C. Later on the Commission had sent a Visiting Committee, which had made recommendations for M.Pharm course with an intake of 6 students.

The recommendations of the Visiting Committee have been approved by the Chairman, Board of Post-graduate Engineering Studies and Research and the following additional physical facilities have been recommended for the postgraduate course.

<u>Building</u> :	7000 sq. ft. plinth area @ Rs.50/- per sft.	= Rs.4.0 lakh <sup>s</sup>
<u>Equipment</u> :	(including furniture, installation etc.)	= Rs.3 lakhs
<u>Teaching Staff</u> :	Professors 2	} - Rs.0.92 lakh
	Asstt. Professors 2	
<u>Subordinate Staff</u> :	Research Asstts. 3	
	(Rs.300-600)	

p.t.o.

(174)

-:2:2:

<u>Post-graduate Scholarship</u>	At the rate of Rs.250/- per month per student for an additional intake of 9.	Rs.54,000/- pa
<u>Maintenance expenditure:</u>	At the rate of Rs.500/- per student per annum for 9 students (additional)	Rs. 9,000/- pa
Total NR - Rs. 700 lakh		
R - Rs. 1.55 lakh p.a.		
UGC share @ 100%		

The above recommendations are in addition to the physical facilities recommended by the Committee approved by the UGC for an intake of 6 students.

Other recommendations:

In addition to the above physical facilities the Committee has recommended that 8 posts of Associate Lecturers approved for the under-graduate courses for this Department should be converted into 8 posts of lecturers. The incumbents should, of course, be appointed through properly constituted Selection Committee of the University and the existing Associate Lecturers will have no right to get the posts of Lecturers automatically. The expenditure involved in the conversion of these posts is estimated to be Rs.20,000/- p.a. (UGC share 50%).

The matter is placed before the Commission.

E.O.(T)/D.G.(T)

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION  
EASTERN REGIONAL COMMITTEE

Report of the Expert Committee of the Eastern Regional Committee for assessing the instructional facilities for conducting M.Pharm Courses in the Department of Pharmacy of the Jadavpur University, Calcutta-32.

\*\*\*

A. INTRODUCTION :

The Jadavpur University submitted to the Ministry of Education and Social Welfare a proposal for assessing the instructional facilities of the University for conducting M.Pharm. courses. This proposal was considered by the Pharmaceutical Education Committee at its meeting held on 30th October, 1968, and the Committee recommended the acceptance of the proposal by the Post-Graduate Board of the All India Council for Technical Education and for central assistance to be given to the University for the purpose. The proposal of the University should, in the normal course, have gone to the Regional Visiting Committee (Eastern Region - under the Chairmanship of Prof. A.C.Roy) of the Post-Graduate Board when they visited the various Universities and Institutions for considering the proposals of the Post-Graduate Courses in Technological and Engineering subjects. Unfortunately, due to certain circumstances, this proposal was not referred to them. The Ministry of Education and Social Welfare, therefore, decided to request the Eastern Regional Committee to process the proposal through a Visiting Committee and to make recommendations.

Accordingly, the Chairman, Eastern Regional Committee, appointed an Expert Committee consisting of the following to visit the Department of Pharmacy of the Jadavpur University and to make appropriate recommendations regarding the physical instructional facilities to be provided in the Department, for running the M.Pharm. Courses :

- (1) Prof. (Mrs.) Asima Chatterjee,  
Head of the Department of Chemistry &  
Dean of the Faculty of Science,  
University College of Science & Technology,  
92, Acharyya P.C.Road, Calcutta-9.
- (2) Prof. M.M.Chakravarti,  
Department of Applied Chemistry,  
University College of Science & Technology,  
92, Acharyya P.C.Road, Calcutta-9.
- (3) Prof. S.C.Roy,  
Head of the Department of Bio-Chemistry,  
University College of Science & Technology,  
35, Ballygunge Circular Road, Calcutta-19.
- (4) Dr. S. Banerjee,  
Chief Scientific Adviser,  
Dey's Medical Stores (Mfg.) Pvt.Ltd.,  
62, Bondel Road, Calcutta-19.

(5) Dr. Diptish Chakravarti,  
Deputy General Manager,  
Smith, Stanistreet & Co.Ltd.,  
18, Convent Road, Calcutta-14.

(6) Shri S. Sadasivam,  
Dy.Educational Adviser(Tech.) to the Govt.of India,  
Ministry of Education & Social Welfare,  
Eastern Regional Office,  
5, Esplanade East, Calcutta-1 ... Secretary.

3. On the request of the Secretary, the Head of the Department of Pharmacy had prepared a note with regard to the existing instructional facilities by way of building space, equipment, staff, recurring grant available, etc., for the Department and circulated the same to all the Members of the Visiting Committee along with the requirements of the Department for conducting the M.Pharm Courses.

B. THE VISIT :

The above Visiting Committee visited the Department of Pharmacy of the Jadavpore University on the 19th July, 1971. All the Members of the Committee were present excepting Dr. Diptish Chakravarti who could not come since he was away from Calcutta. The Visiting Committee was received by Dr. Durlav K.Roy, Head of the Department of Pharmacy. After preliminary discussions, the Committee went round the various laboratories and class rooms of the Department.

C. ESTABLISHMENT OF THE DEPARTMENT OF PHARMACY & INTRODUCTION OF B.PHARM. COURSES :

The University started B.Pharm. Courses in 1963. The Department of Pharmacy in the University has developed in two stages with regard to the establishment of B.Pharm. Courses as detailed hereunder :

Stage I : Introduction of B.Pharm Course at the University of Jadavpur, Calcutta-32.

On the basis of the recommendations of an Expert Committee of the Eastern Regional Committee consisting of Dr. J.C.Ray, Dr.P.K.Sanyal, Dr. S.C. Niyogi, Shri F.C.V.Mullick and Shri N.C.Chakraverty (Date of Visit - 21.12.1963), the University Grants Commission, under their letter No.F.3-7/63(T) dated 24.4.'64, approved the following estimates of cost for starting a 4-Year Integrated Degree course in Pharmacy at the Jadavpur University with an intake of 30 students :

	<u>Approved cost</u>
	Rs
I. <u>Non-recurring:</u>	
(i) <u>Buildings :</u>	
(a) College buildings (Area - 26,750 Sft)	6,68,750/-
(b) Workshop building (Area - 690 Sft)	14,000/-
	<u>6,82,750/-</u>
(ii) Equipment (including installation charges) as per Model List	5,03,000/-
(iii) Furniture	50,000/-
(iv) Library & Audio-visual Aids	35,000/-
	<u>5,88,000/-</u>
Total (N.R.)	12,70,750/-

contd...

II. Recurring(Per annum) :

	<u>Approved cost</u>
	Rs
(a) Staff (Teaching & Non-teaching)	1,90,212/-
(b) Working Expenses	<u>37,000/-</u>
Total (Recurring)	2,27,212/-

Stage II:

The State Government of West Bengal, Health Department, Medical Branch, requested the Jadavpur University in December, 1964, to consider the possibility of increasing the intake in the Under-Graduate course. This proposal was accepted by the University and the University Grants Commission. A Sub-Committee, consisting of Dr. M.L. Schroff, the then Head of the Department of Pharmacy and Shri N.C. Chakraverty, the then Secretary, Eastern Regional Committee, in their report dated 22.12.1965, recommended that, in view of the increased demand of Pharmacy Graduates in the Eastern Region, the intake capacity of the Department might be increased from 30 to 60 per year. This (Schroff) Committee also recommended additional instructional facilities for the additional intake of 30.

On the basis of the Schroff Committee's recommendations, duly approved by the Eastern Regional Committee, the University Grants Commission in their letter No.F.3-29/63(T) dated 27.3.1966 approved the following estimates of cost for Grant-in-aid for increasing the intake capacity from 30 to 60 students :-

	<u>Approved cost</u>
i) Building (Animal House) Gross area 1500 Sft. (including Electrification, Air-conditioning).	Rs 47,500
ii) Furniture	Rs 50,000
iii) Library books etc.	Rs 10,000
Total(N.R.)	<u>Rs 1,07,500</u>

Recurring Gross (Per annum) :

Staff and Maintenance

Rs 1,07,100D. INTRODUCTION OF M. PHARM. COURSES :

Pending sanction from the University Grants Commission, the University of Jadavpur started the M.Pharm. Courses with an intake of two students in 1966. This intake was later increased to six students per annum. A Visiting Committee under the Chairmanship of Prof. S.K. Bose and consisting of Dr. Gopal Tripathi, Dr. K.N. Gaiad, Dr. S.N. Ghosh, Dr. A.K. Kamal, Dr. S. Saran, Dr. D.N. Singh, Dr. T.R. Anantharaman, was appointed by the University Grants Commission to examine the overall development proposals of the Jadavpur University under the Fourth Five-Year Plan. This (Bose) Committee visited the various Departments of the University on the 25th and 27th August, 1968.

contd.,



45)

The Bose Committee recommended the following grants in respect of the Four-Year B.Pharm. Courses with an intake of 60 students and also for the Two-Year M.Pharm. courses with an intake of 6 students per annum :-

Non-recurring:

(a) Building (7,000 Sft.) including 1,000 Sft. for Animal House.		Rs 3,50,000/-
(b) <u>Equipment</u> :		
(i) Post-Graduate	...	Rs 1,00,000/-
(ii) Under-Graduate	...	Rs 50,000/-
(c) Books & Journals	...	Rs 50,000/-

Recurring :

(i) Teaching Staff		
Professor - 1		
Reader - 1		
Technical Assistants - 2		
(ii) Junior Fellowship @ Rs 250/- p.m. for 6 x 2 students	...	Rs 36,000 p.a.
(iii) Maintenance Grant	...	Rs 14,400/- p.a.

The Head of the Department informed the present Visiting Committee that the above recommendations have been approved by the University Grants Commission and included for implementation under the overall allocation of Rs 1,91,80,784.00 (Rs 1.92 crores approx.) to the Jadavpore University for the extended Fourth Five Year Plan upto 1972-74.

DELIBERATIONS OF THE PRESENT VISITING COMMITTEE :

E. SUMMARY OF INSTRUCTIONAL FACILITIES SO FAR APPROVED :

The Secretary of the present Visiting Committee summarised the instructional facilities so far sanctioned to the Department of Pharmacy as under :-

Purpose.	For initial 30 intake (B.Pharm.)- (J.C.Ray Committee)	Additional for increase from 30 to 60 (B.Pharm.) (Schroff Commi- ttee)	Bose Committee for M.Pharm. (Intake-6)	Total
	1	2	3	4
<u>Non-recurring:</u>				
a) Building Area	26,750 Sft. 690 Sft. (Workshop)	1,500 Sft. Animal House, with Air-conditioning etc.	7,000 Sft (including 1000 Sft. for Animal House)	35,940 Sft.
Cost	Rs 6,68,750/- 14,000/- Rs 6,82,750/-	Rs 47,500/-	Rs 3,50,000/-	Rs 10,80,250/-

contd...

1	2	3	4	5
	Rs	Rs	Rs	Rs
b) Equipment	* 5,03,000/-	-	P.G. 1,00,000/- U.G. 50,000/-	6,53,000/-
Furniture	50,000/-	50,000/-	-	1,00,000/-
Library	35,000/-	10,000/-	50,000/-	95,000/-
	5,88,000/-	60,000/-	2,00,000/-	8,48,000/-

\* Addl. 43,000/- sanctioned for devaluation

## II. Recurring:

Working expenses (including Library)	37,000/- P.A.	31,000/- P.A.	14,400/- P.A.	82,400 P.A.
--	---------------	---------------	---------------	-------------

### Staff:

Professor - 1	-	-	1	2
Asstt. Prof./ Reader - 4	-	-	1	5
Lecturer - 4	4	4	-	8
Associate Lecturer - 4	4	4	-	8
Tech. Assistant -	2	2	2	4
Annual allowances for Part-time & Hony. Lecturers	3,000/- p.a.	3,000/- p.a.	-	6,000/- p.a.

Total Recurring: per annum.	2,27,212/-	1,07,100/-	Fellowship: 250/- x 6 x 2 x 12 = Rs 6,000/- Gross recurring expenses not given	3,34,312/- Bose Committee recommendations
--------------------------------	------------	------------	--	--

## F. PRESENT POSITION OF THE DEPARTMENT :

As against the existing above sanctions, the Department has the following instructional facilities :

Building	28,400 Sft.			
Equipment	Rs 3,00,000/-			
Furniture	Rs 1,00,000/-			
Library	Books - 2,100 Nos. Rs 1,12,000/-			
Prof.	Asstt. Prof.	Lecturer	Asso. Lecturer	Tech. Asstt.

### i) Teaching Staff at present sanctioned:

a) Including Bose Committee's recommendation	2	5	8	8	4
b) For B.Pharm. only.	1	4	8	8	2
ii) Teaching Staff in position :	1	4	9	6	2

contd...

### G. MAJOR AREAS OF SPECIALISATION IN THE M.PHARM COURSES :

The Department has proposed to admit M.Pharm students in the following 8 areas of specialisation :-

- (a) Pharmaceutical Chemistry
- (b) Pharmaceutics ;
- (c) Pharmacology ;
- (d) Micro-Biology;
- (e) Bio-Chemistry;
- (f) Pharmacognosy ;
- (g) Pharmaceutical Engineering, and,
- (h) Chemo-Therapy.

The Committee noted that in the whole of the Eastern Region, this is the only institution conducting Pharmacy Degree course and Post-Graduate Courses in Pharmacy. Thus, this Institution, at the present moment, is serving the requirements of technical personnel in this field for the whole region. There are good employment prospects for the M.Pharm, Degree-holders in the region. Against this background, the Committee discussed at length the major areas of specialisation to be developed by the Department for the Post-Graduate courses. It was noted that some of the specialities mentioned in the Department's proposal are co-related in their nature and, therefore, the Committee recommended the following three major areas of specialisation to be offered for the M.Pharm courses :-

- (i) Pharmaceutical Chemistry & Pharmaceutics ;
- (ii) Bio-Chemistry & Micro-Biology; and,
- (iii) Pharmacology & Pharmaceutics.

After deciding the three above major areas of specialisation and taking into account the employment potential in the region, the Committee recommended an intake of 15 students per annum for the M.Pharm courses. The students in the three major areas of specialisation will be distributed from amongst this 15. This gives a total student strength of 30 in the M.Pharm courses.

### H. RECOMMENDATIONS OF THE COMMITTEE REGARDING PHYSICAL INSTRUCTIONAL FACILITIES :

The Secretary placed before the Committee the norms approved by the Post-Graduate Board of All India Council for Technical Education for introduction of Post-Graduate courses in Engineering and Technology. Based on the three major areas of specialisation recommended above and the norms of instructional facilities approved by the Post-Graduate Board, the Committee recommended the following physical instructional facilities to the Department of Pharmacy, specifically, in respect of running M.Pharm. Courses :

#### (a) Building :

The Committee noted that the Department has got a built-up area of 28,440 Sft. Some more areas are yet to be built up to fulfil the recommendations of the J.C.Ray and Schroff Committees to complete the programme of 28,940 Sft. The 7,000 Sft. area recommended by the Bose Committee is yet to be built. The Committee found that the laboratories are very cramped and there was not enough working space for even the Under-Graduate students. This is due to the fact

that when the intake capacity of the Under-Graduate students was doubled from 30 to 60, enough additional accommodation was not provided. It was further noted that there were no staff rooms for the Faculty. There is also not enough space for the M.Pharm courses and for the research work undertaken by the Department under various sponsored Schemes. There are only three class rooms and they are hardly sufficient for the Under-Graduate courses. Taking all these factors into consideration, the Committee recommended a total area of 15,000 Sft (Plinth) to be added to the Department. The Secretary brought to the notice of the Committee that under the Post-Graduate Courses Programme, building space should be recommended only when it is absolutely inescapable. In spite of this stipulation, the Committee recommended the additional space of 15,000 Sft. as it strongly felt that this additional space was absolutely essential. Deducting the 7,000 Sft. area recommended by the Bose Committee, the next additional area (plinth) recommended by this Committee would come to 8,000 Sft. At the present rate of construction, the cost would come to Rs 8,000 x 50 = Rs 4 Lakhs.

(b) Equipment :

The Committee noted that the Department has got existing sanction arising out of the recommendations of the earlier three Committees, both for the Under-Graduate Programme and Post-Graduate Programme, as under :

Equipment	...	Rs 6,53,000/-
Furniture	...	Rs 1,00,000/-
Library	...	<u>Rs 95,000/-</u>
Total ..		Rs 8,48,000/-

NOTE: Of the above, grants specifically ear-marked for the Post-Graduate courses, as recommended by the Bose Committee would be -

Equipment	-	Rs 1,00,000/-
Library	-	Rs 50,000/-

Based on the Post-Graduate Board's norms, the Department would require a total equipment grant of Rs 4.5 lakhs for the M.Pharm courses (3 major areas). Deducting the Bose Committee's recommendations of Rs 1.5 lakhs already approved for the Department, the Committee now recommended additional grants of Rs 3,00,000/- in respect of the M.Pharm. courses. While making this recommendation, the Committee took into consideration the partial implementation of the recommendations of the J.C.Ray Committee and the Schroff Committee and expected the Department to complete the equipment programme as recommended by the above two Committees.

Out of the total equipment requirement worth Rs 4.5 lakhs needed for the Post-Graduate courses, the Committee considered that at least 40% of the value (say Rs 2 lakhs) would be required as foreign exchange from hard currency area, since sophisticated Research Equipment were yet to be obtained by the Department.

contd....

(c) Recurring Expenditure:

Again, based on the norms approved by the Post-Graduate Board, the following additional teaching faculty would be required for running the M.Pharm courses :

Professor	-	3
Assistant Professor	-	3

The Committee felt that one Research Assistant should invariably be attached with each of the three Professors and this will strengthen the Department for conducting Doctoral Research Programme and so the Committee recommended 3 Posts of Research Assistants in addition to two posts of Technical Assistants approved by Bose Committee.

The Committee also recommended recurring Library Grant of Rs 10,000/- p.a. and working expenses of Rs 15,000/- p.a. for M.Pharm students and Rs 5,000/- p.a. for Research Fellows. Thus, the total recurring expenditure comes as under :-

<u>Designation</u>	<u>No.</u>	<u>Scale of Pay</u>	<u>Amount</u>
		Rs	Rs
Salary : Professor	3	1,100- 1,600/-	48,600/-
Asstt.Prof.	3	700-1,250/-	35,100/-
Research Asstt.	3	300 - 600/-	16,200/-
Tech. Asstt.	2	300 - 500 /-	9,600/-
			Rs 1,09,500/-
		All allowances including P.F. contribution etc. - 30%	- 32,850/-
			Rs 1,42,350/-
Supporting Technical Staff - 15% of above			Rs 21,350/-
			Rs 1,63,700/-
Library	...		Rs 10,000/- p.a.
<u>Working Expenses</u>			
For P.G. students - 500/- x 15 x 2	-		Rs 15,000/- p.a.
For Research work	-		Rs 5,000/- p.a.
Scholarship - Rs 250/- x 15 x 2 x 12	-		Rs 90,000/-
			Rs 2,83,700/-

Say : Rs 2.84 lakhs

This includes staff, working expenses, scholarship, etc. as recommended by Bose Committee.

NOTE: The Committee felt that one person with special knowledge and experience in Electronics/Instrument Tech. in appropriate scale should be appointed to look after the sophisticated electronic equipments.

I. OTHER RECOMMENDATIONS :

The Committee had the benefit of discussions with Dr. A.K.Majumdar, the Vice-Chancellor and Shri P.C.V.Mullick, the Registrar, who, in the course of discussion informed that the University, in principle, agreed to abolish all posts of Associate Lecturers and to convert them into Lecturers. This Committee very much welcomed the idea and recommended that

8 posts of Associate Lecturers approved for this Department should be converted into 8 posts of Lecturers. The incumbents should, of course, be appointed through properly constituted Selection Committee of the University and the existing Associate Lecturers will have no right to get the post of Lecturers automatically.

J. SUMMARY OF RECOMMENDATIONS FOR M.PHARM. COURSES :

Total intake - 15 per annum. Duration : 2 Years.

Major areas of Specialisation : (a) Pharmaceutical - Chemistry  
(b) Bio-Chemistry & Micro-Biology,  
and,  
(c) Pharmaceutics & Pharmacology.

	<u>Present Committee</u>	<u>Less Bose Committee</u>	<u>Net Additional</u>
		for an intake of 6	

Non-Recurring :

Building - (including fittings, electrification, Plumbing, sanitation etc.)	15,000 Sft. @ Rs 50/- per Sft. = Rs 7,50,000/-	7,000 Sft. @ Rs 50/- per Sft. = Rs 3,50,000/-	8,000 Sft. @ Rs 50/- per Sft. = Rs 4,00,000/-
Equipment - (including furni- ture, installation, freight etc.)	Rs 4,50,000/-	Rs 1,50,000/-	Rs 3,00,000/-
Library -	Rs 50,000/-	Rs 50,000/-	Nil

(Foreign Exchange from Hard Currency Area for Rs 2,00,000/-).

Teaching Staff :

Professors	3	1	2
Asstt. Prof.	3	1	2
Research Asstt.	3	-	3
Technical Asstt.	2	2	-

NOTE : Gross recurring expenditure : Rs 2.84 lakhs per annum.  
(including approval of Bose Committee)

Note : Financial implication for upgrading the posts of Associate Lecturers to Lecturers has not been taken into account here.

K. FINALISATION OF THE REPORT :

The Members of the Committee desired that after consulting Dr. Diptish Chakraborty, who could not join the visit to the Department of Pharmacy, Jadavpur University, on the 19th July, '71, the report may be sent to the appropriate authorities, for final sanction and implementation. The Committee hoped that the University would take all steps for implementation of the programmes already sanctioned, and the programmes presently recommended in this report.

contd...

L. ACKNOWLEDGEMENT :

The Committee is grateful to Prof. Durlov K.Roy and his colleagues in the Department of Pharmacy, Jadavpur University, for providing all the help and material, which enabled the Committee to draw up this report. The Committee is also thankful to the Vice-Chancellor and Registrar for the help extended to the Committee.

Sd/- M.M. Chakravarti

Sd/- Asima Chatterjee

Sd/- S.C. Roy

Sd/- S. Banerjee

Sd/- S. Sadasivam

Calcutta,  
Dated July 24, 1971.

Dr. Diptish Chakraborty has approved the above Report.

Sd/- S. Sadasivam.

No.202/150 copies  
SP: 31.7. '71

UNIVERSITY GRANTS COMMISSION

(175)

Meeting :  
Dated : 1st December 1971.

Item No. 20 : To consider the recommendations of the AICTE for the provision of students' amenities at the Osmania University as well as Annamalai, Andhra, Bangalore, Madras, Sri Venkateswara and Sambalpur Universities.

The Commission at its meeting held on 5.5.1971 considered the recommendations of the AICTE for the development of undergraduate Engineering and Technological Education during the Fourth Plan period at the Universities of Osmania, Annamalai, Madras and Sri Venkateswara and agreed to provide the following physical facilities at 50:50 sharing basis:

	Total grant sanctioned		U.G.C. share @ 50%	
	N.R.	R. p.a.	N.R.	R p.a.
	(Rs. in lakhs)			
Madras	2.00	0.42	1.00	0.21
Annamalai	5.60	0.63	2.80	0.34
Osmania	9.00	1.48	4.50	0.74
Sri Venkateswara	17.42	1.56	8.71	0.78

2. The AICTE also recommended for the provision of non-recurring grants towards students amenities under the IVth Five Year plan at these universities as given below at 50:50 sharing basis:

University	Students amenities recommended by AICTE	cost
Madras	Construction of an auditorium	NR-Rs. 3.20 lakh
Annamalai	Lunch room facilities etc.	NR-Rs. 1.00 lakh
Osmania	Water coolers and lunch room facilities	NR-Rs. 1.00 lakh
S.V.U., Tirupati	Construction of an auditorium	NR-Rs. 3.00 lakh

p.t.o.



176

3. It may be stated that the Commission has agreed to provide student amenities to the Aligarh Muslim University and Nagpur University as shown below:-

Name of the University	Student amenities approved	Cost
Aligarh Muslim	Furniture for canteen attached to Polytechnic	Rs 15,000/-
Aligarh Muslim	Common room, canteen etc. for the Engineering College	1,16,000/-
Nagpur	Canteen Tuckshop, Utencil Furniture, Watercooler, Dispensary etc.	1,08,600/-

4. The Commission on the recommendations of the AICTE in 1961 agreed to provide students amenities in university technical institutions. The Sambalpur University has now sent a proposal for the construction of cafeteria at a cost of Rs. 95,200/- for an annual intake of 240 students. The sharing basis of expenditure is 50:50.

5. The recommendations of the AICTE for provision of student amenities as given at paras 2 and 4 above (and to other universities under similar condition) are placed before the Commission for consideration.

EO(T)/DO(T).

'VK'

UNIVERSITY GRANTS COMMISSION

177

Meeting:

Dated: 1 December, 1971.

Item No. 21. To consider the recommendations made by the UGC Advisory Committee on colleges at its meeting held on September 2, 1971.

.....

The UGC Advisory Committee on colleges at its 5th meeting held on September 2, 1971 observed as follows:-

- (a) Keeping in view the recommendation made by the University Education Commission (1948-49), the Committee felt that it could be an advantage if Government colleges located in the same town as the headquarters of the universities become constituent units of the universities concerned. It has however to be ensured that adequate financial assistance is available from the State Government to the university concerned for running these institutions. For the management of Government colleges located outside University towns the possibility for setting up an autonomous organization as recommended by the Education Commission (1964-66), having representations of the State Government as well as the universities concerned, may be explored. Financial support for these institutions may continue to be provided by the State Governments.
- (b) The bulk of postgraduate and research work should be concentrated in the universities and their constituent colleges. Competent teachers from the affiliated colleges may also be invited to participate in such work. Where there are 2 or more colleges in close proximity, postgraduate work may be coordinated in one centre, under the aegis of the university concerned.
- (c) The need and importance of establishing a proper machinery in the universities for guiding and assisting the affiliated colleges was stressed. It was felt that such a machinery should function under the supervision of a senior academician, and assistance for the creation of this machinery should be available from the UGC.
- (d) Under the normal procedure, the colleges are required to send certificates under the signature of the PWD Engineer to the effect that the rates provided in the estimates for their building projects are according to the current PWD schedule of rates. In view of the difficulty and delay involved in obtaining such certificates, the Committee supported the suggestion of the Calcutta University that the requisite PWD rates certificates for building projects for colleges may be provided by the University Engineers and these may be accepted by the Commission.

(e) The Commission may initiate schemes involving joint teacher-student participation in as many ways as possible in all colleges. As a step in this direction, the committee supported the suggestion for giving financial assistance to affiliated colleges for meeting expenses of field work, on a sharing basis, particularly in disciplines where such work was a recommended part of the prescribed curriculum.

It may be stated that the recommendations (a) and (b) are already under the consideration of the committee on Governance of colleges.

The Commission has already agreed to raise its contribution to the universities for the U.G.C. unit from Rs. 6,000/- p.a. up to Rs. 12,000/- p.a., depending on the number of colleges affiliated to each university. Moreover, the proposals of 31 universities have so far been accepted to the Commission for the creation of posts of development officers (one for each university)

It is also for consideration (i) if the PWD rates certificates for building projects of colleges, issued by university engineers, may be accepted, and (ii) a scheme for assisting colleges for meeting expenses on field work in disciplines in which such work is a part of the prescribed curriculum may be formulated.

AS(A) II/J.S.(C)

Confidential

UNIVERSITY GRANTS COMMISSION

(179)

Meeting :

Dated : 1st December 1971.

Item No. 22 : To consider the proposal of People's College, Nanded (Marathwada University) for the Commission's assistance for the development of postgraduate studies in humanities and social sciences.

The Marathwada University, Aurangabad recommended a proposal on People's College, Nanded, for financial assistance for the development of its postgraduate departments in English, Marathi, Political Science, and Commerce under the scheme of development of postgraduate studies in the Humanities and Social Sciences during the Fourth Plan period. The college purposes to construct a postgraduate building at an estimated cost of Rs. 3,10,525/- and has requested the Commission to sanction a grant of Rs. 1,50,000/- for this project. The report of an officer of the Commission who visited the college in this connection is attached (Annexure).

The People's College, Nanded, was established in 1950 as a Degree College. It became a postgraduate college in 1967. The College provides instruction in arts and commerce at the degree and postgraduate levels. The College has agreed that assistance may be provided to it during the current plan period for additional teaching staff to introduce the optionals, and to arrange for the tutorials, seminars and discussions. Besides this assistance is repaid for books and journals and a few rooms for holding the seminars etc.

It has been suggested in the report that the following assistance may be provided to the college:

S.No.	Item	Total cost Rs.	Commission's share Rs.
1.	4 rooms on the first floor of the building including furniture	70,000/-	35,000/-
2.	4 Lecturers - one each in English, Commerce, Political Science and Marathi in the grade of Rs. 400-800/300-600	60,000/-	30,000/-

p.t.o.

(180)

3. Books and back volumes of journals for the postgraduate departments of English, Commerce, Political Science and Marathi	60,000/-	45,000/-
Total	<u>1,90,000/-</u>	<u>1,10,000/-</u>

The People's College, Nanded, is eligible for assistance from the Commission upto Rs. 1.05 lakhs.

The matter is placed before the Commission for consideration.

EC(H.II)/DO(H).

'VK'

UNIVERSITY GRANTS COMMISSION.

Report of the visit to People's College, Nanded on 27th August 1971 to discuss their proposal for development of postgraduate studies in Humanities & Social Sciences.

Town:

1. Nanded is a district headquarter with a population of more than a lakh of people. It is situated on the banks of river Godavari in Maharashtra at a distance of about 225 Kms. towards the west of Aurangabad. The town has three postgraduate colleges in Arts and Science, a Teacher's Training College, a Law College and a Degree College in Arts which has been established recently.

College:

2. People's College, Nanded was established in 1950 as a Degree College. Its status was raised to that of a Postgraduate College in 1967. It is at present affiliated to the Marathwada University. The college provides instructions in Arts and Commerce at degree and post-degree level.

Management:

3. The college is run by the Nanded Education Society which is a registered body. The Society is running two postgraduate colleges - one in Arts and Commerce and the other in Science on the same campus.

Building:

4. The built up area of the college building is 19,726 sq.ft. It has 5 class-rooms, 3 lecturer halls, 4 office rooms and 3 common rooms on the ground floor and 1 library stock room and 1 reading room in the basement. Due to shortage of class-rooms, postgraduate classes are held in the morning and evening. The building is owned by the Management viz. Nanded Education Society and the college pays annual rent to it for using the building.

During the fourth plan period, two building projects were approved by the University Grants Commission. One of these projects namely extension of library facilities at a total cost of about Rs. 1.37 lakhs is almost complete. Three reading halls and two rooms covering an area of about 7,260 sq. ft. have been constructed on the ground floor. Only the furniture remains to be obtained. Work on the other project namely non-resident student centre involving a total expenditure of Rs. 1 lakh is likely to be started in the winter this year.

HOSTEL:

5. The college has a mens' hostel for 54 students. There are 18 rooms in the hostel and each room is shared by three students. Rooms are quite spacious and each student has been provided with a cot, table and a chair. There is, however,

a need to improve the light in the rooms by providing either tube light or table lamps to avoid strain on the eyes of the students. Facilities for outdoor games in the evening should also be improved so that every student in the hostel participates in one game or the other. The hostel mess is run by the students and the arrangements made by them are quite satisfactory.

#### Library:

6. The library of the college is housed in the basement. It has at present 21,105 books of which 2,900 are in Marathi, 2,800 in English, 1,725 in Political Science, 1,125 in Commerce and the rest in other subjects. The college subscribes 26 journals and periodicals in English literature, 45 in Political Science, 26 in Marathi and 36 in Commerce. The college has a trained librarian who has joined about a year ago. The working of the library, however, is not quite satisfactory. Hardly 7,000 out of 21,000 books have been catalogued. The immediate task, therefore, is to catalogue all the books available in the library after weeding out old textbooks and other outdated books. The books at present are being catalogued author-wise, title wise and subject-wise which is perhaps not necessary.

The students find it difficult to make full use of the library since they do not have ~~open~~ access to the books. It is felt that the books needed exclusively by postgraduate students be kept in a separate room where facilities for study should also be made available and students belonging to postgraduate classes should have open access to them.

It is hoped that with the ~~extension~~ of library facilities provided recently, the working of the library would be streamlined.

#### Postgraduate Classes:

7. The college has at present facilities for teaching of only four subjects in Arts at postgraduate level. English and Commerce were introduced as subjects for postgraduate studies in 1967 and Marathi and Political Science in 1968. In Commerce, previous and final classes are held separately while in other subjects previous and final classes are held jointly and four papers are taught in rotation each year. There is no choice for the students to select optionals since facilities for teaching of any paper other than those selected by the college are not available.

#### Enrolment:

8. Student enrolment in the college has been increasing every year during the ~~past~~ four years. From 987 in 1968-69, it increased to 1,185 in 1969-70 to 1,473 in 1970-71 and to 1,591 this year. The number of women students this year is 102 of whom 6 are studying in M.A./M.Com. The largest number of students viz. 581 is in B.A., followed by 427 in P.U.C., 337 in B.Com., 145 in M.A. and 101 in M.Com. At least 50% postgraduate students are working in schools, banks or other offices and have joined the college for improving their qualifications. Student enrolment in various subjects at postgraduate level during the Past four years is indicated below:

		1968-69	1969-70	1970-71	1971-72
Commerce.	..	57	74	84	101
English.	..	17	29	38	47
Marathi.	..	19	29	29	30
Political Science.	..	15	35	45	68

Teaching Staff:

9. The teaching staff has 26 members in addition to the Principal who is also incharge of the Department of English. Three teachers - one each in Marathi, Political Science and Commerce who hold doctorate degrees are in the senior scale of Rs.700-1100. 22 teachers are in lecturer's scale - 7 in the senior scale of Rs.400-800 and 15 in the junior scale of Rs. 300-600. None of the lecturers holds a doctorate degree. All of them except 2, who have third class in M.A. (English) have got second class in the M.A. /M.Com. examination. Only one teacher is eligible to guide Ph.D. students and is at present guiding about 4 or 5 students of other colleges.

The college is also utilizing the services of teachers of other colleges on part-time basis for which remuneration @Rs.10/- per lecture is paid to them in addition to T.A. The number of such contributory teachers is 9 - 4 of whom are in Marathi, 2 each in English and Commerce and one in Political Science. Three of these teachers come from colleges situated outside Nanded. The position regarding teaching staff and the work being done by them per week during 1971-72 is indicated below:

Designation.	Marathi.			English.			Pol. Science.			Commerce.		
	Periods per week by each teacher.			Periods per week by each teacher.			Periods per week by each teacher.			Periods per week by each teacher.		
	No. OF teachers	U.G.	P.G.	No. of teachers.	U.G.	P.G.	No. of teachers.	U.G.	P.G.	No. of teachers.	U.G.	P.G.
a. Sr. Lecurer in Rs.700-1100	1	4	8	Nil	3	2	1	-	10	1	1	9
				(The Principal takes these classes)								
b. Lecturers in senior scale of Rs.400-800	1	6	8	2	12	2	1	8	4	1	10	3
c. Lecturer in jr. scale of Rs.300-600	1	15	1	3	12	2	2	20	-	3	10	3
d. Contributory teachers	4	12	2	2	12	2	1	-	4	2	-	2



Examination Results:

10. Students have generally not been fairing well in the university examinations as indicated in the chart given below:

Year.	Marathi.			English.			Pol. Science.			Commerce.		
	App.	Pass- ed.	%	App.	Pass- ed.	%	App.	Pass- ed.	%	App.	Pass- ed.	%
1968-69	8	4	50	6	3	50	5	4	80	36	13	38
1969-70	12	8	66	4	2	50	5	3	60	41	14	34
1970-71	12	5	41	11	4	36	11	4	36	23	21	80

7 students of the college has so far been ranked among the first three successful candidates in the postgraduate examinations of the Marathwada University. Of these 3 were in Political Science (first 2 positions in 1970 and 3rd position in 1971), 2 in Marathi (first position in 1970 and 3rd position in 1971), one each in Commerce (2nd position in 1970) and English (3rd position in 1969).

Proposal of the College:

11. The college proposed construction of a postgraduate block in Humanities and Social Sciences at a total cost of about Rs. 3 lakhs during the four plan period.

The proposal was discussed with the Secretary, Managing Committee, the Principal, members of the teaching staff and the students. It was pointed out to them that the Commission's assistance towards development of postgraduate studies in Humanities and Social Sciences which was limited to Rs. 1.5 lakhs during the fourth plan period could be utilized on appointment of additional teaching staff for strengthening in postgraduate teaching, books and journals and building. The college had, however, proposed the utilisation of ~~Commission's~~ ~~entire~~ ~~assistance of Rs. 1.5 lakhs~~ ~~entirely~~ on construction of a postgraduate block. The college authorities explain that they had given top priority to the construction of a postgraduate block in the current plan period because they were facing acute shortage of accommodation and were not able to hold the postgraduate classes during the day time. They were also planning to start postgraduate classes in a few more subjects in the near future for which additional rooms would be needed. It was explained to them that there was perhaps a need to strengthen ~~the~~ the postgraduate teaching in the first instance. The postgraduate teaching in the college had not been able to arrange seminars, discussions or tutorials for the benefit of the students or to provide facilities for teaching of optionals perhaps due to the shortage of teaching staff. Even for regular teaching work, the college was depending on the services of teachers from other colleges on part-time basis. As remuneration of these teachers was fixed on the basis of lectures delivered by them, their work was confined to class room teaching. This system of contributory teaching was functioning as a substitute for and not as a supplement to the regular teaching and the students also were not happy with this agreement. The performance of students in the university examinations was also not satisfactory, since hardly 50% students were able to get success in

was mostly confined to classroom lectures and the college

M.A final examinations during the past three years. The students also stressed the need for more books in the library, facilities for teaching of optional papers and regular arrangements for tutorials and seminars.

The college authorities agreed that there was a need to give first priority to the improvement of postgraduate teaching in the college and the proposal for construction of postgraduate block could be deferred to the next plan period. The college, therefore, proposed that assistance may be provided to them during the current plan period for additional teaching staff to enable them to introduce the optionals and arrange for tutorials, seminars and discussions, books and journals and a few rooms for holding the seminars etc.

It is recommended that assistance as indicated below may be provided to the People's College, Nanded for development of Postgraduate studies in Humanities and Social Sciences during the fourth plan period.

Item.	Total cost.	Commission's share
1. 4 rooms on the first floor of the building including furniture.	Rs. 70,000	Rs. 35,000
2. 4 Lecturers - one each in English, Commerce, Pol. Science & Marathi in the grade of Rs.400-800/300-600.	Rs. 60,000	Rs. 30,000
3. Books and back volumes of journals for the postgraduate deptts. of English, Commerce, Pol. Science and Marathi.	Rs. 60,000	Rs. 45,000
Total:	Rs. 1,90,000	Rs. 1,10,000

Confidential

UNIVERSITY GRANTS COMMISSION

Meeting : (186)

Dated: 1st December, 1971.

Item No. 23 : To consider the recommendation of Inter University Board regarding establishment of a Central Examination Unit.

The Ministry of Education and Social Welfare has requested for the comments of the Commission on the recommendation of the Inter-University Board of India and Ceylon regarding the establishment of a Central Examination Unit. The Board at its extraordinary meeting held on October 8-10, 1971 made the following recommendations in this regard :

"This meeting attaches the utmost importance to the establishment of such a Unit under the auspices of the IUB or the UGC or any agency specially set up for this purpose. Details regarding these arrangements may be worked out by discussions between the Standing Committee of the IUB, the UGC and the Ministry of Education. At the same time the IUB should continue to take active interest in the implementation of the recommendation made by the January 1971 seminar and its extraordinary meeting".

It may be mentioned in this connection that the Education Commission (1964-1966) made the following recommendation regarding the setting up of a Central Examination Unit under the auspices of the University Grants Commission.

"There is need for a central source to guide and activate a movement of examination reform, without which no early and effective progress is possible. For instance, the activity that one now sees in this matter in the state boards for secondary education is due largely to the Central Examination Reform Unit in the National Council of Educational Research and Training. We recommend that the UGC should set up immediately a similar examination reform unit for higher education at a sufficiently high level which would work in collaboration with the Universities. This could become the starring point of an effective programme of reform".

A paper on the setting up of a central testing organisation for the improvement of methods of selection and examinations in the Universities and colleges by Dr. S.K. Mitra, Dr. S.C. Goel and Dr. R.S. Dave is attached for the information of the Commission.

The estimated cost for a period of five years will be Rs. 43 lakhs for staff and fellowships and Rs. 55 lakhs for books, equipment and apparatus.

The matter is placed before the Commission for consideration.

CENTRAL ORGANISATION FOR THE IMPROVEMENT  
OF METHODS OF SELECTION AND EXAMINATIONS  
IN THE UNIVERSITIES AND COLLEGES ...  
PROPOSAL THEREOF.

Submitted to the Education  
Commission  
Government of India.

.....

1.00 Introduction.

1.01 There are various problems of higher education in India, to which attention has been drawn time and again by educationists, administrators, political and social thinkers. "The disturbed campus" is no longer restricted to a few universities, colleges, states and places. There has been rapid expansion in the number of universities and colleges during the last decade. The demand for college education, in spite of this expansion, student unrest, large percentage of failures, increase in the cost of education, etc., does not seem to show any sign of decrease. The question of standards has been raised by many, and employers, in both the public and private sectors, have expressed their dissatisfaction with the quality of candidates who have come out of the portals of our colleges and universities. Considering the cost of education as investment, a serious thought has to be given to standard and quality.

1.02 While in some Western countries the procedures of admission to colleges and universities, and particularly the methods of selection, have received the careful attention of research workers as well as administrators, in our country, except for some studies, little has been done in this area. Perhaps, a part of the wastage in the college and university education, and particularly a part of the failures, is due to the fact that not all who are admitted to our colleges and universities are fit to receive higher education. This fitness does not mean ability, which is perhaps not lacking, but is a product of native ability and school education. Whatever be the reasons, the fact remains that a part of the student-body in the colleges and universities cannot profit from higher education. If by a process of selection at the time of college entrance such students can be screened out, and only students who are likely to profit from higher education are admitted, a part of the wastage due to lack of ability may be reduced. A carefully selected student-body for any college or university department will not only help in the reduction of wastage, but may also improve the general educational climate. It is understandable that young people who cannot cope with the demands of a college or university are likely to feel frustrated and, therefore, give expression to their feelings through devious means. The motivation for study on the part of an individual student does not depend entirely on his own inclination: it depends equally on the educational climate of the institutions, the motives and attitudes of other students, the range of ability in the student group, etc. On the basis of studies done in West, particularly in the U.S.A., and on the basis of somewhat similar studies though few, done in India, it should be possible to improve the methods of selection and the procedure of admission to colleges and universities in our country.

1.03 Though democracy demands equalisation of opportunities, and, in our country, the urge for receiving higher education is very strong, it should not be taken to mean that there are no individual differences in the ability of students to profit from higher education. Politically, and even culturally, it may be desirable to have an expansion of the facilities of higher education, may get it. It is, however, a matter for consideration whether this is feasible in terms of economy, or even desirable in the context of limited resources available for education as a whole. Even if the long-term goal for the country may be universal and free higher education, it is apparent that in the short run the financial and physical targets are not within our means. It is a matter for consideration whether the country should not enter into a carefully planned programme of qualitative improvement at all levels of education, including higher education. One of the ways of improving quality will be to ensure that proper material is processed in the proper way. Apart from any other consideration, democracy demands that merit be the sole criterion of admission to college and university. In this respect, we know that there is considerable scope for improvement in the current practices assessment of merit of the applicants for admission to colleges and universities. The Indian Institutes of Technology have devised a common entrance examination for selection of students. This was considered necessary because the assessment of merit on the basis of higher secondary school examination results alone is not dependable. The pressure on arts and science courses in the colleges and universities has been increasing steadily. The rate of failure in the arts and science courses is also very high. In view of this, the idea of an entrance examination as is being practised at the I.I.Ts, should receive serious consideration.

1.04. Successive Education Commissions and Committees have emphasised the need for 'examination reform' and suggested specific measures towards this end. Both the University Education Commission (1948-49) and the Secondary Education Commission (1952-53) recommended the introduction of objective tests to be supplemented by essay type examinations\*. But the progress made in this direction has not been satisfactory. Examination reform is in the nature of things a slow and gradual process. Psychological resistance to changing the old system, inadequate financial resources to meet the cost of improvements, shortage of trained personnel for carrying out reform in a scientific way and the pressures to which the universities are subjected in favour of continuing the existing arrangements have all been responsible for stagnation in this area. The process of examination reform can be accelerated with the setting up of a central agency which can coordinate the work different examination reform units and university departments.

1.05 The university Education Commission recommended as far back as in 1948-49 that the Ministry of Education should have one or two experts who are skilled in the preparation and use of objective tests and have the capacity to understand the underlying procedures and principles of measurement. "This" - The commission stated, "would provide an agency for centrally organised research on testing procedures and a place where local results in universities might be pooled and from which advice assistance could be sought by the Universities. The U.G.C. Report on 'Examination Reform' stressed the need for having an arrangement in the U.G.C to coordinate the research work of the different universities and to disseminate information and conclusions with regard to studies undertaken in the country:

Dr. B.S. Bloov of the University of Chicago in his report of the Seminars conducted by him in India entitled "Evaluation in Higher Education" also suggested the creation of a small central planning and coordinating cell of University standars and examination.

## 2.00 The Need.

The need for setting up a Central Testing Organisation arises out of the following considerations :

2.00 With the expansion of Secondary Education, there is an ever-increasing pressure for admission at the college level. This is specially true of certain courses like Science and Technology. Certain colleges receive a very large number of applications out of which they have to select a relatively small number of students. In order to select intellectually mature students for admission to different courses it is very desirable to have professionally developed selection procedures. At present the marks obtained by the students in different subjects at the final school examination is perhaps the sole criterion in most cases. These marks do not generally possess a high degree of predictability of college success.

2.02. Higher Education has become quite expensive in recent years. It is, therefore, all the more important to take appropriate decisions regarding the selection of students for differat courses. This can be done only when valid and reliable information about the students' achivement, aptitude and other abilities are obtained and used for selection purposes.

2.03. Higher education is not only expensive for the parent but also very costly for the Government and other agencies which finance the colleges and universities. In order to obtain the optimum possible returns from the financial and other investment made in higher education, it is essential to use well developed procedures for the selection of candidates to admist them to appropriate courses. Most courses at the University level are designed for specialization in different fields of learning. If the students selected for a particular field are not fit for that course either because of lack of general achivement required for that course or the special aptitude for that subject, the efforts of the students as well as of the universities may not become adequately rewarding. It is, therefore, necessary to screen students for admission purposes in a scientific manner and provide necessary guidance for the selection of suitable courses. At present such procedures are not available in most universities with the result that some students fail to come up to the requisite standards. They also lose their interest in studies and their efforts culminate into frustration and educational wastage.

2.04. There is no agency existing at present in the country which is charged with the responsibility of developing appropriate procedures and instruments for the selection of students for admission to colleges and universities. The Boards of Secondary Education conduct examinations in different States at the end of High or Higher Secondary School Stage. The Board examination is for the testing of students' achivement alone at the end of the secondary school stage. It is therefore, necessary to

(190)

establish an organisation which may be responsible for the development of sound procedures for selecting students by using the students' marks obtained at the Board examination, his performance on aptitude tests, and other relevant information about him.

2.05 There is also no agency existing at present in the country carrying out research in the area of selection of students for higher learning and prediction of their success in colleges and universities. The strengths and weaknesses of the present procedures are hardly studied in a concerted manner. Dependable and objective instruments necessary for testing students for selection purposes are not available. There is no provision for training a body of personnel who may in turn be helpful to colleges and universities in the task of selecting students for admitting them to various courses at different levels. In order to fulfil these and other needs, it is essential to establish a central Testing Organisation.

### 3.00 Objectives.

The Central Testing Organisation may be established for the fulfilment of the following objectives :

3.01 To develop improved procedures of selection of students at a various levels of university education and for various courses or branches of learning offered by the colleges and universities.

3.02. To provide necessary services to colleges and universities in the form of administering selection tests, supplying the test results, suggesting ways and means of utilising the results for selection purposes and so forth.

3.03 To conduct research in the field of testing and relating areas keeping in view of the improvement of selection procedures at the University level.

3.04. To provide training to a sufficient number of personnel at various levels who can undertake various technical responsibilities in the process of selection.

3.05 To provide advisory services to colleges, universities and other similar organisations with regard to the selection of students.

3.06 To establish field contacts (a) to determine the requirements of different universities and colleges in respect of the selection of students, and (b) to coordinate the activities in the regard at the national level.

3.07. To establish international contacts with similar agencies in other countries of the world and make a continuous study of the new developments in the field, in order to refine and improve the selection procedures from time to time.

3.08 To provide necessary help and technical assistance to the agencies concerned with the programme of examination reform as a whole at the university level.

4.00 Organisation.

4.01 With a view to fulfil the needs and objectives mentioned earlier it is necessary to set up an agency at the centre- Such an agency in order to be relatively objective has to be located in the centre rather than in any university in a state. College admissions handled by a state level agency are likely to be influenced by political and other kinds of pressures as they usually are at the moment. A central agency cannot perhaps be completely free from the biasing effects of such influences emanating from states and regions. But it has perhaps better chances of holding independent views and relative freedom from state level influences. Ideally, such an agency should be an independent body to withstand pressure of all kinds for admissions to colleges. It is only an independent organisation which can perhaps continuously maintain an attitude of critical evaluation on the basis of empirical evidence towards both the admission procedures as well as the examinations in the colleges and universities. To start with, however, such an agency should not be independent but should be part of an organisation like the U.G.C. This is because the sources of resistance to a change on the college and university admission procedures are likely to be powerful and strong. In order to overcome such resistance, it is necessary to associate the agency with a status and prestige organisation, like the U.G.C., in the early years of its existence. The U.G.C. has accumulated a number of years of experience in the matter of examination reform and through its various reports has already placed before the colleges and the universities the need for improved procedures of selection and examinations. The affiliation of the agency with the U.G.C., therefore, is likely to speed up the process of change in these areas. It is, therefore, recommended that the agency should start functioning as part of the U.G.C., but it should be clear from the very beginning that the agency has to become an independent organisation under the Registered Societies Act. The U.G.C. should, therefore, take the initiative in not only setting up the organisation as part of itself, to start with, but should also take immediate steps to see that it emerges as an independent national organisation.

4.02 The membership of this agency should be broad-based and should include two classes of members - (1) institutional (2) individual. Among institutional members the agency should have colleges, Boards of Secondary Education, Universities etc. Among individual members the agency should have experts, educators, and the like.

as part of  
the UGC.  
Besides,  
when no  
organisation

4.03. As the agency will be rendering services to colleges and universities by way of improving their procedures of admission, the U.G.C. Act may not permit such a service organisation grows to its full stature, it may become too unwieldy as part of the U.G.C. It should, therefore, become independent within a year or two with broad-based membership as started above.

4.04 Though the details of the constitution of a such body may be worked out later, it is useful to indicate the outlines of such an organisation. The members of the registered body, which will be referred to hereafter as the Central Testing Organisation will lay down broad policies. Implementation of the policies will be in the hands of a Governing Body. Under the Governing Body will be the Chief Executive of the Central Testing Organisation, who will look after the following four Divisions :-

- 1) Test Division



(192)

- 2) Research Division
- 3) Training and Advisory Division
- 4) Administrative Division

4.05 Each Division may have several Departments within it and each Department may have sections and each section units. To start with the Test Division may have three Departments :-

- 1) Department of Test Development
- 2) Department of Test Administration and Scoring
- 3) Department of Test Printing

The Research Division may have two Departments,

- 1) Department of Data Processing
- 2) Department of Theoretical and Applied Research.

4.06 The Training Division may have three Departments.

- 1) Inservice Training
- 2) Special Training Programmes
- 3) Advisory Services.

4.07 The Administrative Division may be designated as the Division of Administration and coordination, comprising four Departments, as under :

- 1) General Administration
- 2) Finance and Accounts
- 3) Publications and Public Relations
- 4) Printing Press

4.08 The agency ought to have competent and technical qualified persons in position in the various Divisions and Departments outlined above. It should have staff of about 20 persons in the first phase of its development, and, at the end of the 4th Plan, by which time it would have developed fully into an independent organisation with its full quota of staff and complete range of research training and services, it should have a staff of 120. It should, however, be a matter of principle of the organisation to associate at each stage of its work competent and interested persons at the state level as well as nominees of expert bodies wherever possible.

#### 5.00 Area of work and phases.

5.01 From the objectives mentioned earlier, it follows that a Central Testing Organisation will have as its main area of work the improvement of procedure of selection and admission to colleges and universities so that merit becomes the over-riding consideration and wastage is reduced to a minimum.

This means that studies of various kinds will have to be undertaken to appraise the existing situation in all its aspects and in collaboration with colleges and universities efficient and economical procedures of selection and admission will have to be developed. This would involve a study of application forms, examination marks, evaluation techniques, aptitude tests, achievement tests, tests of interest and personality, cumulative records and interviews. Characteristics of population from which the applicants come, the characteristics of colleges and universities where they study and such other relevant problems will have to be studied closely. The work will involve not only psychologists, statisticians, and educators but also subject-matter specialists, evaluation experts, teachers and examiners.

5.02 It can be seen from the brief description given above that the responsibility of the organisation will be fairly heavy. It will be unrealistic to expect that the organisation can be effective in an short period of time. Accordingly phasing of its work has to be done. It is recommended that in the first phase, which should last not more than two years, the nucleus of the organisation may be set up as part of the U.G.C. with a Chief Executive who should start recruiting people and make provision for staff training from the beginning. In the first phase we may expect the organisation to undertake pilot studies in selection procedures and to organise study groups and establish contacts with persons and organisations in the field.

5.03 In the second phase which should be coterminous with the 4th Five Year Plan, we may expect the organisation to be fully established with its full complement of staff, building, equipments of staff, building, equipment so as to offer the entire range of testing and advisory services, training programmes, publication and carry on research in basic and applied problems in the field. Though the U.G.C. may continue to coordinate the work of examination reform at the college and university level, the Central Testing Organisation because of its competent staff, should also undertake research in examination in the second phase of its development.

5.04 The Central Testing Organisation should have security printing press where tests can be printed without leakage and under direct control of the technical personnel of the organisation. The organisation should have a complete statistical unit of data processing machines, computing machines, tables, charts and such other aids as are required for efficient functioning of an organisation of this kind. The organisation should also have photo-duplicating machines and test scoring machines. The building of the organisation should be so constructed that security of confidential material can be ensured.

6.00 Staff and budget estimates.

6.01 The following estimates are based on the minimum requirements of setting up a Testing Organisation and should be regarded as preliminary for detailed and exact calculations can be made only

(194)

when a clearer picture has emerged of the objectives of the Central Testing Organisation and its functions and scope. Phase III has been left out of consideration for the time being.

PHASE I

6.02 It is envisaged that two divisions viz. 1) the research divisions concerned mainly with the development of basic tools and ii) the development division concerned with preparatory work necessary for setting up the Central Testing Organisation during the II Phase and purchase of equipment, apparatus, books and journals etc., will be taken up during the 1st Phase which may extend to a maximum period of 2 years. The total estimated cost for a period of 2 years is indicated below :-

(a) Establishment (i) Building and furniture,

The organisation will be part of the U.G.C.

establishment. Expenditure Rs. 10,000/-

ii) Staff :- During the 1st phase, the following staff may be appointed for the research divisions and the development divisions in addition to the Chairman who will be the Chief Executive of the Testing Organisation. Provision of 20 fellowships ( 8 senior fellowships of the value of Rs. 500/- p.m. and 12 junior fellowships of the value of Rs. 300/- p.m) will be necessary to strengthening research activities of the Organisation during the initial and subsequent phases.

Designation	Scale of Pay	Research Division	Development Division	Total	Estimated cost for 2 years
1.	2	3	4	5	6
Chairman	Rs.1600-1800/-	-	-	1	Rs. 44,000/-
Divisional Directors	Rs.1100-1600/-	1	1	2	Rs. 60,000/-
Senior Research Officers	Rs. 700-1250/-	1	1	2	Rs. 40,000/-
Research Officers	Rs. 400-950	2	1	3	Rs. 36,000/-
Technical Research Office Assistants	Rs. 300-600	6	7	13	Rs.1,30,000/-
Senior Fellow Ships	Rs. 500 fixed	8	-	8	Rs. 96,000/-
Junior Fellow ships	Rs. 300 fixed	12	-	12	Rs. 87,000/-
		Total			Rs. 4,93,000/-
		of pay			Rs. 5,00,000/-

(195)

(B) Books and journals

Rs. 40,000/-

Steps will have to be taken to place orders for books required during the 2nd Phase and also to obtain the requisite literature on the measurement and evaluation.

(C) Equipment and apparatus :- Steps will have to be taken to book equipment and apparatus required during the 2nd Phase and also to procure some of the items like desk calculators, punchers, verifiers and sorters etc., during the 1st Phase.

	Total estimated cost ,	Rs. 5,00,000/-
D)	Programmes . Meeting, T.A., D.A, etc.	Rs. 2,00,000/-
E)	Contingencies .....	Rs. 2,00,000/-
(F)	Printing Press (to be set up during the 2nd Phase).	-----
	Total (A+B+C+D+E+F)	Rs. 14,50,000/-
	or say	Rs. 15,00,000/-

6.03

PHASE II.

(A) Establishment.

i) Building and furniture.

Rs. 10,00,000/-

It will be necessary for the Testing Organisation to have a separate building of its own for reasons of security and functional efficiency.

ii) Staff :- During the 2nd phase, when the Central Testing Organisation has been set up and its various activities such as research, training and testing have started in full swing, it will need a minimum staff of 120. This is much less compared to nearly 700 full-time members of the staff of the Educational Testing Services in Princeton, mainly because we do not envisage for the testing Organisation in India, the kind of diverse activities which the ETS operate at present. The provision of 20 fellowships (8 senior of the value of Rs 500/- per month and 12 junior of the value of Rs. 300/- per month) will also be necessary to strengthen the research and test development activities of the Organisation. Keeping in view the technical nature of the Organisation, we would recommend a ratio of 5 : 7 between the senior and junior staff of the Organisation. Also, the gap between the highest and lowest salaries should not be as wide as is normal in an Organisation of the pyramidal type. Distribution of senior positions among the 4

(196)

divisions of the Organisation may be as under:-

Designation	Scale of pay Rs	Test division	Research division	Training division	Admn. division	Total	Estimated cost for five years Rs
Chairman	1300-1800	-	-	-	-	1	1,10,000
Divisional Directors	1100-1600	1	1	1	1	4	3,00,000
Senior Research Officers	700-1250	6	4	2	3	15	7,50,000
Research Officers	400-950	12	7	3	8	30	9,00,000
Technical/ Research Office Assistants	300-600	-	-	-	-	70	17,50,000
Senior Fellowships	300 fixed	-	-	-	-	8	2,40,000
Junior Fellowships	300 fixed	-	-	-	-	12	2,16,000
Total on staff and fellowships							42,66,000
or say							43,00,000

(b) Books and journals:-

2,00,000

(According to a phased programme of Rs. 40,000/- p.a.)

(c) Equipment and apparatus.

Type and make of equipment	Number of machines required	Purchase/rent	Estimated cost for five years Rs
Twelve Thirty Scoring Machine. It scores and corrects about 1200 test books per hour	4	250 per month on rent	3,20,000

p.t.o.

(197)

Data Processing (004-ICT)	1	Rs. 10,440/- per month on rent	Rs 6,27,000
Computer (902-ICT)	1	Rs. 1,38,000/- per month on rent	8,28,000
Processor (type 202)	1	Rs. 600/- per month on rent	36,000
<b>Desk Calculators</b>			
Monore	1)		
Merchant	1)	Purchase	50,000
Friden	2)		
Facet	6)		
Inchens,		Purchase	5,00,000
Perifiers,			
Printers etc.		Total	23,61,000
		or say	24,00,000
(D) Programming:- T.A. and D.A. of members etc.			Rs. 1,00,000 per annum
(E) Contingencies:- Mailing type, ) duplicating, ) stationery, ) cards, printing ) etc. )			Rs. 5,00,000 for five years Rs. 1,00,000 per annum
(F) Printing Press:- Building and equipment			Rs. 4,00,000
<b>Total (A B C D E F)</b>			Rs. 21,00,000

Analysis

**Total expenditure on Phase I and II**

1) Phase I - 1 year ) and Phase II - 5 ) years	-	Rs. 98,50,000
2) Phase I - 2 years ) and Phase II - ) 4 years )		Rs. 98,00,000

UNIVERSITY GRANTS COMMISSION

198

Meeting:

Dated : 1st December, 1971.

Item No.24: To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of H.M.Patel Institute of English alongwith the comments of Sardar Patel University.

....

The Commission at its meeting held on 4th August, 1971 considered the report of the Committee appointed by it to examine the proposal of H.M.Patel Institute of English, Vallabh Vidyanagar, (Sardar Patel University) for financial assistance towards the development of teachers training programme in the college, and desired that the comments of the Sardar Patel University may be invited on the report of the Committee (Item No.12). A copy of the note placed before the Commission at its meeting held on 4th August, 1971 is attached (Annexure-1). A copy of the comments received from the University is attached (Annexure II).

In view of the recommendations made and the comments of the university, it is for consideration if the following assistance may be given to the Institute on the usual sharing basis.

<u>Item</u>	<u>Estimated cost</u>	<u>UGC Share</u>
a. Purchase of equipment	Rs.1.02,000	Rs.76,500 @ 75%
b. Purchase of books	Rs. 13,333	Rs.10,000 @ 75%
c. Construction of building.	Rs.1,47,000	Rs.73,500 @50%
Total:	<u>Rs.2,62,333</u>	<u>Rs.1,60,000</u>

The matter is placed before the Commission for consideration.

E.O.(H-II)/D.O(H)

Annexure I to Item No. 24  
Copy of note placed before the Commission  
at its meeting held on 4<sup>th</sup> August 1971  
Vide Item No. 12

Item No.12: To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of HM Patel Institute of English(Sardar Patel University) for financial assistance towards the development of teachers training programme in the College.

The University Grants Commission appointed a Committee consisting of the following members to examine the proposal of H.M. Patel Institute of English, Vallabh Vidyanagar(Sardar Patel University) for financial assistance towards the development of teachers' training programme:

1. Professor P.K. Roy,  
Principal,  
Central Institute of Education,  
Delhi.
2. Professor Mohan Lal,  
Professor and Head of the  
Department of English,  
Saugar University, Saugar..

Officer of the Commission

Shri R.C. Banerji,  
Education Officer

The Committee visited the H.M. Patel Institute of English, Vallabh Vidyanagar on the 8th May, 1971 and discussed the proposal of the college for the development of teachers' training programme with Shri Subhash Jain, Principal of the College and members of the staff. The report of the Committee is attached(A. p. 10). The salient points about the present position of the Institute are as under:

1. The H.M. Patel Institute of English, Vallabh Vidyanagar, was established in the year 1965. The college was temporarily affiliated to the Sardar Vallabhai Vidyapeeth in the year 1965 and was given permanent affiliation to Sardar Patel University in the year 1969. The college is run by a private management.
2. The Institute prepares teachers of English at different levels, and conducts research in teaching and learning problems of English language.

The Institute is offering the following courses:

- (a) B.Ed.(English): This is one year course after graduation for preparation of English teachers.
- (b) B.A., B.Ed.(English): This is five year degree course for preparing teachers in English. Students who pass the S.S.C. Examination with English as one of the subjects are eligible for admission in this course.



(c) T.D.(English): This is a one-year course meant for preparing teachers for teaching English at the upper primary level.

(d) Intensive Course in English: This is meant for the student community in Vallabh Vidyanagar for strengthening their knowledge of English.

The Institute has plans to offer M.Ed.(English) Course from June 1971.

3. The strength of the teaching staff of the institute was 19 during 1970-71 which included the Principal, two Professors, 10 Lecturers and 6 Tutors. There are two others, namely, one Research Fellow and one Research Assistant who do some teaching work.

4. The Institute has a library of 6519 books - most of them dealing with aspects of English language teaching.

The main observations and recommendations of the Committee are as under:

(a) The present 5 years course for the B.A., B.Ed.(English) is a very long period for any teachers training course. The Committee noted that the first year of the B.A., B.Ed.(English) has a few things in common with the preparatory course of the university and recommended that this could be suitably converted in some Arts Colleges so that the duration of the B.A., B.Ed.(English) course is reduced to 4 years.

(b) The Committee felt that the T.D.(English) course for upper primary teachers does not fit in the existing frame of the college and recommended that the institute may be advised to discontinue this course immediately.

(c) The Committee noted that most of the staff members of the Institute are not adequately qualified and some of the teachers teaching the B.A., B.Ed.(English) and B.Ed.(English) classes possess only B.A., B.Ed. degrees. The scales of pay in the Institute are not very attractive. It has been recommended that the Institute should carefully consider the question of recruiting properly qualified personnel, offer full-time appointments in the Institute and offer attractive emoluments. It would also be advisable for all the members of the staff to have a Master's degree in English or in other subjects which they are teaching, besides, possessing the B.Ed. Degree and gradually, they may acquire an M.Ed. degree before the Institute introduces any more advanced courses.

(d) The Institute may be advised to endeavour to bring down the student-staff ratio to 1:12 as a first step as the present staff student ratio which is 1:16 unfavourable.

(e) The college can meet its requirements for class room accommodation if the present Diploma in Teaching(English) course is discontinued and the duration of the present B.A., B.Ed.(English) course is reduced to four years.

(f) The Committee noted that the University Grants Commission had recently approved a provision of Rs. 50,000/- towards the purchase of books and journals of which the Commission's share is Rs.37,500/-.

The Committee has recommended that the Commission may approve a provision of Rs. 1,02,000/- towards the purchase of equipment of which the share of the Commission may be Rs.76,500/-(75 per cent).

Professor P.K. Roy, who is member of the Committee has approved the report of the Committee but has suggested that the Commission may also sanction a grant of Rs. 10,000/- towards the purchase of back volumes of journals. If the suggestion of Professor P.K. Roy is also accepted, then the share of the Commission would be limited to Rs. 86,500/- (Rs.76,500/- for equipment & Rs.10,000/- for books) ... and the total grant approved by the Commission during the Fourth Plan period would be Rs.1,24,000/- which is within the approved ceiling for B.Ed. Colleges.

The matter is placed before the Commission for consideration.

EO(H-II)/DO(H)

Annexure

Annexure to  
Item No.12

Draft report of the Committee appointed by the University Grants Commission to examine the proposal of H.M. Patel Institute of English (Sardar Patel University) for financial assistance towards the development of teachers' training programme in the College.

The University Grants Commission appointed a Committee consisting of the following members to examine the proposal of H.M. Patel Institute of English, Vallabh Vidyanagar for financial assistance towards the development of teachers' training programme.

1. Professor P.K. Roy,  
Principal,  
Central Institute of Education,  
Delhi.
2. Professor Mohan Lal,  
Professor and Head of the  
Department of English,  
Saugar University,  
Sagar.

Officer of the Commission

Shri R.C. Banerji,  
Education Officer

The Committee visited the H.M. Patel Institute of English, Vallabh Vidyanagar on the 8th May 1971 and discussed the proposal of the college for the development of teachers' training programme with Shri Subhash Jain, Principal of the College and members of the staff.

The H.M. Patel Institute of English, Vallabh Vidyanagar, was established in the year 1965. The college was temporarily affiliated to the Sardar Vallabhbhai Vidyapeeth in the year 1965 and was given permanent affiliation to Sardar Patel University in the year 1969. The college is run by private management.

PRESENT POSITION: In the year 1965 when the Institute started functioning, it has 22 trainees on its rolls and today there are 338 trainees in the Institute. The enrolment of the college during these years has increased steadily as given below:

<u>Year</u>	<u>Enrolment</u>
1968-69	146
1969-70	207
1970-71	338

BUILDING: During the first two years in its inception (i.e. during the period 1965-67), the Institute was housed in the T.V. Patel Arts College building. The Institute shifted to the present building in June 1967. The present building of the Institute has the accommodation of six class rooms and a room each for staff, boys, girls, library and office. In addition to these, there are two other rooms which the Institute has earmarked for the language laboratory (one for studio and the other for booth).

STAFF: In the year 1965, the Institute had only three members on its teaching staff. The strength of the teaching staff of the Institute

was 19 during 1970-71 including the Principal, two Professors, ten Lecturers and six Tutors. Besides this, there was one Research Fellow and one Research Assistant. Both of them teach B.A., B.Ed.(English) classes and for all practical purposes they are classified as teaching staff by the Institute. The scales of salaries of the different grades of the teachers in the Institute are as follows:

- a) Professors - Rs.400-30-640-40-800
- b) Lecturers - Rs.300-25-600
- c) Tutors - Rs.250-15-400

Out of the above staff nine possess only M.A. degrees; two have B.A. B.Ed. degree; two(including one Research Fellow)possess B.A. M.Ed. degrees, one member possesses double M.A. degree(English and Linguistics) three possess M.A. M.Ed. degrees and one is M.A. B.Ed. The Principal of the college and one lecturer possess M.A. and diplomas in linguistics. The Research Assistant possesses a B.Sc., B.Ed. degree. A statement giving the qualifications and experience of the teachers and the classes and subjects taught by them is attached

(Enclosure)

Objectives of the Institute: The chief objectives of the Institute are to prepare a cadre of well-trained teachers of English at different levels, to raise the standard of English teaching, to conduct research in the teaching and learning problems of English language and to produce suitable instructional materials in the form of text books, work books, readers/teachers books, supplementary reading materials, texts, exercises and recorded material on tapes.

COURSES: The Institute is offering the following courses:

1. B.Ed.(English);
2. B.A.B.Ed.(English);
3. T.D.(English);
4. Intensive courses in English

The B.A.,B.Ed.(English)and B.Ed.(English) courses are unique to an extent and these try to strike a balance between English and Education - the aim being to produce effective class room teachers of English.

1. B.Ed.(English): The B.Ed.(English) course is a one year course after graduation. Students taking this course are expected to have a good knowledge of the different forms of English Literature, viz. Prose, Poetry, Drama and Criticism apart from studying the Grammar of English, Phonetics and Applied Linguistics. Emphasis is placed on Modern English Usage.

Students are offered training in the teaching of English with emphasis on the actual class-room techniques of teaching English. There are also courses offered in Education and Educational Psychology; more emphasis is given to the applicable aspects of these subjects and those aspects which are not concerned directly with the work of the teacher in the class is reduced a bare minimum.

2. B.A.,B.Ed.(English): The B.A., B.Ed.(English) course is a five years degree course leading to the simultaneous award of B.A., B.Ed.(English) degree. Students who pass the S.S.C. examination with the English as one of the subjects are eligible for admission to this course. The course was first introduced in June 1966 with the first year class of the B.A., B.Ed. course and thereafter(each year in succession) one more class has been added so that in 1970-71 all the 5 classes were running. The first batch of students completed the five year course at the end of the academic session 1970-71.

During the first two years of the five year course, the students are given liberal education covering humanities, social sciences, languages and some work in English language which is mainly remedial in character. Students write short paragraphs during the first year as a part of the remedial programme. During the second year they write simpler kinds of essays and are introduced to phonetics at an elementary level.

During the last three years of the course, more emphasis is laid on English language and literature, methods and techniques of Teaching English and professional skills including knowledge of subjects like Educational and Experimental Psychology, Linguistics and language teaching and problems of Education. They are introduced to class-room teaching. They study during this period forms of literature and number of good classics in English from Shakespeare down to modern writers. During the third year they write essays including reflective forms and are further introduced to concepts stress and intonation in English and become familiar with the tonal contours of English sentences. In the 4th year, they write monographs in English on a chosen subjects. During the third and fourth year of their study they learn to use the phonetic script and also get further sophistication in the rhythm and conversational forms of English. At the end of five years, trainees are awarded a degree viz. B.A., B.Ed.(English).

3. T.D.(English): The T.D.(English) course is one-year course meant for preparing teachers for teaching English at the upper primary level i.e. Students V, VI, VII and VIII. The T.D.(English) courses started in the year 1966-67.

4. Intensive Course in English: Intensive course in English were started in June 1968 as a sort of service to the student community in Vallabh Vidyannagar. Separate classes are held for undergraduate and postgraduate students of the university in the evening for five days a week. Students in the undergraduate classes are awarded the Junior Certificate in English and those in the postgraduate classes receive the Senior Certificate in English.

The Committee was informed that the Institute has plans to offer M.Ed.(English) course from June 1971 and that the Board of Studies in Education of the Sardar Patel University is already working out the details of the syllabuses of the M.Ed.(English) course.

Material Production and other Projects: The Principal of the Institute informed the Committee that the Institute is at present engaged in the following projects:

- i) Preparation of a diagnostic test at the S.S.C. level for Gujarati Speakers of English;
- ii) Preparation of Teachers Handbooks; and
- iii) English language teaching situation in Gujarat and achievement in English at the S.S.C. Level.

The Institute has also started work on a scheme of production of materials. These include course books, teachers' handbooks as well as work books and supplementary reading material at different levels.

Library: The Institute has a library of about 6,519 books most of them dealing with aspects of English language teaching. The library of the college is poorly equipped both from the point of view of quantity as well as quality of books. The library is just a mass of few books stacked somehow with no space or arrangements for seats where the readers could sit down and even have just a look at the books with ease and comfort. The library has on its selves multiple copies of the same book. There were only a few standard books on English literature although the Institute is emphasizing in different aspects of English language and literature in the courses for B.A., B.Ed.(English) and B.Ed.(English). Majority of the books on literature which the library has, are abridged versions of the original work and books published by Penguin and Pelican series. There is practically no books on Economics, world history Indian Constitution, Indian Social Institutes. Gujarati and Hindi literature and other subjects which the Institute teaches in the B.A., B.Ed. course. The Institute receives only a limited number of journals.

Proposal of the Institute: The Institute had initially applied for assistance towards the construction of class-rooms at a cost of Rs.50,000 and for the purchase of equipment for language laboratory and books at an estimated cost of Rs.93,000 and Rs.50,000/- respectively. Out of these Commission has already approved a provision of Rs.50,000/- for the purchase of books and journals - the share of the Commission being limited to Rs.37,500/-. The Commission has subsequently also sanctioned a grant of Rs.9,000/-(as first instalment) against its share of Rs.37,500/-. When the Committee visited the Institute, the Principal of the Institute placed revised requirements for the purchase of equipment(Rs.1,02,000), extension of building (Rs.1,47,800) and requested for more grants for books and journals. The Principal of the Institute informed the Committee that construction of more class-rooms has become necessary as there is shortage of rooms and the Institute is likely to have M.Ed. course in 1971 and that he has revised the cost of the equipment after consultation with the Philips India Limited.

The main observations and recommendations of the Committee are as under:

(1) The Committee noted that the University Grants Commission sanctioned a grant amount to Rs.9,000 to the college towards the purchase of books during 1968-70. Besides this the Commission sanctioned a grant of Rs.10,000 during 1970-71 and has also recently approved a provision of Rs.50,000 towards the purchase of books and journals out of which the Commission share is Rs.37,500 and a grant of Rs.9,000 has already been sanctioned but of the fresh provision. Thus the Commission has already sanctioned grants amount to Rs.28,000 during 1968-71 for the purchase of books and journals and the Institute can still avail of more grants amounting to Rs.28,500.

In view of this the Committee feels that the Commission need not approve more provision in the near future towards the purchase of books and journals. The college could develop the library and have a good general collection with the assistance that has already been approved and sanctioned by the Commission if the amount is spent wisely. The Committee desired that the Institute should purchase books and material on disciplines other than English language, literature and education which the college is teaching like History, Economics etc. It should develop a stock of books potentially useful to the clients. The Committee recommends that the Institute may be advised to take positive steps to remedy the present deficiencies urgently.

(II) The Committee noted that the number of teachers in the Institute excluding the Principal is 20 and the student staff ratio is 1:16. The Committee feels that this is an unfavourable ratio in a professional college. The Committee recommends that the Institute may be advised to endeavour to bring down the ratio to 1:12.

(III) The Committee noted that the students who pass the S.S.C. examination with English as one of the subjects are eligible for admission to B.A., B.Ed.(English) Course. The completion of the course qualifies the students for appointment as teachers in English in secondary schools. The Committee feels that, in view of this, it is essential that the Institute should give the students pursuing this course necessary basic background of English literature and language as an academic subject apart from teaching them the professional techniques for the teaching of English. The responsibility of the teacher in the Institute is great because he has to train these students in the subjects as well as in the techniques of teaching. The staff undertaking classes in the integrated B.A., B.Ed.(English) course and the one-year B.Ed.(English) should have special competence and deeper academic study of the subject which they teach (viz. English, Economics etc.). For this the teacher should have studied the subject which he teaches at least upto the M.A. level as in the opinion of the Committee it is only at the postgraduate stage that a student is trained to a certain extent in hard intellectual endeavour which must necessarily form an essential feature of any good higher education worth the name.

In this connection the Committee notes with concern that the average staff of the Institute is not adequately prepared. Although a few of them have the necessary qualifications, a number of teachers do not possess the necessary and basic qualifications which may be considered essential and some of the teachers teaching the B.A., B.Ed.(English) and B.Ed.(English) classes possess only B.A., B.Ed. degrees. Even Research Assistants are being utilised by the Institute to teach these students. The Committee feels that some of these teachers do not have the necessary depth and intensity necessary for teaching the subject as an academic discipline in the B.A., B.Ed.(English) and B.Ed.(English) classes. The Institute appears to have appointed them without any clear idea of its own purpose.

The Committee also noted that the scales of pay in the institute are not very attractive. There are only two "professors" in the grade of Rs.400-800. In fact it appeared to the Committee that the Institute has failed to induce and appoint enough teachers with adequate qualifications owing to the unattractive scales of pay offered by it.

In the opinion of the Committee the staff members of the Institute at least those teaching the B.Ed.(English) and B.A., B.Ed.(English) classes should possess master's degrees in the academic subject which they teach and in Education and a fair proportion of them should preferably have a doctorate degree. It would also be advisable for the members of the staff who do not possess necessary qualifications to increase their qualifications in their own interest and to ensure that at least (as a first step) all the teachers teaching in these classes hold a master's degree in English or in other subject which they are teaching besides possessing the B.Ed. degree and gradually they may increase their qualifications to M.A., M.Ed. before the Institute introduces any more advanced course.

The Committee is strongly of the view that the Institute should carefully consider the question of recruiting properly qualified personnel, to hold full-time appointments in the Institute by offering

attractive emoluments and there should be a more rigorous selection of teachers from candidates whose academic and professional competence and record is of a higher order.

IV. The Committee noted that the intensive course in English is an off-time activity on the part of some teachers who are paid honorarium out of the fee collected by the college from students.

V. The Committee feels that the T.D.(English) course, which is really intended for teachers in primary schools, does not fit in the existing frame of the college. The Committee recommends that the Institute may be advised to discontinue these courses immediately.

VI. The Committee feels that the present 5 years' course for the degree of B.A., B.Ed.(English) is a very long period for any teachers' training course. The committee noted that the first year of the B.A. B.Ed.(English) course has a few things in common with the preparatory course of the University i.e. regarding the courses of languages(Hindi and Gujarati), logic and Indian Constitution etc. The Committee is strongly of the view that the first year of the course could be suitably covered in some Arts College so that the duration of the B.A., B.Ed.(English) course is reduced to four years instead of five years as at present.

VII. The Committee feels that in view of its above recommendations and observations the Commission need not provide any assistance to the College towards the extension of building and it is, therefore, not recommending any assistance towards this. The Committee feels that the college can meet its requirement for classroom accommodation if the present T.D.(English) course is discontinued and the duration of the present B.A. B.Ed.(English) course is reduced to four years instead of five years as at present as recommended by the Committee.

VIII. The Committee noted that the equipment which the Institute possesses, at present consists of only three tape-recorders, two record-players, 50 tapes and ten sets of records. The Committee recommends that the Commission may approve a provision of Rs.1,02,000/- towards the purchase of equipment out of which the share of the Commission may be Rs.76,500.



H;M; PATEL INSTITUTE OF ENGLISH, VALLABH VIDYANAGAR

*Enclosure*

STAFF LIST

S.No.	Name of the Teacher	Designation	Educational Qualifications	Teaching experience(in years) upto the end of the current academic year 1970-71	Classes and subjects teaching at present in college.	REMARKS
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Mr. Subhash S. Jain	Principal	M.A.,D.T.E.F.L., Two Diplomas in Linguistics	2 years undergraduates 14 years degree classes and postgraduates	English Language English literature The structure of English, Phonetics Applied linguistics Psycholinguistics	B.Ed., (Eng.) T.D. (Eng.) B.A., B.Ed. (Eng.) F.Y., S.Y., T.Y., & Fo.Y.
2.	Mr. C. Visweswara	Professor of English	M.A. (Formerly Research Scholar U.G.C.)	10 years as lecturer 2 years Research experience	Methods of Teaching English & English Literature	B.Ed. (Eng.) T.D. (Eng.) B.A., B.Ed. (Eng.), F.Y., S.Y., T.Y. & Fo.Y.
3.	Mr. M.B. Koldhekar	Professor of Edn. and Educational Psychology	M.A., M.Ed. (Gold Medalist)	20 years in schools 7 years in degree classes and postgraduates	Theory of Education and Edu. Psychology, English grammar	B.Ed. (Eng.) T.D. (Eng.) B.A., B.Ed. (Eng.), F.Y., S.Y., T.Y. & Fo.Y.
4.	Mr. B.A. Shah	Lecturer	B.A., M.Ed., Diploma in Applied linguistics	4 years in schools 3 years undergraduates 7 years degree and postgraduates	Organisation of Teaching programme, English Grammar, Methods	B.Ed. (Eng.) T.D. (Eng.) T.Y. & Fo.Y. B.A. B.Ed. (Eng.)
5.	Mr. Shabbir Ahmed	Lecturer in Educa- tion	M.A., M.Ed.,	15 years in High schools 1 year degree class	English Literature Classroom techniques School administration	B.Ed. (Eng.) F.Y., Fo.Y. & B.A., B.Ed. (Eng.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
6. Mr. Y.P. Nathi		Lecturer in M.A. English		6 years as lecturer	English language Literature, Phonetics.	B.Ed.(Eng.) T.D.(Eng.) F.Y., S.Y., T.Y. & F.Y. B.A., B.Ed.(Eng.)
7. Mr. K.M. Jani		Lecturer in M.A. English		5 years as lecturer	English language and Literature	B.Ed.(Eng.) S.Y., T.Y., & F.Y. B.Ed.(Eng.)
8. Mr. A.M. Ghodiwala		Lecturer in M.A., B.Ed. English		5 years in school 4 years as lecturer	English Methods and Organisation of Teaching Programme	B.Ed.(Eng.) T.Y., F.Y. & B.A., B.Ed.(Eng.)
9. Miss H.R. Shah		Lecturer in Education	M.A., M.Ed.	1 year in school 2 years in college	English Grammar, Composition, Theory of Education, Organisation of Teaching Programme	B.A., B.Ed. (Eng.), S.Y., B.Ed.(Eng.)
10. Mr. J.B. Patel		Lecturer in Educational Psychology	M.A.	8 years in High School 2 years as a Senior Research Fellow 1 year college	Educational Psychology	B.Ed.(Eng.) T.Y. & B.A., B.Ed.(Eng.)
11. Miss M.M. Dandekar		Lecturer in Linguistics.	M.A.(Eng.) M.A.(Linguistics)	1 year as a lecturer	Applied Linguistics Grammar	B.Ed.(Eng.) T.D.(Eng.), & B.A., B.Ed. (Eng.), & T.Y.
12. Miss C. . Sudan		Lecturer in English	M.A.	1 year as a lecturer	English literature	B.Ed.(Eng.) T.D.(Eng.) F.Y., T.Y. & B.A., B.Ed.(Eng.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
13. Mrs. J. Pardi	Lecturer in Linguistics	M.A., Diploma in Linguistics	2 years as Tutor 1 year as Lecturer		Linguistics, Spoken English	B.Ed. (Eng.) T.D. (Eng.) S.Y., T.Y., Fo.Y., B.A., B.Ed. (Eng)
14. Mrs. U.V. Solanki	Senior Tutor	B.A., B.Ed.	4 years as tutor		English Composition & Theory of Education Methods.	T.D. (Eng.) T.Y., S.Y., T.Y.
15. Mr. R.R. Patel	Senior Tutor	M.A.	1 year in school 4 years undergraduates		Gujarati & Hindi	F.Y., & S.Y. B.A., B.Ed.
16. Mr. V.M. Patel	Senior Tutor	M.A.	1 year in school 2 years in college		English Literature, English composition	F.Y., S.Y., T.Y. & Fo.Y.
17. Miss M.R. Pancholi	Senior Tutor	M.A.	2 years		English Literature, Linguistics, Grammar	F.Y. & T.Y. & B.A., B.Ed.
18. Miss P.R. Pancholi	Senior Tutor	M.A.	2 years		English Composition and Linguistics	B.Ed. (Eng.) S.Y. & T.Y.
19. Miss U.R. Kochhar	Junior Tutor	B.A., B.Ed.	1 year as a Research Asstt.		English Grammar Remedial Work in Eng.	F.Y. & T.D. (Eng)
20. Mr. M.D. Patel	Research Fellow	B.A., M.Ed.	3 years		English Language	B.Ed. (Eng.) & F.Y.
21. Miss A.T. Sheth	Research Asstt.	B.Sc. B.Ed.				

Copy of letter No.C/F.E.1/579 dated 6th October, 1971 from the Registrar Sardar Patel University to the Secretary University Grants Commission.

....

With reference to your letter No.F.26-63/69(H-II) dated the 30th August, 1971 I am to give below the comments of the university on the report of the committee appointed by the commission for development of teachers' training programme of the H.M. Patel Institute of English:-

(ii) Teacher-student ratio:

The committee has recommended to have the teacher-student ratio of 1:12. The Institute has appointed more teachers during the current academic year and the teacher-student ratio now comes to 1:14. The institute, however, proposes to add more staff during the course of the next year and bring up the ratio to 1:12 as suggested by the committee.

(iii) Staff pattern:

The staffing pattern of the institute is as per the regulations laid down by the university in accordance with the subjects prescribed in the curricula of the B.A.B.Ed. (English), B.Ed.(English) courses. The various subjects are being taught by the teachers holding the Master's degree in the subject concerned. The teachers appointed by the Institute process the qualifications laid down by the university for appointment of teachers, the question of teachers not holding the master's degree in the concerned academic field does not arise. The syllabuses laid down for the different years of the B.A.B.Ed.(English) course are so devised by the university that the students pursuing this course have a basic background of both English literature and language as an academic subject. AS a matter of fact, the professional stress is given only in the 4th and 5th year of the degree course.

As the committee visited the Institute during the summer vacation, it could not meet the members of the teaching staff and hence it cannot be said that the staff is not adequately prepared. Had the committee visited during the term period they would have been satisfied about the work done by the staff.

It is also clarified here that according to the University regulations no research assistant or research student can be given teaching work. The question therefore, of assigning teaching work to research assistants does not arise.

The Institute pays to the teachers the scales of pay prescribed by the University Grants Commission under the IV Five Year Plan. In case of exceptionally qualified teachers, the Institute has appointed them by giving advanced increments so as to attract good teachers.

It may please be noted that two of the teachers from the Institute are candidates registered for the Ph.D. degree in the respective fields and would be completing their studies by early next year. Moreover, most of the teachers are holding master's degrees both in the subject concerned and education. Most of them are specialised in the teaching of English by undergoing training at the Central Institute of English, Hyderabad or abroad. The Institute has all full time teachers.

**T.D.(English)course:**

On the recommendations of the committee, the Institute has now decided to discontinue the T.D.(English)course from the next academic year.

**Reduction in the duration of the B.A.B.Ed.(English)course:**

The committee has recommended that the first year of the five year degree course should be done away with by admitting those students who have passed the Preparatory Arts Examination in an Arts college thus reducing the duration from 5 years to 4 years.

(are common,  
the medium  
of instruc-  
tion differs  
i.e.Gujarati  
is the medium  
of instruction  
in prepara-  
tory, university  
Arts and  
English at  
the first year  
B.E.,B.Ed.,  
(English)  
classes.

In this connection, it is stated that even though some of the subjects taught in the Preparatory University Arts and the First Year B.A.B.Ed.(English)classes. It is also stated that the Institute has to follow the course pattern laid down by the university which is processed through the various academic bodies. The structure of courses for the B.A.B.Ed(English) degree has been decided upon after taking into consideration various factors which are useful in Training teachers in English.

The Committee has recommended that no assistance should be provided for extension of the building. In this connection it is stated that the Institute has at present only six class rooms. The number of classes actually required from the current academic year is as under:-

5	class rooms for B.A.B.Ed.course.
4	class roos for B.Ed.(English)course.
9	Total

In addition, the Institute has from this year started the M.Ed.(English) course and next year there will be two classes

for M.Ed.(English) V.z. M.Ed. Previous and M.Ed. Final.

It will thus, be seen that the total requirement of class rooms alone will be 11. Moreover, two rooms will be specially needed to set up language laboratory of which one will include 16 booths and the other recording studio, library of tapes etc.

The Commission gives financial assistance upto 2.50 lakhs to institutions which are doing Post-graduate teaching. The commission has so far approved the financial assistance of Rs.37,500 for library. In the committee's report, it has been recommended that the assistance of Rs.76,500/- be given for equipment for language laboratory. Since the requirement of additional class rooms has been adequately explained in the preceding para, it is strongly recommended that the Institute may be provided financial assistance for the extension of the building as per the norms laid down by the University Grants Commission viz. either Rs.1 lakh or 50% of the cost whichever is less. The Institute has already submitted the plans and estimates duly approved by Public Works Department for extension of the building and it is requested that Rs.73,500/- be given as financial assistance for the project.

Meeting:

Dt. December 1, 1971.

Item No. 283 To consider a reference from the Rector  
Zagreb University, Yugoslavia, with regard  
to the establishment of interuniversity  
Postgraduate Centre in Humanities and Social  
Sciences in Dubrovnik.

(199)

.....

The Indian Council for Social Sciences Research, New Delhi have forwarded for the consideration of the University Grants Commission a reference from the Rector, University of Zagreb, Yugoslavia, inviting the Universities in India to become members of the Interuniversity Postgraduate Centre in Humanities and Social Sciences, which the University of Zagreb propose to establish at Dubrovnik. It is stated that the representatives of a number of Universities and Institutions of higher learning as well as national and international university organisations met in Dubrovnik, Yugoslavia from August 26 to 30, 1971 upon the invitation of the University of Zagreb to consider the establishment of an Interuniversity Centre for Postgraduate Studies in Dubrovnik, oriented primarily towards the social sciences and humanities, and unanimously agreed to establish the Centre. The purpose of the Centre is stated to be closely connected with the aims of Pughwash. Some of the views expressed and conclusions reached are reproduced below:-

1. Central to the proposal is the opportunity for scholars from university throughout the world to engage in cooperative studies and research in particular fields of shared interest which can be most effectively be pursued in the setting of Yugoslavia and in the environment afforded by Dubrovnik. Collaboration may be reflected in activities as varied as a five year programme of cooperative research by three or more member institutions, a one or two year study programme for postgraduate students from all participating universities, or indeed any university of the world or short seminars where professors and advanced students can focus on a special problems in the social sciences and humanities.

2. In view of the provision of the necessary buildings and administrative staff by the University of Zagreb, this collaboration can be at minimum expense to member universities, whose principal contribution would be in the form of teachers, researchers and students who can contribute to the intellectual activity of the Centre. In any case the principle on which the cooperation in the Centre is to be based is that no member can be obligated without its own express and individual consent. This principle is embodied in Art VII par. 3 of the Draft Agreement. The central issue of financing the future Centre was discussed in detail during the meeting, and will hopefully be resolved in the manner indicated in the Draft Agreement. In view of the way in which it is to be organised the Centre in Dubrovnik will in particular offer to its members opportunities for undertaking projects of studies and research either singly or jointly. Members will be afforded an opportunity to arrange the participation of faculty and students in the Centre on a basis most suitable to their needs, resources, and time schedule. One key to the success of the Centre will be flexibility in the use of special research and other educational resources as they are developed at the Centre by the member institutions.

P.T.O.

3. The reasons for choosing Dubrovnik as a location of the proposed Interuniversity Centre were considered from many aspects. Dubrovnik is a historic centre of cultural life and activity in Yugoslavia. It has strong traditions of international intellectual cooperation of long standing. The seminar "University Today" organised by the Association of Yugoslav Universities was held in Dubrovnik each year during the last fifteen years. It is situated on the intersection of many past and present currents of historical, cultural, and political development: the Mediterranean Area, Europe and Asia, East and West, the Danube Basin and the Balkans. Existing cultural, artistic, religious and other monuments and present day institutions - such as the Dubrovnik Archives provide an infra-structure and a stimulating milieu for high level intellectual interchange.

4. It was the unanimously expressed intention of those present to maintain from the beginning high academic standards in the Centre. The policy of admission of members should, therefore, be governed by criteria guaranteeing academic excellence, similar to those used by the International Association of Universities.

5. Draft Agreement is not meant to restrict in any way the responsibility of the Council of the future centre for regulating any matter in the Statutes and other general acts. Changes that any of the prospective member institutions feel should be made in the present text will be fully considered by the Council of the Centre."

A list of programmes suggested, a draft agreement for establishing an Interuniversity Centres for Postgraduate Studies in Dubrovnik and the Universities invited to join the Centre are attached, (~~Annexes~~ Annexes I to III). The Universities of Bombay and Calcutta are the two Indian Universities invited to join the Centre.

The matter is placed before the Commission for consideration.

EO(CD).



PRELIMINARY PROGRAMME SUGGESTIONS

1. It is crucial to the concept of the proposed Interuniversity Centre that its programme will be determined by the member universities. The suggestions outlined below are therefore entirely preliminary included only to indicate initial steps in the Centre's work. In offering them, three factors were considered:

(a) It is likely to be three to four years before plant, personnel and equipment allow provision of extended courses of study or major research projects.

(b) The availability of suitable people and certain materials at a particular time may well prove a major formative influence.

(c) It is assumed that the Centre will adopt programmes of study which are not restricted to a particular geographical area. However Yugoslavia's location offers scope for a wide range of inquiries into the factors and developments which throughout history have exerted an influence over large parts of the world.

2. The following disciplines and fields of study, among others, will be of interest to Members of the projected Centre.

Anthropology.	Language and Literature.
Archaeology	Philosophy of Science.
Architecture	Political Science.
Development Studies.	Sociology.
Economics.	Socio-linguistics.
Educational Studies	Social Psychology.
History.	Theatre and Fine Arts.
History of Religion	Urban and Regional Planning
Jurisprudence.	History of Art.

Research and teaching involving complex scientific laboratory equipment are not envisaged, but negotiations are understood to be under way for the financing of up-to-date library, documentation and computing facilities.

3. Among the activities that appear to be most feasible in the initial stage are:

(a) Short courses in subjects for which necessary library and other costly equipment would be minimal.

(b) Co-operative research projects possibly involving parallel studies in two or more countries.

(c) Extended seminars which could perform for the Centre in the initial stage some of the functions of academic planning Committees. Groups of senior scholars (i.e. those whose research and/or teaching status are substantially greater than that of new graduates embarking on their first research) might come together for,

202

say, a month for intensive study during which they would consider what lines of inquiry in their field are most urgent or would be most profitable, attempt to locate the necessary materials, and outline appropriate organization and courses of action to be attempted.

'VK'

DRAFT AGREEMENT

(203)

Establishing an Interuniversity Centre for Postgraduate Studies in Dubrovnik.

Art. I.

The objective of the Interuniversity Centre for Postgraduate Studies in Dubrovnik (hereinafter referred to as the Centre) is to encourage and promote cooperation among universities through teaching and research.

The objective shall be realized primarily by organizing post-graduate research projects and study programme in any field authorised by the Council of the Centre, based on the expressed interest of one or more member institutions and evidence of feasibility, both academic and financial.

Art. II.

The Centre shall be a juridical person in accordance with Yugoslav law.

Arts. III.

Application for membership may be made by:

- universities and other institutions of higher learning, which possess such quality according to their national laws or are recognized by appropriate accrediting bodies;
- national and international interuniversity institutions.

Initial membership of the Centre shall consist of the institutions invited directly or through their associations to the preliminary discussions held in Dubrovnik between 26 and 31 August 1971 which subsequently ratify the Draft Agreement. The Council of the Centre shall be responsible for admitting additional Members.

Membership of the Centre may be terminated by:

- request of the Member in writing to the Council;
- action of the Council on the basis of criteria to be developed in the Statutes of the organization.

Art. IV.

The Centre shall be administered by a Council and a Director General.

Art. V.

The Council of the Centre shall consist of one representative of each member organization, The Director General is a member of the Council ex-officio and shall serve as its secretary.

The Members appoint their representatives to the Council of the Centre for a two year term, but they can be recalled and replaced before the expiration of the term. If a representative is unable to attend, the respective Member may send a substitute to meetings of the Council.

Being the policy-making body of the Centre, the Council is particularly responsible for the following acts and decisions:

- the Statutes of the Centre;
- admission of new Members;
- the establishment and development of particular fields of study and different forms of academic cooperation upon the recommendation of Academic Committees;
- the establishment and development of the library;
- the appointment of the Director General, the Deputy Director General, the Secretary of the Centre, and the members of Committees;
- decisions on budgetary matters;
- and other general acts of the Centre.

The Council shall elect a Chairman from its own members and may elect an Executive Committee annually to consist of no less than three and to more than five members to act on behalf on the Council on such matters as are referred to it by the Council between Council meetings. Expenses of members of the Executive Committee in their official capacity shall be the responsibility of the Centre. The Director General shall serve ex-officio on the Executive Committee.

Art. VI.

A Director General shall be appointed by the Council for a four-year term and may be reappointed.

A Deputy Director General may be appointed to assist the Director General and to act on his behalf during his absence.

The Director General is responsible for the functioning of the Centre and for providing continuity in its activity. The Director General is responsible for submitting to the Council for its approval an annual report and accounts, an annual programme, and an annual budget.

Art. VII.

The Council shall decide all questions on the basis of a majority of the members present and voting except in the adoption and amendment of the present Agreement and the Statutes of the organization, which shall require a majority of the total membership of the Council.

A quorum shall be constituted by fifty percent of the Membership or twenty Members whichever shall be less.

If decisions of the Council involve obligations for Members each Member can be obligated only by its own consent.

Art. VIII.

Academic and other committees, when necessary, shall be established by the Council. They shall be advisory committees to the Council and the Director General, and responsible to the Council.

The Council shall define the functions of each committee and appoint its members. Candidates may be proposed to the Council by Members of the Centre. The members of the committees shall continue to discharge their duties until they are recalled, or they resign, or they are incapacitated.

Academic Committees may propose to the Council the establishing of programmes of studies and different forms of research work. On the request of the Council, the Director General, or on their own initiative they may express their opinion on all questions falling within the activity of the Centre.

Art. IX.

The Financing of the Centre shall be decided upon by a general act of the Centre. The Centre's funds include the contributions of Members appropriate to the expenditure occasioned by the coming of their representatives, academic staff and students to Dubrovnik and by their work related to the Centre and grants from foundations and other bodies.

A special budget shall be established for each postgraduate study in accordance with the decision of the Council of the Centre.

The University of Zagreb shall be responsible for ensuring the financing of academic and administrative accommodation and the administrative personnel necessary for the existence of the Centre, but may terminate or amend this obligation on one year's notice to the Council.

Art. X.

The Director General is assisted in the performance of his functions by a Secretariat which includes.

206

- the administrative office;
- the Library and documentation service;
- the financial and procurement division.

The Secretary of the Centre is the head of the Secretariat and is responsible to the Director General.

Art. XI.

Disputes which may arise in connection with the work of the Centre fall within the jurisdiction of Yugoslav courts, and are to be resolved according to Yugoslav law and the Statutes of the Centre.

Art. XII.

For legal purposes the Croatoserbian and English texts of this Agreement are equally authentic. Authenticated translations will be provided in other appropriate languages.

The Draft Agreement shall become a formal agreement upon the approval of the governing bodies or ten eligible institutions from not less than five countries. It may then be amended under the provisions of Article VII.

P.T.O.

List of Universities invited to join the Inter-  
university Centre for postgraduate studies in Dubrovnik

....

President  
Haile Sellassie I University  
Addis Ababa  
Ethiopia.

Annexure III to Item No.25

207

Rector  
University of Amsterdam  
Amsterdam  
Holland.

Prof. Melanitis  
University of Athens  
Odos Panepistimiou  
Athens  
Greece.

Gerald Grunwald  
President of the West German Rectors Conference  
Bad Godesberg.  
Ahrstrasse 39  
W. Germany.

Lincoln Gordon  
President  
Johns Hopkins University  
Baltimore  
Maryland 21218  
USA.

Hakon Mosby  
Rector University of Bergen  
Bergen  
Norway.

Johan P. Olsen  
Institute of Sociology  
University of Bergen  
Christiesgt. 19  
N-5000 Bergen  
Norway.

President  
University of California  
Berkeley  
California 94720  
USA.

208

Dr. R. B. Hunter  
Vice-Chancellor  
University of Birmingham, P. o. Box 363  
Birmingham 15  
G. Britain.

Professor Henry Maddick  
Director Institute of Local Government Studies  
University of Birmingham  
Birmingham  
G. Britain.

Professor Tito Carnacini,  
 Rettore Magnifico dell' Università degli studi di  
 Bologna  
 Via Zamboni 33  
 Italia.

Vice-Chancellor  
University of Bombay  
Bombay I  
India.

Jean Livescu  
Rector of the University of Bucharest  
Bucharest,  
B-dul Gh. Gheorghiu-Dej Nr. 64  
Rumania.

Professor Karoly Nagy  
Rector of the University of Budapest  
Budapest  
Hungary.

Roberto Cortes  
Director Instituto Torcuato Di Tella  
Superi 1502  
Buenos Aires  
Argentina.

Dr. Badawey Abd El-Latif  
Rector Al Azhar University  
Cairo.

Vice-Chancellor  
University of Calcutta  
Calcutta 12  
India.



(209)

President  
University of North Carolina  
Chapel Hill, North Carolina  
USA.

Rector Kobenhavns Universitet  
Frue Plads  
Copenhagen  
Denmark.

Danish Social Sciences Research Council  
C/O Professor Henning Fries  
Director Institute of Social Research  
Boringer g.28  
Copenhagen  
Denmark.

M.D. Mc Carthy  
Vice-Chancellor of the  
National University of Ireland  
Cork  
Ireland.

To the Rector  
Jagiellonian University  
Golebia 24  
Cracow  
Poland.

H.G. Quick  
Director General  
Netherland Universities Federation  
for International Cooperation  
Den Haag  
Molenstraat 27.

Vice-Chancellor  
National University of Ireland  
49 Merrion Square  
Dublin  
Ireland.

Rector  
University of Gottingen  
34 Gottingen  
BRD.

P.T.O.

210

Professor Wolfgang Maresch  
Rector of the University  
Graz  
Austria.

Professor Rendorff  
Rector  
University of Heidelberg  
6900 Heidelberg  
BRD.

Rector  
University of Helsinki  
Helsinki  
Finland.

President  
Cornell University  
Ithaca  
New York  
USA.

Rector  
Kievskij Ordena Lenina gosudarstvennyj universitet  
Kiev  
U.S.S.R.

Rector  
University of Konstanz  
Konstanz  
BRD.

Rector  
Leiden University  
Leiden  
Holland.

Rector  
Karl-Marx-Universitat  
Ritterstrasse 26  
701 Leipzig  
German Democratic Republic

To the Rector  
Leningradskij Ordena Lenina Gosudarstvennyj universitet  
Im. A.A. Zdanova  
Leningrad  
U.S.S.R.

P.T.O.

211

Augusto Salazar Bondy,  
Presidente  
Consejo Superior de Education  
Ministerio de Education Piso 13  
Lima  
Peru.

Rector  
University of Lisboa  
Lisboa  
Portugal

Sir Brian Wingeyer  
Vice-Chancellor of the University of London  
London W.c. 1  
G. Britain.

Rector  
University of Madrid  
Madrid  
Spain.

El Colegio de Mexico  
Guanajuato No. 125 - Col. Roma  
Mexico, D.F.  
Mexico.

R.E. Bell  
Principal and Vice-Chancellor  
McGill University  
Montreal  
Canada.

To the Rector  
Moskovskij Ordena Lenina i Ordena Trudavogo Krasnogo Znameni  
gosudarstvennyj universitte im. M.V. Lomonosova  
Moskva  
U.S.S.R.

Predsjednik  
Akademije nauka SSSR-a  
Lenin Prospekt 14  
Moskva  
U.S.S.R.

p.t.o.

2/2

Rector  
University of Nottingham  
Nottingham  
G. Britain.

Prof. S.T. Beljaeg  
Rektor  
Novosibirskij gosudarstvennyj universitet  
Novosibirsk  
SSSR.

To the Rector  
University of Oslo  
Oslo  
Norway.

Professor A. L. C. Bullock  
Vice-Chancellor  
University of Oxford  
Oxford  
G. Britain.

A. King  
OECD (Organisation for Economic Cooperation and Development)  
2, rue Andre - Pascal  
Paris XVI  
France.

Rene Maheu  
Director General  
UNESCO  
Place de Fontenoy 7  
75 Paris 7e  
France.

President  
Peking University  
Peking  
Hopei  
China.

Gregory B. Wolfe  
President  
Portland State University  
Portland  
Oregon 97207

P.t.o.

Prof. Dr. Bedrich Svestka  
Rektor  
University Karlovy  
Praha  
Czechoslovakia.

S.E.M.E. Fasi  
Rector de l'Universite Mohammed V  
Avenue Moulay Cherif  
Rabat  
Marocco.

Rector  
Universidade Federal de Rio de Janeiro  
Avenida Pasteur 250  
Rio de Janeiro  
Brazil.

Prof. D. Avack  
 Rettore Magnifico dell'Universita degli studi di  
Roma  
Citta universitaria  
Italia.

Edgardo Boeninger K.  
Rector  
University of Chile  
Av. Bernardo O Higgins 1058  
Santiago  
Chile.

Rector  
Universidade de Sao Paulo  
Cidade universitaria  
"Armando de Salles Oliveira"  
Sao Paulo.  
Brazil.

Panteley Zarev  
Rector  
Sofijski universitet " Kliment Ohridsky"  
Sofia  
Bulgaria.

(214)

Rector  
University of Stockholm  
Stockholm  
Drottninggatan 116  
Sweden.

Rector  
State University of Tirana  
Tirana  
Albania.

President  
University of Tokyo  
Hongo, Bunkyo-Ku  
Tokyo  
Japan.

Professore Agostino Origone  
 Rettore Magnifica dell' Università degli Studi di  
Trieste  
Italia.

To the Rector  
Uppsala Universitet  
Uppsala  
Sweden.

Charles Schottland  
President Brandeis University  
Waltham  
Massachusetts  
USA.

Prof. Dr. Richard Biebl  
Rector University of Vienna  
Wien  
Dr. Karl-Lueger-Ring 1  
Austria.

Rector  
University of Zurich  
Zurich  
Switzerland.

Confidential

UNIVERSITY GRANTS COMMISSION

(215)

Meeting:

Dated : 1st December '7

Item No. 26: To consider the following proposals received from the Banaras Hindu University :

- (i) For appointment of a Committee to consider the size of enrolment in the various faculties of the University and to fix the number of places in the Departments/ Institutions of the University taking into account the facilities available; P.216-219
- (ii) For the sale of certain items of equipment to the Magadh University; P. 220-226
- (iii) For assistance from the Ford Foundation for the development of the Bharat Kala Bhavan.  
P. 227-229

---

Confidential

UNIVERSITY GRANTS COMMISSION

(216)

Meeting :

Dated : 1st December 1971.

Item No. 26(1) : To consider the proposal of the Banaras Hindu University for appointment of a Committee to consider the size of enrolment in the various faculties of the University and to fix the number of places in the Departments/Institutions of the University taking into account the facilities available.

The Vice-Chancellor, Banaras Hindu University has approached the Commission to help the University to maintain its standard by fixing the number of seats in each faculty as the University by its own had failed to resist the mounting pressure for admission every year. The Vice-Chancellor has suggested, that, the Commission may take action in sending a team of eminent educationists to fix the number of seats in each faculty after examining all the facilities available in Laboratories, Libraries, Classroom accommodation, etc. since the University Grants Commission is responsible for maintenance and determination of standards in universities. A copy of letter received from the Vice-Chancellor, Banaras Hindu University in this connection is attached as Annexure I.

In this connection it may be stated that the question of continuance of undergraduate courses at the Banaras Hindu University and of affiliation of undergraduate colleges located outside the campus of the university was discussed in a meeting held in the Ministry of Education and Social Welfare on the 23rd October, 1971 and a summary of the record of the discussion as forwarded by the Ministry is attached (Annexure II).

The matter is placed before the Commission for consideration.

AS(CU)/RO



Annexure I to item No. 26(1).

217

Copy of the letter No. VC/431 dated 4th  
October 1971 from the Vice-Chancellor,  
Banaras Hindu University to the Chairman,  
UGC.

—

Last time when I met you I had requested you to help the University to maintain its standard by fixing the number of seats in each faculty. The University by its own has failed to resist the mounting pressure every year. I would, therefore, request you to send a team of eminent educationalists to fix the number of seats in each faculty after examining all the facilities available in laboratories, libraries, class-room accommodation, etc. I shall be grateful if you will kindly initiate early action in the matter before the University reopens. The University Grants Commission, which is responsible for maintenance and determination of standards in universities, has a direct responsibility in this matter and I shall be extremely grateful to have the Commission's advice.

218

SUMMARY RECORD OF THE DISCUSSION HELD ON  
OCTOBER 23, 1971 REGARDING CONTINUANCE OF  
UNDERGRADUATE COURSES AT BANARAS HINDU  
UNIVERSITY.

The question of continuance of undergraduate courses at the Banaras Hindu University and of affiliation of undergraduate colleges located outside the campus of the University was discussed in a meeting held in the room of Minister of State at 12.00 noon on October 23, 1971. The following were present:-

- i) Prof. S. Nurul Hasan,  
Minister of State,  
Ministry of Education and Social Welfare.
- ii) Dr. K.L. Shrimali,  
Vice-Chancellor,  
Banaras Hindu University
- iii) Dr. D. Shankar Narayan,  
Additional Secretary,  
University Grants Commission, and
- iv) Shri R.S. Chitkara,  
Deputy Educational Adviser,  
Ministry of Education & S.W.

2. Dr. Shrimali said that although the Banaras Hindu University Inquiry Committee had recommended that the University should not be concerned with the undergraduate courses and the two High schools being run by it, the Executive Council had not accepted the recommendations in the interest of higher education and also keeping in view the wishes of the Founder of the University to promote education at all levels. As regards the four undergraduate colleges affiliated to the University, he suggested that two of them (Vasant Kanya Mahavidyalaya, and Vasanta College for Women), which were associated by Dr. Annie Besant, who was also associated with the establishment of the University/ The Management of the other two colleges may be persuaded to get them affiliated to Gorkhpur University. If necessary, these colleges could be allowed by that University to start postgraduate classes with assistance from the University Grants Commission. This question may also be taken up with the State Government.

/may be made  
constituent  
college of the  
University

3. Professor Nurul Hasan said that he fully agreed with the suggestions made by Dr. Shrimali.

4. The question of introducing a comprehensive Bill in the Parliament regarding the University was also raised. Professor Nurul Hasan pointed out that Dr. Rao had given an assurance in the Parliament that such a Bill would be introduced as quickly as possible but in no case later than August 1972. Dr. Shrimali felt that before introducing the Bill in the Parliament it was necessary to settle the future set up of the University for the next 10 years or so. He suggested that a Working Group consisting of a representative each of the University, Ministry and University Grants Commission may be appointed to go into all the details, including the question of selective admissions, requirements of different faculties etc. The Group should prepare a long range perspective plan for the academic growth of the University. The draft bill may be prepared after the recommendations of the Group had been considered.

5. While agreeing with the approach suggested by Dr. Shrimali, Professor Nurul Hasan felt that the proposed Committee should be set up under the Chairmanship of the Vice-Chancellor. The recommendations regarding structural changes should be made keeping in view the broad framework suggested in the Report on Governance of Universities. The Group should make available its report in about a month's time.

6. Dr. Shrimali promised to send his proposals regarding the setting up of the Working Group and for the introduction of the Bill in the Parliament after his return to Varanasi.

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated : 1st December 1971

Item No.26(ii): To consider a proposal from the Banaras Hindu University for the sale of certain items of equipment to the Magadh University.

The Banaras Hindu University has sent a proposal for the sale of certain items of equipment acquired by its department of Chemistry out of the grants paid by the University Grants Commission during the II and III Five Year Plans. The University has mentioned that though these items of equipment are in the working condition, they have become obsolete due to the availability of other improved models and as such, are now surplus in the department. In view of the fact that according to the conditions attached to the non-recurring grants, assets created out of such grants cannot be disposed off or encumbered without the prior sanction of the Commission, the university has asked for Commission's approval for selling the items of equipment worth Rs.32,779.42 stated that Magadh University, Department of Chemistry is desirous of purchasing these items considered surplus/obsolete.

A copy of the proposal received from the Banaras Hindu University is enclosed (Annexure).

The matter is placed before the Commission for consideration.

E.O.(Sec.I)/D.O.(S)

'VK'

Copy of the letter No. R/Dev/AGU/4478  
dated 7th October 1971 from the Finance  
Officer, Banaras Hindu University to  
the Secretary, University Grants Commission,  
New Delhi.

221

I am to send herewith the list of the articles purchased for the Department of Chemistry out of the grants sanctioned by the University Grants Commission during second and third plan period. Although these articles have been in use in the department for about ten years and are still in working condition, they have become obsolete due to availability of other improved models. As such, these articles are now surplus in the department.

The Head of the Department of Chemistry, Magadh University, Bodh Gaya (Gaya), Bihar has offered to purchase these articles for use in his department on the price indicated against each item.

It may be mentioned that all these articles were purchased prior to devaluation of Indian Rupee (when a dollar was equal to Rs.4.50p, Pound Rs. 13/-, a DM equal to Rs. 1.80 and a SWfr. to Rs. 1.70). The cost of sale shown in the enclosed statement (Appendix) in column No. 6 has been calculated on the basis of current rate of conversion. This has neutralised the reduction in cost shown in column No. 7 to a very great extent and the total loss on the whole transaction comes to about Rs. 2,300/- only.

In the circumstances mentioned above, the approval of the University Grants Commission for sale of articles listed in the statement to the Department of Chemistry, Magadh University may kindly be accorded at an early date.

'VK'

Articles rendered surplus in the department to be sold to Magadh University,  
Bodh Gaya (Gaya)

S.No.	Year of Purchase	Name of the articles with departmental no. if any.	Quantity	Cost of purchase	Cost of sale agreed to by the party	Remarks
1	2	3	4	5	6	7
					Rs	
1.	1965	Standard Model 301A Vapour pressure Osmometer complete with accessories (C-07:1)	1 p.c.	\$ 2954.90	14,842.50	Reduction 2/3
2.	1965	Micro Balance type AVM 20 nos 0053-(C-B2:2)	1 p.c.	Rs 3,872.45	2,581.00	2/3
3.	1960	Portable Flash evaporator cat no. 129-57 (C-E11:1)	1 p.c.	\$ 305.70	1,147.50	1/2
4.	1965	Magnetic Stearers 28.12.000 C-S17-8, 10 & 12	3 p.c.s	Rs. 447.18 each	670.77	1/2
5.	1962	Magnetic Stirrer C-S17 4 and 5	2 p.c.s	DM 264.00 each	528.00	1/2
6.	1960	Nester Spinning Bank Distillation column C-D7:3	1 p.c.	\$ 471.00	1,762.50	1/2
7.	1960	Energy Regulators C-E10: 1,2,3,4, and 6	5 pcs	£ 3-5-0 each	117.00	40%
8.	1963	Micro-Melting Point Apparatus with Microscope (C-M14:1 and 1A)	1 set	£81-14-0	980.40	2/3

993

(r)

9.	1963	Steam Generator Complete, 220 V. G.D. 2834 G-S22:1	1 p.c.	Sq.Fr.275.00	366.00	2/3
10.	1963	Micro-combustion furnace (Heralus) for C.H.N. analysis C.F4:14	1 p.c.	DM 1,944.00		
		<u>Accessories for the above:</u>				
		1. Preliminary purifying furnace 42520	1 p.c.	DM	129.60	
10	1963	<u>Spare parts:</u>				
		1. Long Burner 42550	1 p.c.	DM	313.20	
		2. Spare heating elements 42551	1 p.c.	"	28.80	
		3. Mercury relay 42552	1 p.c.	"	55.60	
		4. Glass assembly for the micro determination of C & H	1 p.c.	"	222.00	
		5. Spare parts for no. 42570	1 p.c.	"	6.00	
		6. Glass assembly for the semi-micro determination of C & H 42575	1 p.c.	"	241.00	
		7. Absorption tube burner 42576	1 p.c.	"	71.10	
		8. Absorption tube for absorption of water 42577	1 p.c.	"	27.00	
		9. Absorption tube for carbon-di-oxide	1 p.c.	"	22.50	
		10. Spare parts for no. 42575	1 set	"	6.00	
		11. -Do-to-fit absorption tubes 42580	1 set	"	6.10	

p.t.o.

224

12.	Glass assembly for micro-determination of oxygen 42585	1 set	DM	311.00
13.	Oxydation tube 42586	1 pc.	"	45.00
14.	Glass assembly for micro-determination of nitrogen 42590	1 pc.	"	291.00
15.	Dewar gas generator 42591	1 pc.	"	34.00
16.	Spare part for no. 42590	1 pc.	"	5.13

11. 1963

Combustion furnaces for elementary analysis complete with following accessories (C.F.4:15 and C.F.4:16) 2 sets

11. 1963

Accessories:

1.	Adjustable stand with double clamp & 4 break-hooks	1 pc.
2.	U-Tubes for soda-lime filling	2 pc
3.	Soda-lime apparatus	1 pc
4.	Calcium-chloride U-Tube with stopper	1 pc
5.	Oxygen regulating valve	1 pc
6.	Schiff-A7otcmeter	1 pc

p.t.o.



925

7.	Combustion tubes Jena	90 cm	2 pcs
8.	-do-	11 cm	2 pcs
9.	-do-	12 cm	2 pcs
10.	-do-	17 cm	2 pcs
11.	Glass-rod 50 mm long with platinum wire		1 pc
12.	Combustion boats		10 pcs
13.	-do- with two handles		10 pcs
14.	-do- 14.5 x 14 mm		2 pcs
15.	-do- unglazed		2 pcs
16.	-do- made of copper-sheet		2 pcs
17.	Weighing bottles		2 pcs
18.	-do- for larger combustion boats		2 pcs
19.	Palladium chloride bottles with stopper		1 pc
20.	Safety valve		1 pc
21.	Calcium chloride drying towers		2 pcs
22.	Aspirating bottles		2 pcs
23.	Stop-cocks bent		2 pcs
24.	Tripod		1 pc
25.	Object-long made of brass		1 pc
26.	Small asscrtent rubber		
27.	Cooling spoon		1 pc
28.	Platinum-contact star		1 pc
29.	Palladium chloride		1 pc
30.	Molecular-silver		1 pc
31.	Elerisuper oxyd		10 gms.
32.	Natro Kalk		$\frac{1}{4}$ kg
33.	Chlorelcium		$\frac{1}{2}$ kg

p.t.o.

226

Prices for item 11

Total price for item 10 & 11

DM 2,422.00  
DM 6,181.03

Rs. 8,240.00 2/3rd

- 12. 1961 Vacuoscope 2 pcs DM 285.00 each Rs. 760.00 2/3
- 13. 1961 Melting Point Apparatus  
C.M12:5 with accessories 1 pc £ 43-15-0 Rs. 393.75 1/2
- 14. 1962 Griffin laboratory stirrer S37-950  
C-S12:5, 6 & & 3 pcs £ 18-1-3 each Rs 390.00 - 40%

Total Rs. 32,779.42 p.s.

Total 1. DM = 6,730.03  
 2. \$ = 3,731.60  
 3. Sw. Fr. 275.00  
 4. £ = 146-15-3  
 5. Rs. = 4,319.63

Conversion rate :-

- 1. £ 1 = Rs. 18.00
- 2. \$ 1 = Rs. 7.50
- 3. DM1 = Rs. 2.00
- 4. S.fr. 1 = Rs. 2.00

(VK)

UNIVERSITY GRANTS COMMISSION

227

Meeting :

Dated : 1st December 1971

Item No. 26(iii) : To consider the proposal of the Banaras Hindu University for assistance from the Ford Foundation for the development of the Bharat Kala Bhavan.

The University Grants Commission at its meeting held on 6th May 1970 agreed to the proposal of the Banaras Hindu University for receiving assistance from the Ford Foundation for the development of the Bharat Kala Bhavan as detailed below (subject to the usual Government clearance)

	Rs
1. Mounting, galzing and storage of miniature, paintings, cloth, paintings, textiles, sculptures etc.	1,25,000
2. Printing of picture postcards and Forlders	1,07,270
3. Cooling of Gallaries etc,	55,000
4. Publication of Guide Books, brochures etc. in different languages	74,760
5. Photographic archives of Indian art	2,09,500

It was further desired that the details of the proposal for strengthening the postgraduate diploma course in Museology may be obtained from the University and the matter brought up again before the Commission.

The decision of the Commission was communicated to the Ministry of Education and Social Welfare and the Banaras Hindu University was requested to give the relevant details of their proposal regarding the diploma course in Museology. The University has now informed that the Bharat Kala Bhavan has about 4,000 books, periodicals etc. on Indian art, in addition to coins, paintings, photographs, sculptures etc. A list of the acquisitions is attached(annexure.) The Kala Bhavan has a floor area of about 15000 sq.ft. on the ground floor and 10000 sq.ft. on the first floor. The Kala Bhavan has also been conducting a diploma course in Museology. The course is of two years

p.t.p.

duration and 5 students are admitted every year to the course. The details of the grant requested by the University from the Ford Foundation for developing the course are as under:-

		Rs
(a)	(i) Appointment of Museum Chemist at Rs. 7,500 per year (for 3 years)	22,500
	(ii) Appointment of a Lab. Assistant @ Rs. 4,000 per year (for 3 years)	12,000
	(iii) Instruments	10,000
	(iv) Chemicals etc. will be met out of the Kala Bhavan Budget	
	Total	<u>44,500 for three years</u>

Note: The Chemical Laboratory will also help the museum work in the conservation of the collection and in giving the proper treatments, while the students will receive the training.

(b)	Books, periodicals and other publications for the Museological course for 3 years	10,000
(c)	Excursion of the students to other museums, Museums campus, Seminars of the Museums Association of India etc. @ Rs. 1,500/- each (for three years)	4,500
	Total	<u>59,000</u>

Project (7) Storage facilities :

i)	Additional space for storing about 5,000 terracottas, 1,000 modern paintings, 1500 textiles, 9000 paintings = 120x60 feet = 7200 sq.ft. @ Rs. 30/- per sq.ft.	2,16,000
ii)	Electrification and other items	25,000
iii)	Storage furniture	25,000
iv)	Air conditioning 7000 sq.ft. (carpet space only, 12' high) estimated	<u>2,00,000</u>
	Total	<u>4,66,000</u>

The matter is placed before the Commission for consideration

Annexure to item No. 20(iii)

COMPLETE LIST OF ACCESSION REGISTERS

(As on 30.10.1969)

		<u>Number of objects</u>
1. Coins etc.	1	23,612
2. Sculptures, Terracottas and other Architectural objects etc.	1	21,834
3. (K) Continuation of above	21895	22,372
4. Painting, Jewellery etc.	1	11,143
5. Literary material	1	3,742
6. Library books	1	2,368
7. Objects - acquired in exchange	1	75
8. Philately	1	1,127
9. Photos of other collections	1	115
10. Photo negatives	1	3,430
11. Textiles	1	418
12. Miscellaneous objects	1	411

Categorical Registrars

Terracotta	Total No.	4,877
Sculpture	"	1,120
Textiles	"	1,406

Confidential

UNIVERSITY GRANTS COMMISSION

---

230

Meeting:

Dated : 1st December 1971

Item No. 27: To consider the following proposals received from Delhi University :

- (i) For financial assistance outside its Fourth Plan allocation for certain schemes of the Departments of Botany and Anthropology;  
P.231-239
- (ii) Not to insist for the condition of about 20 students in the case of honours courses in Modern Indian Languages, Urdu or Sanskrit or Geography in Delhi Colleges. P.240.

----

UNIVERSITY GRANTS COMMISSION

231

Meeting:

Dated : 1st December, 1971.

Item 27(i): To consider a proposal from Delhi U-niversity for financial assistance outside its Fourth Plan allocation for certain schemes of the Departments of Botany and Anthropology.

...

The University of Delhi has forwarded proposals for special grant outside its 4th plan allocation of Rs. 195 lakhs for the following schemes of the departments of Botany and Anthropology:-

1. (A) Department of Botany

The University has stated that the number of students admitted in M.Sc., B.Sc.(Hons.) and B.Sc.(Subsidiary) in 1971 has nearly doubled the number admitted in 1968. The department therefore, requires additional fund to meet the increased expenditure towards chemicals and glass ware, Botanical Garden and excursion, Laboratory staff and Microscopes etc. The following requirements have been indicated for this purpose.

Non-recurring

Compound Microscope and dissecting microscope	Rs.70,000/-
Furniture and fittings	Rs.10,000/-
	<hr/>
	Rs.80,000/-

Recurring(per annum)

Chemicals and Glass wares	Rs.6,000/-
Botanical Garden	Rs.2,000/-
Excursion	Rs.2,000
	<hr/>
	Rs.10,000/-

Staff:

Senior Laboratory Assistant	One
Laboratory Attendant	One

(B) Alteration of Four Low Temperature Cabinets into Growth chambers Rs.1,25,000/-

A copy of the proposal received from the University is enclosed as Annexure I. (A & B) p.t.o.

2. Department of Anthropology:

The department of Anthropology has established a Laboratory in Human Cytogenetics with the help and assistance of Professor F.Vogel, Visiting Professor to the department from West Germany and has introduced in the revised syllabi, a course in Human Cytogenetics for the M.Sc. students. The department has asked for the following additional assistance

Non-recurring Rs.50,000

Recurring(per annua)

- (a) Staff Rs.79,400 p.a.
- (b) Other charges like Rs.11,000 p.a.
- contingencies
- chemicals etc. Rs.90,400/-

A copy of the proposal received from the University is enclosed as Annexure II.

The matter is placed before the Commission for consideration.

E.O.(Sc.I)/D.O.(S)



Copy of letter No. Fin. II/DI/71/Botany, 14331 dated 16th August, 1971 from the Registrar, Delhi University to the Secretary University Grants Commission:

....

A statement showing number of students admitted to the M.Sc. B.Sc.(Honours) and B.Sc.(Subsidiary) in the Department of Botany of this University from 1968 to 1971 is enclosed. It will be seen therefrom that there has been considerable increase in the admission of students. The percentage of increase from 1968 to 1971 in respect of M.Sc. is nearly 100 per cent, in respect of B.Sc.(Hons.) 75% and in respect of B.Sc.(Subsidiary) 45%. Consequently the expenditure in the Department of Botany has also increased substantially. The Department, therefore, requires additional funds to meet the increased expenditure towards Chemicals and Glass ware, Botanical Garden and Excursion. The University could meet a minor portion of the increased demand of the Department out of its existing resources. As the increased admission is one of the phases of the development of the University during the 4th plan period the Commission is requested to consider provision of additional funds to the University as a special grant outside the 4th Plan allocation. The amount of additional recurring grant that would be required is indicated below:-

Chemicals and Glass ware	Rs.6,000/-
Botanical Garden	Rs.2,000/-
Excursion	Rs.2,000/-
Totals:	<u>Rs.10,000/-</u>

Apart from this the following non-academic staff would also be required to be provided to offer proper facilities to the students in the laboratory:-

Senior Laboratory Assistant	One
Laboratory Attendant	One

2. Consequent on the increase in admissions the Department is not in a position to provide requisite number of Microscopes to the students for their laboratory work. It is absolutely essential to purchase at least 40 Compound Microscopes and 50 Dissecting Microscopes immediately. Apart from the microscopes certain furniture and fittings are also required to be provided. The Commission is, therefore, requested to consider sanctioning a non-recurring grant of Rs.80,000/- for purchase of Microscopes, and additional furniture and fittings outside the 4th plan allocation (vide details enclosed) - Appendix.

Statement showing the number of students admitted to M.Sc., B.Sc.(Hons.) and B.Sc.(Subsidiary) from 1968-1971.

.....

Year	M.Sc.			B.Sc.(Hons.)				B.Sc.(Subs.)		
	Prev.	Final	Total	I Yr.	II Yr.	III yr.	Total	I Yr.	II Yr.	Total
1968	16	+ 10	= 26	36	+ 35	+ 22	= 93	36	+ 33	= 74
1969	28	+ 12	= 37	46	+ 33	+ 32	= 111	36	+ 28	= 64
1970	26	+ 20	= 46	57	+ 42	+ 33	= 132	57	+ 37	= 94
1971	30	+ 23	= 53	60	+ 57	+ 44	= 161	60	+ 43	= 103

Percentage of increase from 1968 to 1971:

100%

75%

45%

Details of Non-Recurring Grant required

1.	Microscopes - Compound 40 x 1500/-	Rs. 60,000/-
	- Dissecting 50 x 200/-	Rs. 10,000/-
2.	Furniture & Fittings	Rs. 10,000/-
		<hr/>
		Rs. 80,000/-
		<hr/>

Copy of the letter No.Fin.II/Botany/71/15179 dt.19.8.1971 received from the Delhi University to the Secretary, University Grants Commission

-----

I am to inform you that under the United Nations Development programme we received as gift from the U.S.S.R. four Low-temperature Cabinets during October, 1968. The cabinets could not, however, be put into use as these required certain alterations so as to convert them into Growth-Chambers, which are essentially required for the Department of Botany of this University for experimental studies. The cost of alteration works out to Rs. 20,000/- approximately. Apart from this expenditure a special room has to be erected to instal these cabinets as these cannot be accommodated in the existing building. The cost for erecting such a room works out to Rs. 70,000/- approximately. It is also proposed to set up a workshop with suitable tools for prompt repairs of the equipment in use of the Department alongwith the new construction proposed for housing the four cabinets. The approximate expenditure on the workshop including tools would be around Rs. 25,000/-. It is, therefore, requested that a grant amounting to Rs. 1.25 Lakhs may kindly be sanctioned outside the IVth Plan allocation as we are not in a position to provide for this amount within the 4th plan allocation already made available to the University.

-----

Copy of letter No.Fin.II/PI/HC-ANTE/71/33780 dated 26th March, 1971 from the Registrar, Delhi University to the Secretary University Grants Commission.

...

The Department of Anthropology has established a laboratory in Human Cytogenetics, one of the latest developments in the field of Physical Anthropology, with the help and assistance of Professor F.Vogel, Director Institute of Anthropology and Humangenetik, Heidelberg University, West Germany and Visiting Professor to the Department of Anthropology.

The Department has introduced in the revised syllabi, a course in Human Cytogenetics for the M.Sc. students, Post-doctoral and Ph.D. Fellows of the Department are also becoming increasingly engaged in this field of research.

#### Programme

The Department proposes to develop research in three major directions in the new laboratory, viz:

- 1) The Cytogenetic Study of the Indian narcotic addicts;
- 2) Evolutionary Cytogenetics with special reference to primates;
- 3) (a) Study of some clinical cases like monogolism, Turner and Klinefelter syndromes.  
(b) We have also started a small cell for Genetic Counselling.

The work in the laboratory in Human Cytogenetics involves the following:-

- 1) Preparation of Human Chromosomes from:
  - i.) Lymphocytes;
  - ii.) Skin fibroblasts and bone marrow.
- 2) 'Sex chromatin' and 'Drumsticks' Test in the Human Chromosomes to determine the nuclear sex.
- 3) Studies of mammalian chromosomes, especially the chromosomes of the mouse and HeLa cells.

#### Equipments

The Laboratory of the Department has sterile culture room fitted with ultra violet tubes; Leitz microscope, incubators, centrifuges, necessary glass ware and chemicals. Besides, they are getting a photomicroscope (orthoplan fluorescence microscopes), sorvall ultra-centrifuge, and some other equipment through the Ford Foundation Grants. For smooth and efficient functioning of the laboratory, the Department would require the following additional equipment:-

237

- |    |                  |                  |
|----|------------------|------------------|
| 1. | Air-conditioners | (2) Rs. 11,000/- |
| 2. | Deep Freezer     | (1) Rs. 3,500/-  |
| 3. | Autoclave        | (1) Rs. 11,500/- |
| 4. | pH-Meter         | (1) Rs. 1,850/-  |
| 5. | Generator        | (1) Rs. 20,000/- |

Justification for the equipment:

Blood will be hemolysed if the room temperature is not sufficiently low, thus spoiling the experiment. It will also be impossible to work in the air-tight sterilised culture room without air conditioning. The laboratory would remain idle for about 7 months in a year without this facility.

Deep Freezer is necessary for storage of costly and rare chemicals, some of which will have to be imported.

Absolute sterility of the apparatus has to be maintained for such experiments and an Autoclave is a must for it.

The cultures have to be maintained at a constant temperature of 37 degrees C. for as many as 12 weeks for skin fibroblasts and any break in the current would inevitably result in injury to cultures in their growth. This would render the whole work futile and new experiments will have to be conducted which perhaps might meet the same fate; since the current supply in the University is highly erratic.

Staff Requirements:

Two of the staff members in the Department namely Dr. L. K. Datta and Dr. H. K. Kumbhani, have been trained in Human Cytogenetics techniques in West Germany at the Institute of Anthropology and Human Genetics at Heidelberg and at the Institute of Human Genetics, at Munster, respectively. Besides about twelve staff members and students have also been trained in this field by Professor F. Vogel and his associate Dr. E. Schliefermacher during January-February, 1971 in the Department. However, for the efficient and smooth functioning of this laboratory and for providing guidance to the research students, we shall require creation of the following posts in the Departments:

- |    |  |     |   |
|----|--|-----|---|
| 1. | Reader<br>(Rs. 700-1250)                         | One | <u>Specialisation:</u> Research and training in Human Cytogenetics. |
| 2. | Research Associate<br>(Rs. 400-950)              | One | -do-  |
| 3. | Senior Research Fellow<br>(Rs. 500/- p.m. fixed) | One | <u>Specialisation:</u> Human Genetics (Physical Anthropology)       |
| 4. | Junior Research Fellow<br>(Rs. 300/- p.m. fixed) | One | -do-  |
| 5. | Technical Assistant                              | One | Qualifications as prescribed by the University                      |
| 6. | Lab. Attendant                                   | One | -do-  |



BUDGET ESTIMATES FOR THE COURSE IN HUMAN CYTOGENETICS (INCLUDING THE LABORATORY IN HUMAN CYTOGENETICS) IN THE DEPARTMENT OF ANTHROPOLOGY, UNIVERSITY OF DELHI, DELHI-7, from 1971-72 to 1973-74.

.....

Non-Recurring:

1.	Air conditioners	(2)	Rs.11,000.00
2.	Deep Freezer	(1)	Rs. 3,500.00
3.	Autoclave	(1)	Rs.11,500.00
4.	Ph meter	(1)	Rs. 1,850.00
5.	Generator	(1)	Rs.47,850.00

Say Rs.50,000.00

Recurring:

A.	<u>Staff</u>	<u>For one year</u>	<u>For three years</u>
	Reader - 1	17,000/-	51,000/-
	Research Associate-1	12,000/-	36,000/-
	Senior Res. Fellow -1.	6,000/-	18,000/-
	Junior Res. Fellow -1	3,600/-	10,800/-
	Tech.Asstt.-1	6,000/-	18,000/-
	Lab.Attendant. -1	2,400/-	7,200/-
	<b>Total Staff:</b>		<hr/> 1,40,000/-

B,Other Charges:

Contingency grant for two Res.Fellows.	2,000/-	6,000/-
Chemicals	7,000/-	21,000/-*
Contingencies	2,000/-	6,000/-
<b>Total:</b>		<hr/> 33,000/-

Total Recurring 1,74,000/- or say 1,75,000.00

Total NR and Rec. 2,25,000.00

\* 50% of the amount i.e. Rs.10,500/- will be needed in dollars i.e. Approx.\$1,500.00 for three years.

Confidential

UNIVERSITY GRANTS COMMISSION

240

Meeting :  
Dated : 1st December 1971.

Item No. 27(ii) : To consider the proposal of the Delhi University not to insist for the condition of about 20 students in the case of honours courses in Modern Indian Languages, Urdu or Sanskrit or Geography in Delhi Colleges.

The University Grants Commission had laid down a minimum limit of 20 students for the colleges receiving maintenance grants from the Commission to start Honours Courses. It has, however, been observed that in certain subjects the number of students admitted in the Honours Courses is less than the minimum prescribed limit. The Delhi University was requested to review its policy with regard to starting of Honours courses. The Committee appointed by the University to consider this matter recommended that in general the University Inspection Committees, on whose recommendations the new Honours courses are introduced, should adhere to the minimum enrolment of 20 for Honours courses as laid down by the Commission in recommending starting of new Honours courses; but in certain subjects e.g. modern Indian languages, Urdu or Sanskrit, due to shortage of number of students taking these courses or in Geography because of the completion of practical classes and the limitations of equipment, the insistence of minimum number of 20 students may not be feasible.

The University of Delhi has sent a proposal for waiving the conditions of minimum enrolment of 20 students in Honours courses in the above subjects.

The matter is placed before the Commission for consideration.

EC(CD)



Confidential

UNIVERSITY GRANTS COMMISSION

---

(241)

Meeting:

Dated : 1st December 1971

Item No.28: To consider the following proposals received from the Bombay University:-

- (i) Establishment of a department of Geology.  
P.242-244
- (ii) Establishment of departments of Micro-biology and Biochemistry in the Biological Science Division(P.245-254)
- (iii) For transfer of equipment from ex-Institute of Basic Medical Sciences to University Departments/Colleges.  
(P.255-257)

----

Confidential

UNIVERSITY GRANTS COMMISSION

242

Meeting:

Dated : December 1, 1971

Item No.28(1) To consider the proposal received from the Bombay University for establishment of a department of Geology.

-----

The Commission at its meeting held on 6th October, 1971 considered the proposal of Bombay University for the establishment of a Department of Geology and desired that the proposal could be taken up by the university in the fifth plan period but agreed that this may be further discussed with the university. As desired by the Commission, the proposal was discussed with the university. The university is anxious to start the department as early as possible and is also agreeable to provide for one Reader and one lecturer in addition to the post of a Professor at this stage and accommodate this expenditure within the overall Fourth Plan allocation.

A copy of the note placed before the Commission earlier is attached as Annexure.

The proposal of the university is placed before the Commission for consideration.

E.O.(Sc.I)/D.O.(S)

VX?

Copy of agenda note placed before the Commission at its meeting held on 6.10.71 vide item No. 50.

The University of Bombay has sent a proposal for the establishment of a new Department of Geology by utilising facilities such as laboratory, library and museum available in the Department of Geology at St. Xaviers College, Bombay. The University has proposed to house the Geology Department in the Science Block at the new university campus at Kole Kalyan along with the Department of Geography as the two allied departments can function more fruitfully together.

The University at present required the following assistance:-

1. Non-recurring:

Purchase of books	Rs. 50,000
-------------------	------------

2. Recurring:

Professor	One	(One Reader and one lecturer at later stage)
-----------	-----	--

The total estimated expenditure on the scheme during the Fourth Plan period is Rs. 1.06 lakhs.

The University has agreed to accommodate the expenditure of Rs. 1.06 lakhs estimated for the department of Geology within its fourth plan allocation of Rs. 149. lakhs.

A copy of the letter received from the University is enclosed as Appendix.

The matter is placed before the Commission for consideration.

'VK'

244

APPENDIX

Copy of the letter No. APD/1770 of 1971  
dated September 1, 1971 from the Registrar,  
University of Bombay, addressed to the Secretary, UGC

Subject:- Establishment of a Department of Geology -  
University of Bombay.

With reference to your letter No.F.11-20/68(Sc.I), dated 19th August 1971, I am to inform you that whilst the accommodation in the St. Xavier's College will be available for the proposed department of Geology so long as the University wishes to use that accommodation, it is proposed to house the department in the Science Block at the new university campus at Kole Kalyan along with the department of Geology as the two allied departments can function more fruitfully together.

As regards para two of your letter, I am to state that the expenditure of Rs. 1.06 lakhs on the department can be accommodated within the Fourth Plan allocation of Rs. 149 lakhs.

UNIVERSITY GRANTS COMMISSION

Meeting:

245

Dated: 1 December, 1971

Item No. 28(ii): To consider a proposal of Bombay University for establishment of departments of Microbiology and Biochemistry in the Biological Science Division

The University of Bombay had included in its 4th Plan proposals the establishment of an Institute of Biological Sciences involving a total expenditure of Rs.30.25 lakhs (IR) and Rs.5.01 lakhs (Recurring). The Visiting Committee appointed by the Commission to examine 4th Plan proposals of the university of Bombay made the following observations in this regard:

1. Although the facilities for postgraduate course in Biological Sciences had been in existence at the constituent colleges only the university had not been in a position to offer these post-graduate courses on its own.
2. Developments in the life sciences are recognised fields of modern progress in science. The new findings of the chemical composition of living matter, on the characteristics which distinguish it from the non-living, on the origin of life and on the prospects of artificial synthesis of living matter have radically changed the outlook for biological and biochemical research.
3. In many of these investigations biologists have had to deal with cellular matter at its fundamental molecular level. Hence molecular biology has developed as an almost distinct discipline.
4. The establishment of a full-fledged Institute of Biological Sciences as proposed by the Bombay University, all at once, was perhaps beset with some practical difficulties as the university did not have postgraduate departments of its own in any branch of Biological Sciences e.g. Botany, Zoology, Microbiology etc. As such an integrated approach to the study of life may not be achieved with indifferently trained zoologists, botanists or microbiologists at the undergraduate and postgraduate levels.
5. It was therefore desirable to start in the first instance a post M.Sc. course in Biology for holders of M.Sc. degrees in Botany/Biochemistry/Zoology/and Microbiology of at least a year's duration and thus to train them as biologists in the modern sense. Later this course could be extended to undergraduate and postgraduate levels so that the training in composite biological sciences could start at the initial stage. It would be desirable for the students to study Chemistry, Biophysics and Mathematics to facilitate a proper understanding of the science and to arouse the necessary intellectual curiosity. This would go a long way in generating the proper climate for the establishment of the proposed Institute of Biological Sciences eventually.

In order to plan and organise the department of Biological Sciences the Visiting Committee had recommended the following grants:

RECURRING

Professor	One
Readers	Two
Lecturers	Two

NON-RECURRING

Buildings:	Rs.6 lakhs
Scientific Equipment	Rs.2 lakhs
Library Books & Journals	Rs.1 lakh

Later on, the University had also included an additional post of Professor in its 70% proposals.

In May 1969, however, the University of Bombay informed that it desired to set up two separate departments of Botany and Zoology. To examine this proposal, another Expert Committee visited the university in October 1969. The recommendations of the Committee were considered by the Commission at its meeting held on 3rd December, 1969 (Item. No.18). A copy of the note placed before the Commission is enclosed (Annexure I).

The recommendations of the Expert Committee were accepted by the Commission and the Commission also agreed to the creation of an additional posts of one Professor and one Lecturer during the 4th Plan period on the condition that the expenditure is met from within the allocation already made to the university.

Present Proposal:

The University has now informed that the Syndicate of the university has, on the recommendation of the Academic Council, decided to have the following four departments, each with a separate board of studies:

1. Department of Botany
2. Department of Zoology
3. Department of Biochemistry
4. Department of Microbiology.

The university has, therefore, suggested the following staff pattern for the various departments:

1. Department of Botany

One Professor  
One Reader  
One Lecturer

2. Department of Zoology

One Professor  
One Reader  
One Lecturer

3. Department of Biochemistry

One Professor

4. Department of Microbiology

One Lecturer

All the above parts have been provided for in the revised 100% proposals of the University. The University is yet to take a decision in regard to suggestions of the Visiting Committee for organisation of an integrated M.Sc. course in Biological Sciences having facilities for plant and animal sciences, during the Fourth Plan and subsequently adding facilities for biochemistry and microbiology.

A copy of the letter from the University is attached (Annexure II)

The proposal of the University is placed before the Commission for consideration.

EO(S.c.I)/O(S).

\*VK\*

Copy of note placed before the Commission at its meeting held on 3rd December 1969 vide item No. 18. (248)

The University Grants Commission, on the recommendation of the Fourth Plan Visiting Committee, which examined the development proposals of Bombay University in March 1967 approved the establishment of a Department of Biological Sciences and sanctioned the following grants for the purpose during the Fourth Plan period:

RECURRING

Professor	...	One
Readers	...	Two
Lecturer	...	Two

NON-RECURRING

Buildings	...	Rs. 6 lakhs
Scientific Equipment	...	Rs. 2 lakhs
Library Books and Journals	...	Rs. 1 lakhs

The University of Bombay in May, 1969 however informed that the University desired to establish two separate departments of Botany and Zoology instead of a Department of Biological Sciences. The proposals was stated to be the outcome of the considerations made in this regard subsequently by the Boards of Studies in Botany and Zoology and the decision taken by the Senate of the University. In view of this and the observations by the Fourth Plan Committee, it was desired that an Expert Committee consisting of the following members may held further discussions with the University authorities on the subject:

1. Professor P.S. Sarma,  
Head of the Centre of  
Advanced Study in Bio-chemistry,  
Indian Institute of Science,  
Bangalore.
2. Professor S. Krishnaswamy,  
Head of the Division of  
Biological Sciences,  
Madurai University.
3. Professor S.C. Maheshwari,  
Department of Botany,  
Delhi University.
4. Dr. D. Shankar Narayan,  
Joint Secretary,  
University Grants Commission.

The Expert Committee (except for Professor Maheshwari, who could not accompany the Committee to Bombay) visited the University



of Bombay on the 7th and 8th October, 1969 and had discussions with the members of the Boards of Studies in Botany and Zoology and the University authorities. The report made by the Expert Committee is enclosed as Appendix.

The main recommendations made by the Expert Committee are :

1. It would be desirable for the University of Bombay to set up a Division of Biological Sciences to promote inter-disciplinary studies in life sciences. However, in the first instance, a Department of Botany or Plant Sciences and a Department of Zoology or Animal Sciences may be started. Steps may be taken, as early as possible, to add a Department of Biochemistry and, if necessary, a Department of Microbiology, so that a self-contained Division of Biological Sciences could be established subsequently. Until such time, the Departments of Biochemistry and Microbiology could be added to the proposed Division of Biological Sciences, the University may utilise the services of qualified teachers in these subjects in the constituent colleges and recognised research institutes of the Bombay University.
2. The University may offer, in addition to postgraduate courses leading to award of M.Sc. Degree in Botany or Zoology, a third 2 - year course leading to the award of Master's Degree in Biological Sciences. The University may frame suitable courses of study for this purpose with the help of expert advice and taking note of similar courses being introduced in some other universities. The courses of study however should have relevance to the requirements and the demands of teaching and research institutions in Bombay.
3. Each of the Departments of Plant Sciences and Animal Sciences may have an initial staff of one Professor, one Reader and two Lecturers. On the basis of staff already approved, this would require sanction for the posts of an additional professor and two lecturers. In the matter of recruitment to these various posts, the University, may, after taking into account the qualified staff and expertise available in the constituent colleges, select persons who would help in promoting the study of life sciences in a unified way and meet the requirements to introduce the new course leading to M.Sc. in Biological Sciences. In the view of the Committee, the broad areas would be Cell Biology, Developmental Biology, Genetics, Ecology, Plant Pathology and Mycology, Cytogenetics, Physiology and Ecology to mention only a few.
4. The capital grants already sanctioned by the Commission for laboratory buildings, scientific equipment and library books and journals may be appropriately utilised to develop common facilities for both Departments of Plant and Animal Sciences and to cater to the individual requirements of each of these subjects. It would not be desirable for each of these two departments to develop independent facilities for the

Study of common disciplines included in the courses of studies. Development of common facilities would be important to organise the new course leading to M.Sc. in Biological Sciences. These facilities may be supplemented wherever required, by drawing upon the facilities and staff available in the constituent institutes of Bombay University.

5. A beginning may be made from the next academic year to admit at least ten students into the M.Sc. course in Biological Sciences and the admission may be open to B.Sc./B.Sc. Honours students with any two subjects in the fields of Physics, Chemistry, Botany, Zoology and Microbiology.

The above recommendations of the expert committee require creation of additional posts of one Professor and two Lecturers. The University has agreed to find expenditure on the appointment of this additional staff from within the total Fourth Plan allocation approved for the University.

The matter is placed before the Commission for consideration.

Report of the Expert Committee appointed to examine the proposal of the University of Bombay for the establishment of Departments of Botany & Zoology instead of the Department of Biological Sciences sanctioned during the Fourth Plan period.

The University of Bombay, in May 1969, communicated to the Commission that the Senate of the Bombay University on consideration of the Fourth Plan development schemes accepted by the Commission had resolved that the University Grants Commission may be approached to sanction the establishment of separate Departments of Botany and Zoology instead of a Department of Biological Sciences approved earlier by the Commission. On receipt of this communication and in view of the observations contained in the report of the Fourth Plan Visiting Committee which visited the University in March, 1967, it was considered desirable that the present proposal of the Bombay University may be examined with the help of an Expert Committee. Accordingly a Committee consisting of the following members visited the University of Bombay on 7th-3th October, 1969:

- (1) Professor P.S. Sarma,  
Head of the Centre of Advanced  
Study in Biochemistry,  
Indian Institute of Science,  
Bangalore.
- (2) Professor S. Krishnaswamy,  
Head of the Division of Biological Sciences,  
Madurai University,  
Madurai.
- (3) Dr. D. Shankar Narayan,  
Joint Secretary,  
University Grants Commission.

Professor S.C. Maheshwari, Professor of Botany, Delhi University was unable to visit the University. The Committee, during its visit to Bombay, had discussions with members of the Boards of Studies in Botany and Zoology and the Registrar of the University. The Committee could not meet the Vice-Chancellor as he was out of Bombay on those days.

The University of Bombay included in its Fourth Plan proposals submitted to the U.G.C. in 1966-67 a proposal for the establishment of an Institute of Biology. The Visiting Committee which examined this proposal in 1967 was of the view that the establishment of a full-fledged Institute of Biological Sciences as proposed by the Bombay University may not be appropriate and perhaps beset with some practical difficulties as the University did not have postgraduate departments of its own in any of the life science subjects. The Committee felt that an integrated approach to the study of life sciences may not be

252

developed with indifferently trained Zoologists, Botanists or Microbiologists at the undergraduate and postgraduate level in the colleges affiliated to the University. The Committee therefore recommended that it was desirable to start, in the first instance, a post-M.Sc. course in Biology for Master's degree holders in different Biological Science subjects and this may ultimately become the basis for the establishment of a Division of Biological Sciences. In support of this recommendation and with a view to help planning organisation of such a department, the Committee suggested that a Professor of Biology, preferably a person with research contributions in the field of Cell Biology or Experimental Biology may be appointed, in the first instance. For the establishment of the Department of Biology, the Committee further recommended, besides the post of professor, posts of two Readers and two Lecturers and non-recurring grants of Rs.6 lakhs for building, Rs.2.00 lakhs for equipment and Rs.1.00 lakh for library books and journals.

The above recommendation of the Fourth Plan Visiting Committee was accepted by the Senate of the Bombay University at its meeting held on 28th December, 1967, which agreed to establishment of the Department of Biology and creation of the posts approved for this purpose by the Commission. However, in the light of the discussions that took place at the said meeting of the Senate the question whether there should be a separate Department of Botany and a separate Department of Zoology seems to have arisen. Consequently the suggestion had been considered by the Boards of Studies in Botany and Zoology and other experts in the subjects and the Boards of Studies came to the conclusion that the University should have separate Departments of Botany and Zoology instead of a composite Department of Biology. The Boards further recommended that an additional post of professor may be created so that each of the departments would be headed by a professor. This decision of the Board of Studies as accepted by the Senate of the University was conveyed to the University Grants Commission by the Bombay University in May 1969.

The present Committee appointed by the U.G.C. had two meetings with the members of the Boards of Studies, Bombay University on the 7th and 8th October, 1969. During the discussions it was noted that facilities for postgraduate teaching in Botany and Zoology as separate disciplines had been in existence in a large number of constituent colleges of Bombay University. The colleges, owing to financial and other limitations, were not in a position to promote the desirable concept of study of life sciences, in keeping with the present day approach to the study of biological sciences in advanced countries. The recent developments in the life sciences and the trends of future growth, distinguished the study of biological sciences from the classical approach to the study of Botany & Zoology. The study of life sciences heavily draw upon and rely on the advances made in the other sciences particularly Biochemistry, Biophysics and Biometrics. The Committee therefore felt that the University of Bombay which desired to establish its own teaching departments for the first time in these subjects could with advantage make a beginning in the direction

C\_O\_P\_Y

Annexure II to item No.28(ii)

253

No. APD/ /7584/ of 1971  
Bombay, 1st September, 1971

The Secretary,  
University Grants Commission,  
Bahadur Shah Zaffar Marg,  
New Delhi-1.

Sub: Higher Scientific Education and Research  
Development Schemes for the IV Plan Period

Dear Sir:

I am to invite a reference to this office letter No.9096, dated 27th May, 1970, on the above subject, by which the Commission was informed that the University had accepted, in principle, the recommendation of the Visiting Committee of the Commission in regard to the organization of Studies in Life Science subjects in the University, that the Academic Council had appointed a Committee to make suggestions for the implementation of the recommendations and that the subject to which the additional post of one Professor and one Lecturer approved by the Commission would be assigned would be intimated to the Commission.

The Syndicate of the University have now decided, on the recommendation of the Academic Council, to have the following departments of Biological Sciences:-

1. The Department of Botany
2. The Department of Zoology
3. The Department of Biochemistry
4. The Department of Microbiology.

The staff of the three Professors, two Readers and three lecturers which has been sanctioned by the Commission is proposed to be allocated to the four Departments mentioned above as follows:

1. Department of Botany

One Professor  
One Reader  
One Lecturer

2. Department of Zoology

One Professor  
One Reader  
One Lecturer

3. Department of Biochemistry

One Professor

4. Department of Microbiology

One Lecturer

254

The Departments of Biochemistry and Microbiology are to be developed eventually into fullfledged departments each having the following staff: viz. one Professor, one Reader and one Lecturer. The Commission would be approached for sanctioning necessary additional staff as and when further funds are allotted to this University by the Commission for its development.

As regards the suggestion contained in the Visiting Committee's report that the University should offer in addition to post-graduate courses, a two year course leading to the Master's degree in Biological Sciences, I am to inform you that the Syndicate have accepted in principle the recommendation of the Academic Council that arrangements should be made for the teaching of a course leading to the M.Sc. degree in Biological Sciences by papers, by research and partly by papers and partly by dissertation as may be laid down jointly by the four Boards of Studies concerned, viz., Botany, Zoology, Biochemistry and Microbiology. The question of taking concrete steps for the starting of the proposed M.Sc. course in Biological Sciences is being placed before the Academic Council.

I am to request you to move the Commission to sanction the Departments of Biological Sciences mentioned above and for the allocation of staff to the departments as proposed by the University.

UNIVERSITY GRANTS COMMISSION

255

Meeting :

Dated : 1st December, 1971.

Item No. 28 (iii) To consider a proposal of the Bombay University for transfer of equipment from-ex-Institute of Basic Medical Sciences to University Department/ Colleges.

The Commission approved of the recommendations of an Expert Committee for starting the Postgraduate Institute of Basic Medical Sciences at the Bombay University and sanctioned the following grants in April, 1965.

<u>Purpose</u>	<u>Total grant</u> Rs.	<u>UGC Share</u> Rs.
<u>Non-Recurring</u>		
1. Building	23,25,000	14,87,000
2. Equipment	12,50,000	8,33,333
3. Books	2,50,000	2,50,000
<u>Recurring</u>		
1. Staff	2,65,000	1,32,500
2. Maintenance	60,000	30,000
3. Books	30,000	15,000

The implementation of the scheme was started in 1965. But subsequently owing the difficulties with regard to matching funds the university decided to defer the implementation of the scheme and the services of the two members of the teaching staff working in the Institute were terminated after giving them six month's notice.

The question of disposal of equipments etc. acquired for the Institute of Basic Medical Sciences was considered by the University syndicate and the syndicate decided to transfer the items of equipment etc. to the University departments and various institutions affiliated to the university as indicated in the attached Annexure, involving an amount of Rs. 1,91,469.13 (Furniture Rs. 45,023.30 + Equipment Rs. 1,03,513.00 + Glass ware Rs. 17,533.72 + Chemicals Rs. 16,616.11 + Cages Rs. 6798.48 + Surgical Instruments Rs. 1984.52 + Breakage etc Rs. 510.25). The syndicate of the university decided that prices of the equipments be fixed after taking into account their cost, current market prices, depreciation etc.

256

The University auditor (Chief Auditor, Local Fund Accounts) in his report of the accounts of the University for the year 1967-68 has observed that the Commission's specific approval is necessary in this regard on the following :-

- (a) Deferring the implementation of the scheme which has already been taken up.
- (b) Expenditure amounting to Rs. 53,673.59 incurred on the recurring items such as staff, contingencies, books, uniforms, etc. for the period from September, 1967 to March, 1968 including the payment of salaries of staff during the notice period.
- (c) The disposal of the unused equipment, apparatus, etc. as decided by the syndicate.

The Bombay University has therefore requested the Commission to accord its approval as required by the University auditor. The University has also proposed that the cost of the items transferred to the University Departments may be treated as additional grants for the concerned departments and the cost of the items supplied to the colleges may be allowed to be utilised for purchase of new equipment for the Science Departments of the university on the new campus.

(EO.(T)/D.O(T).





UNIVERSITY GRANTS COMMISSION

Confidential

Meeting:

258

Dated : December 1, 1971

Item No. 29: To consider the proposal of the Calcutta University for the construction of extension to the building of the Institute of Basic Medical Sciences

The Commission at its meeting held on 29/30th June, 1960 considered the report of the Visiting Committee appointed by the Commission to examine the proposal of Calcutta University for establishment of a Post-graduate Unit in Basic Medical Sciences and sanctioned the following grants:

<u>I. Non-Recurring</u>	<u>Total approved cost</u>	<u>Share of UGC @ 2/3</u>
A. (i) Building for five departments 50,000 sq.ft. @ Rs.25 per sq.ft.	Rs. 12,50,000	Rs. 11,13,333
(ii) Fittings & furniture @ 1/3 of the cost of the building	4,20,000	
(iii) Workshop with fittings and furniture	1,00,000	66,666
B. (i) Equipment Rs.1,50,000 for each department (Rs.1,50,000)	7,50,000	5,00,000
(ii) Workshop machines and tools	50,000	33,333
Total (NR)	<u>25,70,000</u>	<u>17,13,332</u>

II. Recurring (salary on the usual basis of Professor etc. in the faculty of Science on 50 : 50 basis)

- a) Academic staff  
1 professor, 1 Reader and 3 Lecturers for each deptt. minus  
1 professor and 5 Readers created under centenary grant.
- b) Other staff including Workshop Supdt., Librarian and  
Technicians etc.

The Calcutta University has informed that the building constructed for the Institute is in-sufficient to meet the present needs. The Calcutta University has therefore proposed to add two more floors to the building and had drawn up an estimate of Rs.11,54,000/- for the purpose. The University has requested Commission's permission to meet the expenditure on the proposed construction by reappropriating grants as shown below from projects already accepted by the Commission.

259

	R.
(1) Unspent balance of the spill-over of the previous building grant for Basic Medical Sciences accommodated within the overall allocation for Fourth Plan.	1,28,333
(2) Teachers' Hostel (Not yet taken up)	4,50,000
(3) Staff quarters (Not yet taken up)	1,50,000
(4) Allocation for Education Department now taken out of 4th plan vide UGC letter No.F.24-1/70 dt. 22-3-1971	3,42,000
(5) Unutilised out of provision for salary of teachers not yet appointed or joined.	80,000
Total:	<hr/> 11,50,333 <hr/>

The matter is placed before the Commission for consideration.

EO(T)/DO(T)

VK

UNIVERSITY GRANTS COMMISSION

Confidential

(260)

Meeting:

Dated: December 1, 1971

Item No.30. To consider the proposal of the Vikram University for financial assistance towards the construction of a Gymnasium.

The Commission at its meeting held on 7th October 1970 (Item No.37) accepted the recommendations of the Committee to examine the proposals of universities and colleges for the construction of gymnasia and agreed to assist 12 Universities and 81 colleges on a sharing basis as under:-

	<u>Cost</u> Rs	<u>UGC contribution</u>
(i) For a University (120'x90').	2.5 lakhs	75%
(ii) For a College with enrolment of 1500 or more (100'x60').	1.5 lakhs	75%
(iii) For a smaller college.	0.75 "	75%

The Vikram University was not included in the above mentioned list of 12 universities.

After the above decision was taken, the Vikram University sent a proposal for the construction of a gymnasium. The Vice-Chancellor of the University has intimated that he has given an assurance to the Syndicate of the University and the Students' Representatives who met him in this connection that the construction of gymnasium in the university campus would be undertaken and completed shortly. He has, therefore, requested the Commission to approve the proposal of the University at an early date. The proposed gymnasium is estimated to cost Rs.2,50,000 and has a total area of 8,321 sq.ft. as detailed below:-

Gymnasium hall (105'x65' with a height of 26'x30').	6,825 sq.ft.
Entrance, visiting hall office room, store rooms and Lav. block etc.	1,280 sq.ft.
Perch front.	216 sq.ft.
Total	8,321 sq.ft.

P.T.O.

261

The National Institute of Sports, Patiala has suggested the following dimensions for the construction of gymnasium for a university:

Length	.... 37 M	(121 sq.ft)
Width	.... 18 M	( 59 sq.ft)
Height	.... 7 M	( 23 sq.ft)

It is for the consideration of the Commission if the proposal of the Vikram University for the provision of a Gymnasium may be accepted in principle on the usual sharing basis, and the University requested to review its proposal in the light of the dimensions suggested by the NIS, Patiala.

A.S.(A.I)/J.S.(C)

UNIVERSITY GRANTS COMMISSION

262

Meeting :

Dated : 1st December 1971.

Item No. 31 : To consider a proposal for establishment of Instrumentation Workshop in the Department of Physics, Andhra University.

The Registrar, Andhra University has forwarded a proposal (enclosed as annexure I) for the establishment of Instrumentation Workshop at the Department of Physics and approached the Commission for financial assistance in this connection, to the tune of Rs. 2,85,000/- outside the Fourth Plan allocation. The proposal is stated to have been formulated to give a practical bias to physics education by involving the students, research scholars and the staff in the repair and fabrication of scientific apparatus required for various colleges and schools in Andhra Pradesh. The workshop is intended to cater to the needs of colleges and schools in regard to repair of equipment on nominal charges and sale of fabricated equipment to the institutions with a view to making it a self sustaining unit in due course. A provisional list of apparatus to be fabricated has been indicated in annexure II.

Details of financial requirements are as follows:-

NON-RECURRING

	Rs
1. Structural alterations for the building.	30,000
2. Furniture	10,000
3. Machinery such as small lathe, spot-welding machine, sheet cutting machine, bending and die press etc.	70,000
4. Cost of materials for fabrication of apparatus	1,00,000

RECURRING

staff for three years	
a) Instrument Mechanic	15,000
b) Helper	5,500

p.t.o.

263

		Rs.
c)	Electronic Technician in the scale of Rs. 160-10-260-12-320	11,500
d)	Score Attender in the scale of Rs. 70-3-100-5-130	7,500
e)	Helper in the scale of Rs. 42-2-76	5,500
6.	T.A. & D.A. for training the technical staff in industry outside Vizakhapatnam	10,000
7.	Remuneration of students and allowance to teacher	20,000
	Total	<u>2,85,000</u>

In this connection, it may be mentioned that the Commission has approved a provision of Rs. 10,50,000/- for implementation of University Leadership Project - COSIP at the Department of Physics, Andhra University out of which a sum of Rs. one lakh has been earmarked for meeting the expenditure towards the establishment of a workshop under COSIP, work experience is an integral part of Science education in so far as it provides facilities for students to gain practical experience in metal and glass working, repair of instruments, design and fabrication of equipment from indigenous materials through experimentation and innovation. A well equipped workshop will cater to the needs of not only the students of the university but could be used for having of teachers and students from the affiliated colleges of the university.

The matter is placed before the Commission for consideration.

DC(S).

264

PROPOSAL FOR ESTABLISHING INSTRUMENT WORKSHOP  
IN THE PHYSICS DEPARTMENT, ANDHRA UNIVERSITY, WALTIA, I.A.

1. INTRODUCTION

In recent times there is an over increasing demand for trained scientists and technologists in the industries with particular reference to electronic and scientific instruments. The training given to most of our students in the Universities is mainly of an academic type and does not prepare a candidate to join industry or to start his own industry in case he has no employment in the academic and research institutions. At present we are training 64 M.Sc., students each year in our department. We had a discussion with all our students regarding this matter. They were very enthusiastic about the idea of shorttime instrumentation workshop as it will not only provide them with the necessary skills and experience but also provide them some additional remuneration to supplement their normal income for maintenance. In consultation with the members of the teaching staff of our department I am giving below the particulars of a University based Instrumentation workshop in the Physics Department and request the UGC to give us an initial grant of about Rs. 2.85 lakhs to start this project. The amount will be utilised for structural alterations in the building, for purchasing workshop machinery for stocking materials required for fabrication, and for maintenance of staff for the first three years before the workshop develops to such an extent that it will be not only self sustaining but also profitable.

Under this project it is proposed to undertake repair of apparatus from all colleges affiliated to the Andhra University in the first instance. The unit will also undertake fabrication of apparatus required for colleges and schools. A provisional list of these apparatus is herewith appended. It may be noted many of these apparatus are not available commercially.

To begin with the production work will be confined to a few of them apparatus and gradually production capacity will be increased to the maximum possible extent. As we have to supply anyway these apparatus to various colleges from COSIP funds, to begin with we shall fabricate and supply them to these colleges.

FINANCIAL REQUIREMENTS

We are giving below the finances required for establishing this workshop.

1.	Structural alterations for the building	Rs. 30,000
2.	Furniture	Rs. 10,000

p.t.c.



265

3.	Machinery such as small lathe, spot welding machine, sheet cutting machine, bending machine and die press etc.	Rs. 70,000
4.	Cost of materials for fabrication of apparatus	1,20,000
5.	To recurring expenditure for three years for the following staff:-	
	a) Instrument Mechanic	15,000
	b) Helper	5,500
	c) Electronic Technician in the scale of Rs. 160-10-260-12-320	11,500
	d) Store Attender in the scale of Rs. 70-3-100-5-130	7,500
	e) Helper in the scale of Rs. 42-2-76	5,500
6.	T.A. and D.A. for training the technical staff in industry outside Visakhapatnam	10,000
7.	Remuneration to students and allowance to teacher	20,000
	Total	<u>2,85,000</u>

The Physics Department has a very spacious shed behind the building which is at present used by the Glass Blower and also for the Ice plant and Liquid Air Plant. This shed could be made available for the industry but it requires some structural alterations for which a sum of Rs. 30,000 will be required.

We are also assured that some of the research scholars will also be interested in participating in this workshop. We need some skeleton technical staff to train and guide the students and one teacher of the department to supervise the entire unit. The teacher incharge of the unit will be paid an allowance at a suitable rate to be fixed by the University. The technical staff will be full time. As the technical staff have to be trained in jobs such as sheet metal work, transformer winding, painting, screen printing etc., we propose to send some of the technical staff to some of the electronic and scientific instrument industries in Hyderabad for undergoing this training and to train our students. An initial grant of rupees one lakh is necessary for purchasing materials for fabrication of apparatus, and similarly an amount of Rs. 20,000 will be necessary to start with the for paying remuneration to students who participate in fabrication of apparatus and allowance to the teacher who guides the students and looks after the working of this workshop. This total amount of Rs. 1,20,000 will remain as a revolving fund which will be replenished from the scales of the

p.t.o

256

apparatus fabricated here,

The selected students who undertake work in this workshop will give suitable certificates.

I request that the proposal may be considered favourably and necessary grants made available at the earliest. It will not be necessary to ask for fresh grants in the course two or three years, we expect that the work will be self sustaining and also profitable to the University.

\*VK\*

PROVISIONAL LIST OF APPARATUS TO BE FABRICATED

1. Rankines apparatus.
2. Ostwalds Viscometer
3. Callender and Barnes apparatus
4. Revolving table
5. Wooden optical bench with accessories
6. e/m by solenoid (PSSC Kit)
7. L.H. Curve Coil
8. Carey Fosters Bridge
9. Potentiometers
10. Solenoids
11. Thermocouples
12. Inductance coils
13. Sonometer
14. Electromagnets
15. Vibration Magnetometers
16. Wooden Stand for Deflection Magnetometer
17. Characteristics apparatus for triode, tetrode and pentode
18. Kit for doing the following experiments
  - a) Half and full wave rectifier
  - b) RC coupled amplifier
  - c) Oscillators
19. Simple transistor VTVM.
20. Transistorised VTVM
21. Transistorised Grid leak meter.
22. Inclines plane experiments.

268

PROVISION LIST OF DEMONSTRATION APPARATUS  
TO BE FABRICATED

---

1. Discharge tubes
2. Dynamic demonstration of a radio receiver
3. Tesla Coil
4. Transverse wave motion machine
5. Crystal models
6. Letcher coil demonstrator
7. Photocell Burglar alarm
8. Demonstration of a.c. repulsion
9. Thermistor Thermometer
10. Portable GM counter demonstrator

UNIVERSITY GRANTS COMMISSION

Confidential

(269)

Meeting:

Date: December 1, 1971

Item No. 32: To consider a proposal from the MS University of Baroda for Secretarial assistance under the adult education scheme.

The University Grants Commission at its meeting held on 4th August, 1971, accepted the proposal of the MS University of Baroda for assistance towards the establishment of a department of Continuing/Adult Education and agreed to provide assistance on 75(UGC: 25 sharing basis, outside the fourth plan allocations, towards the recurring and non-recurring expenditure on the usual conditions.

The University had proposed the appointment of 1 professor 1 reader, 3 lecturers, 1 technical assistant, 1 accountant-cum-head clerk, 1 typist and 1 daftry. The Commission, however, did not agree to provide assistance towards the appointment of accountant-cum-head clerk, typist and daftry.

The Vice-Chancellor of the university has requested the Commission to provide assistance towards the scheme of adult education on 100% basis, as the university finds it difficult to provide the matching contribution. It may be mentioned in this connection that the university had earlier informed the Commission that it is prepared to meet the necessary matching share (i.e. 25% of the total cost) from its own sources, in case the Government of Gujarat does not agree to meet the same. The University has, therefore, been informed that it is difficult to revise the sharing basis of the scheme at this stage.

The Vice-Chancellor has further requested the Commission to reconsider its decision of not providing any assistance towards the post of accountant-cum-head clerk, typist and daftry. The estimated expenditure on these posts for the period ending 1973-74 will be Rs.30,280/-. The Commission has already accepted the scheme of the university at a total cost of Rs.3,60,880/-. If the Commission agrees to provide assistance towards the post of accountant-cum-head clerk, daftry and typist, the total cost will be within the approved ceiling of Rs.4 lakhs.

The matter is placed before the Commission for consideration.

EO(H-I)/DO(H)

Confidential

UNIVERSITY GRANTS COMMISSION

270

Meeting :

Dated : 1st December 1971.

Item No. 33 : To consider the proposal received from Calicut University to organise orientation meetings and workshop on Examination Reforms.

The United States Education Foundation in India has provided the services of a consultant to the University of Calicut for helping the University in its programme of examination reform. Dr. Hill, who will be working as consultant, has already arrived in India and has held preliminary discussions with the University. The University has also started the programme of seminars and workshops with the collaboration of experts from the N.C.E.R.T. and the British Council.

The University of Calicut has now sent a detailed proposal for orientation meetings and workshops on examination reform to be conducted for teachers of university departments and affiliated colleges of the University. The details of the programme are attached (Annexure I). The total expenditure of the proposal is Rs. 1,25,715/- as detailed in annexure II. The salary and maintenance of Dr. Hill are met by the United States Education Foundation in India. The University has, therefore, requested the Commission for a grant of Rs. 1,25,715/- for meeting the expenditure of workshops, seminars etc.

The matter is placed before the Commission for consideration.

EC(H, I)/JS(H).

271

PROPOSALS FOR ORIENTATION MEETING AND WORKSHOPS ON  
EXAMINATION REFORM TO BE CONDUCTED BY DR. HILL OF  
THE USEFI FOR TEACHERS OF UNIVERSITY DEPARTMENTS  
AND AFFILIATED COLLEGES OF THE UNIVERSITY OF CALICUT.

INTRODUCTORY:

There are about 2100 teachers in the colleges affiliated to this University, and ideally all of them will have to be involved in the attempt at reform and made to feel committed to its success. However, it would not be possible to invite all of them to take part directly in the discussions with Dr. Hill and the workshops to follow. Teachers have therefore to be selected to attend the orientation meetings, and workshops proposed at different centres. With this end in view, the University area may be divided into three zones (Each with about 20 colleges and 700 teachers). The head quarters of these zones may be Trichur, Calicut and Cannanore. The main headquarters of the programme from where all activities will be directed will be the University of Calicut. Workshops on different subjects will be held here (Primary workshops) and selected participants from these workshops will then hold similar workshops (Secondary Workshops) at the three centres mentioned above. They can then come back to the University for a final review session to formulate conclusions and recommendations.

With this general plan in view, a tentative programme has been drawn up for the work of Dr. Hill and it is given below:-

PRELIMINARY DISCUSSIONS

- |                   |   |   |
|-------------------|---|---|
| September 5, 1971 | : | Dr. Hill arrives at Calicut.  |
| September 6, 1971 | : | Dr. Hill confers with the Vice-Chancellor, Registrar, Examination Controller, Heads of Depts. and other Officers of the University. |
| September 7, 1971 | : | Dr. Hill confers with the Principals of the colleges affiliated to the University of Calicut.                                       |

I Phase (Orientation Meetings)

- September 8th and 9th : Orientation meeting at Calicut centre to be conducted by Dr. Hill. Number of participants about 100 invited as representative of the colleges in the zone.
- September 13th and 14th : Orientation meeting at Trichur centre. Number of participants etc. as in the Calicut Zone.
- September 16th and 17th : Orientation meeting at Cannanore centre. Number of participants etc., as mentioned above.

II Phase (Primary Workshops)

The second phase will consist of workshops on different subjects to be held at the University Campus. This will be the main centre for the formulation of objectives of teaching and the way of testing for the attainment of the objectives. 15 participants for each subject, 5 from each of the 3 centres referred to above will participate in these workshops. The subjects have been divided into groups, more or less on the lines indicated by Dr. Hill, as shown below in the time schedule.

Duration of the Workshops: Dr. Hill has suggested a minimum duration of 2 weeks. The Committee has given careful consideration to this suggestion but found that it would not be possible for colleges to release teachers for two weeks at a stretch. Furthermore, there is the other important factor that Dr. Hill is available only for three months and the entire programme has to be fitted into this period. It is therefore recommended that the Primary workshops be for 6 working days and the work done there be followed up later, possibly during the vacations. Accordingly the following time schedule is suggested for the Primary Workshops:

- September 20th to 25th : Workshop on Languages (three sub groups to be made (i) Modern Indian languages; Malayalam, Hindi, Kannada, Tamil. (ii) English (iii) Classical languages; Sanskrit, Arabic.
- September 27th to October 1st : Workshop on Biological Sciences: (Zoology, Botany).

p.t.o.



- October 4th to 9th : Workshop on physical sciences and Mathematics: Mathematics, statistics, physics, Chemistry.
- October 11th to 16th : Workshop on social sciences (Economics, politics, Sociology)
- October 18th to 23rd : Workshop on other humanities and commerce (History, Logic commerce)
- October 25th to 30th : Workshop on Professional courses (Medicine, Engineering, Law, Education).

III Phase (Secondary Workshops)

(To be conducted by selected participants of the Primary Workshops)

Six of the best participants (Who may be called leaders) in each subject (not subject group) will be selected and given further training by Dr. Hill from November 1st to 5th and they will conduct similar workshops at the three centres at Trichur, Calicut, and Cannanore. Of the six leaders for the subjects mentioned above, two will be attached to each centre. The teachers to attend these regional workshops are to be nominated by each college. For each college there should be 2 teachers in respect of each subject. Since a college may have upto 15 faculties in respect of pre-degree and degree courses, there would be about 30 representatives from each college. Thus in each regional workshop there would be about 600 participants (from the 20 colleges). In actual fact the number may be considerably less since Pre-Degree colleges may have only one teacher in some subjects. To this may be added two representatives of each Post-graduate department where these exist (average 5 colleges in each region). Therefore, for all the three regional workshops together the total number of participants may be put as 1000 working in separate subject groups. The workshops for different groups or subjects mentioned above need not be conducted at the same institution, but they may have to be held on the same dates. For example the workshops in Biological Sciences can be in one institution and that on social Sciences at some other institution at the same centre. In other words, the workshops in all the six groups referred to above can be held simulataneously in a centre, if colleges are able to release the participating teachers. But the dates of the workshops at the 3 centres may be staggered se that Dr. Hill may be able to oversee

(274)

and participate in the discussions at each centre and accordingly the following proposals are made:

November 8th, 9th and 10th : Workshops at Calicut  
November 11th to 13th : Workshops at Cannanore  
November 17th to 19th : Workshops at Trichur

By the above arrangements Dr. Hill will be able to participate in the discussion at all centres.

It will be noticed that these workshops have been planned for 3 days duration for the same reasons as have been mentioned under Primary courses and also for reasons of cost. Even on the present modest scale the budget is of the order of Rs. 1.25 lakhs.

IV Phase - Review

November 24th, 25th, 26th and 27th : Final summing-up sessions. Those who have been conducting the workshops at the three centres will again assemble in the University of Calicut to draw up proposals for the reform of examination in consultation with Dr. Hill

November 29th to Dec. 4th : Dr. Hill presents his report on the workshops and orientation meetings along with his final recommendations

FINANCE

The United States Educational Foundation in India has kindly agreed to meet fully the expenditure on salary and other allowances to Dr. Hill; the University of Calicut has to make provision only for the other expenses. Taking into account the importance of the subject, no effort or expense should be spared in making this scheme a success. The effort and expenditure on the programme will be amply justified by the result and in fact the progress made by the University in this connection can be a guidelines for other Universities in India.

p.t.o.

The bulk of the expenditure likely to be incurred would be on travel by the participants. In addition some equipment will be necessary. Each of the 2100 teachers of the University will have to be given a note outlining the conclusions arrived by the workshops conducted by the University in different subject groups; similarly during the course of the workshop sessions, a number of documents may have to be duplicated. Hence an electrical duplicator (Gestetner) would be an absolute necessity. The services of the operator will have to be made available by the University. It will be apparent that Dr. Hill will have a very difficult task during the period referred to above, explaining the ideas which have evolved in the course of his discussions with the other workers in India and in the Calicut University. These ideas will have to be repeated by him to the different groups. A good deal of his time can be saved if his talks could be taperecorded and played back as and when necessary. Hence at least one tape recorder and a sufficient number of blank recording tapes will be absolutely necessary.

During the workshop discussions, there would be a number of statistical computations to be made. It will be impossible to attend to them without a calculating machine. It is necessary to purchase one Facit hand operated calculating machine for the programme.

It is necessary that a resume of the operation of this programme and the main conclusions be published. It is suggested that 1500 copies be printed. The cost works out at Rs. 3/- per copy. Copies may be sent free of cost to each of the participants and to the various Universities and Educationists in India and abroad.

The total anticipated expenditure on travel by the participants is given in Annexure II. Annexure II gives staff requirements and the anticipated expenditure on the account, while Annexure III gives the equipment required and Annexure IV, other miscellaneous expenditure. The total expenditure as mentioned in Annexure V comes to Rs. 1,25,715/-.

The progress of expenditure could be reviewed at the end of each phase and suitable modifications made accordingly.

(I)

276

(Anticipated expenditure on T.A. for the participants)

		Rs
I. Phase.	1. Principals' conference (1 day)	4,500/-
	(Average of Rs. 75/- per head for 60 principals)	
	2. Orientation conference at the 3 centres (2 days each)	
	(Average Rs. 40/- per head for 300 people)	12,000/-
II. Phase	3. Workshops at the Calicut University	
	(Rs. 90/- per head for 375 people)	
	(15 people for each subjects; total 25 subjects) (3 days)	33,750/-
III. Phase	4. T.A. and D.A. for 1000 teachers to attend the workshops at the 3 centres at Rs. 50/- per head (3 days)	50,000/-
IV. Phase	5. Final summing-up session for the group leaders 150 people at Rs. 60/- per head (4 days)	9,000/-
	Total	<u>1,09,250/-</u>

Note:- For all participants except Principals the D.A. (Daily allowance) may be given at a flat rate of Rs. 10/- per head per day.

(II)

1. One stenographer for 3 months	:	Rs. 233x3=Rs. 699
2. One Typist for 3 months	:	Rs. 233x3=Rs. 699
3. One peon for 3 months	:	Rs. 189x3=Rs. 567
Total		<u>Rs. 1,965</u>

(277)

(III)

(equipment to be provided by University)

1. Electrically operated duplicator (Gestetner)
2. Taperecorder 1 number
3. Calculating machine facit.

(IV)

(Miscellaneous expenses)

	Rs
1. Stationery	2,000
2. Telephone charges	500
3. Refreshments at H.Q. and regional centres for all phases	4,000
4. Cost of publication of the findings of the programme 1500 copies at 3/- per copy	4,500
5. Other contingencies and unforeseen expenditure	3,500
Total	<u>14,500</u>

V

(Total anticipated expenditure for the programme)

1. T.A. and D.A. for the participants :	1,09,250
2. Staff salary	1,965
3. Misc. charges	14,500
Total	<u>1,25,715/-</u>

Confidential

UNIVERSITY GRANTS COMMISSION

278

Meeting:

Dated : 1st December 1971.

Item No.34: To consider the following proposals received from Burdwan University:-

(i) For financial assistance outside the Fourth Plan allocation for the department of Geography.

P.279-281

(ii) For financial assistance for the M.Sc. course in Applied Botany.

P.282-285

-----

(279)

Meeting

Dated: December 1, 1971.

Item No.34(i) : To consider the proposal received from Burdwan University for financial assistance outside the Fourth Plan allocation for the department of Geography.

The Burdwan University has requested for following financial assistance outside the Fourth Plan allocation for providing accommodation for the post-graduate department of Geography by suitable additions and alterations in an old building:

i) Renovation work.	Rs. 64,357
ii) New construction over the existing building.	Rs. 81,600
iii) Electrical work.	Rs. 50,000
iv) Site development etc.	Rs. 19,596
v) Contingencies and departmental charges.	Rs. 17,563
Total	<u>Rs. 2,33,121</u>

The university has stated that the funds for a separate building for the Geography department could not be provided in the Fourth Plan programme. The above grant is needed by the Geography department which was started in January 1970 and has admitted the second batch of students during the current year.

The Commission has already accepted the proposal of the Burdwan University for starting a post-graduate course in Geography from January 1970 and approved the following grants to the university for the purpose for the Fourth Plan period within the plan allocation of the university.

Non-recurring.

a) Books.	Rs. 30,000
b) Equipment.	Rs 1,30,000
c) Lab. furniture, fittings and Maps etc.	<u>Rs 1,00,000</u>
	Rs.2,60,000

Recurring (Staff)

Professor	--	One
Reader.	--	Two
Lecturer.	--	Five

A copy of the letter received from the university is enclosed as Annexure.

The matter is placed before the Commission for consideration.

E.C.(Sc.I)/D.C.(S)

Copy of the letter No. RB-II/37(70-71)/Part-I/313 dated 22nd September 1971 received from the Vice-Chancellor, Burdwan University, Burdwan addressed to the Secretary, UJC.

As you are aware, a new Science Department in Geography has been added to the Postgraduate Teaching Departments of this University, and necessary provision for the teaching staff, laboratory, equipment etc. has been made in the Fourth Plan with the approval of the UJC.

While the department has been steadily progressing with the intake of second batch of students this year, a serious difficulty has arisen with regard to accommodation, specially for building up the necessary infra structure of the Science Laboratory. As no alternative accommodation was available, the Department had to be cramped into the Humanities building, pending provision for suitable accommodation. The inescapable need for a separate building within the Fourth Plan programme of this University, nor is it possible now to find funds out of the Fourth Plan savings, after meeting the commitments already made. At the same time, the prospects of getting a huge sum of money required for a new construction seems to be remote, apart from the time factor of at least 2 to 3 years necessary to get a building ready for occupation.

For a geography deptt. could not be provided within the 4th Plan programme of the university nor is it

The Head of the Department of Geography has recently made a survey with the assistance of the P.W.D. Engineers about the prospects of utilisation of some of the old buildings received by the University from the estate of the Maharaja of Burdwan. One of the spacious buildings known as "Rance Bari" close to the other Science Departments of the University is found suitable for accommodating the Geography Department after suitable additions and alterations. Accordingly, the Construction Board, P.W.D. has put up an estimate providing for the requirements of the departments as follows:-

	Rs
i) Renovation work	64,357/-
ii) New constructions over the existing building for lecture theatres & other purposes	81,600
iii) Electrical works	50,000

p.t.o.



281

iv) Site development & other unforeseen works	Rs 19,536/-
v) Contingencies & departmental charge	17,568/-
Total	<u>2,33,121/-</u>

While I realise the financial difficulty which stood in the way of accommodating at least some of the "Second Priority" proposals outside the Fourth Plan allocation of this university, I would expect that our present effort to solve the immediate problem of accommodation for the teaching department at a minimum cost would receive favourable consideration of the Commission, even as a special case. May I, therefore, request you to kindly use your good offices to get the approval of the Commission to the proposed work to be executed by the Construction Board, K.W.D. at an estimated cost of Rs. 2.33 lakhs?

'VK'

Confidential

232

UNIVERSITY GRANTS COMMISSION

Meeting :  
Dated : 1st December 1971.

Item No. 34(ii) : To consider the proposal from the Burdwan University for financial assistance for the M.Sc. course in Applied Botany.

The University of Burdwan approached the Commission for financial assistance for starting M.Sc. course in Applied Botany and requested for the following assistance for the purpose:-

- a) equipment Rs. 50,000/-
- b) Staff one Reader and two lecturers.

The University was informed that it could start the M.Sc. course in Applied Botany as proposed, provided the expenditure could be met from within the overall allocation of Rs. 93.90 lakhs made to the university for the Fourth Plan period.

The University has now approached the Commission for following assistance towards the introduction of M.Sc. course in applied Botany:-

Non-recurring:

- a) Extension of building Rs. 1,00,000/-
- b) Equipment and books Rs. 1,30,000/-  
Rs. 2,30,000/-

Recurring:

- c) Staff upto Reader one )  
1973-74: Lecturer two ) Rs. 70,000/-  
Rs. 3,00,000/-

p.t.o.

(283)

Out of this, the university has agreed to meet the expenditure of Rs. 1,50,000/- from the Fourth Plan allocation of Rs. 93.90 lakhs and requested for the sanction of the balance amount of Rs. 1,50,000/- outside the Fourth Plan allocation.

A copy of the letter received from the Vice-Chancellor, Burdwan University is enclosed as Annexure.

The matter is placed before the Commission for consideration.

EO(Sc.I)/D(S).

'VK'

Copy of the letter No. RNI/89(70-71)/Dev/12646 dated 23rd September 1971 received from the Vice-Chancellor, Burdwan University to the Chairman, UGC.

I am glad to note that you have accorded sanction to open a Farm-based Applied Botany course within M.Sc. Botany which will have the effect of raising the intake of the students.

The University is contemplating to accommodate the building component of Applied Botany in the revised budget within the Fourth Plan allocation.

We would request you to approve the grant of a meagre sum of Rs. one lakh 50 thousand only for introducing the Applied Botany Course. The break up of the proposed contemplated expenditure and the requirements from the University Grants Commission are detailed below:-

1.	Building expansion (construction of 2nd floor on the existing College of Botany. Plan and estimate are under preparation by M/S Ballardie Thompson & Mathews for submission to UGC	one lakh (+ matching share from the State Government on 50:50 basis to the tune of one lakh)
2.	Teaching staff:  Reader                    one) Lecturers                two) For the Fourth Plan period expiring on 1973-74	0.70 lakh
3.	Equipments & Books	1.30 lakhs
	Total	Rs. <u>3.00 lakhs</u>

University's contemplated share  
within the amount of Fourth Plan  
sanction of Rs. 94 lakhs

Rs. 1.50 lakhs.

285

Contribution required from UGC  
outside the present Fourth Plan  
allocation upto 1973-74

Rs. 1.50 lakhs

In this connection you will be glad to learn that the State Government (Agricultural Department) has already sanctioned Rs. two lakhs to develop the Farm for the use of the proposed Applied Botany and Crop Research Developmental Work in the farm has already been taken up by the University.

I hope that it will be possible for you to accommodate the extra expenditure proposed and sanction the extra amount of Rs. 1.50 lakhs to enable us for introducing the Applied Botany Course from the next session which begins from October next. I am requesting Dr. P.N. Bhaduri to meet you in this connection.

'VK'

Confidential

UNIVERSITY GRANTS COMMISSION

286

Meeting :

Dated : 1st December 1971.

Item No. 35 : To consider a proposal from the Jiwaji University for additional grant for Library books and journals for the department of Physics.

On the recommendations of the Visiting Committee, the Commission sanctioned a grant of Rs. 50,000/- to the Jiwaji University for the purchase of Library books/journals for the department of Physics during the Fourth Plan period. This was an addition to a basic grant of Rs. 45,000/- and an adhoc grant of Rs. 75,000/- also sanctioned for all Science departments during Fourth Plan period (Central Library). The basic grant and adhoc grant have already been paid in full. Against the allocation of Rs. 50,000/- for the Physics Department, an amount of Rs. 30,000/- only has so far been paid.

The Jiwaji University has now requested for a special grant of Rs. one lakh outside the Fourth Plan allocation for the Physics department Library to purchase books and back volumes of journals. A copy of the letter received from the University is enclosed as Annexure.

The matter is placed before the Commission for consideration.

EO(Sc.I)/TD(S).

'VK'

Annexure to item No. 35

287

Copy of the D.O. letter No. VC/Secy/187 dated 6th October 1971 from the Vice-Chancellor, Jiwaji University to the Chairman, University Grants Commission, New Delhi.

---

You may recall that our Physics Professors met you here the other day with a request to sanction a special library grant for the University Department of Physics to purchase back volumes of journals. We got a grant for the back volumes some time ago but it was not enough to meet the needs of all the Science Departments. The Physics Department has started only this year and it is necessary, therefore, to get the back volumes in Physics as soon as may be convenient in the interest of its research work.

You were good enough to agree to help in the matter and sanction about a lakh of rupees, if possible, outside our Plan allocation. I shall be grateful if you will consider this request sympathetically.

The particulars of the back volumes including an estimate of their total cost with binding etc. are enclosed herewith (Appendix).

'VK'

288

BACK VOLUMES OF JOURNALS

Name of journals	No. of volumes and year	Rate per volume	Total cost
1. Advances in Physics	1 - 18 1952-1969		3000
2. Annual review of Astronomy and astro- physics	1 - 9 1963-1971	78=75	708
3. Annual review of nuclear science	1 - 21 1952-1971	78=75	1653=75
4. Physical review letters	1 - 21	--	3400=00
5. Physical Society of Japan	1 - 25		2500=00
6. Physics abstracts	24 - 70 1927-1968	480=00	22080=00
7. Physics of Chemistry and solids	28 - 31 1967-1970	1080=00	4320=00
8. Reviews of modern physics	1 - 40 1929-1968	--	4300=00
9. Reviews of scientific instruments	21 - 40 1950-1969	115=00	2300=00
10. Solid State communications	1 - 8 1963-1970		2603.00
11. Journal of applied physics (USA)	)		
12. Solid State physics (USSR)	)		
13. Optics and spectroscopy (USSR)	)		
14. Astrophysical journal	)		
15. Nuclear instruments and methods	)		
		Approx.	18000=00
		Books	65000=00
		Binding and storage	25000=00
		facility	10000=00
			<u>100,000=00</u>



UNIVERSITY GRANTS COMMISSION

Confidential

239

Meeting:

Dated: December 1, 1971

Item No. 36      To consider the proposal of the Meerut University, Meerut regarding the revised allocation in respect of the scheme of the correspondence courses for B.A. degree.

The University Grants Commission at its meeting held on 6th May, 1970 accepted the proposal of the Meerut University for assistance towards correspondence courses for the B.A. degree as detailed below:

1. Building for the correspondence course section including library	Rs. 2,50,000
2. Staff quarters for eight teachers	Rs. 1,50,000
3. Library facilities including books and journals.	Rs. 20,000
4. To meet deficit and other contingencies	Rs. 80,000
	<hr/> Rs. 5,00,000 <hr/>

The University sent plans and estimates for the construction of the building for correspondence courses. These were accepted at an estimated cost of Rs. 2,77,000/- the share of UGC being limited to Rs. 1,25,000/-.

The University has now sent the revised estimates of the scheme as detailed below:

S. No. Items	Estimated expenditure	UGC share on 50:50 sharing basis	State Govt. share on 50:50 sharing basis.
	(Rs. in lakhs)		
1. Building for the correspondence courses section including library	4.00	2.00	2.00
2. Staff quarters for correspondence courses teachers.	4.00	2.00	2.00
3. Library facilities including books and journals.	0.50	0.50	-

P.T.O.

290

4. To meet the deficit and other contingencies                      0.50      0.50      -

I may be mentioned in this connection that the building has already been completed and that its final cost will be determined on the basis of its item-wise completion cost according to UGC norms. The University has not so far sent the plans and estimates for the construction of staff quarters.

The matter is placed before the Commission for consideration.

EO(H, I/DC(H)).

^VK^

UNIVERSITY GRANTS COMMISSION

Confidential

Meeting: (29/)

Dated : December 1, 1971.

Item No. 37: To consider the proposal of Sri Venkateswara University for financial assistance towards the introduction of Correspondence Courses

Sri Venkateswara University has approached the Commission for assistance towards the introduction of correspondence courses for BA and B.Com. Provision of facilities for correspondence courses for the postgraduate degree will be taken up by the University during 1973-74.

The syllabi and duration of courses will be the same as for the regular students of the university viz. three years for the degree courses and two years for postgraduate courses. Admissions will be open to candidates from all over India. Candidates seeking admission to the first year of the course must have passed the pre-university examination or intermediate examination or any other examination prescribed by the Syndicate.

Courses will be started in the following departments:

	<u>1972-73</u>	<u>1973-74</u>
1. English	B.A.	M.A.
2. Telugu	B.A.	M.A.
3. Sanskrit	B.A.	M.A.
4. Hindi	B.A.	M.A.
5. History	B.A.	M.A.
6. Economics	B.A.	M.A.
7. Politics	B.A.	M.A.
8. Commerce	B.Com.	M.Com.

The University proposes to prepare students for the courses through supervised correspondence instruction, supplemented by contact classes. English will be the medium of instruction except in the case of languages viz., Telugu, Hindi and Sanskrit.

The estimate' expenditure on the scheme will be Rs.6.13 lakh for two years viz. 1972-73 and 1973-74, as detailed below:

	<u>1972-73</u>	<u>1973-74</u>	<u>Total</u>
	Lakhs	Lakhs	Lakhs
1. <u>SEVEN ARTS DEPARTMENTS:</u>			
(at one Reader & one Lecturer for the year 1972-73 and one Addl. Lecturer for the year 1973-74.	2.00	2.48	4.48
2. <u>FOR COMMERCE DEPARTMENT:</u>			
(One Reader & five lecturers)	0.43	0.60	1.03

P.T.O

	<u>1972-73</u>	<u>1973-74</u>	<u>Total</u>
	Lakhs	Lakhs	Lakhs
3. DIRECTORATE OF CORRESPONDENCE COURSE which includes one Asstt. Registrar; Two Super- intendents; four UDCs, 8 typists, peons, postage, printing, books, furniture etc. and contingencies	0.30	0.32	0.62
	<u>2.73</u>	<u>3.40</u>	<u>6.13</u>

It may be mentioned in this connect that in so far as the Andhra State is concerned, the Commission has already accepted the proposal of the Andhra University for the introduction of correspondence courses at B.A. and B.Com. levels and agreed to provide a grant of Rs.5.00 lakhs for a period of four years. The question of the introduction of correspondence courses at the postgraduate level is under the consideration of the Standing Committee on Part-time Education appointed by the Commission.

The matter is placed before the Commission for consideration

EO(H)/DO(H)

Confidential

UNIVERSITY GRANTS COMMISSION

293

Meeting:

Dated : 1st December, 1971.

Item No.38: To consider the proposals of the following universities towards the establishment of 'Health Centres':-

- (i) Sambalpur University. (P.294-295)
- (ii) Saurashtra University. (P.296-302)

-----

UNIVERSITY GRANTS COMMISSION

294

Meeting:

Dated: December 1, 1971

Item No. 38(1) To consider the proposal of the Sambalpur University for assistance for the establishment of a Health Centre.

The Commission at its meeting held on the 7th April, 1971 (Resolution No.52) desired that assistance may be provided to the universities and selected colleges (two colleges per University in the first phase) for the establishment/development of Health Centres in the light of the recommendations made by the U.G.C. Committee appointed for the purpose. The Commission also agreed that assistance for non-recurring expenditure (building and equipment) may be on a sharing basis of 75% UGC ; 25% (University/college). As regards the recurring expenditure, the Commission agreed to make an annual contribution (the amount to be determined after examination of the proposals received from the universities/colleges/ for the current Plan period at the end of which the responsibility for maintaining the health centres would be taken over by the universities and colleges concerned.

The Sambalpur University has sent a proposal for financial assistance towards the establishment of a Health Centre at the Campus at an estimated expenditure as detailed below:

Non-Recurring

Building	Rs. 50,000
Equipment	Rs. 1,41,000
<u>Ambulance</u>	Rs. 50,000
	<u>Rs. 2,41,000</u>

Recurring

Salaries of Staff	Rs. 74,640 (p.a)
Purchase of Medicines etc and chemicals etc.	Rs. 90,000
Misc. contingencies	Rs. 30,000
	<u>Rs. 1,94,640</u>

The Committee appointed by the Commission to formulate the scheme for the establishment of a Health Centre at the Universities/colleges had recommended provision of ambulance service in a University Health Centre.

P.T.O

(295)

The provision made by the University for purchase of equipment is Rs. 1,41,000 against Rs. 1,23,000 estimated by the above Committee, and includes Rs. 1,00,000 for X-ray apparatus.

It is for the consideration of the proposal of the Sambalpur University for the establishment of a Health Centre at Campus may be accepted. As already decided by the Commission the estimated non-recurring expenditure indicated above on building, equipment and furniture will be shared on 75:25 basis including that of the cost of an ambulance. The Commission's contribution for the recurring expenditure i.e. salaries and allowances of the staff may be on 50:50 basis upto the end of the Fourth Plan period. The recurring expenditure on medicines, contingencies etc. may be met by the university out of its own funds.

The matter is placed before the Commission for consideration.

AS(AI)/JS(C)

UNIVERSITY GRANTS COMMISSION

Confidential

296

Meeting:

Dated: 1st December, 1971.

Item No. 38(ii) To consider the proposal of the Saurashtra University for assistance for the establishment of Health Centres.

.....

The Commission at its meeting held on the 7<sup>th</sup> April 1971 (resolution No. 52) desired that assistance may be provided to the universities and selected colleges (2 colleges per university in the first phase) for the establishment/development of Health Centres in the light of the recommendations made by the U.G.C. Committee appointed for the purpose. The Commission also agreed that assistance for non-recurring expenditure (building and equipment) may be on a sharing basis of 75% (UGC): 25% (University/College). As regards the recurring expenditure, the Commission agreed to make an annual contribution (the amount to be determined after examination of the proposals received from the universities/colleges) for the current plan period at the end of which the responsibility for maintaining the health centres would be taken over by the universities and colleges concerned. The above decision of the Commission was communicated to the universities (Annexure I).

The Saurashtra University has sent a proposal for financial assistance for the establishment of two Health Centres - one at Rajkot and the other at Bhavnagar as the University has two headquarters at the above places. A copy of the letter received from the University in this regard is attached (Annexure II). The University has intimated the following estimated expenditure for each of the two Health Centres:

Non-Recurring

Building (2500 sq. ft. approx)	Rs. 60,000
Equipment and furniture	Rs. 40,000

Recurring

Salary and allowances.	Rs. 35,000
Contingencies	Rs. 5,000
Medicines etc.	Rs. 10,000

As per the recommendations of the U.G.C. Committee on Health Centres, the expenditure on a university Health Centre was estimated as follows.

Non-recurring

Building (Floor area of 4,445 sq.ft)	Rs. 1,50,000
Equipment	Rs. 1,23,000

p.t.o.



297

Recurring

Salaries of staff

Rs.1,14,000 p.a.

The requirements of the Saurashtra University for the establishment of two Health Centres are modest as compared to the recommendations of the U.G.C. Committee on 'Health Centres'.

It is for consideration if the proposal of the Saurashtra University for the establishment of two Health Centres - one at Rajkot and the other at Bhavnagar may be accepted. As already decided by the Commission the estimated non-recurring expenditure indicated above on building, equipment and furniture will be shared on 75 (UGC) : 25 (University) basis. The Commission's contribution for the recurring expenditure i.e. salaries and allowances of staff may be on 50:50 basis upto the end of the Fourth Plan Period.

The matter is placed before the Commission for consideration.

A.S.(A.I)/J.S.(C)

SCG.

213

Annexure I to  
Item No. 38(ii)

Copy of circular No. 13-1/70(S.A.III) dated May, 1971  
from the University Grants Commission to the Universities.

.....

Sub: Health Centres in Colleges and Universities.

.....

In view of the value and importance of the programme of health services for students in universities and colleges, the University Grants Commission invited proposals vide its letter No. F.13-1/70(SA-I) dated 5th October 1970 (copy enclosed)\* (Appendix) for the establishment of health centres in colleges. As intimated, the Commission had accepted the recommendations made by the Committee appointed to formulate a scheme for the establishment of health centres. Two copies of the report of the Committee are enclosed.\*

The matter has been further considered and reviewed by the Commission and it has been decided that assistance may be provided to the universities and selected colleges (two colleges per university, in the first phase) for the establishment/development of health centres, in the light of the recommendations made by the UGC committee referred to above. The Commission has further desired that, in the first phase, the provision of an emergency ward in the university health centres may be deferred.

The Commission has decided that assistance for non-recurring expenditure on health centres (building and equipment) would be on a sharing basis of 75 (UGC) : 25 (university/colleges). As regards the recurring expenditure, the Commission has agreed to make an annual contribution (the amount to be determined by the Commission after examination of the proposals received from the universities/colleges) for the current plan period, at the end of which, the responsibility for maintaining the health centres has to be taken over by the university/colleges concerned.

In view of the above, you are requested to send a detailed proposals of your university (and of two selected colleges, if any) for the Commission's consideration. The proposals earlier sent to the Commission in this regard (which are returned herewith)\* may, if necessary, be reviewed, keeping in view the Commission's decision referred to above and the recommendations of the committee on health centres, particularly the suggestion that a coordinated plan may be formulated for the provision of medical facilities at the health centre of the university and such centres in the selected colleges. An assurance is also required to the effect that the financial responsibility for the maintenance of the health centres will be taken over by the university/colleges after the Commission's assistance ceases at the end of the Fourth Plan period.

\* Not enclosed.

SCG.

Copy of letter No.UGC/3097/71 dated 14-7-1971, received from the Registrar, Saurashtra University, Rajkot, addressed to the Secretary University Grants Commission, New Delhi.

.....

Sub: Establishment of Health Centres in the Colleges.

.....

This has reference to your letter No. F.13-1/70(SA-I) dated the 5th October, 1971, on the subject mentioned above. Since this university is a teaching and affiliating University, the total enrolment of the students in this university (including College) is about 33,000 and this number is likely to increase in the coming years. The University has two head-quarters viz. Rajkot and Bhavnagar and in both the cities adequate facilities for hospitalisation are available. In Rajkot City apart from the University Campus, there are 9 Colleges and 3 Postgraduate Centres. In Bhavnagar, there are 6 Colleges over and above the University Campus, and 4 Postgraduate Centres. If the Health Centres are established at both these places, they will provide for an essential and most needed projects for the student welfare.

I am further to state that the Syndicate of this University has already taken a decision that two Health Centres should be established in the University; one at Rajkot and second at Bhavanagar. There will be also more Health Units at the suitable places where the total strength of the students is at least 3,000. The details of the scheme are enclosed herewith (Appendix). There is enough land at both the University Campuses to provide for the Buildings of the Health Centres.

I shall, therefore, be grateful if you will kindly move the Commission to accord necessary sanction for the projects of Rs. 1,00,000/- at each of the two places.

.....

SAURASHTRA UNIVERSITY.

PROPOSAL TO ESTABLISH HEALTH CENTRE AT RAJKOT AND  
BHAVNAGAR FOR UNIVERSITY STUDENTS.

.....

There should be two Health Centres at present; one at Rajkot and second at Bhavnagar. There will be also more Health Units at the Suitable places where the total strength of the student is at least 3000. The first type of Health Centre will have to be developed in future according to the needs and according the funds available. The requirements laid down are the minimum necessary for starting the Health Centres and Units.

Functions of the Health Centres:

1. Physical check up of all the students newly admitted every year.
2. Follow up work in all cases requiring advice and treatment.
3. Systemetic immunization against communicable diseases.
4. Investigation of food handlers in canteens and Hostel messes etc.
5. Nutritional surveys.
6. Dispensory and domiciliary Medical care of students and staff with their families.
7. Central consultant specialist services in Medicine, surgery, Gynaecology, Ophthalmology, Dentistry and Phychiatry.
8. Routine Laboratory services.
9. Liason and working arrangement with a District Hospital.
10. Advice and guidance to smaller Health Units at Colleges.

I. Non-recurring Expenditure:

A. Building           Rs. 60,000/-

Building having following rooms with approximate area.

One Medical Officer's Room	Size 12' x 15'
One Clerk's Room	Size 12' x 15'
One Nurse Room	Size 12' x 15'
One Store Room	Size 20' x 20'
One Dispensary Room	Size 12' x 15'
One Dressing & Minor Surgery Room	Size 12' x 15'
Two Consultants' Room	Size 12' x 15'
One Waiting Room	Size 12' x 15'
One Laboratory Room	Size 12' x 15'
Toilet Block	Size 15' x 20'

(301)

( To be divided into two blocks  
for ladies and Gents each).

Total area of the above Health Centre Building will be approximately  
2500 Squarefeet.

This will cost without land approximately Rs. 60,000/-

B. Equipment and Furniture Rs. 40,000/-

II. Recurring Expenditure:

A. Salaries and Allowances: Rs. 35,000/-

Salaries and Allowances  
approximate per year.

- |      |  |               |
|------|--|---------------|
| 1.   | One full time Medical Officer at least<br>University Lecturer's grade. Plus Rs. 150/-<br>Loss of private practice allowances and<br>other allowances admissible under<br>University rules. | Rs. 10,000.00 |
| 2.   | Laboratory Technician - One  | Rs. 4,000.00  |
| 3.   | Compounder-cum-dresser - One   | Rs. 3,000.00  |
| 4.   | Public Health Nurse - One  | Rs. 4,000.00  |
| 5.   | Clerk-cum-typist - One   | Rs. 3,000.00  |
| 6.   | Peon - One   | Rs. 2,500.00  |
| 7.   | Sweeper - One  | Rs. 2,500.00  |
| 8.   | Honorary Consultants - Six   | Rs. 6,000.00  |
| i.   | Dental Surgeon;  |               |
| ii.  | Eye Surgeon;   |               |
| iii. | Surgeon;   |               |
| iv.  | Physician;   |               |
| v.   | Gynaecologist;   |               |
| vi.  | Psychiatrist.  |               |

Honorarium of Rs. 1,000/- per year. They will visit 3 days a  
week and, as and when required in emergency.

Approximate total expenditure on pay and allowances will be  
Rs. 35,000/-

B. Officer Contingencies and Stationary: Rs. 5,000/-  
C. Medicine etc. Rs. 10,000/-

At present it is advised to have a liason with the District  
Hospital or any large Hospital for indoor treatment with establishment  
of separate ward of about 12 beds for University students and staff  
members. X-ray and Laboratory facilities also to be available.

p.t.o.

In future the following additions to the Health Centre are recommended as and when funds are made available:-

1. Two wards of six beds each with nursing and other Staff and Equipment.
2. 200 M A X-Ray machine with a radiographer and consultant Radiologist services.

Expenditure on these may be worked out at that time as per current Market Costs.

It is proposed to open one centre at Bhavnagar on the same pattern of Rajkot.

HEALTH UNITS.

The Health Units shall be created at other places, where there are not less than 3000 students for one or more affiliated colleges grouped together.

Outline of the Health Unit Scheme will remain the same with little reduction in area of the building, staff and equipment etc. This committee has framed its recommendation for the expenditure as briefly set out below:-

Non-recurring expenditure Rs. 65,000/- as under:-

I. Building (without land) 1800 sq.ft.	Rs 40,000/-
II. Equipment (without X-ray machine) and furniture	25,000/-

Recurring expenditure Rs. 37,000/- as under:-

III. Salary of the staff etc.	25,000/-
IV. Office contingencies	2,000/-
V. Medicine etc.	10,000/-

UNIVERSITY GRANTS COMMISSION

303

Meeting:

Dated : 1st December, 1971

Item No.39: To consider a proposal of the Sri Satya Sai Arts and Science College for Women, Anantapur (Sri Venkateswara University) for financial assistance for the construction of Women's Hostel.

....

The proposal of Sri Satya Sai Arts & Science College for Women, Anantapur for the construction of women's hostel for 34 students was accepted by the Commission in February 1970 at an estimated cost of Rs.1,95,525 against which the Commission's contribution was limited to Rs.1,17,875 on the usual sharing basis. An amount of Rs.50,000 has so far been paid to the College for this project.

In February 1971, The College intimated that in view of the anticipated increase in enrolment a women's hostel for 144 students was needed. An Inspection Commission appointed by the Sri Venkateswara University had visited the College in April 1969 and had reported as under:-

" Management does not expect an immediate demand for a hostel. It is proposed to rent a private building for the purpose if there is a demand. The building plans of the Management include a hostel for 50 students."

In view of this, the College was requested to complete the Women's hostel for 34 students, as approved by the Commission, in the first instance.

In August, 1971 the Sri Venkateswara University sent the revised plans and estimates of the women's hostel for 144 students at an estimated cost of Rs.7,66,000 and recommended enhanced assistance to Sri Satya Sai College for Women for this project. It has been stated by the College that the provision of hostel accommodation for 34 students is not adequate for the following reasons:

- (1) Location of the college is away from the town with no transport facilities.
- (2) Many requests have been received from out-station candidates for hostel accommodation.

304

- (3) The college has planned to admit more than 1,000 students and has provided teaching accommodation for the purpose.
- (4) The management plans to convert the college into a university for Women.

The number of students admitted by the College was 115 in 1968-69. The number rose to 299 in 1969-70 and 320 in 1970-71.

It has been stated that the extension of the hostel for providing accommodation for 144 women students was taken up in continuation of the proposal earlier accepted by the Commission, and completed without obtaining the Commission's approval.

It is for consideration if the revised proposal of the College for providing hostel accommodation for 144 women students at an estimated cost of Rs.7,66,000 be accepted, the Commission's grant for the project being limited to the fourth plan ceiling of rupees three lakhs only.

A.S.(A-II)/J.S.(C)

'VK'



UNIVERSITY GRANTS COMMISSION

305

Meeting:

Dated : 1st December, 1971

Item No.40: To consider a request from the Chikitsak Samuha Sir Sitaram and Lady Shantabai Patkar College of Arts and Science, Bombay (Bombay University) for financial assistance for a Biology Laboratory beyond the normal ceiling of Rs. three lakhs.

....

In July, 1970 the Commission accepted the proposal of the Chikitsak Samuha Sir Sitaram and Lady Shantabai Patkar College of Arts & Science, Bombay for the construction of Chemistry and Physics Laboratories, at an estimated cost of Rs.4,64,666, the Commission's share for the project being limited to Rs.2,89,620. The project has been completed.

The College now proposes to construct a biology laboratory on the first floor on the Physics/Chemistry Laboratory Building for providing better facilities for undergraduate classes. The existing biology laboratory was constructed in 1964 and has an accommodation of 2,500 sq.ft. only. The proposed extension is estimated to cost Rs.1,64,111 against which the Commission's contribution on the usual sharing basis amounts to Rs.1,09,407. If this is accepted, the total assistance to the College will amount to Rs.3,99,027 i.e. Rs.99,027 beyond the IVth Plan ceiling of Rupees three lakhs.

The Vice-Chancellor, University of Bombay has recommended assistance to the College upto Rupees one lakh beyond the fourth plan ceiling. The college has been functioning since 1964 and is permanently affiliated to the Bombay University. It has a student enrolment of 1,788, of which 1,186 are in science courses.

It is for consideration if the College may be assisted upto Rupees one lakh beyond the normal IV plan ceiling of Rupees three lakhs for the proposed Biology Laboratory. If this is agreed to, the contribution of the Commission towards this project on the usual sharing basis, would be Rs.1,09,407 against the estimated cost of Rs.1,64,111.

Confidential

UNIVERSITY GRANTS COMMISSION

306

Meeting :

Dated : 1st December 1971.

Item No. 41 : To consider a proposal of St. Mary's College, Tuticorin (Madurai University) for assistance for a Women's Hostel beyond the normal Fourth Plan ceiling of Rs. three lakhs.

In April 1968, the Commission accepted the proposal of St. Mary's College, Tuticorin for construction of a laboratory building at an estimated cost of Rs. 2,28,000 the Commission's contribution for the project being limited to Rs. 1,50,000. This project has since been completed.

The College has now sent a proposal for financial assistance for the construction of a hostel for 26 women students at an estimated cost of Rs. 3,65,000. This would be Rs. 3,63,505 if contingencies, architect's fee, supervision charges etc. are calculated on the usual basis. The Commission's contribution @ 75% would amount to Rs. 2,72,629 against the balance of Rs. 1.5 lakhs available to the college under the IV plan ceiling.

The Vice-Chancellor, Madurai University has recommended that the proposal of the college may be considered favourably over and above the ceiling fixed by the Commission. It has been stated that the College has been functioning well and the University is satisfied with its progress and performance. The college has been functioning since 1948 and is permanently affiliated to the Madurai University. The student enrolment is 1198.

It is for consideration if the College may be assisted up Rupees one lakh beyond the normal ceiling of Rupees three lakhs for the construction of the Women's hostel. If this is agreed to, the contribution of the Commission towards this project would be limited to Rs. 2,50,000 against the estimated cost of Rs. 3,63,505.

The matter is placed before the Commission for consideration.

A.S.(A.II)/J.S.(C).

UNIVERSITY GRANTS COMMISSION

307

Meeting :

Dated : 1st December 1971.

Item No. 42 : To consider the proposal of the Sri Avinashilingam Home Science College, Coimbatore, (Madras University) towards the construction of a Gymnasium.

The Commission at its meeting held on 7th October 1970 (Resolution No. 37) accepted the recommendations of the Committee appointed to consider the proposals received from the universities and colleges for assistance for the construction of gymnasia, and agreed to assist the Sri Avinashilingam Home Science College, Coimbatore, for the construction of a gymnasium on a sharing basis of 75(UCC) : 25(College), the Commission's contribution being limited to Rs. 1,00,500/- against a total estimated expenditure of Rs. 1,50,000/-.

The College sent a proposal for the construction of a gymnasium at an estimated cost of Rs. 1,74,000/- (total floor area of 735 sq.mts.) duly certified by the P.W.D. The National Institute of Sports, Patiala was consulted regarding the dimensions of gymnasia for universities and colleges. The Institute has suggested the following dimensions for a gymnasium in a College which has a student enrolment of 1,500 or more:

Length	-	25 M
Width	-	13 M
Height	-	6 M

The College was requested to revise the proposal in the light of the suggestions made by the National Institute of Sports, Patiala or agree to the Commission's contribution on a proportionate basis for an area of 325 sq.mts. as against 785 sq.mts. provided. In reply the College has stated as under:-

"The present strength of the College is 1900 with possible chances of increase. There is also a Teachers' College in the campus, the strength of which along with its Model School will be about 900. It is not advisable and it is not proposed to construct another gymnasium for that College separately."

p.t.o.

308

In view of these circumstances, the College has requested that its proposal, as sent to the Commission, may be accepted.

It is for the Commission's consideration if the proposal of the Sri Avinashilingam Home Science College, Coimbatore for the construction of a gymnasium at an estimated cost of Rs. 1,74,000/- may be accepted on condition that the share of the Commission will be limited to Rs. 1,12,500/- as agreed to earlier.

AS(AI)/JS(C).

'VK'

Confidential

UNIVERSITY GRANTS COMMISSION

309

Meeting :  
Dated : 1st December 1971.

Item No. 43 : To consider further the payment made by the Jamia Millia Islamia, New Delhi towards the salary of 'Clerk of works' from the provision made for contingencies in respect of the Arts Faculty Building.

In April 1963, the University Grants Commission approved the construction of the Arts Faculty Building of the Jamia Millia Islamia, New Delhi at an estimated cost of Rs. two lakhs against which the Commission's share at 50% was to be Rs. one lakh.

Later in February 1966 the Jamia Millia Islamia informed the Commission that the tender, accepted by them for the building, excluding services was Rs. 1,81,967/-. The Jamia, therefore, sent revised estimates of the building including services at a cost of Rs. 2,61,550/-. The Jamia also sent a proposal for the construction of four additional rooms and a few teachers' cubicles on the first floor of this building at an estimated cost of Rs. 44,300/-, the Commission's share being on 50% basis.

The above proposals were accepted by the Commission vide itsm No. 2(a)(6), dated 2.2.1966, the Commission's share being fixed at Rs. 1,52,925/- (Rs. 1,30,775/- plus Rs. 22,150/-). The estimates finally accepted for the entire building were as follows:-

	Rs
i) Civil cost of the entire building	2,16,089/-
ii) Sanitary installation at 5% of (i) above	10,804/45
iii) Electric installation	23,862/50
iv) External services at 5% (i) above	10,804/45
'A'	2,61,560/40
v) Contingencies at 3% of 'A' above	7,846/81
'B'	2,69,407/21
vi) Architect's fee including clerk of works at 5% of 'B' above	13,470/35
Total	2,82,877/56
Furniture at 10%	28,287/-
	3,11,164/56
UGC share at 50%	1,55,582/28

p.t.o.

309a

According to the norms accepted by the Commission, the architects fee of 5% includes 1% for meeting expenditure on 'clerks of works', if one is appointed. In accordance with this the Jamia Millia could incur an expenditure of Rs. 2,694/- to meet the salary of clerk of works (1% of 'B' above).

In April 1967, the Jamia Millia informed the Commission that they had appointed a clerk of works at Rs. 350/- p.m., as no efficient and experienced person suitable for the job was available on a lesser salary and that he continued for more than two years and that provision of 1% made for this salary was exhausted with six months. Total payments made to the clerk of works amounted to Rs. 7,289/-. The Jamia proposed to meet the extra expenditure of Rs. 4,595/-- (Rs. 7,289/- Rs. 2,694/-) on this account out of the provision made for contingencies. This proposal was accepted in May 1967 as no additional grant was asked for and also because the total cost of the building was within the overall cost approved by the Commission. This, however, was objected to by the audit.

This matter was considered by the Commission at its meeting held on 6th November 1968 and the Commission desired that this may be examined and brought up again before the Commission (Resolution No. 43). The Jamia Millia Islamia was requested to intimate the circumstances under which expenditure beyond the usual norms was incurred on the 'Clerk of Works'.

A copy of letter No. F. 418-B(F&B)71/1844 dated the 12th November 1971 from the Jamia Millia Islamia giving the detailed information in respect of construction of Arts Faculty building is attached as annexure.

The matter was discussed with the audit party who has pointed out that as the expenditure on the salary of the clerk of works exceeds the approved norms of 1%, the payment can be regularised by a specific approval of the Commission.

The matter is placed before the Commission for consideration.

EO(H.I)/DO(H).

'VK'

Copy of the letter No. F. 418-B(FAB)71/1844  
dated 12th November 1971 from the Registrar,  
Jamia Millia Islamia to the Secretary, UGC.

—

Please refer to your letter No. F. 20-1/65(H.I) dated  
November 7, 1970 in regard to the construction of Arts Faculty  
building. The information desired therein is furnished below:-

- a) The Arts Faculty Building was construction under the supervision of the Architect, M/s Master Sathe & Kothari. The main reason of the delay in the completion of the building was that the Architect got several times the original plan of the building amended without the prior approval of the Jamia authorities. As a result of it the payment of the bills were usually delayed because the formalities regarding regularisation of the expenditure i.e. approval of the extra items, approval of the deviation statement, were to be completed before the payment of the bill, etc. The other reason for the delay was that the difficulties were being experienced in the supply of cement w.e.f, January 1966 on account of the control imposed on it. Thirdly the construction of the building progressed slowly due to that the approval of the plan of upper storey took more time than usual.
- b) No penalty was imposed on the contractors by the Jamia.
- c) As the construction of the building continued for two years after the stipulated date of completion October 26, 1965, the amount proposed for the salary for the Clerk of Works was exhausted and his services were still in need, therefore, on the recommendation of the Architect the Jamia approved the extension in his services upto the date of completion of the construction and requested the University Grants Commission to authorise the Jamia to transfer the amount of Rs. 1,128/28 from contingencies to the salaries of clerk of works, vide letter No. F. 418-B(FAB)67/108 dated 25.4.1967. The Commission in their letter No. of even number dated May 4, 1967 have given their consent to the transfer.

Confidential

UNIVERSITY GRANTS COMMISSION

310

Meeting:

Dated: 1st December, 1971.

Item No. 44 : To consider the question of nomination of a representative of the UGC on the Governing Board of the Tata Institute of Social Sciences, Bombay.

---

The rules and regulations of the Tata Institute of Social Sciences Bombay, which is an Institution deemed to be University under Section 3 of the UGC Act, inter alia, provide for a nominee of the UGC on the Governing Board of the Institute. The term of the nominee is for a period of 3 years. The University Grants Commission at its meeting held on 30th November, 1968 had nominated Professor A.R. Wadia as the nominee of the UGC on the Governing Board of the Institute for a period of 3 years. Professor A.R. Wadia expired on 21st August, 1971. The Tata Institute of Social Sciences Bombay have requested for a nominee of the UGC in place of Professor A.R. Wadia.

The matter is placed before the Commission for consideration.

E.O.(C.D.)

'MB'



UNIVERSITY GRANTS COMMISSION

311

Meeting :  
Dated : Ist December 1971.

Item No. 45 : To consider further the proposal of the Universities for enhancing the allocation of unassigned grant for the year 1971-72.

The Commission considered the proposals of certain Universities for enhancing the allocation of unassigned grant for 1971-72 at its meeting held on 6th October 1971 and desired that the matter may further be examined and brought its next meeting. The allocation of the unassigned grant up at for the year 1970-71 was considered by the Commission at its meeting held on 4th March 1970 and an allocation of Rs. 18.51 lakhs was approved (Annexure I).

During the year 1970-71, twelve Universities could not accommodate expenditure on various items within the allocation of unassigned grant and approached the Commission for additional unassigned grant amounting to Rs. 82,500/-. This was considered by the Commission in December 1970 and it was agreed to provide additional funds of Rs. 82,500/- to these 12 universities raising to total allocation to Rs. 19.33 lakhs (Annexure II).

The allocation of unassigned grant amount to Rs. 21.15 lakhs for 1971-72 was agreed to by the Commission keeping in view the requirements as intimated by the Universities and the expenditure incurred on admissible terms during the previous year (Annexure III).

The University of Delhi (Rs. 60,000/-), Bombay (Rs. 32,000/-), Banaras (Rs. 40,000), Calcutta (Rs. 37,850/-), Guru Nanak (Rs. 4,000/-), Ravi Shankar (Rs. 12,000/-) and Sambalpur (Rs. 32,400) have approached the Commission to enhance the allocation of unassigned grant for 1971-72. The additional requirements of the seven universities amounting to Rs. 2.18 lakhs are given in Annexure IV.

The matter is placed before the Commission for consideration.

EO(G)/DO(T).

'VK'

Allocation of Un-assigned Grant  
for 1970-71 and sanction of the  
first instalment

312

S.No.	Name of the University.	Allocation under Un-assigned grant approved for 1970-71.	Sanction for 1970-71 (50% of the total allocation) being conveyed.
1.	2	3	4
1.	Agra	20,000.00	10,000.00
2.	Aligarh	40,000.00	20,000.00
3.	Allahabad	35,000.00	17,500.00
4.	Andhra	35,000.00	17,500.00
5.	Annamalai	30,000.00	15,000.00
6.	Banaras Hindu	40,000.00	20,000.00
7.	Bangalore	25,000.00	12,500.00
8.	Berhampur	20,000.00	10,000.00
9.	Bhagalpur	20,000.00	10,000.00
10.	Bihar	20,000.00	10,000.00
11.	Bombay	35,000.00	17,500.00
12.	Burdwan	25,000.00	12,500.00
13.	Calcutta	40,000.00	20,000.00
14.	Delhi	40,000.00	20,000.00
15.	Dibrugarh	20,000.00	10,000.00
16.	Gauhati	25,000.00	12,500.00
17.	Gorakhpur	25,000.00	12,500.00
18.	Gujarat	25,000.00	12,500.00
19.	Indore	25,000.00	12,500.00
20.	Jabalpur	20,000.00	10,000.00
21.	Jadavpur	30,000.00	15,000.00
22.	Jammu	25,000.00	12,500.00
23.	Jiwaji	25,000.00	12,500.00
24.	Jodhpur	20,000.00	10,000.00
25.	Kalyani	20,000.00	10,000.00
26.	Kanpur	20,000.00	10,000.00
27.	Karnatak	35,000.00	17,500.00
28.	Kashmir	25,000.00	12,500.00
29.	Kerala	30,000.00	15,000.00
30.	Kurukshetra	25,000.00	12,500.00
31.	Lucknow	30,000.00	15,000.00
32.	Madras	40,000.00	20,000.00
33.	Madurai	25,000.00	12,500.00
34.	Magadh	20,000.00	10,000.00
35.	M.S. Univ. of Baroda	35,000.00	17,500.00
36.	Marathwada	25,000.00	12,500.00
36.	Meerut	20,000.00	10,000.00
38.	Mysore.	35,000.00	17,500.00
39.	Nagpur	30,000.00	15,000.00
40.	North Bengal	20,000.00	10,000.00
41.	Osmania	35,000.00	17,500.00
42.	Punjab	35,000.00	17,500.00
43.	Punjabi	25,000.00	12,500.00
44.	Patna	25,000.00	12,500.00
45.	Poona	30,000.00	15,000.00.

1.	2.	3.	4.
46.	Rabindra Bharati.	10,000.00	5,000.00
47.	Rajasthan	35,000.00	17,500.00
48.	Raanchi	20,000.00	10,000.00
49.	Ravi Shanker	20,000.00	10,000.00
50.	Roorkee	30,000.00	15,000.00
51.	Sambalpur	20,000.00	10,000.00
52.	Sardar Patel	30,000.00	15,000.00
53.	Saugar	25,000.00	12,500.00
54.	Saurashtra	20,000.00	10,000.00
55.	Shivaji	25,000.00	12,500.00
56.	S.N.D.T. Women's	20,000.00	10,000.00
57.	South Gujarat	20,000.00	10,000.00
58.	Sri Venkateswara	30,000.00	15,000.00
59.	Udaipur	25,000.00	12,500.00
60.	Utkal	30,000.00	15,000.00
61.	Varanasi Sanskrit Visvavidyalaya.	10,000.00	5,000.00
62.	Vikram	25,000.00	12,500.00
63.	Visva-bharati	25,000.00	12,500.00
64.	B.I.T.S. Pilani	20,000.00	10,000.00
65.	Gujarat Vidyapeeth	10,000.00	5,000.00
66.	I.I. Science, Bangalore.	40,000.00	20,000.00
67.	Jamia Millia	10,000.00	5,000.00
68.	K.Vidyapeeth Varanasi	10,000.00	5,000.00
69.	Tata Institute of Social Sciences, Bombay	20,000.00	10,000.00
70.	Indian School of Mines Dhanbad.	20,000.00	10,000.00
71.	Calicut.	20,000.00	10,000.00
72.	Guru Nanak	6,000.00	6,000.00
73.	Jawahar Lal Nehru	25,000.00	12,500.00
	Grant Total :	18,51,000.00	9,28,500.00

Annexure II to item No. 45

(314)

Allocation of additional unassigned grant  
for 1970-71

S.No.	Name of the University	Allocation under unassigned grant approached for 1970-71	Additional requirements
1.	Aligarh	40,000/-	10,000/-
2.	Allahabad	35,000/-	10,000/-
3.	Dibrugarh	20,000/-	1,000/-
4.	Gauhati	25,000/-	7,000/-
5.	Gerakhpur	25,000/-	5,000/-
6.	Jiwaji	25,000/-	4,500/-
7.	Kerala	30,000/-	6,500/-
8.	Rajasthan	35,000/-	15,000/-
9.	Ranchi	20,000/-	9,500/-
10.	Visva-Bharati	25,000/-	6,000/-
11.	B.I.T.S., Pilani	20,000/-	3,000/-
12.	Gujarat Vidyapith	10,000/-	5,000/-
		Total	<u>82,500/-</u>

'VK'

3/5

Allocation for unassigned grant  
1971-72.

S.No.	University	Grant for UGC Unit 1971-72.	Total unassigned 1971-72
1.	2	3	4
1.	Agra	12,000.00	26,000.00
2.	Aligarh	-	50,000.00
3.	Allahabad	6,000.00	45,000.00
4.	Andhra	12,000.00	41,000.00
5.	Annamalai	6,000.00	30,000.00
6.	Banaras	-	40,000.00
7.	Bangalore	9,000.00	23,000.00
8.	Berhampur	6,000.00	20,000.00
9.	Bhagalpur	9,000.00	23,000.00
10.	Bihar	9,000.00	23,000.00
11.	Bombay	12,000.00	41,000.00
12.	Burdwan	9,000.00	28,000.00
13.	Calcutta	12,000.00	46,000.00
14.	Calicut	9,000.00	23,000.00
15.	Delhi	-	40,000.00
16.	Dibrugarh	9,000.00	24,000.00
17.	Gauhati	12,000.00	38,000.00
18.	Gorakhpur	12,000.00	36,000.00
19.	Gujarat	12,000.00	31,000.00
20.	Guru Nanak	6,000.00	6,000.00
21.	Indore	6,000.00	25,000.00
22.	Jabalpur	6,000.00	20,000.00
23.	Jadavpur	6,000.00	30,000.00
24.	Jammu	6,000.00	25,000.00
25.	Jawahar Lal Nehru	-	25,000.00
26.	Jiwaji	9,000.00	32,500.00
27.	Jodhpur	6,000.00	20,000.00
28.	Kalyani	6,000.00	20,000.00
29.	Kanpur	9,000.00	23,000.00
30.	Karnatak	12,000.00	41,000.00
31.	Kashmir	6,000.00	25,000.00
32.	Kerala	12,000.00	42,500.00
33.	Kurukshetra	6,000.00	25,000.00
34.	Lucknow	6,000.00	30,000.00
35.	Madras	12,000.00	46,000.00
36.	Madurai	12,000.00	31,000.00
37.	Magadh	9,000.00	23,000.00
38.	Maharaja Sayajirao	6,000.00	35,000.00
39.	Marathwada	9,000.00	28,300.00
40.	Meerut	12,000.00	26,000.00
41.	Mysore.	12,000.00	41,000.00
42.	Nagpur	12,000.00	36,000.00
43.	North Bengal	6,000.00	20,000.00
44.	Osmania	12,000.00	41,000.00
45.	Punjab	12,000.00	41,000.00

1.	2.	3-	4.
46.	Patna	6,000.00	25,000.00
47.	Poona	12,000.00	36,000.00
48.	Punjabi	6,000.00	25,000.00
49.	Rabindra Bharati	6,000.00	10,000.00
50.	Rajasthan	12,000.00	56,000.00
51.	Ranchi	9,000.00	32,500.00
52.	Ravi Shanker	9,000.00	23,000.00
53.	Roorkee	6,000.00	30,000.00
54.	Sambalpur	6,000.00	20,000.00
55.	Sardar Patel	6,000.00	30,000.00
56.	Saugar	9,000.00	28,000.00
57.	Saurashtra	9,000.00	23,000.00
58.	Shivaji	12,000.00	31,500.00
59.	S.N.D.T. Women's	6,000.00.	20,000.00
60.	South Gujarat	6,000.00	20,000.00
61.	Sri Venkateswara	9,000.00	33,000.00
62.	Udaipur	6,000.00	20,000.00
63.	Utkal	9,000.00	33,000.00
64.	Varanasaya Sanskrit	6,000.00	10,000.00
65.	Vikram	6,000.00	25,000.00
66.	Visva Bharati	-	31,000.00
67.	Himachal Pradesh	6,000.00	6,000.00

INSTITUTIONS DEEMED TO BE UNIVERSITIES.

1.	B.I.T.S, Pilani	6,000.00	23,000.00
2.	Gujarat Vidyapeeth	6,000.00	15,000.00
3.	I.I. Science, Bangalore	6,000.00	40,000.00
4.	Indian School of Mines, Dhanbad.	6,000.00	20,000.00
5.	Jamia Millia Islamia, N.Delhi.	6,000.00	10,000.00
6.	Kashi Vidyapeeth Varanasi	6,000.00	10,000.00
7.	Tata Institute of Social Sciences, Bombay-	6,000.00	20,000.00

Annexure IV to item No.45

(317)

Copy of the note placed before the Commission at its meeting held on 6th October 1971 vide item No. 31.

In view of the heavy demand of the teachers for attending International Conferences, the Delhi University is finding it difficult to accommodate its requirements within the allocated unassigned grant of Rs. 40,000/- for the year 1971-72. The University is stated to have already committed to an expenditure of Rs. 60,000/- during 1971-72 on various items approved under the scheme as detailed below:-

<u>Item</u>	<u>Expenditure</u> Rs.
1. Travel grant for attending International conferences abroad	26,000/-
2. Travel grant for visiting centres of research etc. within India	8,000/-
3. Extension work by teachers	15,000/-
4. For other admissible items	<u>11,000/-</u> <u>60,000/-</u>

The Commission has received similar requests for additional allocation of unassigned grant for 1971-72 from the universities of Bombay (Rs. 32,000/-), Banaras (Rs. 40,000/-), Calicut (Rs. 37,850/-), Guru Nanak (Rs. 4,000/-), Ravi Shankar (Rs. 12,000/-) and Sambalpur (Rs. 32,400/-). It may be stated that the Commission at its meeting held on 7th April 1971 approved of a total allocation of Rs.21,15,000/- as unassigned grant for 1971-72 to 74 universities and institutions deemed to be universities as indicated at Annexure III.

The request for additional funds under 1971-72 unassigned grant is placed before the Commission for consideration.

'VK'

Confidential.

UNIVERSITY GRANTS COMMISSION

318

Meeting :  
Dated : 1st December, 1971.

Item No 47 : To receive the calendar of meetings of the university Grants Commission to be held during 1972.

---.---.---

The meetings of the University Grants Commission are held on the first Wednesday of the month, except in the months of January and June when no meetings are held. When the first Wednesday of the month is a closed holiday the meeting is held on the next working day. The meetings of the Commission in 1972 may be held as follows :-

January, 1972	No Meeting.
February, 1972	2nd February.
March, 1972	1st March.
April, 1972	5th April
May, 1972	3rd May.
June, 1972	No Meeting.
J-uly, 1972.	5th July.
August, 1972	2nd August.
September, 1972	6th September
October, 1972	4th October.
November, 1972	1st November.
December, 1972	6th December,

(A.S.(A-I))



Confidential.

UNIVERSITY GRANTS COMMISSION

319

Meeting :

Dated : 1st December, 1971

Item No. 48 : To consider the recommendations of the AICTE for the Starting of Diploma Course in Textile Design at the A.C. College of Technology - University of Madras, Madras.

The A.I.C.T.E. has accepted the report of the sub-committee appointed by it to examine the need to introduce diploma course in Textile Design in Southern region, and recommended that such a course is very essential and should be located in the A.C. College of Technology. A copy of the report is placed at annexure.

The A.I.C.T.E. has accordingly recommended the following physical facilities for the starting of Diploma course in Textile Design.

<u>Diploma Course in Textile Design</u>	<u>Approved intake.</u>	
	10	
<u>Non-Recurring</u>	<u>Approved expenditure</u>	<u>U.G.C.'s share.</u>
1) Building - RCC Type (Plinth area 1500 sq. ft.)	Rs. 30,000/-	Rs. 30,000/-
ii) Equipment, Library and a mini bus.	1,45,000/-	1,45,000/-
	<hr/>	
TOTAL (N.R.)	1,75,000/-	1,75,000/-
	<hr/>	
<u>Recurring P.A.</u>		
1) Staff salaries, Maintenance Books and Journals.	96,000/-	96,000/-
	<hr/>	
TOTAL (R)	96,000/-	96,000/-
	<hr/>	
TOTAL (N.R.)	1,75,000/-	
TOTAL (R)	96,000/- per annum.	

In this connection it may be stated that the Commission has already approved the following facilities for new Postgraduate Courses in Engineering and Technology at the Madras University on the recommendations of the Post-graduate Board of the A.I.C.T.E.

F.T.O.

(320)

A. Courses approved.

Intake

Chemical Engg.

20

Textile Technology.

10

B. Facilities recommended

UGC SHARE 100%

Non-Recurring.

1. Building

nil

2. Equipment

Rs. 3.00 lakhs

3. Library.

Rs. 0.20 lakhs

Total Non recurring :

Rs. 3.20 lakhs

Recurring per annum.

1. Teaching staff.

Readers 4

Rs. 0.60 lakhs

2. Non Teaching

Rs. 0.09 lakhs

3. Maintenance

Rs. 0.30 lakhs

4. Library.

Rs. 0.04 lakhs

5. Scholarships

Rs. 1.30 lakhs

Total recurring :

Rs. 2.33 lakhs

The recommendations of the A.I.C.T.E for starting diploma course in Textile Design at the A.C. College of Technology is placed before the Commission for the consideration.

E.O.(T)/D.O(T)

'VK'

REPORT OF THE EXPERT COMMITTEE TO EXAMINE STARTING OF A DIPLOMA  
COURSE IN TEXTILE DESIGN IN THE INSTITUTIONS IN THE SOUTHERN REGION.

In pursuance of the recommendations of the All India Council for Technical Education, the Regional Committee at its 32nd Meeting appointed an Expert Committee "to examine the need for starting a Diploma Course in Textile Design in one of the institutions in the Southern Region and made its recommendations".

The Committee consisted of the following members :

- 1) Sri K. Sreenivasan,  
Director,  
South India Textile Research Association,  
Coimbatore.
  - 2) Prof. M.V. Natarajan,  
Principal,  
S.K.S.J Technological Institute,  
Bangalore.
  - 3) Dr. S. Krishnamurthy,  
Professor of Textile Technology,  
A.C. College of Technology,  
Guindy,  
Madras - 25.
- and 4) Shri M.S. Srinivasan,  
Member - Secretary,  
Southern Regional Committee.

The Committee subsequently coopted the following members :

Shri R. Krishna Rao,  
Principal  
Govt. College of Arts and Crafts,  
Madras.

AND

Shri Haroon Khimani  
Design Consultant,  
Madras.

The Committee met at Madras on the 18th September, 1970. The following members were present ;

Mr. K. Sreenivasan,  
Director,  
South India Textile Research Association,  
Coimbatore.

Shri R. Krishna Rao,  
Principal,  
Govt. College of Arts and Crafts,  
Madras.

Shri Haroon Khimani  
Design Consultant,  
Madras

Shri S.A. Navlankar,  
Reader in Textile Technology,  
A.C. College of Technology,  
Madras.

(representing  
Dr. Krishnamurthy)

Shri M.S. Srinivasan,  
Member Secretary,  
Southern Regional Committee.

Shri A.P. Srivastava, Asstt. Education Officer (T).  
and Shri K. Prabhakaran of the Southern Regional Office of the Ministry  
of Education were also present.

The committee considered in detail the need for the starting of a course in Textile Design in the South, in the context of the situation existing at present in the Textile Industry as also the anticipated developments in the next few years. Taking into account the rapidly changing developments in the Textile Fields, the special circumstances obtaining in the South with particular reference to the Handloom Industry and also the possibility of considerable independent design activities for purposes of consultation etc. in due course, the Committee felt that it is necessary that a Diploma course in Textile Design is started without much further delay. The Committee was of the opinion that at present one centre both as a model and as an experimental centre would suffice. The Committee was also of the opinion that considering the potential for employment in the various sectors indicated above, and the anticipated enlarged activities in these fields, and also allowing for a certain percentage of possible wastage in the students strength for one reason or other, the annual intake at the centre to be started in the South should be 10.

After considering the need for starting of the course, the Committee discussed at length the location of such a Textile Design Diploma Centre. While the Committee has no doubt that both the arts institutions and a well developed Textile Technology Institute were essential for the success of such a venture, it also considered the proximity of the industry which will be able to afford training for those necessary even during the course and employ them later on. The accessibility in general of the Centre to the students, staff and others interested in such an endeavour and also the state of development of both the Arts and Textile Institutions in the region point to the location to be Madras. However admission to the Centre should be open to students from all over the country.

The Government College of Arts and Crafts, the Institute of Textile Technology, imparting education at Diploma level in Textile Technology, and the A.C. College of Technology imparting education in the field at Graduate and Post-Graduate levels are all situated in Madras. Both the A.C. College and the Government College of Arts and Crafts have an established reputation and the committee had no doubt that the facilities available at these institutions particularly the faculty will go a long way in launching this course successfully. Having considered at length

the facilities required for the Diploma Course in Textile Design : the availability of the faculty and other allied facilities in the two institutions; the contents of the course; the level which it is aimed to attain as also the admission requirements for this course (which is a pass in the Intermediate Examination of the National Diploma Course in Applied Arts or its equivalent) the Committee was of the opinion that the Textile Design Diploma Course should be conducted as a cooperative endeavour between the three institutions in Madras and the general responsibility for the conduct of the course should rest with the A.C. College of Technology of the University of Madras, Madras. The Committee had no doubt that all the authorities concerned as also the industry will extend the facilities required for the purpose.

While the Committee in general agreed with the model curriculum drawn by the All India Board of Studies it was of the opinion that a course in Textile Chemistry should be included and the subject called " Mechanism of Printing" should be changed into "Techniques of Printing". Sufficient training facilities in the industry even during the course should be provided for. The following facilities were recommended for an intake of 10.

Buildings (R.C.C. Type).

Plinth area  
in sq. ft.

For Head of the Section  
(Ass-tt. Professor in  
Textile Design and  
Colour).

(1) 300 sq. ft.

Asstt. Professor in  
Fabric Manufacture

(1) 200 sq. ft.

Staff Common Room  
for other staff

400 sq. ft.

Two classrooms of  
150 sq. ft. each

300 sq. ft.

Studio

300 sq. ft.  
1,500 sq. ft.  
plinth area

Cost of construction @ Rs. 20/-  
per sq. ft.

Rs. 30,000/-

Equipment : ( as mentioned below :)

1.00 lakh

A minibus ( A//rpx- Cost Rs.40,000)  
to enable the students and staff  
to move between the three institutions  
as also for purposes of transportation  
for visits to industries and other  
such places of Arts/Technological Interest.

Rs. 0.40 lakh

Rs. 1.40 lakhs Rs. 1,40,000/-

Items of Equipment.

- 1. Screen Making Equipment
- 2. Table for Printing-
- 3. Copper Colour Making Fans
- 4. Two colour Roller Printing Machine.
- 5. Laboratory Steamer
- 6. Studio Equipment
- 7. Photographic and Optical Equipment.

Library

Total Non-Recurring :

Rs. 5,000/-  
Ps. 1,75,000/-

Recurring:

1. Staff Salaries

Average Annual Expenditure.

Asstt- Professors (2) Rs. 700-1250  
 Lecturers (3) Rs. 400-950  
 Studio Assistants (1) Remuneration depending upon proficiency, experience & qualifications etc. approx. Rs. 400/-

Rs. 24,000/-  
Rs. 22,000/-

Rs. 4,800/-  
Rs. 50,800/-

Ministerial Staff (including steno, Clerk, Departmental Staff etc. Approx. 40%)

Rs. 20,000/-  
Rs. 70,800/-

Allowances etc. about 15% (approx.)

Rs. 10,200/-  
Rs. 81,000/-

II Maintenance/Students Tours etc.  
III Books and Journals

Rs. 10,000/-  
Rs. 5,000/-

Total recurring per annum

Rs. 96,000/-

Sd/-xxxxxxxxxxxx  
( K. Sreenivasan)

Sd/-xxxxxxxxxxxx  
( M.V. Natarajan)

Sd/-xxxxxxxxxxxx  
( S.A. Mavalankar  
for S. Krishnamurthy.

sd/-xxxxxxxxxxxx  
(H.Krishna Rao)

Sd/-xxxxxxxxxxxx  
( M.S. Srinivasan)

Sd/-xxxxxxxxxxxx  
( Haroon Khimani)

-----

d.k.b

Confidential

University Grants Commission

325

Meeting :

Dated : 1st December 1971.

Item No. : 49 : To consider the recommendation of the AICTE for the introduction of Postgraduate Diploma Course in Hydrology in Roorkee University.

The Roorkee University approached the University Grants Commission in November 1970 for assistance for establishing a Postgraduate Course in Hydrology. The proposal of the University was sent to the AICTE for comments and advice.

Professor L.J. Mostertman, Professor of Hydraulics Engineering, Delft, Holland visited India as UNESCO Consultant to select some training centres for establishing a Postgraduate Course in Hydrology in India. He recommended that a Postgraduate Training Course in Hydrology may be established at the Roorkee University. Accordingly UNESCO Headquarters informed the Government of India, Ministry of Education & Social Welfare that provision has been made for supporting such a course in Asia during 1972.

The Report of the UNESCO Expert alongwith the views of the Central Water & Power Commission and the C.S.I.R. was considered by the Postgraduate Board of the A.I.C.T.E. in July 1971 and the Chairman, Postgraduate Board has approved the introduction of Postgraduate Diploma Course in Hydrology in Roorkee University with an intake of 15 students. Serving personnel from India and abroad will be admitted to this course. UNESCO assistance of \$5,000/- will be available to meet travel cost of foreign participants. The Postgraduate Board has recommended the provision of following facilities at the Roorkee University for this course:-

Non-Recurring

Equipment

Rs  
70,000/-

Recurring p.a.

1. Teaching staff	)	
Professor 1, Reader 1	)	
2. Supporting staff - 15%	)	41,000/-
of the salary of the	)	
teaching staff	)	

(No Scholarship to be provided as the course is meant for only serving personnel).

p.t.o.

326

3. Maintenance expenditure at the rate of Rs. 500/- per student p.a. for 15 students	Rs 7,500/-
4. Tours and field work	10,000/-
5. Examination expenses	3,000/-
Recurring	<u>61,500/-</u> p.a.

The Unesco has desired that the course may be started from the Academic year 1972-73 to which the Roorkee University is agreeable. The Government of India has also conveyed its intention to introduce this course at Roorkee University from 1972-73 to the UNESCO in November 1971 (annexure). The Government of India has requested for the early approval of the University Grants Commission for the introduction of Postgraduate Diploma C course in Hydrology at Roorkee University from 1972-73.

It may be stated that the University Grants Commission at its meeting held on 2nd December 1970 considered the recommendations of the AICTE for the development of Postgraduate Studies in Engineering and Technology at Roorkee University and approved the following expenditures

NR - Rs. 8.10 lakh and Recurring 14.78 lakhs p.a.

The matter is placed before the Commission for consideration.

EO(T)/DC(T).

'VK'



327

Copy of the letter No. F. 11-8/70-T.5,  
dated 11th November 1971 from the Ministry  
of Education to the Deputy Director, Unesco  
Mission in India, New Delhi.

Please refer to your letter No. 3.8.4. dated 11th October  
1971 regarding the establishment of an international postgraduate  
course in Hydrology in India.

I have already explained to you the position this afternoon.  
I am, however, writing to confirm that the Government of India intends  
to start the international postgraduate diploma course in hydrology  
at Roorkee University from the academic year 1972-73 under Unesco  
sponsorship. I should be grateful if Unesco would agree to sponsor the  
course and obligate necessary funds in the Unesco's programme for  
1972 for the purpose.

The description of the course etc. will follow shortly.

Meeting :

Dated : 1st December, 71.

Item No 50 : To consider further the report of the Committee appointed by the University Grants Commission to examine the proposal of the Gujarat University for the development of the Department of Education.

The University Grants Commission at its meeting held on 4th August, 1971 considered the report of the Committee appointed by it to examine the proposal of Gujarat University for the development of the Department of Education and desired that the comments of the Gujarat University may be invited on the report of the Committee (Item No. 13). (A Copy of the note placed before the Commission at the above meeting is attached (Annexure-I). The University has sent its comments on the report of the Committee. A copy of the letter received from the University is attached (Annexure - II).

The Committee had recommended that the following assistance may be provided to the University of Gujarat for the remaining period of the Fourth Plan period.

Guidance and Counselling.

Reader ( One )	Rs. 36,000/-
Lecturer (one)	Rs. 24,000/-
Non-recurring expenditure on furniture, equipment and test materials.	Rs. 35,000/-

Continuing Education.

Co-ordinator (one)	Rs. 36,000/-
--------------------	--------------

R Research in Examinations.

Statistician (one)	Rs. 24,000/-
--------------------	--------------

Instructional Material and other Research . . . . .

Research Asstts. (three)	Rs. 45,000/-
Total :	<u>Rs. 2,00,000/-</u>

In its letter the University has requested that a post of Professor may be provided in the Department instead of the post of Reader for starting diploma course in Guidance and Counselling recommended by the Committee. The university has

also requested for (i) a provision of Rs. 10,000/- per year (i.e. Rs. 30,000/- for three years) towards the recurring expenditure for running the Unit in Examination Reform, (ii) a provision of Rs. 10,000/- per year towards the running of the unit of Continuing Education (i.e. Rs. 30,000/- for three years), and (iii) provision for recurring expenditure of Rs. 10,000/- per year (i.e. Rs. 30,000/- for three years). for setting up of a unit for the Improvement of Secondary School Curricula and Teachers Education curricula and also for the development of instructional material for the schools and teachers training colleges.

In view of the above the financial implications for the remaining three years of the fourth plan will be as under :-

Guidance and counselling.

Professor	Rs. 45,000/-
Lecturer (One)	Rs. 24,000/-
Non-recurring expenditure on furniture, equipment and Test materials.	Rs. 35,000/-

Continuing Education.

Co-ordinator (One)	Rs. 36,000/-
Other recurring expenditure.	Rs. 30,000/-

Research in Examinations.

Statistician (One)	Rs. 24,000/-
Other Recurring expenditure.	Rs. 30,000/-

Instructional Material and other Research programmes.

Research Asstts. (three)	Rs. 45,000/-
Other Recurring expenditure.	Rs. 30,000/-
Total :	<u>Rs. 2,99,000/-</u>

The Committee appointed by the Commission had suggested that the assistance may be provided to Gujarat University for this programme on a cent per cent basis outside the fourth Plan allocation

The matter is placed before the Commission for consideration.

EO(H-II)/DO(H)

Copy of note placed before the Commission at its meeting held on 4th August 1971 vide Item No. 13

To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of Gujarat University for the development of the Department of Education.

....

The University Grants Commission appointed a visiting committee consisting of the following members to examine the proposal of the Gujarat University for the development of its Department of Education during the Fourth Plan.

1. Dr.E.L. Shrinani  
Vice-Chancellor  
Banaras Hindu University.
2. Dr.N.V. Thirtha  
Head of the Education Department  
Bangalore University.
3. Dr.S.C. Dube  
Head of the Department of Sociology  
and Social Anthropology  
Gaugar University.

Officer of the Commission

Dr.S.C. Goel  
Education Officer  
University Grants Commission.

The committee visited the Gujarat University, Ahmedabad on 26th May 1971 and discussed the proposal of the university with the Vice-Chancellor, Dr.K.G. Desai, Professor of Education and members of the staff of the Department of Education. The report of the Committee is attached

\* Appendix

The main observations and recommendations of the Committee are as under:

- (a) Enrolment of the Department of Education during 1970-71 was 52 in M.Ed. and 7 in Ph.D. During the last five years, five candidates obtained the Ph.D. degree in education from the university.
- (b) The staff in the Department of Education consists of one Professor, two Readers and three Lecturers. Two posts of Lecturers are lying vacant. Three members of the staff possess the Ph.D. degree and one has the Master's degree in Education. The staff is actively engaged in research work.

331

- (c) A special feature of the Department of Education at the Gujarat University is that it is an integral part of the School of Psychology, Education and Philosophy and has, therefore, potentialities for conducting inter-disciplinary studies. The Department was specially started for child guidance and vocational counselling.
- (d) The University has proposed the institution of ten scholarships of the value of Rs.200/- p.m. to attract talented secondary school teachers to the full-time M.Ed. course. In this connection, the committee noted that of the 52 students enrolled in the M. Ed. course in 1970-71 only 7 were full-time students. It has been recommended that the question of assigning scholarships for the postgraduate course may be examined by the Commission as a matter of general policy and not in relation to a particular university and a single course. The University may also approach the State Government for assistance in this regard.
- (e) The Department of Education also proposed that the Commission may assign a special publication grant of Rs.20,000 for the publication of research and learned articles, books etc. by the members of the staff. In this connection, the Committee noted that a provision of Rs.50,000 was already available to the Gujarat University for the publication of selected research works including doctoral theses for the Fourth Plan period.
- (f) The University proposes to institute a diploma course in guidance for the training of guidance personnel for development of psychological tests and other tools of guidance and counselling services for college students. The Committee supported the proposal in view of the growing industrial complex of Ahmedabad and the need for a practical orientation to a course of this nature. It has recommended that the University may start the diploma course in guidance and counselling with emphasis on aptitude and ability testing for the selection of students for university courses rather than on vocational guidance and placement. The Commission may give assistance towards the appointment of one Reader and one Lecturer and an expenditure of Rs.35,000/- for furniture, equipment, test materials etc.
- (g) The proposal of the university to have a unit of continuing education/for catering to the needs of teacher educators, secondary school teachers and college teachers would seem to be highly appropriate. The Department of Education may make a beginning in this direction by having a co-ordinator in the scale of pay of a reader for organising refresher courses, summer institutes etc. in the field of Teacher Education.
- (h) The University proposes to set up a unit in examination reform for reorientation of curricula, training of examiners and experiments in evaluation procedures etc. This in the opinion of the committee, should form an integral part of the normal activities of the Department of Education and in fact, the department has been fairly active in this area. It could be strengthened by the appointment of a Statistician in the scale of pay of a lecturer for such purposes as analysis of examination results, studies in wastage, stagnation etc.

under the  
Department of  
Education.

- (i) The University has proposed the setting up of a unit for the improvement of secondary school curricula and teacher education curricula and also for the development of instructional materials for the schools and teacher training colleges. The Committee supports the proposal and recommends the creation of three posts of research assistants for assisting the staff members in the development of instructional materials and other programmes listed above.
- (j) In regard to the use of audio-visual aids and other media of communication, the committee felt that there would be a great advantage in watching the experiments being carried out at the Indian Institute of Mass Communication before universities think of setting up special units for the purpose.
- (k) The financial implications of the above recommendations of the Committee for the remaining three years of the Fourth Plan are as under:

Guidance and Counselling

Reader (one)*	Rs. 36,000
Lecturer (one)	Rs. 24,000
Non-recurring expenditure on furniture, equipment and test materials.	Rs. 35,000

Continuing Education

Co-ordinator (one)	Rs. 30,000
--------------------	------------

Research in Examination

Statistician (one)	Rs. 24,000
--------------------	------------

Instructional Material and other research programmes.

Research Assistants (three)	Rs. 45,000
Total:	<u>Rs. 2,00,000</u>

The matter is placed before the Commission for consideration.

\* Dr. M. V. Thirtha has suggested that the guidance and counselling unit should be under the charge of a Professor and not of a reader.

Report of the Committee appointed by the University Grants Commission to examine the proposal of the Gujarat University for the development of the Department of Education during the Fourth Plan.

The University Grants Commission appointed a Visiting Committee consisting of the following members to examine the proposal of the Gujarat University for the development of its Department of Education during the Fourth Plan.

1. Dr.K.L. Shrinani  
Vice-Chancellor  
Banaras Hindu University.
2. Dr.H.V. Thirtha  
Head of the Education Department  
Bangalore University.
3. Dr.S.C. Dube  
Head of the Department of Sociology  
and Social Anthropology  
Saugar University.

Officer of the Commission

4. Dr.S.C. Goel  
Education Officer  
University Grants Commission.

The Committee visited the Gujarat University, Ahmedabad on 26th May 1971, and discussed the proposal of the University with the Vice-Chancellor, Professor Uma Shankar Joshi, Dr.K.C. Desai, Professor of Education and members of the staff of the Department of Education. The report of the committee follows.

Enrolment of the Department of Education during 1970-71 was 52 in M.Ed. and 7 in Ph.D. Five candidates obtained the Ph.D. degree in Education from the University during the past five years.

2. Examination Results

	<u>B.Ed.</u>		<u>M.Ed.</u>		
	1963-69	1969-70	1963-69	1969-70	...
			Old	New	
1. Number appeared	1119	771	14	5	22
2. Number passed	1070	750	9	3	15
3. 1st Division	20	19			
4. 2nd Division	409	350			
5. 3rd Division	641	381	9	3	15

It will be seen from the above table that no student secured either first class or second class in the M.Ed. examination in 1968-69 and 1969-70. The pass percentage was 63 in 1968-69 and 63 in 1969-70.

3. Admission

The following table indicates the divisions obtained by the students admitted to the M.Ed. course in their B.A., B.Sc. and B.Com. or L.A., M.Sc. and M.Com. and B.Ed. examinations. It will be seen that only one student obtained first class in B.A./B.Sc. and 7 students in the B.Ed. examination.

	<u>No. of M.Ed. students</u>
1st class in B.A./B.Sc./B.Com.	1
2nd class	19
3rd class	22
1st class in M.A./M.Sc./M.Com.	-
2nd class	10
3rd class	7
1st class in B.Ed.	7
2nd class in B.Ed.	32
3rd class in B.Ed.	33

4. Staff

The staff consists of one Professor, two Readers and three Lecturers. Two posts of lecturers are lying vacant. Three members of the staff possess the Ph.D. degree and one has the Master's degree in Education.

5. Research work by the staff

There are indications of considerable research work done by the members of the staff of the Department of Education. The main field of interest has been the construction and standardisation of group tests of intelligence. Professor K.G. Desai, has published books on educational psychology, principles of education and statistics in education and psychology. Dr.C.L. Bhatt has made a study of drop outs in postgraduate courses. Investigation of the attitudes of high school students to some aspects of education by Dr.R.G. Bhatt and a study of the moral dilemmas of secondary school pupils of Gujarat are under progress.

6. Social feature of the department

A special feature of the Department of Education at the Gujarat University is that it is an integral part of the School of Psychology, Education and Philosophy and has therefore the potentiality of developing inter-disciplinary studies and researches especially if it can bring about effective collaboration with some of the social science disciplines.

7. The Fourth Plan Visiting Committee

The Fourth Plan Visiting Committee of the U.P.C. made the following observations and recommendations regarding the development of the Department of Education at the Gujarat University:

"The Department of Education was set up during the III Plan. The Department was specially started



/testing and educational research in examination

for child guidance and vocational counselling. There are 29 students in M.A. and 1 student is registered for Ph.D. with 2 Readers and 2 Lecturers. One post of Reader is lying vacant. The department proposes to start diploma courses in vocational guidance, evaluation and psychological/reforms and orientation courses in methods of lecturing, conducting seminars and tutorials for the teachers of schools and colleges. The department requires 1 Professor, 2 Lecturers, 2 Research Assistants and 1 Demonstrator. The post of Reader which has been lying vacant must be filled as early as possible. We recommend that the department may be provided the posts of 1 Professor, 1 Lecturer, 1 Research Assistant and 1 Demonstrator, Rs.25,000 for the purchase of test materials, audio-visual aids and instruments and guidance tools, Rs.30,000 for the purchase of books, Rs.10,000 for furniture and Rs.30,000 for a station wagon."

8. Fourth Plan Assistance

Assistance approved by the Commission to the Department of Education during the Fourth Plan is as follows:

- One Professor
- One Lecturer
- One Demonstrator

9. Development proposals of the Department

The University proposes to develop the Department of Education through teaching, research and extension. The development schemes have been divided into six categories viz. (a) Teaching and Research, (b) Guidance and Testing, (c) Continuing Education, (d) Examination Reform, (e) Development of instructional material; and (f) Mass media of education.

(a) Teaching and Research

The University has proposed the institution of ten scholarships of the value of Rs.200/- p.m. to attract talented secondary school teachers to the full-time M.Ed. course. In this connection, the committee noted that out of 52 students enrolled in the M.Ed. course in 1970-71 only 7 were full-time but felt that the question of assigning scholarships for the postgraduate course may be examined by the Commission as a matter of general policy and not in relation to a particular university and a single course. In the meantime, the university may approach the State Government for assistance in this regard on the analogy of the scholarships agreed to by the Commission in respect of 20 percent of the M.Ed. students of the Banaras Hindu University, which is a central university. In regard to the proposal of the Department of Education for a publication grant of Rs.20,000 the committee suggest that advantage should be taken by the department of the scheme of the Commission under which a lump-sum provision of Rs.50,000 has been made to the Gujarat University for the publication of selected research works including doctoral theses for the Fourth Plan period.

(b) Guidance and Testing

The University proposes to institute a diploma course in guidance for the training of guidance personnel, development of psychological tests and other tools of guidance and counselling services for college students. The estimated expenditure will

336

be Rs.2,71,200 as detailed below:

<u>Staff</u>	<u>Per year</u>	<u>for 5 years</u>
(a) 1 Professor	15,000	75,000
1 Reader	12,000	60,000
1 Lecturer	3,000	40,000
(b) Space (1540 sq.ft. @ Rs.30 sq.ft.)		46,200
(c) Furniture		5,000
(d) Special amenities such as an inter-view cabin with one way looking glass.		10,000
(e) Recurring expenditure for consumable material, such as tests, record forms, etc. Rs.2,000/- per year.		10,000
(f) For development of tests, etc. recurring expenditure Rs.5,000 per year.		25,000
	Total:	<u>Rs.2,71,200</u>

The need for instituting a diploma course seems to arise from the fact that specialisation papers in guidance offered as part of the M.Ed. course and the L.A. course in Psychology are of a theoretical nature with no facilities or scope of training in a guidance laboratory. The role of guidance and counselling services also acquires significance in the context of the growing industrial complex of Gujarat State and the possibility of effective collaboration between the university and the B.M. Institute of Psychology at Ahmedabad. On the other hand, it is equally necessary that the programme does not over reach itself in the initial stages, in view of the limited role that guidance and counselling can play in a buyer's market, where there are far too many people chasing for too few jobs. It is, therefore, the considered opinion of the committee, that the university may start the diploma course in guidance and counselling with emphasis on aptitude and ability testing for the selection of university courses rather than on vocational guidance and placement. The scope of the course may be extended later, in consultation with the State Government in regard to the employment potentiality of trained personnel in the field of guidance and counselling. The committee recommends additional staff of one Reader and one Lecturer and a non-recurring expenditure of Rs.35,000 for furniture, equipment, test materials etc. to enable the university to start the diploma course in guidance and counselling.

(c) Continuing Education

The proposal of the university to have a unit of continuing education under the Department of Education for catering to the needs of teacher educators, secondary school teachers and college teachers would seem to be highly appropriate. The Department of Education may make a beginning in this direction by having a co-ordinator in the scale of pay of a Reader for organising refresher courses, summer institutes etc. in the field of Teacher Education.

(d) Examination Reform

The University proposes to set up a unit in Examination Reform for reorientation of curricula, training of examiners and experiments in evaluation procedures etc. This in the opinion of the committee, should form an integral part of the normal activities of the Department of Education and, in fact, the department has been fairly active in this area. It could be strengthened by the appointment of a Statistician in the scale of pay of a lecturer for such purposes as analysis of examination results, studies in wastage, stagnation etc.

(e) Development of Instructional Material

The University has proposed the setting up of a unit for the improvement of secondary school curricula and teacher education curricula and also for the development of instructional material for the schools and teacher training colleges. The committee supports the proposal and recommends the creation of three posts of research assistants for assisting the staff members in the development of instructional material and other programmes listed above.

(f) Mass Media of Education

In regard to the use of audio-visual aids and other media of communication, the committee felt that there would be a great advantage in watching the experiments being carried out at the Indian Institute of Mass Communication before universities think of setting up special units for the purpose.

10. Financial implications

The financial implications of the above recommendations of the committee for the remaining three years of the Fourth Plan are as under:

Guidance and Counselling

Reader (one)*	Rs. 36,000
Lecturer (one)	Rs. 24,000
Non-recurring expenditure on furniture, equipment and test materials.	Rs. 35,000

Continuing Education

Co-ordinator (one)	Rs. 33,000
--------------------	------------

Research in Examinations

Statistician (one)	Rs. 24,000
--------------------	------------

Instructional Material and other research programmes.

Research Assistants (three)	Rs. 45,000
-----------------------------	------------

Total:	Rs. 2,00,000
--------	--------------

It is recommended that assistance may be provided on 100 per cent basis outside the Fourth Plan allocation of the university.

\* Dr. M. V. Thirtha has suggested that the guidance and counselling unit should be under the charge of a Professor and not of a Reader.

338

Copy of the letter No. Gen/UGO-247-35029 dated the 10th November 1971 from the Registrar, Gujarat University to the Secretary, UGC.

—

May I invite a reference to your letter No. F. 25-17/69(h.II) dated 23rd August 1971 inviting the comments of the University on the report of the Committee appointed to examine the proposal of this University?.

A copy of the letter No. EDU/KGD/68/1971-72 dated 6th October 1971 from the Officiating Director, University School of Psychology, Education and Philosophy, Gujarat University, Ahmedabad-9 submitting the comments on the report is enclosed as desired by you (Appendix).

'VK'

Gujarat University

Appendix.

UNIVERSITY SCHOOL OF  
PSYCHOLOGY, EDUCATION AND PHILOSOPHY  
GUJARAT UNIVERSITY  
AHMEDABAD-9.

339

Ref : EDU/KGD/68/1971-72.

October 6, 1971.

The Registrar,  
Gujarat University,  
Ahmedabad-9.

Ref : Gen/UGC/247-22555-56 dated 24.9.1971.

Dear Sir,

I am submitting my remarks on the report of the Committee appointed by the University Grants Commission to examine our proposals for the development of the Department of Education.

At the outset I thank the Commission for taking into consideration all the proposals submitted by me.

1. Teaching and Research :

If the UGC has provided Rs. 50,000.00 to Gujarat University for publication of selected research work including doctoral theses for the Fifth Plan Period, our needs of publication will suitably be taken into account. I have, therefore, no more comments to make on the report of the committee regarding this category.

2. Guidance and Testing :

We intend to develop the guidance laboratory in which internship courses can be given to the students of Diploma in Guidance and Counselling which we propose to start. However, we feel that this unit should be headed by a Professor with requisite qualifications and not by a Reader. I thank Dr. N.V. Tirtna who has also recommended that this unit be under the charge of a professor. If the Commission agrees to these proposals the funds for this unit shall have to be increased. Other items of expenditure approved for the unit are acceptable.

3) Continuing Education :

I welcome the expenditure approved by the committee for the post of coordinator in the scale of a Reader. However, I feel that provision shall have to be made for about Rs. 10,000 per year for holding seminars, workshops and for visiting schools of education, for consultation and other types of help to them.

p.t.o.

340

4. Research in Examinations :

Here also I welcome the approval of the post of a statistician but there has been no provision for the running expenditure of the unit. About 10,000.00 per year should therefore be approved for this unit also.

5. Instructional Material and other research programmes :

I welcome the proposal for three research assistants for this cell also. A recurring expenditure of Rs. 10,000.00 per year shall have to be provided for preparing instructional material.

I thus welcome most of the proposals made by the Committee but would again request the Commission to approve the expenditure mentioned above for running the different units.

Thanking you,

Yours truly,

Sd/- K.G. Desai,  
Offg. Director.

UNIVERSITY GRANTS COMMISSION

341

Meeting:

Dated : 1st December, 1971.

Item No. 51 : To consider the report of the Committee appointed by the University Grants Commission to look into the amenities for the students of the Aligarh Muslim University.

While considering further the report of the Committee appointed by the University Grants Commission to look into the amenities for the students of the Banaras Hindu University, the Commission, at its meeting held on the 4th March, 1970 (Item No. 12) inter-alia agreed that the requirements for students amenities in other Central Universities also may be examined by the same committee.

The Committee visited Aligarh Muslim University on 23rd January, 1971 and has since submitted its report. A copy of the report is attached (Annexure). Main recommendations of the Committee are contained in para 7 of the report which are briefly as under:-

<u>Item</u>	<u>Estimated Cost/ Provision recommended by the Committee.</u>
(i) Construction of separate sanitary blocks for the S.S. Hall.	Rs. 5.00 lakhs.
(ii) Replacement of old wires in some of the Halls.	Rs. 2.00 lakhs.
(iii) Furniture for the dining halls, cup-boards, provision for shutters etc.	Rs. 3.00 lakhs.
(iv) Providing stainless steel thals and replacement of cooking utensils in the messes.	Rs. 2.50 lakhs.
(v) Providing two utility corners containing power plugs and electric equipment in each hostel - to enable students to get tea, coffee, etc. -	Rs. 9.00 lakhs.
(vi) (a) Provision of Common Rooms in the Aftab Hall, M.M. Hall and Abdulla Hall.	Rs. 4.50 lakhs.
(b) Provision of a Boys' Common Room along with the Canteen Block of the Faculty of Arts Buildings. -	Rs. 1.00 lakh.
(c) Replacement of furniture in the Students Union Building -	Rs. 2.00 lakhs.

342

2

vii) Improvement of Tibbia Hostel, such as construction of a kitchen and a Dining Hall, Increase in the number of WC's and bath rooms etc.	Rs. 1.00 lakh.
viii) (a) Construction of reading rooms -	Rs. 3.50 lakh
(b) Purchase of text books for reading rooms.	Rs. 2.00 lakh
ix) (a) Furnishing, fittings and lighting in the V.M. Hall Auditorium.	Rs. 0.50 lakh.
(b) Purchase of furniture for the Abdulla Hall Auditorium.	Rs. 0.25 lakhs
x) Extension of the Hobbies Workshop.	Rs. 0.50 lakhs
xi) Providing necessary facilities for indoor games in the Halls.	Rs. 2.50 lakhs
xii) Construction of a Day Home with canteen facilities (including a common room for the Science faculty) and a cycle shed to be accepted in principle.	Rs. 6.00 lakhs

Rs. 45.25 lakhs

It may be mentioned that due to urgency, the Commission's recommendation for construction of a boys' Common Room along with the Canteen Block of the Faculty of Arts Building appearing at S.No. above has already been accepted in anticipation of the consideration of the matter by the Commission.

The Committee has also recommended provision of a separate Administrative Building the details of which when sent by the University are to be examined in accordance with the usual norms prescribed by the Commission.

The matter is placed before the Commission for consideration.

AS(CU)/FO.

'VK'



Report of the Committee appointed by the University Grants Commission to look into the amenities for the students in the Aligarh Muslim University.

The University Grants Commission had appointed a Committee consisting of the following to examine and make recommendations with regard to the amenities that may be provided in the Aligarh Muslim University :-

1. Professor A.B.Lal,  
Vice-Chancellor, Allahabad University,  
(now Vice-Chancellor, Rajasthan University,  
Jaipur).
2. Dr. P.K. Kelkar,  
Director,  
Indian Institute of Technology,  
Kanpur.
3. Shri D.R. Patwardhan,  
Senior Architect,  
C.F.W.D., New Delhi.
4. Shri R.S. Chitkara,  
Dy. Educational Adviser,  
Ministry of Education and S.W.,  
New Delhi.
5. Shri R.K. Chhabra,  
Secretary,  
University Grants Commission,  
New Delhi.

2. We visited Aligarh on 23rd January, 1971. Dr. P.K. Kelkar, however, could not join us.

3. During our visit we had detailed discussion with the Vice-Chancellor Officers of the University, Dean of Student Welfare, Provosts of Halls of Residence, Office-Bearers of the Students' Union and some students. We visited the Halls of Residence and saw the sanitary arrangements, furniture in the dining halls and the messing arrangements. We had also an opportunity to discuss the problem with the Wardens and the students in detail.

Halls of Residence.

4. The distinguishing feature of the University is its predominantly residential character. This enables the students not only to study but also to live together, to participate in extra-curricular activities and become part of a cooperative community of work and service. The University has the following 8 Halls of Residence and one Non-Resident Students' Centre.

- 1) Sir Syed Hall ;
- ii) Vigar-ul-Mulk Hall ;
- iii) Aftab Hall ;

344

- iv) Sulaiman Hall ;
- v) Mohsin-ul-Mulk Hall;
- vi) Abdullah Hall (for women);
- vii) New Hall (for Men) ; and
- viii) New Hall (for women).

Each Hall comprises a number of hostels. The Head of each Hall of Residence is the Provost. Each hostel is in the charge of a warden, who looks after the welfare of the students of his hostel and gives them guidance in extra-curricular matters. Dining Hall facilities are provided for all residents. Unless otherwise exempted by the Provost for medical or other reasons, every resident student has to join the dining hall. In most of the Halls arrangement is made for vegetarian messing also. The details of the Halls are given below :-

1) Sir Syed Hall

Named after the founder of the institution, it is the oldest Hall of Residence in the University and comprises the following hostels :

- 1) Sir Syed East.
- 2) Sir Syed South.
- 3) Sir Syed West.
- 4) Osmania Lower.
5. Osmania Upper.
- 6) Syed Mahmood North
- 7) Syed Mahmood East Lower
- 8) Syed Mahmood East Upper; and
- 9) Central Hostel.

In addition to these, the Hall also maintains the Tibbiya Hostel. The number of residents is 900.

ii) Viqar-ul-Mulk Hall.

This hall is named after Nawab Viqar-ul-Mulk, a close associate of Syed Ahmad Khan. It comprises five hostels :

- 1) Nasrullah Hostel.
- 2) Marris Hostel.
- 3) Mizammil Hostel.
- 4) Jubilee Hostel ; and
- 5) Jamal Hostel.

The total number of residents is 732.

iii) Aftab Hall.

One of the old halls of the residence in the University it is named after Sahebzada Aftab Ahmad Khan, one of the former Vice-Chancellors. It comprises four hostels.

- 1) Morison Court
- 2) Mumtaz Hostel
- 3) Aftab Hostel; and
- 4) MacDonnell Hostel.

The total number of residents is 546.

iv) Sulaiman Hall:

Established in 1945, this Hall is named after Dr. Sir Shah Muhammad Sulaiman, a former Vice-Chancellor. It consists of seven hostels;

- 1) Agha Khan House
- 2) Jai Kishan House.
- 3) Hasrat Mohani House
- 4) Mahmudabad House
- 5) Bhopal House.
- 6) Kashmir House ;and
- 7) New Hostel.

The total number of residents is 712.

v) Mohsin-ul-Mulk Hall.

Established in 1963, this Hall is named after the Nawad Mohsin-ul-Mulk Bahadur and comprises four hostels :

- 1) Amin Hostel
- 2) Ziauddin Hostel
- 3) Saifi Hostel; and
- 4) New Hostel.

The total number of residents is 642.

vi) Abdullah Hall.

Exclusively meant for women students, the Hall is named after the late Dr. Shaikh Abdullah, founder of the Women's College. It comprises three hostels:

- 1) Wahidia Hostel.
- 2) Sultania Hostel; and
- 3) New Hostel.

Non-resident women students of the University and of the Women's College are also attached to this Hall. The total number of residents is 396.

vii) New Hall (for Men).

Recently established, it has two units to accommodate 480 and 325 students respectively.

346

viii) New Hall (for Women) :

Recently established, it can accommodate 260 women students.

Non-Residents Students Centre.

5. Normally permission to live outside the hall is given to students only if they are living at Aligarh with their parents or every close relations who maintain them. The non-resident students are under the administrative control of the Provost, N.R.S.C. There are two clubs for non-resident students - one in the Civil Lines and the other in the town where facilities for indoor and outdoor games reading room etc., are provided. Each of the two clubs is under the care of a Warden.

6. We are happy to note that the hostels are generally well maintained. In most of the hostels, however, there are no single-seated rooms. The University may keep this in view while taking up the construction of new hostels in future.

7. On the basis of our visits and discussions, we make the following recommendations :

i) A few years back, some residential rooms in the S.S.Hall were converted into toilet rooms with sanitary fittings. According to the University authorities, instead of solving the sanitary problem of the Hall, these toilets are a health hazard for the residents of the hostel. It is, therefore, necessary to construct separate sanitary blocks. The estimated cost as given by the University is Rs. 5.00 lakhs. We recommend that this may be accepted in principle and the University may be asked to prepare detailed plans and estimates for consideration by the Commission.

ii) In some of the Halls, the wiring system is very old and has outlived its efficiency. We were given to understand that some of the old wires are being replaced out of the Depreciation Fund, but the amount available is not sufficient. We recommend that a provision of Rs. 2.00 lakhs may be made for this purpose.

iii) In some of the dining halls of the hostels, the furniture has not been replaced for quite some time. It would be desirable to have adequate furniture to accommodate all the students. In some of the Halls, there are not enough cup-boards to enable the students to store their belongings. Where provision has been made for built-in-cup-boards, no shutters have been provided. This causes considerable inconvenience to students as they are not in a position to ensure the safety of their belongings. It is recommended that a provision of Rs. 3.00 lakhs may be made for furniture for the dining halls, cup-boards, provision for shutters, etc.

iv) The University has proposed that to avoid recurring expenditure on breakage of crockery and to improve hygienic conditions in the messes, the students should be provided with stainless steel thals.

Some of the cooking utensils also need replacement. The estimated expenditure for these items is Rs. 2.50 lakhs which may be provided.

v) At present, there are no satisfactory arrangements to enable the students to get tea, coffee, etc. The University has proposed that two utility corners containing power plugs and electric equipment may be provided in each hostel. We feel that this experiment needs encouragement. The estimated cost involved is Rs. 9.00 lakhs, which we recommend.

vi) The Aftab Hall, M.M. Hall and Abdulla Hall have no proper common rooms. The University has also indicated that a provision of a boys' common room may be made alongwith the canteen block of the Faculty of Arts building, under construction, out of the Fourth Plan allocation of the University. We recommend provision of common rooms in the three Halls at an estimated cost of Rs. 4.50 lakhs and a provision of Rs. 1.00 lakh for the common room in the Faculty of Arts. In addition to the furniture that may have to be provided in these common rooms, furniture in some of the common rooms in other hostels needs replacement. The representatives of the Students' Union also suggested that the provision may be made for replacement of furniture in the Students' Union Building. We recommend a provision of Rs. 2.00 lakhs for this purpose.

vii) The Tibbia Hostel has no kitchen or dining hall. Meals for 125 students for the residents of the hostel are cooked in the S.S. Hall and are brought in rikshaws to the Tibbia Hostel. This arrangement is most unsatisfactory and the University should take immediate action to construct a kitchen and a dining hall in the Hostel. The Hostel has only two WC's and very frequently these get choked. It is very essential that the number of WC's and also of bath rooms should be increased. The drainage system also requires improvement. We recommend a provision of Rs. 1.00 lakh for improvements in the Tibbia Hostel.

viii) As already indicated, most of the rooms are double or tripple-seated. The students suggested that if a separate reading room could be provided in each Hall, it will ensure a congenial atmosphere for proper study. It would also be necessary to provide text-books in these reading rooms for the use of students. The University has estimated Rs. 3.50 lakhs for the construction of reading rooms, which may be accepted. A provision of Rs. 2.00 lakhs may also be made for the purchase of text books.

ix) The University has proposed an estimated expenditure of Rs. 50,000/- for furnishings, fittings and lighting in the V.M. Hall auditorium. A provision of Rs. 25,000/- has also been suggested for purchase of furniture for the Abdulla Hall auditorium. These requirements are essential for the proper utilisation of the auditoriums. We recommend that these may be provided.

x) The University has a Hobbies workshop. We are very happy to note that apart from being well-maintained, it is being used by a large number of students. The workshop needs extension to accommodate

348

more students. The estimated expenditure of Rs. 50,000/- proposed by the University for this purpose may be accepted.

xi) There is provision for indoor games in almost all the Halls. We recommend that Rs. 2.50 lakhs may be provided for necessary facilities for indoor games in the Halls.

xii) The University has proposed the construction of a Day Home with canteen facilities and a cycle shed. The Home building will include a common room for the Science Faculty. The total estimated cost is Rs.6.00 lakhs. The proposal may be accepted in principle and the University asked to prepare plans and estimates according to the norms laid down for the purpose.

The total assistance on the above proposals will be of the order of Rs. 45.25 lakhs.

8. The University authorities have suggested a grant of Rs. 6.00 lakhs providing ceiling fans in the living rooms of the hostels. We feel that in view of the other immediate needs and the paucity of resources, this may have to be deferred for some time (Incidentally, it may be mentioned that a similar recommendation had been made in the case of Banaras Hindu University also). The University has also made proposals for (a) Guest Houses for the guardians of the residents in Abdulla Hall (for women) and New Hall (for women); (b) Gymnasium, (c) swimming pool for women; and (d) Purchase of building for another NRSC club and its renovation at a total estimated cost of Rs. 6.50 lakhs. We feel that due to limited resources, consideration of these proposals may be postponed to the Fifth Five year Plan.

9. The students have suggested provision of facilities in the Campus for making petty purchases for their day-to-day needs as also provision of a barber's shop and a dry-cleaner's shop. We recommend that the University authorities may examine these suggestions.

10. The Committee was also asked to look into the proposal of the University for provision of a separate Administrative Building. The Administrative Offices, including the Vice-Chancellor's Office, the Registrar's Office are at present accommodated in one wing of the S.S. Hall. This arrangement is not very satisfactory. We recommend that a separate Administrative Building may be provided for the university. The details of the proposal, when submitted by the University, may be examined in accordance with the usual norms prescribed by the Commission.

11. We are grateful to the Vice-Chancellor and other officers of the University for giving us full cooperation during our visit.

'VK'

( R.K. CHHABRA ).

University Grants Commission

349

Meeting :

Dated : 1st December, 71.

- Item No . 52 : To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of Aligarh Muslim University for the development of its Centre for West Asian Studies.

The University Grants Commission appointed a Committee consisting of the following members to examine the development proposals of the West Asian Studies Centre, Aligarh Muslim University:

1. Professor Tapas Mazumdar,  
Professor of Economics,  
Presidency College,  
Calcutta.
2. Professor J.P.S. Uberoi,  
Department of Sociology,  
Delhi University,  
Delhi.
3. Professor Iqbal Narain,  
Department of Political Science,  
Rajasthan University,  
Jaipur.

The Committee visited the University on 31st August, 1971 and discussed the development proposals of the Centre with the Vice-Chancellor, the Director of the West Asian Studies Centre and heads of the departments concerned. A copy of the report of the Committee is attached (Annexure).

The main recommendations of the Committee are given below :-

a) The West Asian Area Studies Centre does not have experts of its own and does not offer any courses. Such studies can thrive better in the university if the concerned departments are encouraged to take interest in studies and research relating to West Asia.

b) For the present the Commission may approve the post of one Reader each for the Department of History and the Department of Political Science for West Asian Studies.

350

- c) Two junior fellowships - one each in the department of history and the department of political science may be approved for promoting West Asian Studies.
- d) A grant of Rs. 50,000/- may be approved for strengthening the library of the centre.
- e) The University may be helped to put up a small building at a cost of Rs. 1.5 lakhs for the Centre.
- f) The Advisory Committee of the Centre should be activated and it should meet more often. It should decide the policy and programmes of the centre and help the Director in the selection of staff, selection of scholars, formulation of courses, selection of topics of research and purchase of books.
- g) If the above recommendations of the Committee are accepted by the Commission, the financial implications of these will be as follows :-

<u>Items</u>	<u>Share of the Commission</u>
1. 2 Posts of Readers	Rs. 24,000/- (per year)
2. 2 Junior Fellowships (@ Rs. 300/- p.m.)	Rs. 9,200/- (per year)
3. Books and Journals.	Rs. 50,000/-
4. Building.	Rs. 1,50,000/-

The matter is placed before the Commission for consideration.

EO(H-II)/DO(H)

'VK'



Draft report of the Committee appointed by the University Grants Commission to examine the development proposals of West Asian Studies Centre of Aligarh Muslim University, Aligarh.

351

---

The University Grants Commission appointed a Committee consisting of the following members to examine the development proposals of the West Asian Studies Centre, Aligarh Muslim University.

1. Professor Tapas Mazumdar,  
Professor of Economics,  
Presidency College,  
Calcutta & Member UGC.
2. Professor J.P.S. Uberoi,  
Department of Sociology,  
Delhi University.
3. Professor Iqbal Narain,  
Department of Political Science,  
Rajasthan University,  
Jaipur.

The Committee visited the University on 31st August, 1971 and discussed the development proposals of the Centre with the Vice-Chancellor, the Director of the West Asian Studies Centre and heads of the departments concerned.

Present Position.

On the recommendation of the Committee on Area Studies, Aligarh Muslim University was requested to develop studies in West Asia viz Iraq, Syria, Jordan, Egypt, South Arabia and Labanon.

The University, already engaged in teaching and research in the history, culture and languages of West Asian in the Department of Arabic and the Institute of Islamic Studies, desired certain additional facilities. A visiting committee headed by Shri B. Shiva Rao, examined the proposals and recommended that while the Institute of Arabic and Islamic Studies could serve as a base for the programme, it should be understood that area studies should form a separate programme with a distinctive centre of its own, with an independent staff and a director who may be a social scientist with an

352

expert knowledge of West Asia. At least one teacher of the Department of Economics and Political Science should be trained in the economics and politics of West Asia. In the absence of a Department of Sociology, a Sociologist may be appointed in the Centre. The Committee also recommended interchange of teachers between Aligarh Muslim University and West Asian Universities.

On the recommendation of the Visiting Committee the Commission agreed to provide the following facilities at its meeting in July, 1966 :-

a)	Director (Professor's grade)	Rs. 75,000/-
b)	Library facilities (including recurring grant of Rs. 3,000/- p.m.)	Rs. 65,000/-
c)	Two Research Scholarships ( Rs. 200/- p.m.)	Rs. 24,000/-
d)	Specialised training for 3 teacher in West Asian countries for 2 years each.	Rs. 60,000/- <u>Rs. 2,24,000/-</u>

The following additional facilities were approved for the Centre in January, 1968.

1. One Documentation Officer	- (Rs. 400-950)
2. One Stenographer.	
3. Furniture and equipment	Rs. 5,000/-
4. Contingencies.	Rs. 1,000/- p.a

On the basis of the recommendations of the Standing Advisory Committee the Commission at its meeting held on 6.8.69 accepted the following proposals of the Aligarh Muslim University for development of West Asian Studies Centre :-

- i) Payment of a grant of Rs. 18,000/- for inviting Dr. Albert Hourani as Visiting Professor (for six months) to the Centre for West Asian Studies.
- ii) Organisation of a Seminar on Socio Economic and Political Problems of West Asia at an estimated cost of Rs. 10,000/-.

The University could not implement the above scheme during 1969-70. It proposed to organise the seminar on the West Asia in November, 1970 and to invite Professor N. Zyadeh and Professor Walid Khalidi of the American University, Beirut in place of Dr. Albert Hourani. The proposal was accepted by the Commission.

The proposal of the University for a grant of Rs. 5,000/- for publication of monographs was accepted by the Commission at its meeting held on 4th February, 1970.

The total allocation made to the University for the development of West Asia Studies Centre is Rs. 3,11,500/-.

The West Asian Studies Centre of the University started its work from November 1967 with the appointment of Professor S. Magbul Ahmed as its Director. During the period 1967-1971 the Centre deputed three of the University teachers, one each from the departments of Islamic Studies, Political Science and Economics for field work in Egypt, Labanon, and Saudi Arabia for a period of approximately one year. The Centre awarded junior research fellowships to five students, two each in the departments of Political Science and Economics and one in the department of Geography. During this period Professor Nicola Ziadeh, Professor and Head of the Department of History, American University of Beirut visited the Centre as a visiting professor and delivered a series of lectures on North Africa and conducted seminars in several departments of the University. The Centre sent out three scholars of the University for the field work in their specialised subjects to West Asia. It is understood that reports of two scholars are complete and the third is about to be completed.

The Director of the Centre has published one book and some articles in learned research journals. A monograph on West Asia and North Africa is also reported to have been published. Other monographs are understood to be under preparation.

Library Facilities.

The Centre is reported to have 1700 books and 95 journals. A visit to the library, however, indicated that some of the books are outdated and related more to the past history of the area rather than to current affairs.

The centre has instituted a diploma in West Asian Studies from the 1970-71 session. The courses are offered by the respective departments and the role of the Centre in this regard is only advisory.

The Centre has also been conducting modern Arabic Classes from 1968.

Observations and Recommendations of the committee.

The Committee had a very fruitful discussion with the Vice-Chancellor when the Director of the Centre and some departmental heads were also present. The Vice-Chancellor

felt that the teaching and research work in the West Asian Studies Centre is not as well co-ordinated as it could have been. The heads of the departments have on their own been engaged in studies relating to West Asia for quite some time and long before the West Asian Studies Centre came into existence. The teachers and scholars of the departments have also benefited by the setting up of the West Asia Studies Centre. There is, however, much scope for promoting inter-disciplinary studies in the area.

It is understood that the supervision of Ph.D research is not available at present on a joint supervision basis although there are some informal contacts between the supervisor and other teachers concerned with Ph.D. dissertations. Since the Director of the Centre does not have the status of a departmental head and the Centre does not offer any courses of its own, he is not a member of the committee on courses. The University has set up an advisory committee for the Centre but it is understood that this committee does not meet often and in the present set up it does not have an effective role. The Committee's discussion with the heads of the department also revealed that they are not actively concerned with the programme of the West Asian Studies Centre, with the selection of books for the library of the Centre and with the selection of fellows for advanced study.

The Committee visited the library of the Centre and was surprised to find that the Documentation Officer appointed under the scheme is doing the work of an assistant librarian and as such cannot be of real assistance to teachers and scholars of the Centre. Urgent steps should, therefore, be taken to ensure that the Documentation Officer is relieved of the routine work of the library and devote himself entirely to the work expected of a Documentation Officer.

The Committee visited some of the concerned social science departments and found that some of them are fairly active in undertaking studies and research on socio-economic and political problems of the West-Asian region. For instance the department of Political Science is offering five courses on West Asia and has already completed some major studies on West Asia under its Ph.D. programme. Teachers of the department have also written some monographs on West Asia.

The University has proposed the development of the Centre at an additional cost of over Rs. 15 lakhs partly to continue the present facilities for the period ending 1973-74 and partly for new facilities including additional staff and a building for the Centre at a cost of Rs. 10 lakhs.

A copy of the development proposals of the Centre indicating the expenditure for the period ending 1973-74 is attached ( Appendix).

The University reconsidered these proposals in consultation with the Director of the Centre and after a careful analysis of the difficulties in the implementation of programmes. Accordingly, the Vice-Chancellor wrote to the University Grants Commission saying that, in his view, the research activities of the Centre had been primarily hampered because the cooperating departments were not given any additional staff to specialise in West Asia. The Vice-Chancellor, therefore, proposed that the Commission may provide assistance towards five additional teaching posts, one each for the departments of Politics, Economic Sociology, History and Geography. It was also suggested that three of these posts may be of the readers rank and the other two of the lecturers rank. The Vice-Chancellor also proposed five fellowships one for each of the departments mentioned above.

The University further proposed that the additional posts indicated above be borne on the cadre of the Centre but the teachers so appointed may be assigned to the departments of their speciality and would be, for all practical purposes, members of their respective departments. It would be expected that a part of their time would remain at the disposal of the department for teaching work but the bulk of attention would be devoted to teaching-cum-research connected with West Asia.

The Vice-Chancellor also modified his earlier proposal for a building in view of the present financial stringency in the country and suggested that a small building at a cost of Rs. 1.5 lakhs may be sanctioned for the centre.

The Committee met again on October 15, 1971 in the UGC Office to consider the revised proposals of the University. Professor Uberoi could not attend the meeting as he had gone out to Australia and was not expected to return before the end of the year. The committee made the following recommendations :-

a) The concerned departments in the university should be the base of studies and research in West Asia. The Centre does not have experts of its own and does not offer any courses. Its role is rather limited at present. West Asian Studies can thrive in the University only if the concerned departments are encouraged to take interest in studies and research in the area.

b) The Committee recommends that for the present one reader each may be given to the department of History and the Department of Political Science for West Asia Studies. Appointments may be made according to the normal rules of the university. It is expected that the concerned heads of the departments will be consulted in these appointments.

356

c) Two junior research fellowships one each in the department of history and department of Political Science may also be given to the University for promoting West Asian Studies.

d) The library Centre needs to be considerably strengthened. A grant of Rs. 50,000/- is recommended for this purpose.

e) The Committee is of the view that the West Asian Studies Centre should have a small place of its own where it could function effectively. At present the Centre is housed in a building where it has no room for further development. It is recommended that the University may be helped to put up a small building at a cost of Rs. 1.5 lakhs for the Centre.

f) It is recommended that the Advisory Committee of the Centre should be activated and it should meet more often. The Committee should decide the policies and programmes of the Centre and help the Director in the selection of staff, selection of scholars, formulation of courses, selection of topics of research and purchase of books.

The committee is grateful to the Vice-Chancellor, the Director of the West Asia Studies Centre and the heads of the Departments of Politics, Geography, Economics, Political Science and History who gave to the members all courtsey and consideration.

'VK'

Statement showing the expenditure incurred and estimated expenditure upto 1973-74 in respect of Centre of WEST ASIAN STUDIES.

S.No.	Particulars	Grant approved by UGC.	Expenditure incurred upto 31.3.70 as intimated earlier to UGC.	Expenditure incurred during 1970-71	Total expenditure upto the end of 1970-71	Estimated expenditure during 1971-72	1972-73	1973-74	Total estimated expenditure upto 1973-74	Total expenditure and estimated expenditure upto 1973-74	Remarks
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1.	Fay of Director	75,000	33,431	19,250	57,681	19,550	19,850	20,150	59,550	1,17,231	
2.	Research Fellows/ Research Associates(2)	24,000	6,600	4,800	11,400	*16,000	16,000	16,000	48,000	59,400	*Provision of Research Associates.
3.	Readers (to be proposed Two.	-	-	-	-	24,000	24,000	24,000	72,000	72,000	
4.	Library Facilities (Recurring)	15,000	11,969	3,000	14,969	3,000	3,000	3,000	9,000	23,969	
5.	Books and Journals	50,000	31,988	18,012	50,000	70,000	70,000	60,000	2,00,000	2,50,000	Includes Rs. 20,000/- for storage.
6.	Travel Grant.	60,000	44,520	-	44,520	55,000	-	-	55,000	99,520	
7.	Binding and Library Accessories (New)	-	-	-	-	3,000	3,000	3,000	9,000	9,000	
8.	New Building for the C-W.A.S. Library and Research and Administrative Wings.	-	-	-	-	-	10,00,000	-	10,00,000	10,00,000	
<b>Total :</b>		<b>2,24,000</b>	<b>1,33,508</b>	<b>45,062</b>	<b>1,78,570</b>	<b>1,90,550</b>	<b>11,35,350</b>	<b>1,26,150</b>	<b>14,52,500</b>	<b>16,31,120</b>	

3(5)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
U.G.C. letter No.F.1-12/65(H) dated 6.3.1968.												
1. Documentation Officer.	23,750	14,630	10,082	24,712	10,500	11,000	11,500	33,000	57,712			
2. Senior Stenographer.	14,250	8,316	6,306	14,622	6,360	6,410	6,460	19,230	33,852			
3. Clerk Gr. I	-	-	-	-	3,220	3,300	3,350	0,870	9,870			
4. Peon.	-	-	-	-	2,040	2,050	2,060	6,150	6,150			
5. Furniture and Equipment.	5,000	4,918	-	4,998	10,000/-	-	-	10,000	14,998			
6. Contingencies.	5,500	4,143	1,500	5,643	2,000	2,000	2,000	6,000	11,643			
7. Visiting Professors.	18,000	-	9,000	9,000	9,000	-	-	9,000	18,000			
Total :	66,500	32,087	26,888	58,975	43,120	24,760	25,370	93,250	1,52,225			

p.t.o.



1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_ 7. \_\_\_\_\_ 8. \_\_\_\_\_ 9. \_\_\_\_\_ 10. \_\_\_\_\_ 11. \_\_\_\_\_ 12. \_\_\_\_\_  
 U.G.C. letter No. F.1-12/65(C/ā)  
 dated 15.3.1969.

1. Organisation of a Seminar.	10,000	-	10,000	10,000	-	-	-	-	10,000
2. Contingent Grant to Research Fellows. (Rs. 1,000 per fellow).	6,000	4,000	2,000	6,000	3,000	3,000	3,000	9,000	15,000
3. Publication of Monograph	5,000	-	2,299	2,299	10,000	10,000	10,000	30,000	32,299
<b>Total :</b>	<b>21,000</b>	<b>4,000</b>	<b>14,299</b>	<b>18,299</b>	<b>13,000</b>	<b>13,000</b>	<b>13,000</b>	<b>39,000</b>	<b>57,299</b>
<b>Grand Total :</b>	<b>3,11,500</b>	<b>1,69,595</b>	<b>86,249</b>	<b>2,55,844</b>	<b>2,46,670</b>	<b>11,78,610</b>	<b>1,64,520</b>	<b>15,84,800</b>	<b>13,40,644.</b>

Total requirements upto 31.3.74	Rs. 13,40,644.00
Total grant approved by U.G.C.	Rs. 3,11,500.00
	Rs. 15,29,144.00
	SAY : Rs. 15,30,000.

UNIVERSITY GRANTS COMMISSION

---

Meeting :

Dated : 1st December 1971.

Item No. 53 : To consider the recommendation of the Fifth All-India Conference on Educational Statistics held at Puri from February 4-8, 1971.

---

The Fifth All-India Conference on Educational Statistics was organised at Puri from 4th to 8th February 1971 by the Ministry of Education and Social Welfare. The Ministry has invited the Commission's attention to the following recommendation of the conference relating to organisation of inservice training/orientation courses for the benefit of personnel in the universities/colleges who are directly concerned with the filling up of proforma s.g. B-1, B-4:-

"As for the training programme for the colleges, the Conference recommended that the University Grants Commission in collaboration with Ministry of Education and Youth Services and other appropriate organisations should prepare a series of training programmes in selected universities and initiate this programme in 1971-72. From 1972-73 and onwards the University Grants Commission should organise a programme of organising series of orientation courses for colleges."

With the transfer of work relating to compilation/consolidation of statistics through Forms B-1 and B-4 to the USC from 1969-70, the Ministry of Education requested the Commission (in June 1970) to consider the question of conducting these inservice training/orientation courses in collaboration with the Ministry from 1970-71. The matter was considered by the Commission at its meeting held on 5th August 1970 and it was decided that the Ministry might be requested to continue the scheme for the present and the question of transfer may be further discussed with the Ministry. The Ministry was intimated accordingly.

361

These inservice training/orientation courses for the benefit of personnel in the universities/colleges are being organised by the Ministry from 1959-60. Now that the University Grants Commission is concerned with the compilation/consolidation of facts and figures through two different types of proforma B-4, & B-1, i.e. (the date of collection of data being 15th August for B-4 & 31st March for B-1), It may be desirable that the Commission is also associated with the organisation of these courses in collaboration with the Ministry of Education and the question of taking over these courses from the Ministry could be considered, after gaining some experience. With the rapid rise in the number of institutions i.e. (universities and colleges) from whom accurate facts and figures have to be collected, compiled and consolidated, as expeditiously as possible, there is a greater need for such courses to be organised at places where these are essential. In view of the facts, stated above, the following action is suggested:-

- a) To begin with the UGC may associate itself with the organisation of the programme in collaboration with the Ministry and
- b) The question of taking over the organisation of such courses for the benefit of colleges and universities could be considered later.

The matter is placed before the Commission for consideration.

DO(SI).

'VK'

Confidential

UNIVERSITY GRANTS COMMISSION

362

Meeting:

Dated : 1st December, 1971.

Item No: 54

To consider the following proposals of the Banaras Hindu University:-

- i) For the introduction of certificates and diploma courses in Urdu. (P.363)
- ii) For sanction of the post of a Librarian in the grade of Rs.750-1250 in the Institute of Medical Sciences.(P.364-365)
- iii) For awarding scholarships for undergraduate students of the Institute of Technology. (P.366)

Confidential

University Grants Commission

363

Meeting :

Dated : 1st Dec., 1971.

Item No . 54(i) : To consider the proposal of the Banaras Hindu University for the introduction of certificate and diploma courses in Urdu.

The Banaras Hindu University proposes to introduce a one-year certificate course and two-year diploma course in the department of Urdu. The course is expected to meet the demand of a large number of students and teachers of the university in several departments such as Medieval History and Hindi etc.

The introduction of the above courses will involve teaching work of four periods per week in the first year and eight periods per week in the subsequent years, which will be managed by the existing members of the staff of the department. The existing library and other facilities are also stated to be adequate for the purpose. Thus the introduction of the courses will have no financial implications, either of a recurring or non-recurring nature.

According to the information available with the UGC the department of Urdu has an enrolment of 61 in the undergraduate classes, and 12 in the postgraduate classes. One student is enrolled for research in the department. The total staff for Urdu, Arabic and Persian in the University consists of two readers and five lecturers.

The matter is placed before the Commission for consideration.

(L.O(H-I)/D.O(E))

s.k.b

Confidential.

University Grants Commission.

364

Meeting :

Dated : 1st December, 71.

Item No - 54(ii) : To consider the proposal of Banaras Hindu University for sanction of the post of a Librarian in the grade of Rs. 700-Rs.1250/- in the Institute of Medical Sciences.

Banaras Hindu University has sent a proposal for the sanction to the post of a Librarian in the grade of Rs. 700-1250 at the Institute of Medical Sciences. According to the letter forwarded by Banaras Hindu University from the Director, Institute of Medical Sciences of the University, (copy enclosed as annexure) the library of the Institute has at present the following staff :

1. Librarian (400-950)	1
2. Asstt. Librarian (250-475)	1
3. Professional Asstt (250.400)	1
4. Semi-Prof. Asstt. (130-280)	3
5. Janitor (75-95)	1
6. Lib. Attendant (70-85)	7

It is stated that the Annual Grant of the Institute Library is Rs. one lakh and the non-recurring grant is Rs. three lakhs. The library at present is equipped with 25000 volumes with large numbers of periodicals on subscription (about 500).

The Institute has further stated that the Library Committee Report of the Government of India has recommended that in a large College Library with an annual book fund of not less than Rs. 20,000/- the Librarian should be in the Grade II. (i.e. Readers' grade). According to the letter of the Director, the library had been greatly appreciated by the medical scientists visiting the Institute and it is expected to feed the first line of medical researches by providing them Bibliography micro and macro documents. The Wadia Committee constituted by the University for the reorganisation of the Banaras Hindu University Library comprising of Dr. Keshavan and Professor S. Badiruddin had recommended for additional post of Assistant Librarians also.

The Library Committee appointed by the University Grants Commission for university and college libraries, in its report had recommended that in a large college with an annual book fund of not less than Rs. 20,000/- the Librarian should be in grade II with qualifications appropriate to it.

The Commission had so far allocated Rs. 5,50,000/- for purchase of books for the Instts. of Medical Sciences at Banaras Hindu University which had since been paid.

The matter is placed before the Commission for consideration.

AS(CU)/FO.

365

Annexure to  
Item No. 54(ii).

C O P Y

No. EST/D-7/70-71/23954.

Dated : 8th June, 1971.

The Dy. Registrar (Development),  
Banaras Hindu University,

Dear Sir,

Our Institute Library has the following staff :

1. Librarian (400-950)	1
2. Asstt. Librarian (250-475)	1
3. Professional Asstt. (250-400)	1
4. Semi Prof. Asstt. (130-280)	3
5. Janitor (75-95)	1
6. Lib. Attendant (70-85)	7

The Annual Grant of the Institute Library is Rs. 1,00,000/- and the non-recurring grant, for the present is Rs. 3,00,000/-. The library at present is equipped with 25000 volumes with large numbers of periodicals on a subscription (about 500).

The U.G.C. Committee which visited the Institute for sanction of staff and other facilities under the IVth Plan was requested to sanction one post of Librarian in the Institute in the Reader's grade of Rs. 700-1250/-. Compared to the posts of Librarian sanctioned in the grade of Rs. 400-950 in the Women's College and Institute of Technology, the post of Librarian (in the grade of Rs. 400-950) was sanctioned much before in the Institution.

The Library Committee Report of the Govt. of India recommends that in a large college Library with an annual books funds of not less than Rs. 20,000/- the Librarian should be in the grade II i.e. Reader's grade. By every standard of the University Grants Commission and of Foreign Medical Library the library deserves a senior grade Librarian. The Library has been greatly appreciated by the medical scientists visiting of the Institute. We expect our Library to feed the first line of medical researches by providing them Bibliography micro and macro documents. The Wadia Committee constituted by the University for the reorganisation of the B.H.U Library comprising of eminent Library scientist like Dr. Keshavan and Professor S. Badiruddin recommended for additional post of Assistant Librarians at

Keeping all these facts and future set-up of the Library I strongly recommend that an additional post of librarian in the Senior grade i.e. Reader's grade as per approved standard be created in the Institute. Compared to the Library set up and its establishment in the Women's College and Institute of Technology, our library deserves a senior Librarian of at least Reader's grade. I request you to kindly consider the above proposal favourably and needful may be done in the matter, at the earliest.

'VK'

Yours faithfully,

Sd/-  
DIRECTOR

Confidential

UNIVERSITY GRANTS COMMISSION

366

Meeting :

Dated : 1st December 1971.

Item No. 54(iii) : To consider the proposal of Banaras Hindu University regarding scholarships for undergraduate students of the Institute of Technology.

The University Grants Commission at its meeting held on 7th April 1971 received the rules framed by the Banaras Hindu University for the award of scholarship to the undergraduate students in Engineering and Technology and desired that the matter may be discussed with the University and Ministry of Education and Social Welfare so that admissions to the Banaras Hindu University, Institute of Technology and selection of scholars are made on a basis similar to that adopted by the I.I.Ts. It was agreed that the entire question of award of scholarships in the central universities may be reviewed and in the meantime the Banaras Hindu University may be permitted to award undergraduate scholarships of Rs. 75/- p.m. to 20% of the students admitted to the engineering and technological faculties as per the rules framed by the University.

The Banaras Hindu University has informed that the I.I.Ts. and the Ministry of Education have agreed to include the Institute of Technology, Banaras Hindu University for the purpose of joint entrance examination admission to the I.I.T's and Institute of Technology, Banaras Hindu University from the next academic session. The Banaras Hindu University has further requested the Commission to increase the number of undergraduate scholarships at the Institute of Technology from 10% to 25% of the total intake as prevalent in the I.I.T's.

The matter is placed before the Commission for consideration.

EO(T)/DO(T).



UNIVERSITY GRANTS COMMISSION

367

Meeting :  
Dated : 1st December 1971.

Item No, 55 : To consider the proposal of the Indraprastha College for Women, Delhi (Delhi University) for financial assistance towards the construction of Gymnasium.

The Commission had earlier agreed that assistance as indicated below, may be provided to the universities and colleges for gymnasias:

	<u>Estimated cost</u>	<u>UGC share</u>
i) For a university (120'x90')	Rs 2.5 lakhs	75%
ii) For a college with enrolment of 1500 or more (100'x60')	Rs.1.5 lakhs	75%
iii) For a smaller college	Rs.0.75 lakh	75%

A Committee appointed by the Commission examined the proposals received from the universities and colleges for the construction of gymnasias. The Commission at its meeting held on 7th October 1970 accepted the recommendations of the committee and approved the proposals of 12 universities and 81 colleges for the construction of gymnasium. No proposal in this regard was received earlier from the Indraprastha College for Women, Delhi.

The Indraprastha College for Women, Delhi has now sent a proposal for the construction of gymnasium at an estimated cost of Rs. 2,14,746/-. The principal of the college has also intimated that the students of the College have collected about Rs. 73,000/- for the purpose. The College authorities purpose to utilise this amount to meet their share. The number of students in the college is 1725.

The proposed gymnasium will provide a hall with a total floor area of 5,959 sq.ft. as against 3,444 sq.ft. suggested by the NIS, Patiala for a college with enrolment of 1500 or more.

On a proportionate basis for the area of 3,444 sq.ft. the approved cost for the admissible area would be Rs. 1,24,090/- against which Commission's contribution @ 75% would be limited to Rs. 93,068/- only.

The matter is placed before the Commission for consideration.

AS(AI)/JS(C).

Confidential

UNIVERSITY GRANTS COMMISSION

368

Meeting :

Dated : 1st December 1971.

Item No. 56 : To consider the proposal of Poona University for the construction of staff quarters for Class IV employees outside the Fourth Plan allocation.

The Poona University has sent a proposal for the construction of 100 quarters for Class IV employees at an estimated cost of Rs. ten lakhs.

The University has stated that since its inception about 23 years back, no quarters for class IV employees were constructed. The quarters available in the old Government House were allotted to them. About 120 employees out of the total 319 Class IV employees included in the categories of Peons, Hamals, Laboratory Helpers, Watchmen etc. have been accommodated in these quarters. Some of these quarters are said to be in dilapidated condition and even major repairs to them will not be of much help as these may cost roughly the same as for the construction of new ones. With the lapse of time, the University, it is stated, would have to face a precarious situation when the servants staying in old quarters may be required to vacate them as the life of the buildings is already over and that too, without providing them alternative shelter.

The Poona University, has, further, stated that the University Campus is far away from the city proper and that the services of these employees are required at any time for the university office as well as for laboratories of the Departments.

Hence, the University has requested the Commission to provide assistance outside the Fourth Plan allocation for the construction of 100 class IV quarters estimated to cost Rs. ten lakhs.

The matter is placed before the Commission for consideration.

FO/AS (CU).

'VK'

Meeting:

Dated: December 1, 1971.

Item No.57 : To consider the proposal of the Panjab University for approving the revised plans and estimates for the construction of library building at V.I.S. and I.S. Hoshiarpur.

On the recommendation of the visiting committee which visited the V.V. Research Institute, Hoshiarpur in March, 1963, the Commission approved the construction of a library building at the Institute in June 1963 with a plinth area of 16000 sq.ft. at an estimated cost of Rs.3,20,000/-; the share of the Commission being limited to Rs.2,13,333/- at 2/3rd of the approved cost. The first instalment of Rs.75,000/- was released to the Institute in October 1964. The detailed estimates in respect of the construction of the library building at a cost of Rs.3,22,714/- were noted on condition that the share of the Commission will be limited to Rs.2,13,333/-. The Commission also noted the proposal of the Institute for supplying building material and for getting the building constructed through labour/contract.

In 1959, the Commission had agreed, on the recommendation of the Panjab University, to include V.V. R.I., Hoshiarpur under Section 2(f) of the U.G.C. Act, as an affiliated college providing instruction for M.A. in Sanskrit. The syndicate of the Panjab University, vide resolution No.5 dated 15.5.1965 decided to take over the responsibility of teaching, research, publications and maintenance of the library of the Institute and decided to name the new centre as "Vishveshvaranand Institute of Sanskrit and Indological Studies".

In October 1965, the Commission noted that the work regarding the construction of the library building of the V.I.S. & I.S. had been handed over to the Panjab University and that the University had, in consultation with the Institute decided to revise the plans and design of the library building. The senior Architect of the university prepared fresh plans with a plinth area of 16,351 sq.ft. at a cost of Rs.3,20,000/-. In July 1967, the University sent detailed estimates of the library building at a cost of Rs.4,00,140/- covering a plinth area of 17,404 sq.ft. These are certified by the Local P.W.D.

The University incurred a total expenditure of Rs.3,90,452/- on the construction of the building upto 31st March, 1971. The University was, therefore, requested to intimate as to how it continued the construction work without obtaining the prior approval of the Commission to the revised plans and estimates. It was also requested to intimate whether it is prepared to accommodate the increased expenditure within the fourth plan allocations.

The University informed that the area of the plan was the same as sanctioned by the Commission in the original plan. The main reason for increase in the cost is that the original plans were approved in 1963-64, whereas the construction was started in 1967-68. The University has already provided an amount of Rs.1,91,760/- (Rs.2,66,760/- being 2/3rd of the estimated cost of Rs.4,00,140/- less Rs.75,000/- already paid in the third plan) under continuing schemes in its overall fourth plan allocations.

370

It may be mentioned in this connection that the plinth area of 17404 sq.ft. shown by the university in the revised plans is the total area within outer wall, and some rooms are two storeyed and there is also a cut out in the roof of the reading hall. Therefore, the total built up area is 16,022 sq.ft. The assets of the V.I.S. and I.S. have been transferred to the Panjab University and the contract awarded by the Institute has been revoked and the work given to a new contractor by the university after inviting tenders.

The matter is placed before the Commission for consideration.

EO(H.I)/DO(H).

'VK'

UNIVERSITY GRANTS COMMISSION

Confidential

Meeting:

371

Dated: December 1, 1971.

Item No; 58 : To consider further the proposal of the SNDT Women's University for assistance towards the setting up of a department of continuing education from the year 1971-72.

The University Grants Commission at its meeting held on 6th October, 1971, considered the proposal of the SNDT Women's University for assistance towards the setting up of a department of continuing education and desired that assistance to the university may be provided on the same pattern as approved for the M.S. University of Baroda (Resolution No.49 dated 6th October, 1971).

While accepting the proposal of the M.S. University, Baroda for setting up a department of continuing/adult education, the Commission did not agree to provide assistance towards the non-teaching staff. The M.S. University of Baroda has, however, requested the Commission to reconsider the matter, in view of the fact that the non-teaching staff is an essential part of the scheme of continuing education. This matter is included in the agenda of the present meeting vide item No.32.

The estimated expenditure on the establishment of a department of continuing education at the SNDT Women's University for the period ending 1973-74 will be Rs. Four Lakhs, the share of the UGC being limited to Rs. Three lakhs on the usual sharing basis, as detailed in Annexure. The UGC share of Rs. Three lakhs is in accordance with the ceiling laid down by the Commission for the purpose.

The matter is placed before the Commission for consideration.

E.O. (H) I/D.O. (H)

'VK'

(372)

BUDGET ESTIMATE FOR  
ESTABLISHING A DEPARTMENT OF CONTINUING EDUCATIONEstimated Expenditure 1971-72

<u>Recurring</u>	Total	UGC's share <u>@ 75%</u>	Share of the State Govt. <u>or University 25%</u>
------------------	-------	--------------------------------	---

I. SALARIES:

i)	Head of the Dept. Scale: either in the grade of Professor or Reader 1100/1600 700/1250 + Allowances + Allowances	16,000	
ii)	Assistant to the Head of the Dept. Scale: in the grade of Lecturer 400/950 + Allowances	8,000	
iii)	Documentalist scale : in the grade of Lecturer 400/950 + Allowances	8,000	
iv)	Steno-typist Scale: 175-10- 195-15-270-EB- 20-350 + Allowances	6,000	
v)	Senior Clerk Scale: 130-10- 180-EB-15-330 + Allowances	4,500	
vi)	Van Driver Scale: 75-5-140- EB-10-150 + Allowances (from 1972-73)	--	

p.t.o.

373

vii)	Peon Scale: 50-4-70- 5-80 + Allowances		<u>2,500</u>		
	Total (Actual requirement)	Rs. 45 000 *Rs. 25,000		18,750	6,250 6,250
II.	Honorarium to Visiting Lecturers/ Experts	3,000		2,250	750
III.	Ta., Ha. to invited Lecturers/ Experts from out station and local conveyance charges	1,000		750	250
IV.	Printing & Stationery	3,000		2,250	750
V.	Publications	5,000		3,750	1,250
VI.	Misc. Expenses	1,000		750	250
VII.	Fuel, Taxes, Maintenance etc. of the Mobile Van (from 1972-73)	-		-	-
VIII.	Maintenance & Repairs of equipments (from 1972-73)	-		-	-
	Total recurring		<u>38,000</u>	<u>28,500</u>	<u>9,500</u>

ESTIMATED EXPENDITURE  
DURING THE FOURTH FIVE YEAR PLAN

(i.e. upto 1973-74)

No.	Particulars	Estimated expenditure			UGS's Total share	Share of State Govt./University @ 25 p.c.	
		1971-72	1972-73	1973-74			
I.	Salaries	25,000*	53,000	60,000	1,36,000	1,03,500	34,500
II.	Honoraria	3,000	4,000	5,000	12,000	9,000	3,000
III.	TA/HA. Conveyance	1,000	1,500	2,000	4,500	3,375	1,125
IV	Printing/ Stationery	3,000	4,000	6,000	13,000	9,750	3,250
V.	Publications	5,000	5,000	7,000	17,000	12,750	4,250
VI.	Misc.	1,000	1,500	2,000	4,500	3,375	1,125
VII.	Fuel, Taxes, Mainte- nance etc. for Mobile van	-	5,000	6,000	11,000	8,250	2,750
VIII	Maintenae nce & Repairs of equip- ments	-	1,000	1,500	2,500	1,875	625
Total Recurring		<u>38,000</u>	<u>75,000</u>	<u>83,500</u>	<u>202,500</u>	<u>151,875</u>	<u>50,625</u>
<u>Non-recurring</u>							
I.	Building				90,000	67,500	22,500
II.	Mobile Van				55,000	41,250	13,750
III.	Equipments				20,000	15,000	5,000
Total non-recurring					<u>1,95,000</u>	<u>1,46,250</u>	<u>48,750</u>
Grand Total i.e. say .....					<u>3,97,500</u>	<u>2,98,125</u>	<u>99,375</u>
					<u>4,00,000</u>	<u>3,00,000</u>	<u>1,00,000</u>

\*: As the appointments of staff members are not made so far, less provision is shown for 1971-72.



Confidential-

University Grants Commission,

375

Meeting :

Dated : 1st December, 1971.

Item No 59 : To consider the proposal of the Marathwada University for sanctioning an additional grant towards the publication of the thesis entitled "Persian Elements in Marathi Chronicles".

During the third plan period the University Grants Commission accepted the proposal of the Marathwada University for the publication of the thesis of Dr. Y.M. Pathan, entitled "Persian Elements in Marathi Chronicles" at an estimated cost of Rs. 4,613.50; the share of the Commission being limited to Rs. 2,300/-. The grant of Rs. 2,300/- was paid to the Marathwada University in January, 1963. The University entrusted the publication of the thesis to M/s Jai Hindi Printing Press, Aurangabad and paid a sum of Rs. 2,300/- to the Press in two instalments on 23rd March, 1963 and 13th May, 1963. The Press has so far printed 500 out of 640 pages of the thesis.

The University has now informed that it has no budgetary provision from which the expenses of the publication of the thesis can be met. The University proposed to meet 50% of the cost of publication from the unassigned grant but this was not accepted. The Jai Hind Printing Press has now informed the University that the total cost of printing has gone up to Rs. 9,954.46. The University has, therefore, requested the Commission to sanction an additional grant of Rs. 7,654.46 on 100% basis. The University is willing to meet the expenditure on this account within the total allocation of Rs. 50,000/- made to the University by the Commission for the publication of research works including doctoral thesis during the fourth plan period.

It is not clear why the University undertook the publication of the thesis if it could not provide the matching contribution.

The matter is placed before the Commission for consideration.

E.O. (H-1)/E.O(H)

'VK'

Confidential

UNIVERSITY GRANTS COMMISSION

376

Meeting :

Dated : 1st December 1971.

Item No. 60 : To consider a proposal received from the Centre of Advanced Study in Botany, University of Madras for a special grant of Rs. 4.5 lakhs for purchase of an AEI Electron Microscope from U.K.

The Centre of Advanced Study in Botany, University of Madras has approached the Commission for a special grant of Rs. 4.5 lakhs for the import of an Electron Microscope Model A.E.I.E.M. from U.K. for the expanded programmes of research in the Centre. The Head of the Centre has informed that the Government of India has agreed to provide the foreign-exchange of Rs. 4.5 lakhs from the capital investment loan from U.K. for the purchase of the Electron Microscope. In this connection, it may be stated that on a reference from the Government of India in the Ministry of Education, the University Grants Commission has already informed the Ministry, that the UGC has no objection to the utilization of the foreign-exchange available provided the University of Madras can do so out of the grants already available to it. The Head of the Centre in this regard, has stated that it would be extremely difficult for the Centre to find out this amount out of the funds already made available to the Centre by the UGC. An equipment grant of Rs. three lakhs was sanctioned for the centre during 1966-67 and this money has been spent for purchase of equipment so far.

The Head of the Centre in his letter addressed to the Chairman, UGC has observed as under:-

"I have gone through carefully the question of possibility or re-appropriation of the funds allocated to this centre during this plan period to cover an appreciable part of the cost of an high resolution Electron Microscope. I am afraid that we have very little reserve funds that are just about enough to tide over the rest of the plan period, and in fact, much of it is already committed to the purchase of instruments at home and abroad.

At the International Mycological Congress at the University of Exeter I attended many of the Symposia entirely devoted to the studies of Cell structure, Cell

p.t.o.

377

Wall erosion etc. The Electron micrographs presented were spectacular and I discussed with leading exponents of this field regarding their techniques, instrumentation etc. They were all quite clear in their minds that the present instrument here, I.E.R.C.A. Electron Microscope 1962 model was incapable of any high resolution work. Further during my visit to the Department of Electron Microscopy at the Imperial College of Science and Technology, University of London with Dr. A.D. Greenwood, who spent six weeks with us, it became clear that the AEIEM 801 series was one of the best that could be purchased at the present moment.

When I was informed that foreign exchange worth Rs. 4.5 lakhs was released for the import of A.E.I.E.M. from the U.K., I was hoping that a special grant would be forthcoming from our only source which is the UGC. If this is not possible, we may have to rest content doing low resolution work and train students in the many techniques of Electron Microscopy. No worthwhile research problem at 5A resolution can be attempted here with the present set up. I realise that the country is passing through very difficult times and I will therefore leave it to you to try and give us an outright grant for the entire amount of Rs. 4.5 lakhs whenever it is possible. From our side we can only assure you of utmost cooperation in making the best use of whatever sophisticated instrument is allotted to us.

The matter is placed before the Commission for consideration.

EG(Sc. II)/DO(S).

'VK'

Co n f i d e n t i a l

378

UNIVERSITY GRANTS COMMISSION

Meeting :

Dated : 1st December 1971.

- Item No. 61 : To consider further the proposals of the Bihar University for (i) the creation of additional post of a Professor each in the departments of History, Political Science, Economics and Mathematics (ii) starting teaching of new subjects.

The University Grants Commission at its meeting held on 5th August 1970 had considered a proposal from the Bihar University for assistance for teaching posts created during the Third Plan period without the concurrence of the UGC. A copy of the note placed before the Commission is attached (Annexure 1). The University had asked for assistance inter-alia for the post of a Professor each in the departments of History, Economics, Political Science and Mathematics for the Fourth Plan period. These posts had been created by the University in the Third Plan period without the concurrence of the UGC. The State Government of Bihar had not agreed to provide assistance for these posts in the maintenance grant of the University on the plea that the posts should receive assistance from the UGC for a period of five years in the first instance and the liability for continuing these posts would be taken over by the Government then. The Commission did not accept the proposal of the University for assistance for the above posts during the Fourth Plan period. Subsequently, the Vice-Chancellor, Bihar University discussed the matter in the UGC, and intimated that the University needed an additional post of Professor in each of these departments. The University had already one Professor each in these subjects. It was necessary to strengthen these departments to provide for teaching of special papers at the postgraduate level and also to improve the level of research in the departments. The matter was examined in the Commission's office and the following information was asked for.

- a) Number of posts in these departments at the end of the second plan;
- b) Number of posts created during the Third Plan with the UGC assistance and by the University from its own resources. The position of posts at the beginning of the Fourth Plan i.e. 1.4.1969.

p.t.o.

379

- c) Number of postgraduate and undergraduate students.
- d) Number of research scholars.

The University was also requested to intimate whether the State Government had agreed to maintain the posts asked for on permanent basis, after the Commission's assistance ceases, i.e. after 31.3.1974. A statement indicating the information on the points asked for from the University is attached (Annexure II). The Government of Bihar has agreed to meet the expenditure on the continuance of the posts sanctioned by the UGC after the expiry of the Fourth Plan period.

The University has also sent proposals for starting the following new courses. The University proposes to accommodate the expenditure within the Fourth Plan allocation and the assistance asked for is indicated against each post:

- 1) Diploma in Russian Language = 1 Reader, 1 Lecturer - Rs.15,000/- for books  
Rs.10,000/- for equipment
- 2) Diploma in Journalism = 1 Reader, 2 Lecturers - Rs.25,000/- for books  
Rs.15,000/- for equipment
- 3) Teaching of Telugu = 2 Lecturers Rs.15,000/- for books  
attached with Hindi Rs.10,000/- for equipment  
department
- 4. Postgraduate teaching in = 3 Readers Rs.25,000/- for books  
commerce at C.M. College,  
Darbhanga

An extract from the Vice-Chancellors' letter giving justification for the above proposals is reproduced below:-

"I personally feel that knowledge of a foreign language other than English is necessary for Science students as also those specialising in International Relations. As yet there is no teaching of any other foreign language in my University. I strongly feel the necessity of teaching Russian Language in my University, as it will help my students, particularly of Science and Technology to keep themselves abreast of the contributions of the Soviet Scientists in the fields of Science and Technology. There are teachers and other research scholars who will also benefit if there is teaching of Russian language in my University and it will also provide employment opportunities to candidates knowing foreign languages.

Journalism There is a strong demand from a bulk of the student community for job-oriented education. There is a good prospect of employment in the field of journalism in Bihar. I have discussed with leading journalists in Bihar as also others and they have welcomed this idea of a course in Journalism. The cost involved in opening this diploma course is not much and as there is a genuine, legitimate and popular demand for this course, this scheme may please be sanctioned.

Can have access to the rich South Indian Literature.

As I pointed out, earlier, in the course of my discussion with you, teaching of a South Indian Language in my University will help the cause of National Integration. Secondly, our students specialising in Hindi, if they learn a South Indian language/ It will help in enriching the Hindi literature itself. In the course of study there is already a provision for a paper for any Indian language other than Hindi. For want of funds, we would not make provision for the teaching of South Indian Language. From academic point of view the study of comparative literature is necessary. As such study of Telugu will be useful to my students.

With regard to (4) I have to say that it is a question of development of the existing department of Commerce. It is necessary to have specialists for teaching the special papers in Commerce. I would like to have a Specialist in ctuary/Business Management. Specialists are necessary to raise the standard of teaching in Commerce. The justification is thus purely academic."

The matter is placed before the Commission for consideration.

EO(CD).

'VK'

Copy of the note placed before the Commission at its meeting held on 5th August 1970 vide item No.28.

The Bihar University in its proposals to be accommodated within the Fourth Plan allocation has inter-alia made provision for expenditure on the following teaching posts, which had been created by the University without the concurrence of the University Grants Commission during the Third Plan period.

1. One Professor each in the Departments in History, Economics, Political Science and Mathematics.
2. One Reader each in Philosophy, Mathematics and Zoology and two Readers in Hindi.

When the Visiting Committee, appointed by the Commission for the Fourth Plan period, assessed the requirements of the University, these posts were in existence and the Committee made the following observation with regard to Professorships:

"The University appointed one University Professor each in the Departments of Economics, Political Science, History and Mathematics at its own. The Committee felt that it was desirable for departments to have Professorships for their proper growth."

These posts were, therefore, not included in the staff sanctioned to the University on the recommendation of the Visiting Committee, as the posts had already been created in the Third Plan period. The State Government of Bihar have not agreed to provide assistance for these posts in the maintenance grant of the University on the plea that the posts should receive assistance from the University Grants Commission for a period of five years in the first instance and the liability for continuing these posts would be taken over by the State Government then. An extract of the letter dated 20th June 1970 from the Vice-Chancellor, Bihar University is reproduced below:

"It is well known to the Commission that the State Government, from the time the University Grants Commission have come in the picture, as a sanctioning authority, have insisted that no post in the Postgraduate Sector should be created, without first obtaining grant for a period of five years from the University Grants Commission. This approach has landed the University into serious financial difficulties. The funds of the

University are limited, the main source of income is from the University Grants Commission and the State Government. Constant financial worry is an unhealthy phenomenon in most of the State Universities and this is primarily on account of the "straight jacket" approach. The University cannot create even a minor post on its own. If it does create, one forced by circumstances, the expenditure on the same has to be met by the University.

I will like to draw your attention to para 15 XIV of the Visiting Committee report, in this connection, wherein the Visiting Committee have held the creation of University Professorships in Economics, Political Science, History, Mathematics, etc. as desirable for the growth of the Department.

Although the University acted on the basis of the academic needs, keeping in mind UGC circulars from time to time to create superior posts to give recognition to merit, the University has not been able to get grants for these posts from the State Government for reasons already explained above.

I would, therefore, appeal to the Commission to view this as a peculiar need of the University and agree to sanction the posts, so that when University Grants Commission assistance ceases, grants flow to the University unhindered from the State Government.

I would request the Commission to accord sanction for four posts of Professors, one each in History, Economics, Political Science & Mathematics and Five posts of Readers, two in Hindi and one each in Philosophy, Zoology and Mathematics from the year 1970-71. Since teachers are already working the claims would be at a higher rate. Accord of sanction is necessary as senior teachers holding such posts have a lurking fear, as they are fully acquainted with the financial position of the University, that they may have to revert on account of non-receipt of sanction of the post and grants from the State Government.

My repeated efforts to get the grants have failed, as the State Government desire that these posts should first be sanctioned by the UGC and then alone the State Government will agree to shoulder the burden, when UGC assistance ceases. I wish to sort out this very pressing matter with the cooperation of the UGC as it is telling adversely on the performance of a few departments."

The Vice-Chancellor has requested that the UGC may provide assistance for these nine posts from 1970-71 to 1973-74. It is, however, doubtful whether the Commission could agree to this as the posts were created during the Third Plan period without the approval of the UGC. Even if these posts could be treated as approved posts during the Third Plan period, the period for which the Commission could have given assistance is over now.

The matter is placed before the Commission for consideration.



Department	No. of posts in dept. at the end of the 2nd Plan			No. of posts created during 3rd plan with UGC assistance and by the University from its own resources & the position at the beginning of the Fourth plan i.e., as on 1.4.1966.			No. of PG & UG students		No. of research scholars	
	<u>Prof.</u>	<u>Reader</u>	<u>Lea.</u>	I	R	D	<u>PG</u>	<u>UG</u>		
History	-	2	4	With UGC's assistance	-	1	1	130	(M.A. Prev.)	70
				By the University	-	-	-	<u>130</u>	(M.A. II)	
							260	800 (approx)		
B.Science	-	1	4	With UGC's assistance	-	1	2	125	700 (")	75
				By the University	1	-	1	<u>125</u>		
							250			
Mathematics	-	1	7	With UGC's assistance	-	1	2	150		Nearly 50
				By the University	1	-	1	<u>150</u>	750 (")	
							200			
Economics	..	1	7	With UGC's assistance	-	1	1	150	750 (")	More than 50
				By the University	1	-	-	<u>150</u>		
							300			

VK

UNIVERSITY GRANTS COMMISSION

384

Meeting:

Dated : 1st December, 1971.

Item No. 62 : To consider the proposal of Janata Shikshana Samiti's Shantikumar Gubbi Science College, Dharwar (Karnatak University) regarding the Commission's assistance for a laboratory building.

The Commission accepted in September 1971 the proposal of the Janata Shikshana Samiti's Shantikumar Gubbi Science College, Dharwar, for construction of a laboratory building for Botany and Zoology at an estimated cost of Rs.2,10,038, the Commission's contribution for the project on the usual sharing basis being limited to Rs.1,40,026.

It has now been intimated that the Janata Shikshana Samiti, the parent body of the College, started construction of a building more than four years ago to house one of its institutions. The work was undertaken without any aid from the State or Central Government or University Grants Commission and was stopped due to the paucity of funds when the walls reached the 'Chajja' level. The expenditure incurred on this incomplete building upto the 31st March, 1967 was Rs.28,288/-.

The college has stated that the plans and estimates of the laboratory building sent to the Commission for financial assistance are of the incomplete building referred to above. The Commission has been requested to "treat the expenditure and progress of the above building as the initial instalment and release the grants for further work."

The Vice-Chancellor, Karnatak University, has stated as follows:

"The request of the Principal is genuine. I have gone through the plans and estimates already sent to you. The college has been running on sound lines. I am very much interested in the welfare of the College.

I, therefore, strongly recommend that the request of the Principal, that the expenditure already incurred be treated as the initial instalment and the grants of Rs.28,288.14 paise be released immediately to enable them to go ahead with the construction work, be treated as a special case and the needful done in the matter.

385

It is for consideration if the Commission's grant of Rs.1,40,026 already agreed to on the basis of the plans and estimates sent by the college may be made available for the incomplete building, the construction of which was undertaken by the college some years ago and the expenditure already incurred admitted for the purpose of the Commission's assistance under the Scheme.

E.O.(C)II/J.S.(C).

'VA'

Confidential

UNIVERSITY GRANTS COMMISSION

386

Meeting :

Date : 1st December 1971.

Item No. 63 : To consider a proposal received from the Birla Institute of Technology and Science, Pilani for establishment of Practice School/Sandwich Courses in Engineering and Technology.

The Ministry of Education has forwarded a proposal from the Birla Institute of Technology and Science, Pilani for the introduction of sandwich courses and establishment of Practice School at the undergraduate and postgraduate levels in collaboration with M/s Hindustan Aluminium Corporation, Renukoot, U.P. The proposal involves a non-recurring expenditure of Rs. 29,500/- and recurring expenditure of Rs. 3,98,000/- (scholarship at Rs. 150/- p.m. to 50 undergraduate students=Rs. 90,000/- plus scholarship at Rs. 250/- p.m. to 24 PG students=Rs. 72,000/- plus additional faculty of 10 readers=Rs. 1,50,000/-). The detailed budget estimates are given as annexure.

The Ministry of Education has asked for the views of the Commission on the proposal and whether the Commission would be in a position to sanction the necessary funds for the purpose before the proposal is considered by the Postgraduate Board of AICTE.

It may be stated that the Commission has been considering the question of introducing sandwich courses in engineering and technology at the undergraduate level for the last few years. The UGC Standing Committee on Engineering Education has also recommended the introduction of such courses in collaboration with the industry at selected universities/institutions.

The matter is placed before the Commission for consideration.

EO(T)/DC(T).

'VK'

367

Budget Estimates

	Rs	Rs
A. Equipment		
(a) Laboratory equipment	20,000	
(b) Drawing equipment	2,000	
(c) Library books and journals	<u>7,500</u>	
	29,500	29,500
B. Faculty		
(a) Coordinator Cooperative Education Programme (professor rank), allowance Rs. 250/- per month	3,000	
(b) Assistant Professors (10nos.) (average salary Rs. 1,000 plus other benefits i.e. D.A., P.F. etc. at Rs. 250/- per month)	1,50,000	
(c) Steno-typist (1 no.) -Rs.250 per month	3,000	
(d) Ikon (1 no.) Chowkidar (1 no.)Rs.120 per month each	<u>3,000 (Appx)</u>	
	<u>1,59,000</u>	1,59,000
C. Faculty Travel	<u>5,000</u>	5,000
D. (i) Sandwich Course Programme		
(a) Student scholarship at Rs. 150 p.m. per student for 50 students	90,000	
(b) Operating cost (cost of chemicals and other materials, stationary, telephone expenses, project setups, utilities etc.)	60,000	
<p>It is difficult at this stage to predict item-wise expenditure, therefore the norm suggested by the Ministry has been used for Sandwich Course Programme i.e. Rs. 100 p.m. per student)</p>		
(ii) Practice School Programme		
(a) Scholarship at Rs. 250 p.m. per student for 24 students	72,000	
(b) Operating cost at Rs.500 per student	<u>12,000</u>	
	<u>2,34,000</u>	2,34,000
<p><u>Summary of Budget Estimates</u></p>		
Non recurring cost	29,500	
Recurring cost	3,93,000	

Confidential

UNIVERSITY GRANTS COMMISSION

---

388

Meeting :

Dated : 1st December 1971.

Item No. 64 : To consider the proposal from the Indian Institute of Science, Bangalore for a collaborative project between the Indian Institute of Science, Bangalore and Purdue University, USA.

---

The Indian Institute of Science, Bangalore has asked for clearance of the Government of India for undertaking a research project entitled 'Behaviour of Gravity Dams under Earthquakes and their Instrumentation' in collaboration with the Purdue University, U.S.A. The programme will be investigated at the Indian Institute of Science, Bangalore and the Purdue University, U.S.A. The object is to make the maximum use of the unique capabilities of each group to better understand the dynamic behaviour of dams under earthquakes. The duration of the project would be 3-4 years and the estimated expenditure involved is Rs. 25,000/- per annum. A copy of the proposal received from the Institute of Science, Bangalore is attached (Annexure).

The matter is placed before the Commission for consideration.

E.O. (CD).

1. Title of the Project:

Behaviour of Gravity Dams under Earthquakes and their Instrumentation.

2. (a) Institution and Address:

- (i) Indian Institute of Science, Bangalore.12.
- (ii) Purdue University, Lafayette Ind 47907, USA

(b) Department; Laboratory:

- (i) Civil Engineering, Structures Laboratory
- (ii) Aeronautics, Astronautics and Engineering Sciences; Engineering Sciences Lab.

(c) Principal Investigators:

- (i) Dr. R. Narayana Iyengar  
Lecturer, I.I. Sc. Bangalore.
- (ii) Dr. J.L. Bogdanoff, Professor,  
Purdue University
- (iii) Dr. A.J. Schiff, Assistant Professor,  
Purdue University.

3. Academic qualifications and Research Experience of the Investigator, Existing facilities and suitability of the Project:

Details pertaining to Dr. R. Narayana Iyengar are only given:

Education:

- i) B.E.(Civil) Mysore University, 1962
- ii) M.Sc.(Engg) - by Research, Indian Institute of Science, 1966. Title of the Thesis: "Some studies in the Free Vibration of Beam and Slab and Inter connected Girder Bridges".
- iii) Ph. D. Indian Institute of Science, 1970.  
Title of the Thesis: "A Nonstationary Random process Model for Earthquakes and its application".

Experience:

- i) Junior Engineer, Mysore P.W.D., 1962-63.
- ii) Research Fellow in Civil Engineering, Indian Institute of Science, 1963-69.
- iii) Lecturer in Civil Engineering, Indian Institute of Science, 1969-

- iv) Visiting Assistant Professor, Department of Aeronautics, Astronautics and Engineering Sciences, Purdue University, U.S.A., March 1970 - Jan.1971.
- v) Visiting Scholar, Department of Electrical Engineering, Brooklyn Polytechnic, USA, Feb. & March 1971.
- vi) Research Associate, Department of Civil Engineering, Columbia University, USA, April, May & June, 1971.

Publications:

1. " Analysis of Arcades", J.of the Institution of Engineers(India), July 1964.
2. " On the Application of Reciprocal Theorem to the vibration of Continuous Beams" Bull.of Soc.of Earthquake Engineering(India) January, 1965
3. " Free Vibration of beam and slab bridges" Int.Assoc.of Bridge and Structural Engineers Publications, 1967,(co-author)
4. "Determination of the Orthotropic Plate parameters of Beam and Slab bridges" J.of Applied Scientific Research September, 1967(co-author)
5. "A nonstationary random process model for earthquake accelerograms" Bull.of Seismo,Soc. of America, June 1969(co-author)
6. " Probabilistic response analysis to earthquakes" J.of the Engineering. Mech.Division, ASCE, June, 1970. (Co-author).
7. " On the Behaviour of rough-hewn rock walls under seismic disturbances" Conf.on earthquake analysis of structures, Jassy, Rumania, September 1970(co-author)



8. "Effect of self weight and vertical acceleration on tall structures during Earthquakes" To be published in the Int. J. of Earthquake Engineering and Structural Dynamics.  
(co-author)

Facilities Available:

- i) An Active research group in Structural Dynamics and Earthquake Engineering.
- ii) A structural Dynamics Laboratory
- iii) A very good Library with all important current literature.
- iv) A fast digital computer(IBM 360)

4. Brief outline of objective of work and its importance:

This is a joint proposal to be investigated at the Indian Institute of Science in India and Purdue University in USA. The objective of the joint effort is to make maximum use of the unique capabilities of each group to better understand the dynamic behaviour of dams under earthquakes. The research will be pursued from two aspects. Investigations on the analytical and numerical methods incorporating sophisticated dam-reservoir interaction and randomness of ground excitation will be done at I.I.Sc., India. The second aspect will be to formulate and implement instrumentations to measure and record variables describing the dynamic response of model and prototype dams and the associated power system. This will be studied at Purdue University, U.S.A.

5. Actual plan of work proposed to be done at the Indian Institute of Science:

On the analytical side the behaviour of dams will be considered from three points of view, namely:  
Overstressing, Sliding and Overturning.

1. Overstressing: The analysis of this would start from the study of the equations of motion of the dam as a Timoshenko Cantilever beam. The hydroelastic interaction because of the reservoir will be included by solving the Laplace equation for the fluid and then matching the boundaries at the interface. The stress distribution in the dam will be obtained. The presence of tensile stresses if any would indicate the importance of the overturning stability. The stochastic nature of earthquakes will be considered and the response statistics will be obtained.

2. Rocking motion: A critical condition would be when the dam section has cracked at the base due to tensile stresses. Under such circumstances the overturning stability due to earthquakes is of great importance. The equation of motion for this can be formulated from the Lagrange's equation after calculating the

Potential and Kinetic energies. It will be assumed that the dam section is rigid. The governing nonlinear equation will be studied in detail. A similar analysis for sliding if necessary will be undertaken.

3. Presentation of results: The results will be presented in the form of charts and tables which will be of direct use to designers.

Some experimental work might also be done to get a better understanding of the problem.

6. Duration of the Project:

3 to 4 years.

7. Detailed estimate of the expenditure (on annual basis):

Staff:	Research Assistants Supporting Staff	Rs.10,000.00
Facilities:	i) Stationery, and indogeneous experimental equipments.	3,000.00
	ii) Computation	5,000.00
Travel:	Within India (for visiting dam sites and attending conferences in Structural Dynamics and earthquake Engineering)	3,000.00
Miscellaneous:		2,500.00
		<u>Rs. 23,500.00</u>
Overhead charges: 15% on staff		1,500.00
		<u>Rs.25,000.00</u>

8. Any other information useful in evaluation of the project.

The design and construction of dams to safely withstand earthquakes is of universal importance. In particular both in India and in USA there are many dams in seismically active areas.

9. Certified that

- Facilities required such as laboratories, equipments etc. are available in the department.
- No foreign exchange is required for taking up this project.
- This research proposal has not been submitted to any other agency for assistance.
- The additional staff to be recruited under the project will be on the same scales of pay as prevalent for similar categories of the staff in the Institute.

Confidential

UNIVERSITY GRANTS COMMISSION

393

Meeting :

Dated : 1st December 1971.

Item No. 65 : To consider further the question of reservation of seats for postgraduate courses for the candidates belonging to Jammu & Kashmir.

The University Grants Commission at its meeting held on 1st July 1970 considered the question of reservation of seats for postgraduate courses for the candidates belonging to Jammu and Kashmir. A copy of the note placed before the Commission is attached Annexure. The Commission desired that the views of the Government of Jammu & Kashmir may be obtained in the first instance. The State Government of Jammu & Kashmir who were addressed in the matter in September 1968 have not sent any reply so far.

The matter is placed before the Commission for consideration.

EO(CD)

'VK'

394

Copy of the note placed before the Commission at its meeting held on 1st July 1970 vide item No. 56.

The University Grants Commission at its meeting held on 4th September 1968 considered the question of reservation of seats in postgraduate courses for candidates belonging to Jammu & Kashmir. A copy of the note placed before the Commission is attached (not attached). The Commission desired that the University and the State Government of Jammu & Kashmir be requested to indicate the subjectwise likely requirements of seats in the postgraduate courses for the Commission to examine the proposal; and take it up with the universities which could assist the State in this matter.

The State Government of Jammu & Kashmir who were addressed in September 1968 have not sent any reply so far. The requirements of seats as intimated by the Universities of Jammu & Kashmir are given below:-

<u>Department</u>	<u>Jammu University</u>	<u>Kashmir University</u>	<u>Total</u>
1. Physics	10	10	20
2. Chemistry	10	10	20
3. Bio-Physics	5	5	10
4. Botany	5	5	10
5. Zoology	5	5	10
6. Geography	5	5	10
7. Sociology	5	5	10
8. Commerce	-	5	5
9. I.L.B.	2	15	15
10. M.Tech.	5	5	10
11. Nuclear Physics	-	5	5
12. Bio-Chemistry	5	5	10
13. Education(M.Ed.)	5	-	5
Total	60	80	140

The matter is placed before the Commission for consideration.

UNIVERSITY GRANTS COMMISSION

395

Meeting :  
Dated : 1st December 1971.

Item No. 66 : To consider the question of prescribing composite teacher-pupil ratio in respect of teaching of B.Sc. (Hons.) courses by colleges affiliated to Delhi University.

The Commission had prescribed certain teacher-pupil ratio for purposes of determining maintenance grants to the colleges affiliated to the Delhi University when these colleges were not directly undertaking teaching of Science courses at degree level. This ratio was further modified when the colleges undertook the teaching of B.Sc. (Hons.) and later subsidiary subjects except Botany & Zoology for B.Sc. (Hons.) students. The present prescribed teacher-pupil ratio is as under:-

B.Sc. (Gen.) 1:15  
B.Sc. (Hons.) 1:12 \*

2. The strength of teaching staff for Science Courses at degree level is determined as under:-

- i) Enrolment in B.Sc. (Gen.) & B.Sc.(Hons.) in Mathematics.
- ii) (a) Enrolment in B.Sc. (Hons.) excluding that in Mathematics to be counted as one third of the actual enrolment.  
(b) Consequent upon the transfer of teaching of subsidiary subjects of Physics & Chemistry to Campus Colleges, enrolment in B.Sc. (Hons.) course is to be counted as one half of the actual enrolment

From 1970-71, the Commission has agreed to the transfer of teaching of B.Sc. (Hons.) in Physics and Chemistry to the Colleges affiliated to the University of Delhi and also allowed the following provision for additional teaching staff:-

	<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>
Physics	2 teachers	4 teachers	6 teachers
Chemistry	2 teachers	4 teachers	6 teachers

\*Subject to the manner of reckoning the enrolment in Para 2.

396

Since the teaching of B.Sc. (Hons.) in Physics and Chemistry along with subsidiary subjects had been transferred to the colleges, it was felt desirable to have a composite teacher-pupil ratio for determining the maintenance grant payable to the colleges teaching these subjects. Accordingly, Delhi University was requested to suggest the ratio to be considered by the Commission for these courses.

The Delhi University after discussing the matter with some of the Principals of the colleges had suggested that a composite teacher-pupil ratio of 1:10 be fixed in respect of B.Sc. (Hons.) in Physics and Chemistry students in the colleges which would also cover the requirements for subsidiary subjects offered by B.Sc. (Hons.) Mathematics students. This would mean that one teacher for every 10 students in the B.Sc. (Hons.) Physics, Chemistry and Mathematics Courses in a college where full teaching in these subjects both in main and subsidiary is conducted.

The composite teacher-pupil ratio suggested by Delhi University is placed before the Commission for consideration.

AS(CU)/FO.

'VK'

University Grants Commission

397

Meeting :

Dated : 1st December, 71.

Item No 67 : To consider the draft resolution regarding a civil suit to be instituted against the S.D. College, Hoshiarpur. (Panjab University).

The following grants were paid to the S.D. College, Hoshiarpur by the Punjab University out of the funds made available to the University by the Commission under the three-year degree course scheme :

NON-RECURRING

Rs. 1,03,125

RECURRING

Rs. 7,544.83

Rs. 6,537.47

Certified statements of expenditure incurred by the College (R & NR) were received from the Punjab University.

On receipt of a number of complaints against the Management of the college, the institution was disaffiliated by the Punjab University with effect from 1st July, 1964. As regards grants paid to the college, the University consulted its Legal Adviser who expressed the opinion that "civil suit for the recovery of grants cannot be instituted". He, however, advised that a "civil suit can be instituted for taking possession of the building created with U.G.C. funds in view of the following condition of the grant :

"The assets acquired wholly or substantially out of the University Grants Commission shall not be disposed of, encumbered or utilised for purposes other than those for which grant was given (without prior permission of the University Grants Commission) and should at any time the grantee cease to function, such assets shall revert to the University Grants Commission."

It has been agreed that a civil suit may be filed by the Punjab University to take possession of the assets of the College, as advised by the Legal Adviser of the Punjab University. This was reported to the Commission as agenda item 2(a)-24 at its meeting held on December 2, 1970.

The Legal Adviser of the Punjab University has suggested that the Commission may adopt a resolution, authorising the Registrar, Punjab University, to institute legal proceedings against the college, as under :

"Resolved that the Registrar, Punjab University, is authorised to institute and further prosecute the legal proceedings against the S.D. College Committee, Hoshiarpur for possession of Lands (including the buildings therein) situated in the area of village Sutehri, Distt. Hoshiarpur to sign all documents in this connection and to take all other steps necessary for the purpose of the aforesaid legal proceedings. He is further authorised to engage a legal practitioner or legal practitioners for conducting the case in the court of Law".

The matter is placed before the Commission for consideration.

Confidential

UNIVERSITY GRANTS COMMISSION

---

Meeting :  
Dated : 1st December 1971.

Item No. 68 : To consider the draft report of the Commission  
for 1970-71.

---

The draft of the report of the Commission for 1970-71  
has been prepared and is placed below. The statistical figures  
for 1970-71 are as yet provisional. The illustrations to be  
appended to the report will soon be prepared.

The matter is placed before the Commission for  
consideration.

EO(CD)/JS(C).



UNIVERSITY GRANTS COMMISSION

REPORT FOR THE YEAR

1970-71

Presented to the Government of India in compliance  
with Section 18 of the UGC Act, 1956

NEW DELHI

University Grants Commission

New Delhi

(INDIA)

NOTE

Figures given in the report have been rounded

1 lakh = 1,00,000

1 crore = 1,00,00,000 = 10 million

UNIVERSITY GRANTS COMMISSION

1970-71

Professor D.S. Kothari (Chairman)

Dr. A.S. Adke, Vice-Chancellor, Karnatak University

Shri G.K. Chandiramani, Additional Secretary, Ministry  
of Education and Social Welfare, Government of India.

Smt. Indumati Chimanlal

Dr. S. Dhawan, Director, Indian Institute of Science,  
Bangalore

Dr. P.B. Gajendragadkar, Vice-Chancellor, Bombay University

Professor A.B. Lal, Vice-Chancellor, Allahabad University

Professor Tapas Majumdar

Shri P. Govindan Nair, Secretary, Ministry of Finance,  
Government of India

Shri R.K. Chhabra (Secretary)

## CONTENTS

	PAGE
1. INTRODUCTION	1
2. GRANTS TO UNIVERSITIES	3
3. CENTRES OF ADVANCED STUDY	12
4. ASSISTANCE TO COLLEGES	17
5. PROGRAMMES FOR TEACHERS	25
6. PROGRAMMES FOR STUDENTS	34
7. COMMITTEES AND CONFERENCES	43
8. INTERNATIONAL CO-OPERATION	45
9. CONCLUSION	49

## APPENDICES

- I. Indian Universities and Institutions Deemed to be Universities: 1970-71
- II. Distribution of Colleges according to Courses of Study: 1966-67 to 1970-71
- III. Growth of Student Enrolment: 1960-61 to 1970-71
- IV. Student Enrolment - Faculty-wise: 1968-69 to 1970-71.
- V. Student Enrolment - Stage-wise: 1968-69 to 1970-71.
- VI. Strength and Distribution of Teaching Staff in University Department/University Colleges: 1966-67 to 1970-71.
- VII. Distribution of Teaching Staff in Affiliated Colleges according to Designation: 1966-67 to 1970-71.
- VIII. Degrees Awarded: 1965-66 to 1967-68
- IX. Centres of Advanced Study

- X. Faculty-wise Enrolment - Universities and Affiliated Colleges: 1970-71
- XI. Stage-wise Enrolment - Universities and Affiliated Colleges: 1970-71.
- XII. Development Grants paid to Colleges: 1970-71.
- XIII. Expenditure: Plan and Non-Plan Projects: 1970-71

ILLUSTRATIONS

- Figure - I University Enrolment:1960-61 to 1970-71
  - Figure - II Faculty-wise Enrolment:1968-69 to 1970-71.
  - Figure - III Enrolment at Different Stages:1968-69 to 1970-71.
  - Figure - IV Postgraduate Enrolment:1960-61 to 1970-71
  - Figure - V Research Enrolment:1960-61 to 1970-71.
  - Figure - VI Distribution of Staff according to Designation:1970-71.
  - Figure -VII Faculty-wise Distribution of Staff:1970-71.
-

# UNIVERSITY GRANTS COMMISSION

## ANNUAL REPORT

April 1970 to March 1971

.....

In compliance with Section 18 of the University Grants Commission Act, 1956, we\* present to the Central Government a report on the work of the Commission for the year 1970-71 to be laid before Parliament.

### INTRODUCTION

The growth and expansion in the field of higher education, during the last ten years, are indicated by the following facts and figures:

Year	Number of Universities**	Number of Colleges	Number of Teachers	Student Enrolment***
1	2	3	4	5
1961	49	1,783	63,053	11,55,380
1966	77	2,749	93,251	19,49,012
1970	94	3,604	1,28,924	31,12,404

\* Recently some changes have occurred in the membership of the Commission. Shri Govindan Nair passed away in May, 1971. Shri M.R.Yardi, Secretary, Ministry of Finance, Government of India was appointed member of the Commission in his place with effect from 14th June, 1971. On the retirement of Shri G.K.Chandiramani, Shri T.P.Singh, Secretary, Ministry of Education & Social Welfare, Government of India, was appointed member of the Commission with effect from 30th June 1971. Dr. P.B.Gajendragadkar, resigned as Vice-Chancellor, Bombay University and thus ceased to be a member of the Commission with effect from 1st October, 1971. Dr. S.Dhawan has been abroad since April 1971, and has, therefore, not been able to attend the Commission's meetings. He ceased to be a member of the Commission with effect from 6th October, 1971.

\*\* Including institutions deemed to be universities under Section 3 of the UGC Act.

\*\*\* Including enrolment in the intermediate classes under the Board of High School and Intermediate Education, U.P.

A chronological list of universities with their student enrolment and a statement showing the distribution of colleges according to courses of study during the period 1968-69 to 1970-71 are given in Appendices I & II. The Commission has given its concurrence to the proposal for the establishment of a university at Cochin. The proposal for declaring the Mahila Gram Vidyapith, Prayag, as an institution deemed to be a university could not be accepted.

The student enrolment in the field of higher education has risen steeply from 11.55 lakhs in 1961-62 to 19.49 lakhs in 1966-67 and to 31.12 lakhs in 1970-71. There has been a significant increase in the enrolment in science, medicine and agriculture. Statements showing the trends in student enrolment, faculty-wise and according to stages of instruction, during the period 1968-69 to 1970-71 are given in Appendices III to IV. The strength and distribution of the teaching staff in the universities and colleges, according to designation, are shown in Appendices VI & VII.

The output of graduates has increased significantly in the faculties of arts, science, commerce, education, medicine, and agriculture (including veterinary science). A statement indicating the percentage increase in the degrees awarded in the different faculties for the period 1965-66 to 1967-68 is given in Appendix VIII.

The notable expansion that has taken place in recent years has helped in meeting the rapidly increasing demand for the benefits of higher education in the country.

It may, however, be stated that in terms of the total population, the enrolment for higher education in the country still compares unfavourably with the corresponding figures for a number of countries as indicated below:

Country	Total Population (1966)	Student enrolment (higher education) (1966)	Number of students per million of Population
1	2	3	4
United Kingdom	54,965,000	234,604	4,267
Canada	19,919,000	318,500	15,925
Japan	98,865,000	992,496	10,025
France	49,440,000	410,801	8,384
U.S.A.	196,920,000	4,980,000	25,279
India	498,680,000	1,949,012	3,922*

#### GRANTS TO UNIVERSITIES

On the basis of the recommendations of committees appointed to assess the programmes of development formulated by the universities, the Commission allocated grants amounting to Rs.53.32 crores to 60 universities and 7 institutions deemed to be universities for the period 1966-67 to 1973-74. In addition, grants amounting to Rs.80 lakhs for the Calicut University, Rs.75 lakhs for the Kanpur University and Rs.650 lakhs for the Jawaharlal Nehru University were allocated for the period ending 1973-74. These universities have been requested to indicate the programmes which they would adjust within the allocation available to them.

\* The figures for 1970-71 would be 5,690.



(4)

The Kanpur and Calicut Universities have been requested in the first instance, to undertake programmes within 70% of the allocation made available to them.

The programmes for which universities are being assisted include diversification of the courses of study, extension and development of facilities for teaching and research, and the provision of additional staff, building accommodation, library and laboratory facilities, books and equipment, student amenities etc. Development grants provided to the universities and institutions deemed to be universities during the period 1968-69 to 1970-71 were as follows:-

Purpose	(Rs. in lakhs)		
	Grants paid		
	1968-69	1969-70	1970-71
1	2	3	4
Science subjects	260.93	360.56	345.42
Humanities & Social Sciences	119.71	171.74	209.63
Engineering & Technology	242.72	268.14	186.36
Miscellaneous Schemes*	292.90	334.68	422.63

Developmental expenditure on teaching and research in science has risen from Rs.2.61 crores in 1968-69 to Rs.3.45 crores in 1970-71. The expenditure on science under major heads during the last 3 years was as

p.t.o

\* Provision of residential accommodation for staff and students, library buildings, amenities for students etc.

follows:

Items of Expenditure	(Rs. in lakhs)		
	Grants paid		
	1968-69	1969-70	1970-71
1	2	3	4
Staff	28.78	55.73	68.90
Equipment	62.57	99.65	78.09
Books and Journals	31.37	74.25	59.53
Laboratories & Other Buildings	90.70	85.50	88.86
Centres of Advanced Study	47.51	44.85	48.44
Miscellaneous	-	0.58	1.60
<b>Total:</b>	<b>260.93</b>	<b>360.56</b>	<b>345.42</b>

The expenditures on additional staff and equipment have increased significantly. Senior academic positions, i.e. Professors and Readers have been substantially increased, and provision has been made for workshop facilities needed for fabrication as well as maintenance and servicing of equipment. It has been decided that universities may utilise upto 20% of the equipment grant available to them for purchasing materials and components required for the fabrication and development of equipment.

The break-up of expenditure on teaching and research in the humanities and social sciences during

(6)

the period 1968-69 to 1970-71 was as follows:

(Rs. in lakhs)

Items of expenditure	Grants paid		
	1968-69	1969-70	1970-71
1	2	3	4
Staff	39.06	44.70	77.29
Equipment	4.38	5.59	5.07
Books and Journals	35.70	62.21	54.67
Buildings	17.36	30.47	36.19
Centres of advanced study	20.44	24.56	23.89
Area studies programme	2.77	4.21	3.49
Teachers training programme	-	-	9.03
Total	119.71	171.74	209.63

Earlier grants ranging from Rs.50,000 to Rs.1,00,000 were placed at the disposal of each university, in addition to the normal provisions made for development for special support for research. These could be utilised for meeting expenditure related to research projects, not ordinarily covered under other development schemes approved by the Commission.

On the recommendations of the committees which assessed the development programmes of the universities, grants amounting to Rs.78.88 lakhs were earlier allocated for the construction or extension of library buildings in the universities. The following grants have been provided during 1968-69 to 1970-71 for the improvement of library facilities:

p.t.o

Year	(Rs. in Lakhs)	
	Grants paid	
	Library buildings	Books & Journals
1	2	3
1968-69	13.40	67.07
1969-70	19.08	167.93
1970-71	13.87	140.66

The Commission has been providing assistance to the universities for the development and consolidation of education and research in engineering and technology. This is intended for university departments and institutions maintained by the universities. The development expenditure incurred by the Commission for engineering and technology during 1968-69 to 1970-71 is as follows:

Year	(Rs. in lakhs)
	Grants paid
1968-69	242.72
1969-70	268.14
1970-71	186.36
Total:	697.22

Assistance was provided, inter-alia for diversification of courses and new specialisations, research programmes, courses in chemical engineering, pharmacy and business administration, improvement of existing facilities, fellowships etc.

In addition to the grants referred to above, assistance was also provided to the universities for a

number of other programmes mentioned below:

(i) University Centres of Postgraduate Studies:

The Commission has already accepted the proposals for the establishment of postgraduate studies at Anantpur (Sri Venkateswara University), Guntur (Andhra University), Bangalore (Mysore University), Rohtak and Simla\* (Panjab University), and Warangal (Osmania University). The proposals of the Madras and Karnatak Universities for the establishment of postgraduate centres at Coimbatore and Tiruchirapalli, and Gulbarga were also accepted in 1969-70. Grants amounting to Rs.38.80 lakhs were made available to the universities concerned in 1970-71 for the development needs of the centres concerned. The development of postgraduate studies at suitable places under the auspices of the universities and in collaboration with the colleges located in the neighbourhood, is expected to help in maintaining and improving standards at the postgraduate level.

(ii) Publication Grants:

As already indicated in the Commission's report for 1969-70, grants amounting to Rs.29.50 lakhs have been made available to the universities and institutions deemed to be universities for the publication of research works and doctoral theses. These are available on a cent per cent basis and may be utilised up to 1973-74.

p.t.o

---

\* This centre has since merged with the Himachal Pradesh University.

(iii) Book Production:

In collaboration with the Ministry of Education and Social Welfare, the Commission has been promoting the publication of low-priced editions of standard works originally published in the USA, UK and USSR. The books or titles to be published are evaluated by experts in the subject concerned, and suitable recommendations are then made by the Commission to the Ministry for this purpose. Up to 1969-70, 1,365 titles were recommended for publication in the low-priced editions. In 1970-71, 144 books were evaluated and 98 of them were recommended for re-publication. The Commission has also been collaborating with the National Book Trust in bringing out subsidized editions of books in the English language.

In consultation with the Ministry of Education and Social Welfare, the Commission has decided to award fellowships, each of the value of Rs.500 per month, with a grant of Rs.2,000 per annum for expenditure on contingencies, for the production of quality books at the university level. The scholars to whom fellowships are offered are expected to work in association with distinguished university teachers. 73 projects regarding books production were accepted in 1970-71. It is expected that 100 more projects will be taken up under this programme during 1971-72.

(iv) Correspondence Courses:

A reference was made to the value and importance of introducing correspondence courses in the Commission's report for 1969-70. The following universities have

already introduced such courses:

University		Courses
Delhi	.....	B.A. (Pass) B.Sc.(General) Group 'A'
Rajasthan	.....	B.Com Pre-University course B.A.
Mysore	.....	Pre-University course B.A.
Meerut	.....	B.A.

The Commission has accepted the proposal of Panjab University for starting correspondence courses for the pre-university course and B.A. of the Madurai University for B.A., and of the Andhra and Bombay Universities for B.A. and B.Com. The proposals of a few more universities for the introduction of correspondence courses at various levels (including postgraduate level) are under the Commission's consideration.

(v) Adult Education:

A note on the role of universities in adult education was circulated to the universities. The Commission has agreed to provide assistance to universities on a sharing basis of 75 (UGC) : 25 (University) within a ceiling of Rs.3 lakhs for each university, for the remaining period of the fourth Plan, for programmes of adult or continuing education.

(vi) Maintenance Grants - Central University:

Under Section 10 of the U.G.C. Act, the Commission provides grants to universities established or

incorporated by a Central Act, for maintenance in addition to those for development. The maintenance grants paid to the central universities for 1970-71 are indicated below:

University	(Rs. in lakhs)
University	Grants paid
Aligarh Muslim University	204.00
Banaras Hindu University	267.32
Delhi	126.00
Visva-Bharati	62.22
Jawaharlal Nehru University:	
(a) School of International Studies	8.76
(b) School of Russian Studies	5.65
Total:	673.95

In addition, a sum of Rs.9 lakhs was paid for the maintenance of the hospitals\*attached to the medical colleges of the Aligarh Muslim University and the Banaras Hindu University.

Apart from maintenance grants, a sum of Rs.15.23 lakhs was made available to the central Universities in 1970-71 for projects relating to campus development.

(vii) Unassigned Grants:

Unassigned grants amounting to Rs.19.34 lakhs were placed at the disposal of 73 universities in 1970-71 for meeting expenditure on a number of approved programmes. These grants could be utilised by them according to their needs, without reference to the Commission. Unassigned



grants are available inter-alia for the following purposes:

- (a) Exchange of teachers.
- (b) Extension work by university teachers.
- (c) Travel grants to teachers and research scholars for visiting centres of research in the country.
- (d) Travel grants for attending seminars and conferences in India.
- (e) Preparation and development of teaching materials and aids.
- (f) Travel grants to teachers for attending international conferences.

The expenditure on programmes listed at (a) to (e) can be met by the universities, on a cent per cent basis out of the unassigned grants. Fifty per cent of the expenditure on travel grants for attending international conferences can be debited to the unassigned grant, and the balance has to be provided by the university concerned.

#### CENTRES OF ADVANCED STUDY

The Commission has been providing special assistance to 30 university departments, selected to function as centres of advanced study in various fields. These centres have been developed to encourage the pursuit of excellence and to raise the quality of academic achievement at the postgraduate and research levels. These centres function on an all-India basis and provide facilities for advanced study and research to scholars from various parts of the country.

A list of centres of advanced study and their areas of specialisation is given in Appendix IX.

The development programmes of these centres for the fourth plan have been assessed by UGC committees and grants amounting to Rs.4.71 crores, which include a capital outlay of Rs.1.31 crores, have been approved for these centres. Financial assistance is available to the centres on a cent per cent basis for the improvement of library and laboratory facilities, appointment of the requisite academic and non-academic staff, provision of scholarships and fellowships, publication of dissertations and research papers etc. The scholarships provided have enabled the centres of advanced study to attract talented students and teachers from various parts of the country. Visiting fellowships have also been made available to the centres to enable them to invite scientists and scholars from within and outside the country. In addition to a nucleus of permanent staff, the centres have a substantial number of scholars on deputation from other universities and colleges. Funds have also been provided to the centres for seminars, symposia and other programmes of training and research.

The centre of advanced study in Botany, Madras University, organised an international symposia on the pathological wilting of plants and the taxonomy and biology of blue green algae. The centre of advanced study in Chemistry, Delhi University organised a short-term training programme in the chemistry of natural products with Unesco assistance. The course was also attended by some foreign participants. The centre of

advanced study in Biochemistry, Indian Institute of Science, Bangalore, proposes to organise an international symposium on lipids during September, 1971. The centre of advanced study in Botany, Delhi University, has prepared a plan for an international symposium on morphogenesis in plant cell, tissue and organ cultures in November, 1971. The centre of advanced study in Physics, Delhi University, Delhi organised a short-term course in solid state physics on an all-India basis. A number of eminent scientists from the USSR, UK, USA and some other countries participated in the seminars and symposia organised by centres of advanced studies.

The Centres of advanced study in Mathematics at the universities of Bombay, Panjab, Madras and Calcutta continued the programme of inviting selected teachers from affiliated colleges for spending an academic year at the centres to enable them to improve their competence and to initiate them into research. Such a programme has also been undertaken by the centre of advanced study in Education at the M.S. University of Baroda.

Some centres have been requested by the U.S. Department of Agriculture to undertake specialised research programmes with the help of P.L. 480 funds.

Each centre has a advisory committee consisting of the Vice-Chancellor, Professors of the centre and experts from outside. The Commission receives periodicals reports regarding the work and programmes of the centres.

On the recommendations of the U.G.C. Standing Committee on 'Centres of Advanced Study', the Commission

had earlier agreed to provide special assistance to 27 university departments for their programmes of postgraduate specialisation and research. Expert committees have visited 26 of these departments. The recommendations of these committees are under the Commission's consideration.

As hitherto, the Unesco continued to give assistance to the centres of advanced study for their programmes of teaching and research. This assistance came mainly from the USSR in the shape of equipment, services of experts and training of the Indian scholars in the USSR. A number of consultants from the USSR including Academician, NN. Bogolubov, visited India. Two senior fellows and five junior fellows went to the USSR under the Unesco programme. Equipment worth \$ 1,00,000 was ordered by Unesco for the centres. The Commission has reviewed the programme of Unesco assistance and revised the list of centres to be benefitted under this programme.

Dr. V.Parail, Director, Division of International Cooperation in Scientific Research, Unesco, visited the centres of advanced study receiving Unesco assistance. He discussed with the University Grants Commission and the centres concerned the possibility of organising short-term and long-term training programmes on an international level. The proposals made by Dr. Parail have been accepted by the Commission and plans for organising such activities are being formulated.

p.t.c

The centre of advanced study in History, Aligarh Muslim University, and the centre in Philosophy, Madras University, received assistance from the Unesco for undertaking studies on the civilization of the people of central asia. The Commission also provided separate funds to these centres for undertaking these studies.

The Government of the United Fingdom also provided some assistance to the centres of advanced study. Under the programme of British assistance, 8 scholars from the U.K visited the centres, and 22 teachers from the centres went to the U.K. Equipment worth £ 50,320 was received by the centres under this programme from October, 1967 to February 1970.

ASSISTANCE TO COLLEGES

The number of colleges has risen rapidly in response to the growing demand for higher education. The total number of colleges in 1961-62 was 1,783. By the end of the third plan, i.e., in 1965-66, the number rose to 2,572. In 1970-71, the number of colleges functioning in the country was 3,604. 307 new colleges were established during the year.

The student enrolment in the affiliated colleges was 23.96 lakhs as against 3.27 lakhs in the university departments (including university colleges). This shows that 88% of the students were in the affiliated colleges. Over 90% of the students receiving instruction in science, commerce and medicine were enrolled in the affiliated colleges. The statements showing the faculty-wise and stage-wise enrolment of students in the universities and colleges are given in Appendices X and XI.

About 49% of the student in the postgraduate level and 13% of the research scholars in various faculties were working in the colleges in 1970-71.

The number of teachers in the affiliated colleges in 1970-71 was 1,07,431, as against 21,493 in the university departments (including university colleges). This indicates that about 83% of the total academic staff is in the affiliated colleges.

It is obvious that colleges represent a very important sector of higher education in the country. The Commission has been providing assistance to colleges under various programmes of development. The total grant of Rs.1.49 crores was made available to the colleges in 1966-67. In 1969-70, payment to the colleges amounted to Rs.3.55 crores. In 1970-71, the grants amounting to

Rs. 7.40 crores were provided to colleges for their development programmes. This shows that the Commission's assistance to colleges has increased almost five-fold since 1966-67. A statement of the development grants paid to the colleges is given in Appendix XII.

Postgraduate Studies:

It was indicated in the report for 1969-70 that the Commission's assistance to colleges for development of postgraduate studies has been substantially raised. For the development of postgraduate studies in the humanities and social sciences, the total grant available have been raised from Rs. 1,00,000 to Rs. 1,50,000 up to the end of the fourth plan period. For postgraduate departments in science subjects, the Commission's grant to a college has been raised from Rs. 1,00,000 to Rs. 1,50,000 each for Physics and Chemistry; from Rs. 75,000 to Rs. 1,00,000 each for Botany, Biochemistry, Home Science and Zoology; and from Rs. 50,000 to Rs. 75,000 each for Anthropology, Geography, and Mathematics (including Statistics). The Commission shares 50% of the approved expenditure on buildings and additional academic staff, and 75% for equipment and books.

In 1970-71, proposals from 28 colleges were accepted by the Commission for the development of 51 science departments. The Commission approved a grant of Rs. 19.36 lakhs for this purpose. The number of colleges assisted under this scheme during the fourth plan period so far is 116.

For the development of postgraduate studies in humanities and social sciences, grants amounting to Rs. 18.81 lakhs were approved for 32 colleges. The number of colleges assisted under this scheme during the fourth Plan so far is 49.

The proposals of colleges for the development of postgraduate studies are usually accepted by the Commission on the basis of recommendations made by expert committees appointed to visit the colleges concerned. These committees examine the existing facilities, the functioning of the departments concerned, and the requirements for further development.

General Facilities:

The Commission continued to provide grants to colleges, on the prescribed sharing basis, for library and laboratory facilities, including purchase of books and equipment, class-rooms and lecture theatres, workshops, for science departments, non-resident students' centres, residential accommodation for staff and students, tube-wells and over-head tanks and cycle sheds. The assistance to a college for its development programmes referred to above is limited to Rs.3,00,000 for the period 1966-67 to 1973-74. This is inclusive of grants paid or payable in respect of projects continuing from the earlier plan period. In special cases, as assessed on the basis of the needs of a college, merits of its development proposal and the progress made by the college in the implementation of its development programmes, assistance may be given to the institution beyond the ceiling of Rupees three lakhs up to a limit of Rupees one lakh, on the usual sharing basis for various projects.

The scheme mentioned above has helped numerous colleges to extend and improve the existing facilities. The proposals of colleges relating to library and laboratory facilities, students hostels, residential accommodation for teachers and



non-resident students centres during 1969-70 and 1970-71 were as follows:-

Project	(Rupees in lakhs)			
	1969-70		1970-71	
	Number of proposals accepted	Grants approved	Number of proposals accepted	Grants approved
(1) Library and laboratory facilities	198	136.02	207	178.48
(2) Student hostels	56	70.87	59	81.84
(3) Teachers' hostels/ Staff Quarters.	40	34.08	15	17.53
(4) Non-resident student centres.	31	11.20	42	15.66

Since 1966-67 assistance has been extended to about 900 colleges under the scheme. Assistance for the projects mentioned above is at present not available to colleges of agriculture, engineering and technology, and medicine.

College Science Improvement Programme:

The college science improvement programme, as stated in the Commission's report for 1969-70, is intended to bring about qualitative development of teaching in the physical, biological and mathematical sciences in predominantly undergraduate colleges. The programme has been undertaken at two levels as under:-

- (a) Assistance to selected colleges for better methods of instruction, laboratory equipment and workshop facilities refresher courses for teachers, projectwork, special training for gifted students, etc.
- (b) Assistance to selected university departments for development of improved courses of study and curriculum

materials, organisation of orientation courses for college teachers, development of workshop facilities and teaching aids, inviting selected teachers to spend an academic year with a university department and to encourage teachers to undertake research, etc.

Significant progress was made under this programme. Twelve projects to be undertaken by the university departments at an estimated cost of Rs.94.87 lakhs have been accepted. Assistance has been approved for the development projects of 51 colleges which are estimated to cost Rs.143.58 lakhs.

Teachers' Training Colleges:

The Commission had earlier decided to provide separate assistance to teachers' training colleges during the fourth plan period. This assistance is available for the provision of additional staff, extension of library and laboratory facilities, provision of non-resident student centres and residential accommodation for students and staff, etc. It was decided to raise the financial ceiling of assistance from Rs.1.5 lakhs to Rs.2 lakhs for a college conducting B.Ed. courses and from Rs. 2 lakhs to Rs.3 lakhs for a college providing both B.Ed. and M.Ed. courses. The Commission's assistance is available on the prescribed sharing basis. For schemes like the preparation of teaching aids, reading materials, experimental work, etc., the Commission's assistance is available on cent per cent basis. Ordinarily, assistance upto Rs.1,00,000 only may be utilised for building projects.

A sum of Rs.15 lakhs has been allocated for 150 colleges conducting B.Ed. courses at the rate of Rs.10,000 per college,

and Rs.7.50 lakhs for 50 colleges providing B.Ed. and M.Ed. courses at the rate of Rs.15,000 per college, for the purchase of basic equipment and audio-visual aids. Payments to teachers' training colleges for various development programmes amounted to Rs.24.09 lakhs during 1970-71.

Basic Grants for Books and Equipment:

Grants ranging from Rs.4,500 to Rs.6,500, according to student enrolment, were given on a cent per cent basis to about 2,500 colleges for books and journals. The total amount paid to the colleges on this account during 1970-71 was Rs.67.61 lakhs.\*

In view of the rising enrolments for science courses in the colleges and the pressing need to strengthen laboratories, the Commission decided to provide a non-recurring grant, on a cent per cent basis, to all colleges conducting undergraduate and postgraduate courses as indicated below:

(i) A college conducting B.Sc. course in physical <u>or</u> biological sciences.	.. Rs.15,000
(ii) A college conducting B.Sc. courses in physical <u>and</u> biological sciences.	... Rs.20,000
(iii) A college providing M.Sc. courses:	
(a) Physics and Chemistry	...Rs. 15,000
(b) Botany, Zoology, Biochemistry, Geology and Home Science	... Rs.10,000

---

\* It has been agreed that colleges which could not avail of this grant in 1970-71 may utilise it during the financial year 1971-72.

Grants under this programme were provided to about 1,000 colleges during 1970-71\*.

Grants to Delhi Colleges:

The Commission continued to provide maintenance grants to non-Government constituent/affiliated colleges of Delhi University. Grants to these colleges during 1970-71 amounted to Rs.3.27 crores. Non-recurring grants amounting to Rs.42.44 lakhs were also provided to these colleges during the year for various development projects.

During the year, two new colleges sponsored by the Delhi Administration started functioning. For meeting increasing needs for admission, approval was given for introducing additional courses of study to 22 colleges.

Medical Colleges: Aligarh Muslim University and  
Banaras Hindu University:

The development plan of the College of Medical Sciences, Banaras Hindu University, was examined by a committee appointed by the Commission. On the recommendations of this committee, the additional teaching and non-teaching staff required by the college was approved and the following provisions were agreed

---

\* It has been decided that colleges which did not receive this grant in 1970-71, may utilise it during the financial year 1971-72. It has been further agreed that equipment grants may be made available to colleges for undergraduate courses in Geography, Psychology, Home Science, Statistics and Geology at the rate of Rs.5,000 per subject for each subject, and for postgraduate courses in Geography, Psychology and Statistics at the rate of Rs.10,000 for each subject. Upto November 1971, the equipment grants have been made available to nearly 1500 colleges.

to:-

(a) Equipment	..	Rs. 29,00,000
(b) Accommodation	..	Rs. 20,000 sq.ft.
(c) Books & Journals	..	Rs. 3,00,000
(d) Maintenance of Laboratories	..	Rs. 1,00,000
(e) Scholarships (each of the value of Rs. 300 per month for 2 years).	..	For 50% of the postgraduate students (excluding those in service) subject to a maximum of 50 per year.

On the recommendations of a committee, the Commission has agreed to provide the following grants to the Aligarh Muslim University for the Jawaharlal Nehru Medical College, Aligarh:-

(a) Equipment	..	Rs. 14.85 lakhs.
(b) External Services (For the college and hospital)	..	Rs. 32.43 lakhs.

In addition to the above, the following grants have been approved on the recommendations of a committee for the hospitals attached to the medical colleges of the Aligarh Muslim University and the Banaras Hindu University:-

Jawaharlal Nehru Medical College, Aligarh:

Building	..	Rs. 56 lakhs
Equipment	..	Rs. 50 lakhs

College of Medical Sciences, Varanasi:

Building (including out- patient department)	..	Rs. 30 lakhs
Equipment	..	Rs. 50 lakhs
For the 550 bedded hospital @ Rs. 26 lakhs per year.	..	Rs. 116 lakhs

The above provisions have been agreed to by the Government of India in the Ministry of Education and Social Welfare.

PROGRAMMES FOR TEACHERS

The University Education Commission (1949) described teachers as 'the corner-stone of the arch of education', and stated that 'the success of the education process depends so much on the character and ability of the teachers that in any plan of the university reform the main concern must be for securing an adequate staff with qualifications necessary for the discharge of many-sided duties'. It is obviously necessary to attract an adequate of our men and women of high intellectual ability to the teaching profession and to provide them with the essential amenities and incentives.

Summer Institutes, Seminars and Refresher Courses:

In view of the rapid advances in various fields of knowledge a competent teacher has to be a continuing student. The programme of summer institutes, seminars and refresher courses has been undertaken by the Commission to enable teachers teacher to improve their professional competence and effectiveness in the educational process. The programme, which has made sustained progress over the years, interalia, helps to pave the way for a change in the stereotyped courses and instructional technique by acquainting teachers with new perspectives and methods.

(i) In 1970-71, 60 summer institutes were organised for school teachers in collaboration with the National Council of Educational Research and Training and the National Council for Science Education. The total number of participants in

---

\* 21 in Mathematics,  
15 in Physics,  
14 in Chemistry, and  
10 in Biology.

these institutes was 2,436. The progress of the programme of summer institutes for school teachers is evident from the facts and figures given in the following table:

Summer Institutes for School Teachers: 1963-70

(Figures within brackets indicate the number of institutes organised)

Year	Number of Participants				Total
	Mathe- matics	Physics	Chemistry	Biology	
1963	34 (1)	43 (1)	38 (1)	39 (1)	154 (4)
1964	169 (4)	170 (4)	148 (4)	153 (4)	640 (16)
1965	616 (16)	488 (13)	464 (13)	261 (7)	1929 (49)
1966	490 (12)	467 (12)	410 (11)	308 (8)	1676 (43)
1967	747 (15)	572 (16)	580 (16)	482 (13)	2381 (60)
1968	646 (15)	594 (17)	612 (16)	450 (13)	2302 (61)
1969	600 (16)	551 (14)	734 (18)	436 (12)	2321 (60)
1970	903 (21)	610 (15)	523 (14)	400 (10)	2436 (60)
Total:	4205 (100)	3469 (92)	3509 (93)	2529 (69)	13739 (353)

(ii) During the year under review, 56 summer Institutes\* were organised for colleges in collaboration with the United States National Science Foundation and the Agency for International Development. The total number of participants in these institutes were 1,772. The following table shows the number of

\* 12 in Mathematics; 19 in Physics; 14 in Chemistry; and 11 in Biology.

institutes held year-wise and the enrolment in these institutes:

Summer Institutes for College Teachers: 1964-70  
(Figures within brackets indicate the number of institutes organised).

Year	Number of Participants				Total
	Mathe- matics	Physics	Chemistry	Biology	
1964	163(4)	166(4)	162(4)	168(4)	659(16)
1965	269(7)	258(8)	248(7)	277(7)	1052(29)
1966	326(9)	308(9)	344(9)	257(7)	1235(34)
1967	560(14)	375(11)	522(14)	410(11)	1867(50)
1968	627(18)	508(14)	449(14)	525(15)	2109(61)
1969	500(14)	524(17)	457(13)	372(10)	1853(54) **
1970	405(12)	601(19)	476(14)	405(11)	1987(56)
<hr/>					
Total:	2850(78)	2740(82)	2658(75)	2414(65)	10662(300)

In 1970-71, 13 summer institutes were organised in English language teaching for college teachers in collaboration with the Central Institute in English, Hyderabad and the British Council, New Delhi. 582 teachers attended. The number of summer institutes held up to the end of 1970 was 53, which were attended by 2,541 teachers. Thirteen fellowships, each of the value of Rs.300 per month, were made available during 1970-71 to outstanding participants of the summer institutes for specialised training at the Central Institute of English, Hyderabad.

For the benefit of outstanding postgraduate students, the Commission organised two summer institutes in 1970, one each in Molecular Physics and Life Sciences, under the auspices of Madras

In addition, a summer institute in Geology and one in Food & Nutrition were held in 1969. The number of participants in these institutes was 35 & 40, respectively.



and Marathwada Universities, respectively. In 1971, two such institutes were organised for postgraduate students, one each in Chemistry and Mathematics, at the Andhra University and the Birla Institute of Technology and Science, respectively.

Orientation courses were organised by 8 universities in 1971 for the benefit of new or junior teachers of colleges. These courses are intended to familiarise such teachers with instructional techniques, evaluation procedures, organisation of class tests and tutorials, planning of teaching programme, etc.

The research participation programme for selected teachers and postgraduate students was continued during the year. This programme is intended to initiate teachers into the methodology and techniques of research and to provide them with opportunities for acquiring research experience under the guidance of competent staff. The programme also benefits selected postgraduate students and is designed to foster and develop spirit of enquiry and research. The number of participants in the programme during the last 3 years is shown in the following table:

Research Participation Programme: 1968-69 to 1970-71

Subject	Number of Research Participants					
	Teachers			Postgraduate students		
	1968-69	1969-70	1970-71	1968-69	1969-70	1970-71
Biology	31	9	17	37	9	3
Physics	3	8	19	11	2	7
Chemistry	28	20	16	30	4	7
Mathematics	12	7	11	8	-	2
<b>Total:-</b>	<b>74</b>	<b>44</b>	<b>63</b>	<b>86</b>	<b>15</b>	<b>23</b>

Two summer institutes in social sciences, one each in Economics and Political Science were organised at the Poona University. A cell for the preparation of materials for the summer institutes in Economics was set up at the Osmania University, Hyderabad.

In addition to the programmes mentioned above, the Commission has been providing financial assistance to the universities for seminars, summer schools, symposia and academic conferences wherein the participants have an opportunity of discussing important problems relating to the improvement of the standards of teaching and research in various disciplines. During 1970-71, 164 proposals in this regard received from the universities were accepted by the Commission.

The programmes mentioned above have been helpful in promoting improvement in teaching and research. They have given opportunities to teachers for acquainting themselves with new developments in their field of work, modern curricula and techniques of instruction. They are complementary to the steps taken by the universities to improve the curricula and efficiency of the educational process.

Assistance for Research:

The Commission has been giving financial assistance to teachers for books, chemicals, equipment, field work etc., required for the research work undertaken by them. The Commission's grant to a teacher is limited to Rs. 5,000 at a time, and this is normally to be utilised within a period of two years. In 1970-71, grants were approved for 243 projects in the humanities and social sciences, and 623 in science subjects. Since the

institution of the scheme in 1963-64, more than 4,300 teachers have been benefitted under the scheme.

Exchange of Teachers:

Funds are available to the universities to enable them to invite reputed teachers and experts from other universities or institutions in the country to deliver lectures, conduct seminars or guide research workers. Expenditure on this account can be met by the universities on a cent per cent basis out of the 'unassigned grants' placed at their disposal each year, without a reference to the Commission. The schema enables the universities to utilise the services of talented academic personnel in the institutions of higher learning as widely as possible.

National Lectureships:

A limited number of teachers and experts are selected each year as national lecturers for visiting some universities and colleges to lecture on recent developments in their specialised fields, and to participate in programmes of advanced studies or research. It has been decided to institute thirty national lectureships every year in the first phase of the programme.

Each lecturer is expected to visit at least three universities or institutions, to spend not less than a week at each of them. The Commission provides an honorarium of Rs.1,000 and travel expenses to a national lecturer and a grant of Rs.250 for the preparation of lecture aids, etc.

On the basis of the nominations received from the universities and the recommendations of an expert committee, 27 scientists and scholars were invited to participate in this programme.

during 1970-71.\* Assistance was provided by the Commission for the publication of the lectures delivered by the participants.

National Associateships:

The Commission decided to institute a scheme relating to national associateships. This is intended to provide opportunities to scientists and scholars, who will be designated as national associates, to visit and work for short periods at institutions in India of their choice which have special facilities for the research or specialised studies undertaken by them. The scheme is to be implemented with effect from 1971-72.

Travel Grants:

Funds are provided by the Commission to the universities for giving travel grants to teachers and research workers, to enable them to visit centres of research and advanced study, or to attend conferences, seminars, etc. in the country. Expenditure on this account is made by the universities, on a cent per cent basis, out of the unassigned grants provided to them by the Commission.

Financial assistance upto 50% of the expenditure on international travel is also available to teachers selected for attending international conferences abroad. Such assistance is given to a teacher, who is invited to preside at a conference or a section of the conference or is invited to contribute a paper, provided the sponsoring university is willing to share 50% of the expenditure on travel.

---

\* For 1971-72, national lectureships have been offered to thirty teachers/experts.

Retired Teachers:

Universities and colleges are helped for utilising the services of selected teachers beyond the age of superannuation, provided they are otherwise fit to continue their teaching and research. A honorarium of Rs.6,000 per annum and an annual grant of Rs.1,000 for contingencies related to the work undertaken are provided to the teachers under the scheme. Awards under the scheme were offered to 61 teachers. At the end of the year, 157 retired teachers, 92 in the humanities and social sciences and 65 in science subjects, were working in different institutions in the country. The scheme has helped universities and colleges to obtain the benefit of the expertise and experience of a number of reputed teachers after their retirement.

Residential Accommodation:

As stated in the Commission's report for 1969-70, there is an urgent pressing need for suitable accommodation for teachers in the universities and colleges. The Education Commission (1964-66) suggested that accommodation should be provided for 50% of the teachers in the universities and 25% in the affiliated colleges over the next 20 years. In view of the rapid increase in the number of teachers, it is obvious that the targets suggested by the Education Commission would require resources of a considerable magnitude which are not presently available. The Commission continued to provide assistance to the universities and colleges for the provision of staff quarters and teachers' hostels within the resources available. During 1969-70 and 1970-71, the Commission assisted 18 universities for the construction of 211 staff quarters and 17 universities for the construction of teachers' hostels. The latter will provide accommodation for 253 teachers. In 1969-70, the proposals of 40

colleges for the provision of staff quarters and teachers' hostels for accommodating 272 teachers were accepted. In 1970-71, 15 such proposals were accepted for the benefit of 189 teachers. The Commission's grant in respect of these proposals amounts to Rs.16,53 lakhs.

The grants provided to the universities and colleges for construction of staff quarters and teachers' hostels during the last three years are indicated below:

	(Rs. in lakhs)	
	Grants paid	
	Universities	Colleges
1968-69	27.16	9.05
1969-70	20.95	16.90
1970-71	27.06	19.11

The Commission normally provides two-thirds of the expenditure on teachers' hostels. In view of the pressing need for residential accommodation, the Commission agreed to provide assistance upto 80% of the expenditure on teachers' hostels to colleges which fulfilled certain basic criteria.\* This assistance would be available upto a limit of Rupees three lakhs, outside the financial ceiling of Rs. three lakhs for the fourth plan for various development projects for which grants are provided by the Commission.

\* To be eligible for assistance under the scheme, a college should have a standing of at least 10 years and ordinarily the strength of the teaching staff should not be less than 40.

The proposals in this regard were invited through the universities concerned.\*\*

#### PROGRAMMES FOR STUDENTS

The Commission has been giving high priority to the provision of essential services and amenities for the student community in the universities and colleges. The improvement of the conditions in which students live and work has an important bearing on the academic performance of students. With the rapid increase in student enrolment, which has doubled in a period of nearly 7-8 years, the need for adequate resources for programmes of student welfare has become extremely pressing.

It has been emphasized time and again that a careful and sympathetic consideration of the genuine requirements and difficulties of students is necessary, and for this purpose joint committees of teachers and students should be set up. It is always useful in such matters to consult student opinion so that grievances, if any, are redressed expeditiously.

The question of student participation in the academic and administrative affairs of the universities and colleges has been under examination under a committee appointed by the University Grants Commission under the Chairmanship of Dr. P.B.Gajendragadkar\*.

---

\*\* The proposals received were examined by a committee in August 1971. On the recommendations of the committee, it was agreed to assist 114 colleges for the construction of teachers' hostels for which the Commission's contribution would exceed Rs.1.55 crores. The Commission has decided that fresh proposals for assistance to colleges for teachers' hostels outside the fourth plan ceiling may be invited during 1972-73.

\* Part I of the Report of the Committee entitled Governance of Universities, which inter-alia, deals with the question of student participation in the academic and administrative affairs of the universities, was made available in June 1971.

/not

Several programmes have been undertaken by the Commission for the provision of essential facilities for the student community.

Information about these programmes is given below.

Scholarships and Fellowships

The enrolment at the postgraduate and research levels have increased significantly in recent years. An adequate provision for research scholarships and fellowships is necessary in view of the volume and diversity of specialised studies now being undertaken in the universities and colleges.

The University Grants Commission awards a specific number of scholarships and fellowships every year for advanced studies and research in different fields. These are in addition to the scholarships and fellowships specially created for Centres of Advanced Study and those provided for approved programmes of research.

Senior and Junior Fellowships in the Humanities, Social Sciences, Science subjects and Engineering & Technology are awarded on an all-India basis on the recommendations of committees constituted for the purpose. A specific number of research scholarships are also placed at the disposal of the universities every year for promoting research. During 1970-71, 16 senior fellowships were awarded in Humanities and Social Sciences and 20 in Science subjects. A senior fellowship is of the value of Rs.500 per month and a normal tenure of such a fellowship is of two years which may be extended by one year in special cases.

Fiftyfive junior fellowships were awarded in the Humanities and Social Sciences and 96 in Science subjects during the year. The value of a junior fellowship is Rs.300 and its normal tenure is 3 years.



For research in various fields of engineering and technology, 63 fellowships were made available during the year. The value of these fellowships is Rs.400 per month each.

At the end of the year under review, 143 scholarships in the Humanities and Social Sciences and 288 in science subjects (including engineering and technology) were carrying on research under the fellowships awarded by the Commission. The fellowships made available by the Commission every year have made an effective contribution to the promotion of specialised studies and research in various fields.

In addition to the fellowships mentioned above, which were awarded on an all-India basis, on the recommendations of selection committees constituted for the purpose, 600 research fellowships each of the value of Rs.250 per month for a period of three years, were placed at the disposal of 70 universities. The universities were requested to award 2/3rd of the scholarships allocated to them in science subjects, and set apart some scholarships for encouraging research work in their affiliated colleges wherever requisite facilities for such work are available.

The Commission has decided to raise the value of research scholarships from Rs.250 to Rs.300 per month with effect from 1st April 1971.

The Commission continued to give financial assistance to the universities concerned for awarding junior fellowships, each of the value of Rs.250 per month, for promoting postgraduate studies in engineering and technology.

As in previous years, a limited number of scholarships were made available during 1970-71 for honours and postgraduate studies in Arabic and Persian.

Some scholarships were also provided for postgraduate studies and research to students of the hill areas of north-east India. The Commission has decided to increase the value of the scholarships for postgraduate studies from Rs.120 to Rs.150 per month with effect from 1st April, 1970. It has also been decided to institute a scheme for awarding such scholarships in Sanskrit, Pali and Prakrit with effect from 1971-72.

Residential Accommodation for Students:

There is a pressing need for a considerable extension of residential accommodation for students. The proportion of students residing in hostels is shown in the following table:

Year	Total student enrolment	No. of students residing in hostels	% of students in hostels
1968-69	21,43,264	3,37,312	15.7
1969-70	24,32,630	3,53,527	14.5
1970-71	27,22,404	3,70,000	13.6

The Education Commission (1964-66) suggested that hostel accommodation should be provided for about 25 per cent of the student enrolment at the undergraduate stage, and 50 per cent of the enrolment at the postgraduate stage. It is obvious that a programme for providing adequate hostel accommodation would require funds of a magnitude which are not available to the Commission.

The grants paid for student hostels to the universities and colleges during the last three years are as follows:

Construction of Hostels : 1968-69 - 1970-71

Year	Rupees in Lakhs	
	Grants Paid	
	Universities	Colleges
1968-69	72.95	23.85
1969-70	68.48	34.62
1970-71	50.86	49.70

Upto 1969-70, proposals of 428 colleges for construction of student hostels were accepted by the Commission. In 1970-71, the proposals of 59 colleges were accepted for which grants amounting to Rs.81.84 lakhs were approved. These, it is expected, will create accommodation for 3,368 students.

The Commission agreed to assist 30 universities during 1969-70 and 1970-71 for the construction of student hostels, which are expected to accommodate 4,230 students.

Student Amenities:

The Commission decided to provide grants to colleges ranging from Rs.5,000 to Rs.12,000, on the basis of student enrolment, for the improvement of facilities in the existing hostels (including sanitary facilities), student common-rooms and canteens. An amount of Rs.52.49 lakhs was made available to Rs.1,628 colleges during 1970-71.

The proposals of some universities for the improvement of dining halls, kitchens, canteens, common-rooms and sanitary arrangements were accepted and limited financial assistance provided for this purpose.

A special allocation of Rs.50 lakhs was made available to the Banaras Hindu University for student amenities. The requirements of other central universities in this regard are being examined.

Student Homes/Non-Resident Student Centres:

The Commission continued to provide financial assistance to universities and colleges for the provision of student homes and non-resident student centres which, interalia, are intended

to provide facilities for study to day scholars during their leisure hours.

The Commission's assistance for a student home, providing reading-room facilities for 100 students at a time, a stack room for about 5,000 books, a cafeteria and dining hall, is limited to Rs.1,00,000. Some assistance may also be provided for books. In view of the value and importance of the scheme, it has been decided that assistance to a university for a student home may be given in addition to the financial allocations for its fourth plan development schemes. If an additional student home is needed by a university, the expenditure on this has to be accommodated within the fourth plan allocation approved by the Commission.

In 1970-71, the proposals of 12 universities were accepted for the provision of student homes. So far assistance has been approved for 59 universities for this purpose.

The Commission's grant to a college for a non-resident student centre, intended to provide canteen and reading-room facilities, is limited to Rs.35,000. In the case of a college with a student enrolment of 1,000 or above, the Commission has agreed to provide upto Rs.70,000. Upto 1969-70, the proposals of 306 colleges were accepted by the Commission for the construction of non-resident student centres. In 1970-71, the proposals of 42 colleges were accepted for the provision of non-resident student centres for which a grant of Rs.15.66 lakhs was approved.

#### Study Centres

On the recommendations of a committee appointed to consider programmes of student welfare, the Commission agreed

to provide financial assistance to 55 universities for the establishment of 111 study centres in various parts of the country. These centres are to be located in areas having a large population of students, and are intended to provide essential library facilities, including multiple copies of text-books. The Commission's assistance for each study centre for the plan period would be as indicated below:

Non-Recurring

Books	..	Rs. 20,000
Stacks/Furniture	..	Rs. 10,000

Recurring

Asstt. Librarian and other staff.		Rs. 10,000 per annum.
Contingencies (including electricity charges).		Rs. 3,000 per annum.

The universities are expected to provide rent-free accommodation for these centres.

Book Banks

The Commission decided to give financial assistance to colleges for development of libraries with the specific purpose of making available to deserving students books on loan for the period of their studies. This, it has been suggested, may be done by setting up a special section (a kind of book bank) in the college library. It has been agreed that 75% of the total allocation, ranging from Rs. 15,000 to Rs. 30,000 to a college,

\* The scheme was implemented during 1971-72. There has been an encouraging response from the universities. By November, 1971, grants amounting to Rs. 25 lakhs were made available for 72 such

depending on student enrolment, would be shared by the Commission.\*

#### Health Centres

The Commission accepted the recommendations of the committee appointed to consider the programme of health services for students in the universities and colleges. It was decided that financial assistance may be given to the universities and selected colleges (two colleges per university, in the first phase) for the establishment/development of health centres, in the light of the recommendations made by the committee. It has been agreed that 75% of the non-recurring expenditure on health centres (building and equipment) would be shared by the Commission. As regards recurring expenditure, the Commission has agreed to make an annual contribution (the amount of which will be determined after an examination of the proposals received) for the current plan period.

#### Sports and Physical Education

Keeping in view the funds available for the promotion of sports and physical education, the Commission agreed to assist, in the first phase, 12 universities and 81 colleges, for the construction of gymnasias. The proposals received in this regard were earlier examined by a committee.

It was decided that assistance may also be given to the universities and colleges for the development of play fields and purchase of accessories for games and sports. The Commission agreed to meet 75% of a total expenditure of Rs.15,000 for this

---

\* The implementation of this scheme was taken up in 1971-72. By November 1971, grants exceeding rupees one crore were provided to 950 colleges for the establishment of book banks.

\* Proposals in this regard were invited from the universities in May, 1971.

purpose in the case of a university and of Rs.10,000 for a college. \*\*

The Commission has so far given its approval for the appointment of 77 sports coaches in 30 universities expenditure on this account to the extent of 75% is share by the Commission.

Students' Aid Fund:

The Commission has been giving grants to the universities and colleges for the students' aid fund wherefrom students are given financial assistance for paying their tuition or examination fees, purchase of books and meeting other expenses related to their studies. With effect from 1970-71, the Commission's annual contribution to this fund has been raised from Rs.10,000 to Rs.15,000. For colleges, the Commission's grant will range from Rs.750 to Rs.3,250 on the basis of student enrolment. Grants amounting to Rs.40.56 lakhs were provided under this scheme to 33 universities and 1,792 colleges during 1970-71.

Visiting Studentships:

The Commission continued to give financial assistance to the universities for visiting studentships, to enable students to visit places of interest in the field of national development, culture, history, education, etc. The assistance available to a university under this programme is limited to Rs.5,000. Grants amounting to Rs.76,581 were made available to the Universities during 1970-71.

\*\* The programme was taken up for implementation in 1971-72. In view of the limited funds available, it was decided that the Commission's assistance would be available for the universities and upto 20% of the colleges affiliated to them (in the first phase of the programme). The Colleges to be assisted would be selected by the universities concerned keeping in view the availability of playfields, and their interest and performance in the field of games and sports. Proposals in this regard were invited from the universities in November, 1971.

COMMITTEES AND CONFERENCES

The Commission appoints committees and convenes conferences from time to time to obtain advice of experts on different problems related to the development of teaching and research. Information about some of the important committees constituted and conferences convened during 1970-71 is given below:

Advisory Committee of Vice-Chancellors

An advisory committee of Vice-Chancellors was set up to advise the Commission on matters relating to the development of higher education in the country. The committee normally meets two or three times a year.

Some of the important recommendations made by the committee at its meetings held on 2nd July and 3rd December, 1970, were as follows:

- (i) It would be desirable to make provision for the appointment of pro-vice-chancellors/rectors in the universities.
- (ii) Each university may appoint a group to assess the needs and priorities as regards amenities for students.
- (iii) A committee may be appointed to examine the facilities required for the teaching staff in colleges to enable them to improve their competence and effectiveness.
- (iv) Working groups may be appointed to examine the role and functions of the advisory committee of vice-chancellors and of the visiting committees that are constituted by the Commission for the assessment of the development programmes of the universities.
- (v) If a college on temporary affiliation has functioned well for a time of five years, and had fulfilled the basic requirements, it should normally be given permanent affiliation.

Action is being taken on the recommendations made by the committee.

Conferences on University Administration

A series of three conferences on university administration were organised by the Commission. Each conference was attended by 25 to 30 registrars of the universities. These conferences provided an opportunity for an exchange of views on modern concepts of administration and organisation as applicable to the universities and colleges,



and for discussions on the measures necessary for rationalising and improving the administrative functioning of universities, including the working of the secretariat, organisation of examinations and admission procedures. The conferences were addressed by educational and management experts.

Meeting with the Standing Committee of the Inter-University Board of India and Ceylon

A joint meeting of the Commission and the Standing Committee of the Inter-University Board of India and Ceylon was held on October 8, 1970. The programme of student welfare undertaken by the Commission of the national sports organisation initiated by the Ministry of Education and Social Welfare were reviewed. It was agreed that while it would not be possible to prescribe uniform percentages of marks for categorising candidates into divisions, universities may consider introducing a system of awarding relative grades for the first 20 students in every subject in accordance with the following observation of the Education Commission (1964-66):

"A system of grading must be such as to bring out whether a student belongs, say to the top 20% of this class or to the bottom 20%. It is strongly recommended that even if the present system of examinations and classifying the results is continued, it should be supplemented by giving, in the same certificate, the relative grading of the student, say on a five point scale. Grade 'A' would mean that the student is in the top 20% of those who have been successful at the examination."

Committee on Modern Indian Languages

A committee has been appointed, under the chairmanship of Dr. T.P.Meenakshisundaram, formerly Vice-Chancellor, Madurai University, to review the courses of study in modern Indian Languages, and to suggest measures for improving the standards of teaching and research in this field. A questionnaire for collecting the requisite information is being sent to the universities.

Other Committees

Standing committees have been constituted to advise the Commission on the following subjects:

- (i) Centres of advanced study
- (ii) Higher education in engineering and technology,
- (iii) Development of colleges,
- (iv) Programmes of cultural exchange,
- (v) Teacher education,
- (vi) Area studies,
- (vii) Scholarships and fellowships, and
- (viii) Colleges Science Improvement Programme.

Questions relating to the central universities are considered by the standing committee of Vice-Chancellors of these universities.

Apart from the above, ad hoc committees are constituted from time to time, to advise the Commission on various problems.

INTERNATIONAL COLLABORATION

As in previous years, the Commission promoted programmes involving international collaboration, and helped universities to obtain assistance from the Unesco and some foreign countries for their programmes of teaching and research. The programmes relating to foreign aid are operated by the Commission in consultation with the Department of Economic Affairs, Ministry of Finance, and other Union Ministries concerned. Assistance from foreign countries and sources is made available to the universities under specific agreements entered into by the Government of India with the countries and agencies concerned.

A description of the assistance given by the Unesco, the USSR and the UK for the centres of advanced study has been given earlier in this report. Reference has also been made to the support given by the United

States Agency for International Development, the National Science Foundation, USA, and the British Council for programmes of summer institutes.

Information about some other programmes involving international collaboration is given below.

United States PL-480 Programme

As hitherto, assistance was made available from the rupee funds of the United States PL-480 programme to a number university departments and other institutions for research in agricultural, physical and biological sciences. In 1970-71, the national screening committee recommended 29 research proposals for assistance from these funds. These proposals involve a total expenditure of about Rs.80 lakhs. During 1970-71, 22 research proposals were in operation in the universities and colleges under this programme.

Cultural Exchange Programmes:

Under programmes of cultural exchange concluded by the Government of India with the Governments of some foreign countries, the Commission organises exchange of visits by educationists, teachers and scholars between India and the countries concerned. During 1970-71 such exchange programmes were being implemented between India and the following countries:

Bulgaria	Czechoslovakia
France	Federal Republic of Germany
German Democratic Republic	Hungary
Poland	Romania
United Arab Republic	USSR
Yugoslavia	

The Commission also agreed to implement cultural exchange programmes, on ad hoc basis, with the Latin American countries, Mexico, Greece, Turkey, Iran, The Morocco, Ghana, Libya and Kenya.

In 1970-71, 51 Indian teachers visited different countries under the cultural exchange programme and 35 foreign visitors came to India. Under these programmes, the Commission received the Director, Ultra Sounds Laboratory, Pasteur Institute, Paris; Professor of Electronics, Paris University; Professor of Letters, Ankara University; Academician and Professor of Geography, Leningrad State University; Chief of Board on Experimental Physics, Friendship University, Moscow; Head of the Department of Indian Studies, Leningrad State University; Director, Institute of History, Mongolian Academy of Sciences; and Academician and Director of Physical and Technical Institute, Uzbek Academy of Science, USSR.

The selection of Indian teachers and scholars for participation under the cultural exchange programmes is made on the recommendations of a standing advisory committee appointed by the Commission. The foreign participants are selected by the countries concerned, and their placements and itinerary in India are arranged by the Commission in consultation with the universities and other institutions.

Indo-UK Exchange Programme:

Under the programme of exchange of visits of young scientists between India and the UK, 8 Indian scientists were selected to visit the UK in 1970-71. Similarly, 8 British scientists were named for visiting India. The programme has helped in promoting contacts between young scientists in the Indian and British universities and has provided opportunities for useful collaboration and discussions.

Other Programmes:

Under the Colombo Plan, a number of Indian scholars went abroad, particularly to the UK and Japan, for further training.

The applications of a number of Indian teachers and scholars were sent to the Indian National Commission for Co-operation with the Unesco for participation in the various training programmes organised by the Unesco.

Under the programme of celebrations relating to the International Education Year sponsored by the Unesco, the Commission agreed to award 10 fellowships, each of the value of Rs. 750 per month to participants from Member States for work at the centres of advanced study in India. Six scholarships have already been awarded and the scholars have started their work at the centres. The other awardees are expected to avail of their fellowships during 1971-72.

A reference was made in the report for 1969-70 to the Centre for Exploration in Geophysics being set up at the Osmania University with Soviet collaboration under the Indo-USSR Agreement on Economic and Technical Cooperation. The project is anticipated to cost Rs. 83.40 lakhs, which includes Rs. 35 lakhs (in roubles) as USSR credit required for specialised equipment, services of Soviet experts and technicians, and training facilities for Indian staff and students in the USSR. The project is being implemented in two phases over a period of five years, i.e., 1969-70. In 1970-71, an expenditure of Rs. 29.96 lakhs was incurred towards the cost of equipment supplied to the centre. The centre is expected to work in close collaboration with the other teaching and research institutions in India. It will have liaison with the Geological Prospecting Institute, and the Institute of Exploration Geophysics, Moscow.

CONCLUSION

The expenditure incurred during the last five years under various programmes initiated by the University Grants Commission were as indicated below:

Head	(Rs. in crores)				
	Expenditure				
	1966-67	1967-68	1968-69	1969-70	1970-71
Non-Plan*	4.94	7.52	8.08	9.06	9.83
Plan**	11.56	11.45	12.55	15.55	19.36

Within the resources available to the Commission, planned efforts has been made for the provision of requisite facilities for improving the quality and standards of higher education. The existing syllabi and facilities for advanced studies in the various subjects were reviewed by the expert committees earlier appointed by the Commission and suggestions made for their improvement and modernisation. Various aspects of the examination system has also been studied and recommendations made for improving the procedures of assessment. Steps have been taken to improve the conditions in which students live and work. A number of new programmes have been sponsored for the benefit of teachers and students. The rising tempo of development and the rapidly changing and dynamic situation in the field of higher education call for a commensurate investment of efforts and resources.

The Commission is grateful to the universities and colleges for their continued cooperation, and to all those who have worked as members of the UGC committees. The Commission also places on record its appreciation of the assistance and cooperation received from the State Governments, from various Ministries of the Govt. of India, from the Planning Commission and from other organisations and agencies associated with the Commission's work and activities.

R .K.Chhabra  
Secretary

D.S.Kothari  
Chairman  
A.S.Adke  
Indumati Chimanlal  
A.B.Lal  
Tapas Majumdar  
T.P.Singh  
M.K.Yardi

- 
- \* Includes maintenance grants to central universities and the constituent/affiliated colleges of the University of Delhi.
- \*\* Includes expenditure on all development programmes of universities and colleges.
-

APPENDIX-I

INDIAN UNIVERSITIES AND INSTITUTIONS DEEMED TO BE UNIVERSITIES

1970-71 :

Year of establish- ment.	S.No.	University	Total student enrolment
1857	(1)	Calcutta University	
	(2)	Bombay University	
	(3)	Madras University	
1887	(4)	Allahabad University	
1916	(5)	Banaras Hindu University(Varanasi)	
	(6)	Mysore University	
1917	(7)	Patna University	
1918	(8)	Osmania University(Huderabad)	
1921	(9)	Aligarh Muslim University	
	(10)	Lucknow University	
1922	(11)	Delhi University	
1923	(12)	Nagpur University	
1926	(13)	Andhra University(Waltair)	
1927	(14)	Agra University	
1929	(15)	Annamalai University (Annamalainagar)	
1937	(16)	Kerala University(Trivandrum)	
1943	(17)	Utkal University(Bhubaneswar)	
1946	(18)	Saugar University	
1947	(19)	Rajasthan University(Jaipur)	
	(20)	Panjab University(Chandigarh)	
1948	(21)	Gauhati University	
	(22)	Kashmir University(Srinagar)	
1949	(23)	Roorkee University	
	(24)	Poona University	
	(25)	M.S.University of Baroda	
	(26)	Karnatak University(Dharwar)	
1950	(27)	Gujarat University(Ahmedabad)	
1951	(28)	S.N.D.T.Women's University(Bombay)	
	(29)	Visva-Bharati(Santiniketan)	
1952	(30)	Bihar University(Muzaffarpur)	
1954	(31)	Sri Venkateswara University(Tirupati)	
1955	(32)	Sardar Patel University(Vallabh Vidyanagar)	
	(33)	Jadavpur University(Calcutta)	
1956	(34)	Kuruksetra University(Kurukshetra)	
	(35)	Indira Kala Sangit Vishvavidyalaya(Khairagarh)	
1957	(36)	Vikram University(Ujjain)	
	(37)	Gorakhpur University	
	(38)	Jabalpur University	
1958	(39)	Varanaseya Sanskrit Vishvavidyalaya(Varanasi)	
	(40)	Marathwada University(Aurangabad)	
1960	(41)	U.P.Agricultural University(Nainital)	
	(42)	Burdwan University	
	(43)	Kalyani University	
	(44)	Bhagalpur University	
	(45)	Ranchi University	



1,	2	3	4
1961	(46)	K.S. Varbhanga Sanskrit Vishvavidyalaya	
1962	(47)	Punjab Agricultural University(Ludhiana)	
	(48)	Punjabi University(Patiala)	
	(49)	Orissa University of Agriculture & Technology(Bhubneswar)	
	(50)	North Bengal University(Siliguri)	
	(51)	Rabindra Bharati(Calcutta)	
	(52)	Magadh University(Gaya)	
	(53)	Jodhpur University	
	(54)	Udaipur University	
	(55)	Shivaji University(Kolhapur)	
1964	(56)	Indore University	
	(57)	Jiwaji University(Gwalior)	
	(58)	Ravi Shankar University(Raipur)	
	(59)	University of Agricultural Sciences(Bangalore)	
	(60)	Andhra Pradesh Agricultural University (Hyderabad)	
	(61)	Bangalore University	
	(62)	Jawaharlal Nehru Krishi Vishvavidyalaya (Jabalpur)	
1965	(63)	Dibrugarh University	
1966	(64)	Kanpur University	
	(65)	Meerut University	
	(66)	Madurai University	
	(67)	Saurashtra University(Rajkot)	
	(68)	South Gujarat University(Surat)	
1967	(69)	Berhampur University	
	(70)	Sambalpur University	
1968	(71)	Gujarat Ayurveda University(Jamnagar)	
	(72)	Jawaharlal Mehru University(New Delhi)	
	(73)	Manatama Phule Krishi Vidyapeeth	
	(74)	Calicut University	
	(75)	Awadesh Pratap Singh University(Rewa)	
	(76)	Assam Agricultural University(Jorhat)	
1969	(77)	Guru Nanak University(Amritsar)	
	(78)	Jammu University(Jammu)	
	(79)	Panjabrao Krishi Vidyapith(Akola)	
1970	(80)	Haryana Agricultural University(Hissar)	
	(81)	Himachal Pradesh University(Simla)	
	(82)	Bhopal University	
	(83)	Rajendra Agricultural University(Patna)	
1971	(84)	Tamil Nadu Agricultural University(Coimbatore)	

Year of Recognition*	S.No.	Institutions Deemed to be Universities:
1958	(1)	Indian Institute of Science(Bangalore)
	(2)	Indian Agricultural Research Institute (New Delhi)
1962	(3)	Gurukul Kangri Vishvavidyalaya(Hardwar)
	(4)	Jamia Millia Islamia(New Delhi)
1963	(5)	Gujarat Vidyapith(Ahmedabad)
	(6)	Kashi Vidyapith(Varanasi)
1964	(7)	Tata Institute of Social Sciences(Bombay)
	(8)	Pirala Institute of Technology & Science (Pilani)
1967	(9)	Indian School of Mines(Dhanbad)

\* Year of recognition as an Institution deemed to be a University under Section 3 of the UGC Act, 1956.

NOTE:- The Universities have been arranged according to the year in which the respective Acts were adopted.

APPENDIX II  
 DISTRIBUTION OF COLLEGES ACCORDING TO  
 COURSES OF STUDY  
 1966-67 to 1970-71

Course of Study	Number of colleges				
	1966-67	1967-68	1968-69	1969-70	1970-71
Arts, Science & Commerce	1,915	2,054	2,219	2,361	2,587
Engineering & Technology	105	106	105	106	107
Medicine, Pharmacy & Ayurveda, Nursing and Dentistry	137	141	157	167	176
Law	69	66	77	85	95
Agriculture	54	54	53	54	57
Veterinary Science	20	21	21	23	23
Education	200	202	224	235	258
Oriental Learning	177	179	179	138	236
Other (Physical Education, Music and Fine Arts)	72	76	77	78	79
<b>Total</b>	<b>2,749</b>	<b>2,899</b>	<b>3,112</b>	<b>3,297</b>	<b>3,604</b>

APPENDIX III

GROWTH OF STUDENT ENROLMENT

1960-61 to 1970-71

Year	Total Enrolment*	Increase over the preceding year	Percentage increase
1960-61	10,34,934	37,797	3.8
1961-62	11,55,380	1,20,446	11.6
1962-63	12,72,666	1,17,286	10.2
1963-64	13,84,697	1,12,031	8.8
1964-65	15,28,227	1,43,530	10.4
1965-66	17,28,773	2,00,546	13.1
1966-67	19,49,012	2,20,239	12.7
1967-68	22,18,972	2,69,960	13.9
1968-69	24,73,264	2,54,292	11.5
1969-70	27,92,630	3,19,366	12.9
1970-71 (Estimated)	31,12,404	3,19,774	11.4

\* Including enrolment in intermediate classes under the Board of High School and Intermediate Education, UP.

APPENDIX IV

STUDENT ENROLMENT : FACULTY-WISE

1968-69 to 1970-71

Faculty	1968-69		1969-70		1970-71	
	* Enrolment	% of total	* Enrolment	% of total	* (Estimated Enrolment)	% of total
Arts (including Oriental Learning)	10,55,238	42.7	12,18,022	43.6	12,89,780	41.4
Science	8,02,369	32.4	9,14,739	32.8	10,34,563	33.2
Commerce	2,55,568	10.3	2,96,325	10.6	3,11,240	10.0
Education	48,536	2.0	51,854	1.8	71,585	2.3
Engg & Tech	1,01,380	4.1	97,889	3.5	1,05,821	3.4
Medicine	90,470	3.7	95,017	3.4	1,23,833	4.3
Agriculture	53,120	2.1	43,415	1.6	87,147	2.8
Vet. Science	6,590	0.3	6,131	0.2	11,204	0.4
Law	49,520	2.0	56,240	2.0	59,135	1.9
Others	10,473	0.4	12,998	0.5	8,096	0.3
<b>Total</b>	<b>24,73,264</b>	<b>100.0</b>	<b>27,92,630</b>	<b>100.0</b>	<b>31,12,404</b>	<b>100.0</b>

\* Including enrolment in intermediate classes under the Board of High School and Intermediate Education, UP.

APPENDIX V

STUDENT ENROLMENT : STAGE-WISE

1968-69 to 1970-71

Stage	1968-69		1969-70		1970-71 (estimated)	
	*Enrolment	% of total	*Enrolment	% of total	*Enrolment	% of total
Pre-university	5,17,021	20.9	5,62,947	20.2	6,31,598	20.3
Intermediate	3,75,558	15.2	4,23,174	15.2	4,55,338	14.6
Pre-professional	14,582	0.6	13,809	0.5	16,334	0.5
graduate	13,88,335	56.1	16,03,898	57.4	17,96,787	57.7
Postgraduate	1,35,459	5.5	1,46,804	5.3	1,63,344	5.3
Research	12,145	0.5	12,474	0.4	13,612	0.5**
Diploma/ Certificate	30,164	1.2	29,524	1.0	35,391	1.1
<b>Total</b>	<b>24,73,264</b>	<b>100.0</b>	<b>27,92,630</b>	<b>100.0</b>	<b>31,12,404</b>	<b>100.0</b>

Including enrolment in intermediate classes under the Board of High School and International Education, UP.

\*Adjusted from 0.44 to 0.5 to make the total % age 100.

APPENDIX VI  
 STRENGTH AND DISTRIBUTION OF TEACHING  
 STAFF IN  
 UNIVERSITY DEPARTMENTS/UNIVERSITY COLLEGES  
 1966-67 to 1970-71

Year	Professors	Readers	Lecturers*	Tutors/ Demos- trators	Total
1966-67	1,401 (9.4)	2,320 (15.6)	10,264 (68.9)	915 (6.1)	14,900 (100.0)
1967-68	1,608 (9.2)	2,575 (14.8)	12,110 (69.3)	1,165 (6.7)	17,458 (100.0)
1968-69	1,872 (9.8)	2,834 (14.9)	12,991 (68.2)	1,361 (7.1)	19,058 (100.0)
1969-70	1,903 (9.6)	2,944 (14.9)	13,449 (68.1)	1,461 (7.4)	19,757 (100.0)
1970-71	2,106 (9.8)	3,202 (14.9)	14,595 (67.9)	1,590 (7.4)	21,493

(Estimate 1)

Note :- Figures within brackets indicate the percentage of the cadre to the total staff in that year.

\*Including assistant professors and assistant lecturers.

APPENDIX VII

DISTRIBUTION OF TEACHING STAFF IN AFFILIATED  
COLLEGES ACCORDING TO DESIGNATION

1966-67 to 1970-71

Year	Senior* Teachers	Lecturers**	Tutors/ Demos- trators	Total
1966-67	11,095 (14.2)	56,164 (71.6)	11,092 (14.2)	78,351 (100.0)
1967-68	11,655 (13.7)	61,861 (72.8)	11,462 (13.5)	84,998 (100.0)
1968-69	12,169 (13.2)	67,320 (73.3)	12,398 (13.5)	91,885 (100.00)
1969-70	12,533 (12.9)	73,360 (73.9)	13,097 (13.2)	99,295 (100.0)
1970-71 (esti- mated)	13,429 (12.5)	80,144 (74.6)	13,858 (12.9)	1,07,431

Note Figures within brackets indicate the percentage of the cadre  
to the total staff in that year.

\*Including principals

\*\* Including assistant lecturers.



APPENDIX VIII

DEGREES AWARDED  
1965-66 to 1967-68

Faculty	Number of Recipients			% increase 1966-68
	1965-66	1966-67	1967-68	
	2	3	4	5
<u>Faculty of Arts</u>				
B. A. *	90,928	1,14,353	1,33,124	46.4
M. A	27,960	30,726	34,322	22.8
Doctorates	541	624**	738	36.4
<u>Faculty of Science:</u>				
B. Sc. *	42,437	49,767	58,773	38.5
M. Sc.	8,009	8,892	10,138	26.6
Doctorates**	683	765	846	23.9
<u>Faculty of Commerce</u>				
B. Com*	20,930	22,611	27,171	29.8
M. Com	3,321	3,400	3,589	8.1
Doctorates	20	26	19	-5.0
<u>Faculty of Education</u>				
B. Ed/B.T	24,945	29,747	33,082	32.6
M. Ed	810	911	912	12.6
Doctorates	17	21	16	-5.9
<u>Faculty of Law</u>				
LL. B/B.L	8,587	10,027	9,948	15.8
LL. M	117	137	125	6.8
Doctorates	3	3	3	200.00
<u>Faculty of Agriculture</u>				
B. Sc (Agriculture)	4,902	6,129	6,133	25.1
M. Sc (Agriculture)	1,011	892	988	-2.3
Doctorates***	92	96	106	15.2
<u>Faculty of Ve-t Science:</u>				
B. V Sc.	1,030	855	1,104	29.1
M. V Sc.	151	104	169	62.5
Doctorates	3	3	8	166.7
<u>Faculty of Medicine</u>				
M. B. B. S	4,635	5,516	6,869	24.5
M. D/M. S	940	1,049	1,142	8.2
Doctorates	21	39	21	-46.2

Faculty of Engg./Technology:

B. E/B.Sc (Engg)	9,739	12,710	15,095	18.8
B.Sc (Tech) etc				
M.E-M.Sc (Engg.)/	576	520	575	10.6
M.Sc. (Tech.) etc				
Doctorates	32	39	37	- 5.1

---

\*Includes honours

\*\* Doctorates in Mathematics have been included in the Faculty of Science.

\*\*\* Inclusive of output figures of the Indian Agricultural Research Institute.

-----

APPENDIX IX  
CENTRES OF ADVANCED STUDY

S. No.	University	Department Recognised as Centre of Advanced study.	Major Field of Specialisation
1	2	3	4
<b>I. SCIENCE</b>			
1.	Annamalai	Marine Biology	Marine Biology
2.	Bombay	Mathematics Chemical Technology	Pure Mathematics Applied Chemistry
3.	Calcutta	Mathematics Radiophysics and Electronics	Applied Mathematics Radiophysics and Electronics
4.	Delhi	Physics Chemistry  Botany  Zoology	Theoretical Physics Chemistry of Natural Products Plant Morphology and Embryology Cell Biology and Endocrinology
5.	Indian Institute of Science Bangalore	Bio-Chemistry	Proteins Lipids and Vitamins
6.	Madras	Physics  Botany  Mathematics	Crystallography & Bio-Physics Plant Pathology & Mycology Pure Mathematics
7.	Osmania	Astronomy	Astronomy
8.	Punjab	Geology Mathematics	Himalayan Geology & Palaeontology Pure Mathematics
9.	Saugar	Geology	Structural Geology and Geomorphology
<b>II. SOCIAL SCIENCES AND THE HUMANITIES</b>			
1.	Aligarh	History	Medieval Indian History
2.	Annamalai	Linguistics	Dravidian Linguistics

1	2	3	4
3.	Baroda	Education	Education
4.	Banaras	Philosophy	Indian Philosophy
5.	Bombay	Economics	Public Finance & Industrial Economics
6.	Calcutta	Ancient Indian History & Culture	Ancient Indian History and Culture
7.	Delhi	Economics	Economic Development & Economic History Sociology
8.	Madras	Philosophy	Avaita & allied System of Philosophy
9.	Pooná	Economic (Gokhale Institute) Linguistics (Deccan College) Sanskrit	Agricultural Economics Applied Linguistics Sanskrit Literature
10.	Visva-Bharati	Philosophy	Metaphysics

-----

APPENDIS X

FACULTY-WISE ENROLMENT\* : UNIVERSITIES AND  
AFFILIATED COLLEGES

1970-71

Faculty	University Departments/ University Colleges	Affiliated colleges	Total	Percentage in affiliated colleges		
				1970-71	1969-70	1968-69
Arts	1,32,282	10,75,942	12,08,224	89.1	88.8	87.2
Science	72,655	7,57,078	8,29,733	91.2	90.6	90.1
Commerce	28,358	3,01,375	3,29,733	91.4	91.5	91.2
Education	6,465	47,442	53,873	88.0	88.2	87.9
Engg/Tech	26,092	69,497	95,589	72.7	72.6	72.4
Medicine	8,759	89,437	98,196	91.1	92.9	91.2
Agriculture	21,194	11,475	32,669	35.1	41.1	45.1
Vet. Science	3,504	1,941	5,445	35.6	39.3	43.6
Law	24,920	37,694	62,614	60.2	59.2	61.7
Others	2,459	3,869	6,328	61.1	68.8	53.9
<b>Total</b>	<b>3,26,688</b>	<b>23,95,716</b>	<b>27,22,404</b>	<b>88.0</b>	<b>87.7</b>	<b>86.7</b>

\* Excluding enrolment in intermediate classes affiliated to the Board of High School and Intermediate Education, UP.

Appendix XI

STAGE-WISE ENROLMENT\* UNIVERSITIES AND  
AFFILIATED COLLEGES

Stage	University Departments/ University Colleges	Affiliated Colleges	Total	Percentage in affiliated colleges		
				1970-71	1969-70	1968-69
Pre- University	29,054	6,02,544	6,31,598	95.4	95.4	95.3
Intermediate	196	65,142	65,338	99.7	99.8	99.5
Pre- professional	1,209	15,125	16,334	92.6	92.6	92.5
Graduate	1,86,866	16,09,921	17,96,787	89.6	89.3	88.2
Post- graduate	82,652	80,692	1,63,344	49.4	48.3	46.4
Research	11,774	1,838	13,612	13.5	12.7	10.7
Diploma/ certificate	14,937	20,454	35,391	57.8	57.0	56.6
<b>Total</b>	<b>3,29,688</b>	<b>23,95,716</b>	<b>27,22,404</b>	<b>88.0</b>	<b>87.7</b>	<b>86.7</b>

\*Excluding enrolment in intermediate classes affiliated to the Board of High School & Intermediate Education, U.P.

## The DEVELOPMENT GRANTS PAID TO COLLEGES

1970-71

S.No.	Scheme	Amount (Rs.)
1.	Construction of Hostel	49,70,278/-
2.	Laboratory and Library facilities	2,78,41,295/53
3.	Construction of staff quarters	19,10,704/-
4.	Development of postgraduate studies in Science	17,56,888/71
5.	Development of postgraduate studies in Humanities	6,93,751/38
6.	Books and journals	67,61,369/88'
7.	Welfare schemes:	
	1) Students' Aid Fund	37,93,267/-
	ii) Non-resident Students Centres	9,17,733/-
	iii) Hobby Workshop	56,114/39
	iv) Water Cooler	49,473/62
	v) Students Welfare Programme	52,45,729/05
8.	1) Grants to constituent/affiliated colleges of Delhi University for specific purposes	42,43,670/90
	ii) Maintenance grants to New Colleges	95,10,483/-
9.	Centenary Grants	67,000/-
10.	Construction of shooting ranges	9,653/48
11.	<u>Scholarships etc.</u>	
	1) <u>Research Fellowships</u>	
	a) Humanities	51,026/83
	b) Science	1,33,160/47
	ii) Utilisation of services of retired teachers	3,47,883/78

iii) Financial assistance to Research Workers

	a) Humanities	93,209/05
	b) Science	1,71,791/-
	iv) Scholarships in Arabic and Persian	21,814/91
	v) Research Scholarships	10,783/80
	vi) Hill Area Scholarships	240/-
12.	Revision of Salary Scales	230/26
13.	Improvement of chalkboard	1,22,182/77
14.	Travel grants for attending conferences	82,255/84
15.	Grants to colleges for Misc. schemes	85,001/02
16.	Teachers Training colleges	24,09,275 88
17.	Cultural Exchange Programmes	23,426/-
18.	Purchase of Semi-Micro Analysis equipment	3,10,200/-
19.	College Science improvement programme	22,08,600/-
20.	Summer Schools, Séminars and conferences	1,22,500/-
21.	Studies in Community Development Co-operation and Fanchayati Raj	11,500/-
	Total :-	7,40,35,497.26

'VK'



APPENDIX xiii

EXPENDITURE : PLAN AND NON-PLAN PROJECTS  
1970-71.

Purpose	Amount (Rupees)
<b>NON-PLAN PROJECTS</b>	
1. Administrative Charges	38,85,230
2. Block grants to Central Universities	6,79,47,706
3. Maintenance grants to constituent/affiliated colleges of Delhi University.	2,32,06,490
4. Schemes not covered under block grant	32,16,000
Total (Non-Plan Projects)	<u>9,82,55,476</u>
<b>PLAN PROJECTS</b>	
1. Grants to Central and State Universities for Humanities.	2,09,63,368
2. Grants to Central and State Universities for Science.	3,45,42,046
3. Grants to Central and State Universities for Engineering & Technology	2,40,35,497
4. Grants to Constituent and affiliated colleges	7,40,35,497
5. Grants to Central and State Universities for miscellaneous schemes.	4,22,63,422
6. Miscellaneous expenditure incurred by UGC	5,73,475
7. Expenditure from grants received from Government	25,86,599
Total (Plan Projects)	<u>19,36,00,372</u>
<b>GRANT TOTAL (PLAN AND NON-PLAN)</b>	<b>29,18,55,848</b>

UNIVERSITY GRANTS COMMISSION

399

Meeting :  
Dated : 1st December 1971.

Item No. 69 : To consider the proceedings of the Standing Committee on Part-time Education.

The Commission appointed a standing committee on part-time education. The proceedings of the meeting of the committee held on 5th October 1971 are given in the Annexure. The main recommendations of the committee are as under:

- i) That a comprehensive review of the scheme of correspondence courses in universities where such courses have been placed on a permanent footing may be undertaken.
- ii) That a visiting committee may be appointed to examine the details of the proposal of the correspondence courses sent by the Himachal Pradesh University. The committee felt that in so far as the courses for M.A. and M.Ed. are concerned, the Himachal Pradesh University may be advised to await the recommendations of the committee in regard to the guidelines for the introduction of correspondence courses at the postgraduate level.
- iii) That the question of enrolment of Indian working abroad should be decided by the university concerned, keeping in view the provisions of their Act and in consultation with the External Affairs Ministry and the Indian Missions abroad in order to facilitate posting of lessons, conduct of examinations etc.
- iv) That the details of the proposal submitted by the Panjabi University, Patiala, for the introduction of correspondence courses at the postgraduate level may be examined by a visiting committee.

The matter is placed before the Commission for consideration.

EC(II.D)/2 (H)

PROCEEDINGS OF THE MEETING OF THE STANDING  
COMMITTEE ON PART-TIME EDUCATION

---

The Standing Committee on Part-time education met on 5th October 1971 at the UGC Office, New Delhi. The following were present:-

1. Professor A.B. Lal, Chairman  
Member UGC and Vice-Chancellor,  
Rajasthan University,  
Jaipur
2. Dr. S.N. Sen,  
Vice-Chancellor,  
Calcutta University,  
Calcutta.
3. Professor M.V. Mathur,  
Director,  
Asian Institute of Educational Planning  
and Administration,  
New Delhi.
4. Professor Rais Ahmed,  
Head of the Physics Department,  
Aligarh Muslim University,  
Aligarh.
5. Dr. P.D. Shukla,  
Chairman,  
Central Board of Secondary Education,  
17-B, Indraprastha Estate,  
New Delhi.
6. Shri R.K. Chhabra,  
Secretary,  
University Grants Commission
7. Dr. J.N. Kaul,  
Joint Secretary,  
University Grants Commission.
8. Dr. S.C. Goel,  
Education Officer,  
University Grants Commission.

2. Professor A.B. Lal, the Chairman of the Committee welcomed the members and pointed out that the Committee had been appointed by the

401

Commission with the specific purpose of advising the Commission on the development of correspondence courses and morning/evening colleges. In recent years a number of universities have shown interest in these new media of imparting education. As correspondence courses and evening/morning college mark a departure from the accepted pattern of class-room instruction including individual tutor-student relationship and co-curricular and extra-curricular activities, the deliberations of the committee acquire an added significance. A stage has been reached in the development of part-time education when a review of existing facilities and a study of their impact on the educational system are urgently called for. This would enable us to suggest measures for the maintenance and coordination of standards.

3. The Committee noted the recommendations of various commissions and committees regarding the introduction of evening and correspondence courses viz. recommendations of the committee appointed by the Government of India, the UGC committee on extension of correspondence courses, Education Commission (1964-66), UGC delegation to USSR to study evening and correspondence courses, seminar on the open university in the United Kingdom etc. It also noted that ten universities - Delhi, Panjab, Panjabi, Rajasthan, Meerut, Madurai, Mysore, Andhra, Bombay and Himachal Pradesh - have already introduced correspondence courses at various levels. A number of universities are contemplating the introduction of correspondence courses at the postgraduate level. In this connection, mention may be made of the proposals received from the Andhra, Delhi, Panjab, Panjabi and Rajasthan Universities. There are also a large number of universities which have affiliated/constituent colleges providing instruction through morning/evening classes for IUC, BA, B.Com., LL.B., M.A., M.Com., Music, B.Ed., B.E., MBBS etc.

4. The Committee agreed that the introduction of evening and correspondence course is to be supported not only on the ground that they would relieve the pressure for admission to universities and colleges but also on account of the wider consideration that such courses enable dissemination of knowledge to large sections of the community including those who are economically backward. The adoption of these non-traditional channels of education have already proved their efficacy not only in terms of the number of students covered by them but also by examination results which are, in general, as good as those of regular students. In this connection, the committee endorsed the following observations of the Education Commission:

"The opportunities for part-time education through programmes like evening colleges, and for own-time education through programmes like correspondence courses should be extended as widely as possible and should also include courses in science and technology (either at the degree or diploma level).. They will help to reduce the capital costs of expanding higher education and cut down even the recurring costs to a substantial extent, especially as enrolments grow.

They are the only means to provide higher education to those who desire to study further but are compelled, on economic grounds, to take up employment at the end of the school stage.. There need to be no fear that they will lead to a deterioration of standards, especially if care is taken to maintain personal contacts with the students receiving correspondence education by organising academic programmes during vacations and holidays."

5. Shri Chhabra appraised the Committee of the review of the scheme of correspondence courses undertaken by the University of Delhi. The report contains a number of useful suggestions for improving the academic and administrative structure of correspondence courses in the University. The Committee desired that the University of Delhi may be requested to supply a copy of the report together with a statement of the action taken/proposed to be taken on the recommendations of the committee. The Panjabi and Rajasthan Universities, where the scheme of correspondence courses has been in operation for three years may also be requested to undertake similar studies.

6. In view of the fact that the scheme of correspondence courses has been functioning for about nine years, it would be advisable to undertake a comprehensive review of the scheme in universities where such courses have been placed on a permanent footing. This would enable these universities to effect further improvements in the scheme and advantage of some of these measures can be taken by other universities which may introduce correspondence courses in the near future. Such a review should include a study of faculty-wise cost, technical and administrative aspects of correspondence education, its impact on the educational system and the extent to which the objectives of the scheme have been realised. The review may be done with the help of a questionnaire for collecting factual information regarding the preparation of lessons, response sheets, contact programmes, library facilities etc. and of discussions with the Director and teachers in the schools/institutes of correspondence courses and meetings with representative groups of students.

7. The Committee considered the proposal of the Himachal Pradesh University, Simla, for assistance towards the introduction of correspondence courses and noted that the University has already started correspondence courses for BUC, BA (Part I) and M.A. (Part I). It is understood that correspondence courses for B.Ed. and M.Ed. proposed to be started by the University earlier have not been instituted. The Committee felt that in so far as courses for MA and M.Ed. are concerned the University may be advised to await the recommendations of the Committee in regard to guidelines for the introduction of correspondence courses at the postgraduate level.

It may not be necessary to institute correspondence courses for B.Ed. in view of the fact that facilities are available at the Regional College of Education, Ajmer, which includes the region under the jurisdiction of the Himachal Pradesh University. The University may, therefore, consider the introduction of correspondence courses at the undergraduate level in a limited number of subjects in which the

demand is likely to be sufficiently high. This measure could be supported by the Commission in view of the special geographical situation of Himachal Pradesh and the needs of the students in the hill areas. The Committee further suggested that lessons should be prepared not only by the teachers of the affiliated colleges of the University but by eminent scholars and scientists selected from a wider area so that the correspondence course students may have the best possible reading material in their subjects. The University may also consider the need to modify its present proposal in so far as the correction of response sheets by research scholars is concerned. This The Committee suggested that the details of the proposal may be examined by a visiting committee, keeping in view the observations made above.

may not be in the interest of either the correspondence course students or the Research scholars of the University.

8. It was noted that a committee, appointed by the UGC, had already prepared some guidelines for the introduction of correspondence courses at the postgraduate level. The Committee underlined the fact that the technique of parttime education at the postgraduate level has to be different from the one employed at the undergraduate level. It felt that apart from postal lessons, there should be provision for the supply of bibliographies, reference books, source materials etc. to the students and due emphasis should be laid on writing work by the students and guidance by the staff. The possibility of having tape-recorded lectures of eminent scholars and scientists could also be explored. Professor M.V. Mathur kindly agreed to prepare a note on correspondence courses at the postgraduate level.

9. The Committee considered the question of minimum qualifications for admission to correspondence courses and agreed that in view of the objectives of the scheme to provide facilities for higher education to large sections of the community, it would not be necessary to lay down qualifications regarding minimum marks at the qualifying examination. The universities can, however, lay down the rules and requirements, which every student must be required to fulfill before he is permitted to appear at the examination. As regards the question of enrolment of Indian working abroad to correspondence courses, it was pointed out that the Delhi and Panjabi Universities enrolled such students. This, in the opinion of the Committee, is a question which should be decided by the universities concerned keeping in view the provisions of their Act and in consultation with the External Affairs Ministry and the Indian missions abroad in order to facilitate posting of lessons, conduct of examinations etc.

10. The Committee considered the proposal of the Panjabi University, Patiala, for the introduction of correspondence courses at the postgraduate level. It was noted that the University proposed to introduce such courses in Panjabi, English and History and also allow job-oriented and inter-disciplinary options in these subjects. It is suggested that the Commission may accept the proposal "in principle" and advise the University to make adequate preparation before the courses are actually started. The details of the proposal may be examined by a visiting committee.

11. The Committee desired that detailed information may be obtained from the universities regarding their affiliated/constituent morning and evening colleges.

UNIVERSITY GRANTS COMMISSION

404

Meeting :  
Dated : 1st December, 1971.

Item No. 70 : To consider the recommendations of the Committee to advise the U.G.C. on the implementation of the summer sciences institute programme for 1972.

....

During the period 1964-71, summer science institutes were organised at various universities attended by about 13,000 college teachers in mathematics, physics, chemistry and biology. This constitutes about 40% of the teachers and demonstrators in the faculty of science in affiliated colleges in the country. The number of institutes held during this period are given below :

NUMBER OF SUMMER SCIENCE INSTITUTES ( 1964-71 )

Year	Mathematics	Physics	Chemistry	Biology	Total
1964	4	4	4	4	16
1965	7(1)	3(1)	7(1)	7(1)	29(4)
1966	9	9	9	7(1)	34(1)
1967	14(1)	11(2)	14	11(2)	50(5)
1968	13(2)	14(2)	14(2)	15(3)	61(9)
1969	14(3)	17(3)	13(1)	10(3)	54(10)
1970	12(6)	19(6)	14(5)	11(4)	56(21)
1971	16(10)	15(5)	14(4)	13(7)	58(26)
Total	94(23)	97(19)	99(13)	73(21)	358(76)

(Figures in parenthesis indicate the number of Special/ All-India Institutes).

405

The Committee to advise the U. I. C. on the implementation of the summer science institute programme during 1972 held its second meeting on November 22, 1971. The following were present :-

1. Professor J.N. Kapur  
Vice-Chancellor  
 Meerut University.
2. Professor C. Mande  
Head of the Deptt. of Physics  
 Nagpur University.
3. Professor B.C. Paul  
Head of the Deptt. of Chemistry  
 Panjab University.
4. Professor E.P. Bambah  
Head of the Deptt. of Mathematics  
 Panjab University.
5. Professor V. Ramakrishna  
Deptt. of Chemistry  
 Indian Institute of Technology  
 Delhi.
6. Professor S. Krishnaswamy  
Deptt. of Biological Sciences  
 Madurai University.
7. Professor M.R.N. Prasad  
Head of the Deptt. of Zoology  
 Delhi University.

The Committee made the following recommendations.

- (1) The importance of the pre-institute meeting of the directors of the summer science institutes for 1972 was reiterated, and it was recommended that the pre-institute meeting could be held in two groups - one for the directors of summer institutes in Chemistry and mathematics, and the other for the directors of institutes in physics and biology - in the third and fourth week of January 1972 at Chandigarh and Delhi.

b.t.c.



(2) It was noted that the Commission has recently (October 1971) raised the contribution towards boarding charges, including essential services, from Rs. 7 to Rs. 8 per participant per day. The Committee recommended that this may be further raised to Rs. 9 per head per day, of which Re. 1 may be set apart for essential services viz. water, electricity etc. If further enhancement is not possible, however, out of the present norms, Re. 1 per head per day may be set apart for essential services.

(3) The Commission should make available the services of top-ranking specialists in various fields in collaboration with NSF/USAID, British Council, German Academic Exchange Service, UNESCO etc. for special/All-India level institutes.

(4) The Committee recommended that the proposal for charging a suitable registration fee per participant to be paid by the individual or the sponsoring institution for participation in the special/All India institutes may be deferred for the present.

(5) In certain institutes where a costly equipment used in the summer institute is damaged, the U.S.C. may consider providing assistance for necessary repairs, etc.

(6) The duration of the special/all-India institute should not be less than 3 weeks.

(7) The Committee then considered the proposals received from the various universities/institutions for holding summer science institutes and recommended 79 proposals for 1972 and 12 special/All-India institutes to be conducted during 1973, as below :

407

Summer Science Institutes recommended  
for 1972.

Subject	General	Special/ All-India	Total
Biology	17	5	22
Chemistry	12	8	20
Mathematics	15	6	21
Physics	11	5	16
Total	55	24	79

Special/All-India Summer Science Institutes  
recommended for 1973

Biology	:	4
Chemistry	:	4
Mathematics	:	1
Physics	:	3
Total		<u>12</u>

The proceedings of the second meeting of the Committee held on November 22, 1971 alongwith the recommendations made for summer institutes to be held in 1972 etc. is given in Annexure • The Commission may consider whether the programme be expanded to the number indicated above or the number of institutes to be held be same as in 1971.

UNIVERSITY GRANTS COMMISSION

Draft proceedings of the second meeting of the Committee to advise the U.G.C. on the implementation of Summer Sciences Institutes Programme during 1972, held on November 22, 1971.

.....

The second meeting of the Committee to advise the U.G.C. on the organisation of the Summer Science Institutes for college teachers during 1972 was held on 22nd November, 1971 in the office of the Commission. The following were present:-

1. Professor J.N.Kapur  
Vice-Chancellor  
Meerut University.
2. Professor C.Mande  
Head of the Department of Physics  
Nagpur University.
3. Professor R.C.Paul  
Head of the Department of Chemistry  
Panjab University.
4. Professor R.P.Bambah  
Head of the Department of Mathematics  
Panjab University.
5. Professor V.Ramakrishna  
Department of Chemistry  
Indian Institute of Technology,  
Delhi.
6. Professor S.Krishnaswamy,  
Department of Biological Sciences  
Madurai University.
7. Professor M.R.N.Prasad  
Head of the Department of Zoology  
Delhi University.
8. Shri R.K.Chhabra  
Secretary  
University Grants Commission.
9. Dr. R.D.Deshpande,  
Joint Secretary  
University Grants Commission.

409

10. Shri I.C.Menon  
Development Officer  
University Grants Commission.
11. Shri Y.D.Sharma  
Education Officer  
University Grants Commission.

Dr. V.G.Bhide, Deputy Director (NPL, New Delhi), Professor L.S.Kothari and Professor U.N.Singh (both of Delhi University) Professor R.C.Mehrotra (Rajasthan University) and Professor M.R.Saxena (Osmania University) could not attend the meeting.

Welcoming the members of the committee, Shri R.K.Chhabra, Secretary, University Grants Commission stated that the Commission has accorded a very high priority to the programme of summer institutes for college teachers. These institutes have been widely welcomed by the universities and the teaching community.

The Committee made the following recommendations:-

1. The importance of the pre-institute meeting of the directors of the summer science institutes for 1972 was reiterated, and it was recommended that the pre-institute meeting could be held in two groups one for the directors of summer institutes in chemistry and mathematics, and the other for the directors of institutes in physics and biology in the third and fourth weeks of January 1972 at Chandigarh and Delhi.
2. As far as possible, summer science institutes should be held at locations/centres which could provide residential accommodation including essential services free of cost to the participants in the hostels since corporate living enhances the effectiveness and the academic value of the institute programme. It was noted that the Commission has recently (October 1971) raised the contribution towards boarding charges, including essential services, from Rs. 7 to Rs. 8 per participant per day. The Committee recommended that this may be further raised to Rs. 9 per head per day, of which Rs. 1 may be set apart for essential services viz, water, electricity etc. If further enhancement is not possible, however, out of the present norms, Re. 1 per head per day may be set apart for essential services.
3. The Commission should make available the services of top-ranking specialists in various fields in collaboration with NSF/USAID, British Council, German Academic Exchange Service, UNESCO etc. for special/All-India level institutes.
4. The Committee recommended that the proposal for charging a suitable registration fee per participant to be paid by the individual or the sponsoring institution for participation in the special/all-India institutes may be deferred for the present.

p.t.o.

(5) Research scholars, being potential teachers, may be admitted to the summer institutes as regular participants.

(6) In certain institutes where a costly equipment used in the summer institute is damaged the U.G.C. may consider providing assistance for necessary repairs etc.

(7) The duration of the special/all-India institute should not be less than 3 weeks.

(8) The Committee considered the proposal of the Commission for Scientific and Technical Terminology, New Delhi, for discussing the problem related to the technical terminology and the translation work in Hindi in the summer science institutes to be organised during 1972 and observed that the summer institutes are held in English and participants are from various regions and linguistic areas and as such the problems posed by the CSTT may not be considered by the summer institutes.

(9) The Committee then considered the proposals received from the various universities/institutions for holding summer science institutes and recommended 79 proposals for 1972 and 12 special/all India institutes to be conducted during 1973 as below:

Summer Science Institutes recommended for 1972

	<u>General</u>	<u>Special/ All-India</u>	<u>Total</u>
Biology	17	5	22
Chemistry	12	8	20
Mathematics	15	6	21
Physics	11	5	16
Total	55	24	79

Special/All-India Summer Science Institutes recommended for 1973.

Biology	:	4
Chemistry	:	4
Mathematics	:	1
Physics	:	3
Total		<u>12</u>

411

The details of recommended proposals, discipline-wise, are given in Appendix-I, II, III, and IV.

(10) The Committee desired that the following proposals may be referred to the appropriate committees of the Commission for their recommendations:-

S.No.	Name of the University	Name & Designation of the Director.	Subject/Special Subject.
1.	2.	3.	4.
1.	Sri Venkateswara University.	Dr. S.Narayana Rao Department of Psychology Sri Venkateswara University.	Educational Psychology.
2.	Madras University.	Dr.(Mrs) Rajammal P. Devdas, Principal, Sri Avinashiligam Home Science College Coimbatore-41.	Home management housing and food economics
3.	Andhra University.	Shri M.R.Reddy Principal, D.N.R.College, Bhimavaram.	Geography.

-----

Appendix I.

Advisory Committee Recommendations for Summer  
Institutes in Biology.

.....

S.No.	Name of the University.	Name & Designation of the Director.	Subject/Special Subject
1.	2	3	4

GENERAL LEVEL.

1.	Andhra University.	Professor K.HanumanthaRao Department of Zoology Andhra University Waltair.	Zoology.
2.	Gauhati University.	Professor J.M.Choudhary Department of Geology Gauhati University Gauhati.	Geology.
3.	Patna University.	Professor R.P.Roy Department of Botany Patna University Patna.	Biology.
4.	Gujarat University	Professor J.J.Chinoy University School of Sciences, Gujarat University, Ahmedabad.	Cell Physiology.
5.	Saurashtra University	Professor S.C.Pandey Department of Biosciences Saurashtra University Rajkot.	Biology.
6.	Kashmir University	Professor P.Kachroo Postgraduate Department of Botany, Kashmir University, Srinagar.	Biology.
7.	Kerala University	Professor A.Abraham Department of Botany Kerala University Trivendrum.	Botany.
8.	Vikram University	Professor H.Swarup School of Studies in Zoology, Vikram University Ujjain.	Biology.

413

1.	2.	3.	4.
9.	Poona University	Professor M.S. Balakrishnan Department of Botany Poona University Poona.	Biology
10.	Bangalore University	Professor M. Nagaraj Department of Botany, Central College Bangalore.	Biology
11.	Berhampur University.	Professor H. Patnaik Department of Botany Berhampur University Berhampur.	Biology.
12.	Punjabi University.	Professor S.S. Bir Department of Botany Punjabi University Patiala.	Biology.
13.	Gorakhpur University.	Professor Hari Shankar Chaudhary Department of Zoology Gorakhpur University Gorakhpur.	Zoology
14.	Meerut University.	Professor V. Puri Department of Botany Institute of Advanced Studies Meerut University Meerut.	Botany.
15.	Calcutta University	Professor J.J. Ghosh Department of Biochemistry Calcutta University Calcutta.	Neuro-Biology
16.	Mysore University	Professor C. Nagama. Department of Geology Central College Bangalore-1.	Biology (Earth Sciences)
17.	Panjab University	Professor I.C. Pande Centre of Advanced Study in Geology, Panjab University Chandigarh-14.	Earth-Sciences with special reference to Himalayan Geology and Palaeontology.



---

1. 2. 3. 4.

---

SPECIAL/ALL INDIA

18. Poona University Dr. (Mrs) Leela Mulherkar  
Department of Zoology  
Poona University,  
Poona. Developmental  
Biology
19. Hindustan Antibiotics Ltd. Pimpri.  
(Poona University) Dr. M.J. Thirumalchar  
Superintendent Research  
Hindustan Antibiotics  
Ltd. Pimpri. Advanced  
Microbiology.
20. Madurai University Dr. Nayaraman  
Department of Biological  
Sciences, Madurai University  
Madurai. New Technique  
in Bio-Research.
21. Annamalai University Professor R. Natarajan  
Director  
Centre for Advanced Study in  
Marine Biology,  
Annamalai University,  
Annamalainagar. Marine Biology.
22. The Committee recommended that Professor MRN Prasad, Head of the  
Department of Zoology, may be requested to organise a special  
institute in Care in Breeding of Laboratory Animals for a period  
of 3 weeks during September/October, 1972.

---

1. 2. 3. 4.

---

SPECIAL FOR 1973

1. Rajasthan University Dr. P.N. Srivastava  
Department of Zoology  
Rajasthan University  
Jaipur. Radiation  
Biology.
2. Calcutta University, Professor A.K. Sharma  
Department of Botany  
Calcutta University  
Calcutta. Cytogenetics.
3. Bangalore University, Professor K. Pampapathi Rao  
Department of Biology  
Bangalore University,  
Bangalore. Animal  
Behaviour.
4. Cancer Research Institute, Tata  
Memorial Centre,  
Bombay. Dr. Kamal J. Banadive  
Cancer Research Institute  
Tata Memorial Centre,  
Bombay. Care in Breeding  
of Animals.

Appendix II.

Advisory Committee Recommendations for Summer Institutes in Chemistry.

.....

---

1.	2.	3.	4.
----	----	----	----

---

GENERAL LEVEL

- |    |                          |  |                                   |
|----|--------------------------|--|-----------------------------------|
| 1. | Andhra University        | Professor L.Ramachandara Row<br>Department of Chemistry<br>Andhra University,<br>Waltair.        | Chemistry                         |
| 2. | Sardar Patel University. | Professor R.D.Patel<br>Department of Chemistry<br>Sardar Patel University<br>Vallabh Vidyanagar. | Chemistry.                        |
| 3. | Jammu University         | Professor A.C.Jain<br>Department of Chemistry<br>Jammu University<br>Jammu.                      | Chemistry.                        |
| 4. | Calicut University.      | Professor S.S.Mooseth<br>Department of Chemistry<br>Calicut University<br>Calicut.               | Chemistry.                        |
| 5. | Bhopal University        | Professor H.P.Aggarwal<br>Department of Chemistry<br>M.A.College of Technology<br>Bhopal.        | Advanced<br>Physical<br>Chemistry |
| 6. | Nagpur University        | Professor M.G. Marathey<br>Principal,<br>Vidarbha Mahavidyalaya<br>Amravati.                     | Chemistry.                        |
| 7. | Utkal University         | Professor P.K.Das<br>Department of Chemistry<br>Ravenshaw College<br>Cuttack.                    | Chemistry.                        |
| 8. | Guru Nanak University.   | Professor S.S.Sandhu<br>Department of Chemistry<br>Guru Nanak University<br>Amritsar.            | Chemistry.                        |

416

1.	2.	3.	4.
9.	Udaipur University	Professor G.V. Bakore Department of Chemistry M.B. College Udaipur University Udaipur.	Chemistry.
10.	Allahabad University.	Professor R.D. Tiwari Department of Chemistry Allahabad University Allahabad.	Chemistry.
11.	Madras University	Professor P.B. Janardhan Department of Chemistry A.C. College Campus Guindy, Madras-25.	Chemistry.
12.	The University of Calcutta or the University of Gauhati may be requested to organize the summer institute in Chemistry during 1972 for Eastern region.		

SPECIAL/ALL INDIA

13.	Tata Institute of Fundamental Research	Professor C.R. Kanekar Department of Chemistry TIFR, Bombay-5.	Quantum Chemistry
14.	Rajasthan University	Professor R.C. Mehrotra Department of Chemistry Rajasthan University Jaipur.	Co-ordination Chemistry OR Organo Metallic Compounds.
15.	Indian Institute of Technology, Kanpur.	Professor C.N.R. Rao Dean of Research and Development, IIT, Kanpur.	* Electronics for Chemistry
16.	Indian Institute of Technology.	Professor V. Ramakrishna Department of Chemistry IIT, Delhi.	Surface Science (Chemistry & Physics).

\* The Proposals is for a period of 3-4 years, at a financial assistance of Rs. one lakh per year for 100-120 participants (as against 40-50 participants normally enrolled).

p.t.o.

---

1.	2.	3.	4.
17.	Bhabha Atomic Research Centre, Bombay.	Dr. Jagdish Shankar Department of Chemistry Bhabha Atomic Research Centre, Bombay.	Radiation Chemistry.
18.	Gorakhpur University.	Professor R.P.Rastogi Department of Chemistry Gorakhpur University Gorakhpur.	Thermodynamics for Chemistry Teachers.
19.	Institute of Science	Professor B.C.Haldar Director Institute of Science Madam Cama Road Bombay.	Activation Analysis.
20.	Indian Institute of Technology, Delhi.	Professor V.Ramakrishna Department of Chemistry IIT, Delhi.	Test Construction & Evaluation Chemistry.

SPECIAL FOR 1973.

1.	Indian Institute of Technology, Kanpur.	Professor C.N.R.Rao, Dean of Research and Development, IIT, Kanpur.	Quantum Chemistry.
2.	Poona University.	Professor H.J.Arnikaar Department of Chemistry Poona University Poona.	Radiation Chemistry.
3.	Panjab University	Professor R.C.Paul Department of Chemistry Panjab University Chandigarh.	Organ-Metallic Compounds.
4.	Sardar Patel University.	Professor R.D.Patel Department of Chemistry Sardar Patel University Vallabh Vidyanagar.	Chemical Spectroscopy.

.....

Appendix III

Advisory Committee recommendations for  
Summer Institutes in Mathematics:

S. No.	Name of the University	Name and designation of the Director	Subject/ Special Subject
1	2	3	4

GENERAL LEVEL

1.	Andhra University	Professor N.V. Subrahmanyam Department of Mathematics Andhra University, Waltair	Mathematics
2.	Kurukshetra University	Dr. C. Mohan, Department of Mathematics Kurukshetra University Kurukshetra.	Mathematics
3.	Marathwada University	Professor S.G. Deo Department of Mathematics & Statistics Marathwada University Aurangabad.	Mathematics
4.	Rajasthan University	Professor G.C. Patni Department of Mathematics Rajasthan University Jaipur.	Mathematics
5.	Annamalai University	Dr. R. Ramachandran Department of Mathematics Annamalai University Annamalainagar	Mathematics
6.	Roorkee University	Professor Chandrika Prasad Department of Mathematics Roorkee University Roorkee	Mathematics
7.	Poona University	Professor V.S. Huzurbazar Department of Mathematics and Statistics University of Poona Poona-7.	Mathematics
8.	Gujarat University	Professor C.G. Khatri Department of Statistics Gujarat University Ahmedabad.	Mathematics
9.	Bangalore University	Professor F.J. Noronha Department of Mathematics Central College, Bangalore.	

(418-a)

10. Indian Institute of Technology, Kanpur Or Lucknow University be requested to organise Summer Institute in Mathematics during 1972.
11. Dr. P.K. Ghosh, Applied Mathematics Department, Calcutta University Or Dr. V.K. Sinha, Department of Mathematics, Jadavpur University may be requested to organise Summer Institute in Mathematics during 1972.
12. Birla Institute of Technology & Science Dr. V.P. Mainra Mathematic  
Birla Institute of Technology & Science, Pilani
13. Madurai University Professor M. Venkataraman Department of Mathematics Madurai University Madurai Mathematics
14. Jammu University Professor M.R. Suri Department of Mathematics Jammu University Jammu Mathematics (Sequential)
15. Osmania University Professor Afzal Ahmad Department of Mathematics Osmania University Hyderabad Mathematics

SPECIAL/ALL-INDIA

16. Meerut University Professor JN Kapur Vice-Chancellor Meerut University Meerut Mathematics for Chemists and Biologists
17. Tata Institute of Fundamental Research Professor KG Ramanathan Department of Mathematics Tata Institute of Fundamental Research Bombay \*Quadratic Form (in collaboration with the Centre of Advanced Study in Mathematics Bombay University)
18. Madras University Dr. VK Balachandran Centre for Advanced Study in Mathematics, Madras University, Madras Algebra
19. Meerut University Professor M.K. Singhal Department of Mathematics Meerut University Meerut Topology

\*N.C.S.E. may provide necessary financial assistance for printing the proceedings of the institute.

4186

3

20.    Ma lurai University                   Professor M.Venkataraman   Analysis  
  Department of Mathematics  
  Ma lurai University-  
  Ma lurai
21.    Indian Institute of                 Professor M.K. Jain         Numerical  
          Technology, Delhi                Department of Mathematics   Analysis  
  IIT, Delhi

SPECIAL FOR 1973

1.    Panjab University                   Professor R.P. Bambah       Number Theory  
  Department of Mathematics  
  Panjab University  
  Chandigarh

418C

Appendix IV

**Advisory Committee Recommendations for Summer  
Institutes in Physics**

S.No. Name of the University Name & designation of the Director Subject/special subject

GENERAL LEVEL

1.	Osmania University	Dr. P.G. Puranik Department of Physics University College of Science, Osmania University Hyderabad	Physics
2.	Dibrugarh University	Professor K.M. Khanna Department of Physics Dibrugarh University Dibrugarh	Physics
3.	Sardar Patel University	Professor A.R. Patel Department of Physics Sardar Patel University Vallabh Vidyanagar	Physics
4.	Indore University	Professor R.J. Anikhindi Department of Physics Holkar Science College Indore	Physics
5.	Marathwada University	Professor B.B. Laud Department of Physics Marathwada University Aurangabad	Physics
6.	Poona University	Professor M.R. Bhiday Department of Physics Poona University Poona	Physics
7.	Bangalore University	Professor K.N. Kuchela Department of Physics Central College Bangalore	Physics
8.	Punjabi University	Professor B.S. Sood Department of Physics Punjabi University Patiala	Physics
9.	Rajasthan University	Professor Babulal Saraf Department of Physics University of Rajasthan Jaipur	Physics



418d

10. Banaras Hindu University      Dr. J.S. Varma      Physics  
Department of Physics  
Banaras Hindu University  
Varanasi.
11. Calcutta University may be requested to organise a general level summer institute in physics in 1972. If Calcutta University is unable to organise the institute, Ranchi University may be approached.

S.I. C.I.I./ALL-INDIA

12. Birla Institute of Technology & Science      Dr. C.R. Mitra,      Electronics  
Director,      (in collaboration  
Birla Institute of      with the C.I.I.)  
Technology & Science,  
Pilani
13. Roorkee University      Professor S.K. Joshi      Theoretical  
Department of Physics      Solid State  
Roorkee University      Physics  
Roorkee
14. Nagpur University      Professor C. Mande      Harvard Project  
Department of Physics      Physics  
Nagpur University  
Nagpur
15. Delhi University      Professor F.C. Auluck      Crystallography  
Department of Physics      Low temperature  
Delhi University      Physics - semi  
Delhi      conductors in  
collaboration  
with IIT,  
New Delhi
16. Bombay University      Professor M.C. Joshi      Nuclear  
Department of Physics      Instrumentation  
Bombay University      and Techniques  
Bombay

S.I. C.I.I. A.R. 1973

1. Indian Institute of Technology, Kanpur      Dr. J. Mahanty      Solid State  
Department of Physics      Physics  
IIT, Kanpur
2. Tata Institute of Fundamental Research      Dr. B.M. Ugranakar      Advanced Quant.  
Department of Physics      Mechanics  
TIFR, Bombay
3. Punjabi University      Professor B.S. Sood      Applied Optics  
Department of Physics  
Punjabi University  
Patiala

'VK'

UNIVERSITY GRANTS COMMISSION

Meeting :

Dated : 1st December, 71.

Item No: 71 : To consider a proposal of the Delhi University for the creation of a post of Dean of Administration in the grade of Rs.1800-2000.

...

The Delhi University had sometime back proposed to the Government of India, the then Ministry of Education and Youth Services that a provision be made in its Act to enable it to appoint an additional Pro-Vice-Chancellor. The question of amendment of the Delhi University Act was inter-alia discussed at a meeting held on the 25th April, 1970 with the Minister for Education, to consider the proposal of the Delhi University for the establishment of a second campus of the University in South Delhi, when the representatives of the Ministry of Education and Youth Services, the University Grants Commission and the University were also present. As for the proposal of the University to make provision for the appointment of more than one Pro-Vice-Chancellor, the Education Minister felt that an amendment of the Act, for this purpose was not necessary as the main object of the University was to make provision for their office to look after the various colleges. This could be done by creating the office of a Dean of Colleges in the University and the University may take up the matter formally with the University Grants Commission.

Accordingly the University sent a proposal for the creation of a post of Dean of Colleges for the University on the same terms and conditions of service as those of the Pro-Vice-Chancellor which was accepted by the Commission at its meeting held on the 3rd February, 1971 (Item 65 ii).

The University has now sent a proposal for the creation of a post of Dean of Administration in the grade of Rs.1800-2000. The necessity for creating such a post has arisen in view of the fact that the university are not often able to implement the decisions taken by the various university authorities and they therefore propose to have the services of a senior and experienced administrator to help them to streamline the administration of the University.

The University do not like the term of appointment of the incumbent to the above post to be coterminous with that of the Vice-Chancellor. It is a special kind of post and the

420

university should be free to offer it to any individual on a contract basis for a period of five years, otherwise it may not be easy for them to get a suitable person for the post.

A copy of the letter received from the Vice-Chancellor, Delhi University is attached (Annexure).

The matter is placed before the Commission for consideration.

AS(CU).

'VK'

421

Copy of the letter No. 5709/VC dated 24.11.1971  
from the Vice-Chancellor, Delhi University to  
the Chairman, UGC.

---  
We badly need the services of a senior official in the University to help us to streamline the administration. In view of the size and complexity of our problems we are often not able to implement the decisions taken by the various University authorities and it is important that we have an experienced administrator to help us.

I would feel grateful if the University Grants Commission could agree to the creation of a post of Dean of Administration in the grade of Rs. 1800-2000. I may mention here that I had raised this question in a somewhat different context at the time I was asked by the then Minister for Education, Professor V.K.R.V. Rao, to assume the office of Vice-Chancellor. I had suggested to him then that the Delhi University would need at least three Pro-Vice-Chancellors to manage its affairs. I am, however, not suggesting the post equivalent to that of a Pro-Vice-Chancellor and that is the reason why I have not mentioned a similar grade.

I may also add that I would not like the term of appointment of the incumbent to this post to be continuous with that of the Vice-Chancellor. It is a special kind of a post and the University should be free to offer it to any individual on a contract basis for a period of five years. Unless we do that it may not be easy for us to get a suitable person for the post.

I should feel grateful if you could kindly approve of this post at your earliest convenience.

422

Confidential

UNIVERSITY GRANTS COMMISSION

Meeting:  
Dated :1st December 1971.

Item No. 72: To consider further the proposal of Rajdhani College, New Delhi (Delhi University) for payment of grant for acquiring land for the construction of building allotted by the DDA on concessional rates.

The University Grants Commission meets 50 p.c. of the expenses incurred by the Colleges affiliated to Delhi University and receiving maintenance grants from the Commission for acquiring land Rs.5,000/- per acre for land for the college building and Rs. One lakh per acre for land used for residential purposes; whereas for areas acquired for play fields a premium of Rs.1/- per annum per acre is paid to DDA.

The Commission had earlier agreed to provide Rs.25,000/- to the Rajdhani College towards the premium of the land allotted to the college in Zone-2.3 for the college building and the amount was paid in March 1967. The land allotted to the College was on concessional rates of Rs.5,000/- per acre and was in the development scheme of DDA. Subsequently, the College was allotted land measuring 10.10 acres in another zone which did not come under the development scheme of the DDA. The cost of the land as such has been worked out at Rs.9/- per sq.yard. (and not on concessional rates) with liability to bear enhancement decreed by the courts, if any, coming to notice in future. The total premium on this land works out to Rs.4,39,950/- of which the UGC share would be Rs.2,19,973/-. The College has now approached the Commission for the sanction of the balance amount of Rs.1,19,973 (Rs.2,19,973 - Rs.25,000/-) as UGC share towards the premium of the land.

The Commission at its meeting held on 1st September, 1971 (Item 47) considered the above proposal and regretted its inability to provide assistance to Rajdhani College for acquiring land at the rates as suggested by DDA.

The Director of Education, Delhi Administration, in his DC letter No.F.17/Cite/35/Raj/71-CT/9395 dated October, 1971, in this connection, stated as follows:

As already explained in our previous correspondence, concessional rates for payment of the cost of land allotted to Rajdhani College, Kirti Nagar cannot be applied as the land falls outside the Development Scheme of the Delhi Development Authority. Actual cost of acquisition is even being paid by the Administration in respect of sites allotted by the Delhi Development Authority for Higher Secondary Schools in similar cases. According to the rules University Grants Commission and Delhi Administration are to meet the non-recurring expenditure on purchase of land and construction of college building on 50:50 basis. There is no specific stipulation that land for the colleges shall be procured only on concessional rates applicable in case of Govt. owned land.

423

In this specific case, the Rajdhani College has already spent a considerable amount on the fencing of the land and preparation of plans/estimates for construction of new building as stated in their letter No.20/21/61(a)/1821, dated the 16th Sept., 1971. It is, therefore, requested that matter may kindly be reconsidered by the University Grants Commission for payment of the 50% share of the cost of land on the basis of the demand sent by the Delhi Development Authority.

The Commission in reply to this, has reiterated its earlier decision that it may not be possible for it to assist the College to acquire the land at the rate suggested by the DDA and suggested that DDA may be approached to allot the land which could be acquired under concessional rate as applicable to educational institutions.

The Delhi University now under its letter no.10/21/71-2B/32010 dated 10th November 1971 has stated that the phrase "usual concessional" rates needs to be further spelt out and that the location of the site should also be taken note of since new colleges should have their buildings at suitable sites. It has, therefore, requested the Commission to examine each case on its merits and has further recommended to give sympathetic consideration to the proposal of Rajdhani College.

The matter is placed before the Commission for consideration.

A.C. CU/<sup>2</sup>.C.

424

Confidential

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated : December 1, 1971.

Item No 73 : To consider the proposal from the Calcutta University Bangladesh Sahayak Samiti for assistance for organising a seminar on Bangla Desh in Collaboration with the Calcutta University.

....

The University Grants Commission at its meeting held on 4th August, 1971 considered a proposal from the Calcutta University Bangla Desh Sahayak Samiti for assistance for organising a seminar on Bangla Desh in collaboration with the Calcutta University. The Commission agreed to assist the University for organising the seminar on Bangla Desh in collaboration with the Calcutta University Bangla Desh Sahayak Samiti. The Commission, however, felt that to hold a conference in September (as suggested by the Samiti) may not give enough preparatory time; and that it may be suggested to the University that the Conference may be held in November, if convenient to the participants.

The Calcutta University has now forwarded the revised proposal from the Calcutta University Bangla Desh Sahayak Samiti for organising the seminar on December 21, 22 and 23, 1971. It has been stated that 25 outstanding scholars have already intimated their acceptance to join the seminar. A list of topics to be discussed at the Seminar is attached (Annexure -). The estimated cost on the seminar has been intimated as Rs.32,500/- including Rs.6,000/- for post-seminar publication of the papers. The Samiti expects to raise an amount of Rs.5,000/- from local contributions and has requested the Commission to provide a grant of Rs.27,500/- for organising the Seminar.

The matter is placed before the Commission for consideration.

EO (CD).

425

Annexure to Item No: 73

List of topics to be discussed at the  
Seminar on Bangla Desh:

...

- I. Genesis and background: on 21.12.71
1. The two-nation theory and Pakistani Nationalism
  2. Pakistan: Democratic challenge and Military Totalitarianism.
  3. Colonial exploitation of Bangladesh
  4. Cultural Conflicts and the new elite in Bangladesh.
- II. Bangladesh: the current phase: on 22.12.71
1. From non-co-operation to armed struggle
  2. Genocide in Bangladesh.
  3. Problems and prospects of liberation war
- III Bangladesh: some vital issues; on 22.12.71
1. Bangladesh evacuees, prospect of their return and International response
  2. Political solution what does it mean?
  3. Economic viability of Bangladesh.
  4. Issues at stake in Bangladesh: Humanrights Democracy and secularism.
- IV. Bangladesh and International Community: on 23.12.1971
1. Bangladesh and India.
  2. Bangladesh and U.N.O.
- V. 1. Bangladesh and U.S.A.
2. Bangladesh and U.S.S.R.
  3. Bangladesh and China
  4. Bangladesh and Arab Countries
  5. Bangladesh and other Non-aligned nations
  6. Bangladesh and Western countries.



UNIVERSITY GRANTS COMMISSION

Meeting :

Dated : 1st December 1971.

Item No. 74 : To consider a note on the implementation of Research Participation Programme in Basic Science for College Teachers and Postgraduate Students 1971-72.

1. The Commission initiated in 1968-69 the programme of research participation for meritorious teachers from affiliated colleges and postgraduate students in Mathematics, Physics, Chemistry and Biology. The main objective of the programme was to provide opportunities for meritorious teachers working in the affiliated colleges as well as postgraduate students in the basic sciences so that they could work under eminent scientists in the science departments of universities and postgraduate colleges during summer vacation, Dewali holidays, Christmas vacation or even during weekends and other holidays depending upon the convenience of the guide and the participants.

2. For the year 1970-71 it was conveyed to the directors of the summer science institutes of 1969 and 1970, that the programme is intended to aid teachers to get acquainted with research methodology and techniques in a chosen discipline under the guidance of a research guide. The modification was intimated to the directors as under:-

"Outstanding participants of the summer science institutes held under your direction in the past are eligible. The selection may be restricted to top three participants from the various institutes. Preference may be given to teachers who have academic distinctions and are postgraduates, working in institutions in rural areas or small towns and who have had no opportunity of doing their postgraduate course either in a university department or in a well-established postgraduate institution. It may please be noted that teachers working in the same department as the guide or in the same locality are not eligible for participation under the scheme."

The project is to be carried out on a full-time basis during vacations for about 12 weeks with a total of about 500 working hours. The UGC will provide financial assistance not exceeding Rs. 1,500/- per participant for a 12 weeks programme."

429

"Cases of one or two postgraduate students of outstanding merit in basic science may also be sent to UGC."

3. The progress of the implementation of the programme during 1968-69, 1969-70 and 1971-72 is shown below:

	No. of participants					
	College teachers			Postgraduate students		
	1968-69	1969-70	1971-72	1968-69	1969-70	1971-72
Biology	31	9	17	37	9	7
Physics	3	8	19	11	2	7
Chemistry	28	20	16	30	4	7
Mathematics	12	7	11	8	-	2
Total	74	44	63	86	15	23

4. On representations from various summer institute directors, that the amount for TA & DA (i.e., Rs. 500/- for TA & DA & Rs. 1,000/- for essential laboratory supplies, books and journals) was inadequate. The matter was considered by the National Advisory Panels of the NCSE and keeping in view their recommendations, the Commission decided as under:

TA & DA admissible to outstation participant	Rs 700/-
Essential laboratory supplies, books journals and field trips where necessary	800/-
	<u>1,500/-</u>

5. Keeping in view the changes made in TA & DA the Commission has also reduced the duration of the programme from 12 weeks to 8 weeks and in special case it can be extended to 10 weeks.

6. The advisory committee on summer science institutes at their meeting held on 16th August 1971, recommended that proposals for research participation programmes for college teachers and postgraduate students may be invited from all the heads of science departments (Physics, Chemistry, Botany, Zoology, Geology/Earth Sciences, Microbiology and Mathematics) in all the universities/institutions deemed to be universities under section 3 of the UGC Act. All the science teachers in colleges should be made eligible to benefit from the scheme. The heads of the various science departments may also forward the

428

proposals of two outstanding students pursuing studies for M.Sc. degree in these subjects. The selection under the scheme may be finalised by March 1972.

7. The above recommendation was accepted by the Commission at their meeting held on October 6, 1971 (Item No. 59).

It is now proposed to invite proposals for research participation by college teachers and postgraduate students from the heads of departments in Physics, Chemistry, Botany, Zoology, Geology, Earth Sciences, Microbiology and Mathematics in the universities and from the colleges. Following two guidelines for framing the proposal (including the application form) and the operation of the scheme have been drafted:

(i) Research Participation Programme in Basic Sciences for College Teachers (Annexure I).

(ii) Research Participation Programme in Basic Science for post graduate students (Annexure II).

The matter is placed before the Commission for consideration.

EC(SI)/JS(SI).

'VK'

Annexure I to item No. 74.

429

RESEARCH PARTICIPATION PROGRAMME IN

BASIC SCIENCES FOR  
COLLEGE TEACHERS

1972

GUIDELINES

Closing date : 31 January 1972

University Grants Commission  
New Delhi

RESEARCH PARTICIPATION BY COLLEGE TEACHERS  
IN BASIC SCIENCE 1972

430

Introduction

The Research Participation Programme for college teachers in basic sciences is intended to aid teachers to gain experience and through this increase familiarity with the subject matter, methodology and techniques of their chosen discipline. The emphasis of the programme is on participation; opportunities are provided to outstanding college teachers who for various reasons have little access to proper research facilities, viz., competent guides, laboratory equipment and supplies suitable reference materials, etc

Proposals are welcome from college teachers in the fields of mathematics, Physics, chemistry, botany, zoology, geology, earth sciences and microbiology. The scheme is not intended to help teachers already doing research work to complete their project.

Participants

Participating teachers must have a firm grounding in their respective disciplines. In a project of this kind, a teacher will get first acquainted with various aspects of a research problem. He will under the guidance of his research guide, define the area to be investigated, become familiar with the pertinent literature, play an active part in designing the project and its subsequent modifications, learn the necessary techniques, collect and collate and analyse data, consider the theoretical implications of his findings, & draft a formal report. The participant's contribution to the overall effort must clearly not be limited to mere data gathering. Rather, he should undergo a creative educational experience calculated to develop his independence in intellectual endeavours and manipulative skills. The programme will help assess the fitness and suitability of participating teachers for research thereby serving as a testing ground for spotting of scientific details.

Eligibility

A teacher is considered eligible for participation if he has at least a master's degree in any of the basic sciences (mathematics, physics, chemistry, botany, zoology, geology, earth sciences and microbiology) and meets the eligibility requirement of the University for conducting graduate classes. Since the prime purpose of the scheme is to provide opportunities for teachers from institutions situated far away from university departments and well developed post-graduate colleges, teachers working in the same department as the guide are not normally eligible for participation under the scheme.

Project activities-

The project should engage the teacher full in a research

4131

topic. The scheme can be operated, on a full-time basis, during summer vacation for a period of eight weeks approximately. The number of working hours should be about 500. In special cases the duration could be extended to ten weeks.

Project guides may select for participation teachers based on aptitude and merit not from their own institutions, but other institutions which have little facilities for research-

Norms and conditions of financial assistance.

1. The Commission will provide financial assistance to the selected participants through the university.
2. The grant will be placed at the disposal of the guide to be drawn upon from time to time at his discretion.
3. The total operating cost should in no case exceed Rs. 1500 (Rs. 700 per outstation participant for TA and DA in lieu of board and lodging for a course of 8 to 10 weeks and Rs. 800 for essential laboratory supplies, books and journals not available in the institution and for field trips, if necessary, in case of participants in botany and zoology). Local participants are not entitled to TA and DA.
4. TA and board and lodging are admissible at the following rates:

Travelling allowance: Actual fare incurred upto first class rail fare, and Rs. 10/- per participant for incidental expenses during journey each way

Board and Lodging: Upto Rs. 10/- per participant per diem.

5. The number of participants under a guide at any given time under the scheme should not exceed four.
6. No honorarium or allowance or remuneration is permissible to the guide and supporting staff.
7. Details of expenditure for laboratory supplies, books and journals and on field trips, if any, in case of biology participants should be clearly indicated in the budget estimates.

Selection

Advisory Committee constituted for the purpose will recommend proposals and the Commission will approve such proposal within the resources available (each institution may submit one proposal in one discipline), the only exception being proposals on inter-disciplinary basis. Selection

432

will be based on the scholastic attainments ability and the aptitude for research work and readiness for hard work on the part of aspiring teachers.

Submission of proposals

Proposals will have to be submitted by aspiring participants, duly signed by the head of the institution in which they work to the research guide under whose supervision a project is to be undertaken. The project guide should forward the proposals duly recommended, through the university to the University Grants Commission.

The proposals should be submitted in the application form as per proforma attached (Appendix), - so as to reach the Secretary, University Grants Commission, Bahadur Shah Zafar Marg, New Delhi by 31st January of the year.

'VK'

APPLICATION FORM

RESEARCH PARTICIPATION FOR COLLEGE TEACHERS  
IN THE BASIC SCIENCES

1. Name and address of the participant.....

.....

2. Qualifications & Experience.....

3. Name of the Institution.....

4. Name and address of the project guide.....

.....

(a) Qualification and field of specialisation.....

(b) Experience.....

5. Title of the project.....

6. Period covered in the proposal.....Starting date.....

Ending date.....

.....  
Signature of participant

.....  
Signature of Head of the  
Institution

.....  
Signature of the project guide

.....  
Countersigned by University  
Registrar

B U D G E T

1. No. of participants.....

2. TA & DA for outstation participants.....

3. Laboratory supplies, books and journals.....



Annexure II to item No. 74.

(434)

RESEARCH PARTICIPATION PROGRAMME IN  
BASIC SCIENCES FOR POSTGRADUATE  
STUDENTS 1972.

GUIDELINES

Closing date : 31 January 1972.

UNIVERSITY GRANTS COMMISSION  
NEW DELHI

RESEARCH PARTICIPATION BY POSTGRADUATE  
STUDENTS IN BASIC SCIENCES 1972.

435

Introduction

The Research Participation Programme is intended to foster and develop independent work by postgraduate students in the fields of mathematics, physics, chemistry, botany, zoology, geology, earth sciences and microbiology from the colleges through initiation into research work and methodology under the guidance of eminent scientists in university departments. The emphasis of the programme is on participation; opportunities are provided to outstanding postgraduate students who for various reasons or otherwise have little access to proper research facilities, viz., competent guides, laboratory equipment and supplies, suitable reference materials etc.

Proposals are welcome from science departments of postgraduate colleges, university departments and other institutions of higher learning in basic sciences.

Participants

Participating postgraduate students must have a firm grounding in the fundamentals of sciences. In a project of this kind, a participant will get first acquainted with all aspects of a research problem. He will, under the guidance of his research guide, define the area to be investigated, become familiar with the pertinent literature, play an active part in designing the project and its subsequent modifications, master the necessary techniques, collect, collate and analyse data, consider the theoretical implications of his findings, and draft a formal report. The participants' contribution to the overall effort must clearly not be limited to mere data gathering. Rather, he should undergo a creative educational experience calculated to develop his power of observation, independence in intellectual endeavours and manipulative skills.

Eligibility

A student is considered eligible for participating from the time he joins the postgraduate course but preference will be given to students who at the time of participation have completed the first year of M.Sc. course.

Project activities.

The projects should engage the participant fully in a research topic. The scheme can be operate on a full-time basis during summer vacation for a period of eight weeks approximately. The number of working hours should be about 50%. In special cases, the duration could be extended to ten weeks.

436

Project guides may select for participation postgraduate students (based on aptitude and merit) not from their own institutions but other institutions.

#### Norms and conditions of financial assistance

1. The Commission will provide financial assistance to the selected participants through the university.
2. The grant will be placed at the disposal of the guide to be drawn upon from time to time at his discretion.
3. The total operating cost should in no case exceed Rs. 1,500/- (Rs. 700/- per outstation participant for TA and DA in lieu of board & lodging for a course of 8-10 weeks and Rs. 800/- for essential laboratory supplies, books and journals not available in the institution, and for field trips, if necessary, in case of participants in botany and zoology).  
Local participants are not entitled to TA & DA.
4. TA and board and lodging are admissible at the following rates:  
Travelling allowance: Upto third class (sleeper) fare by rail and Rs. 10/- per participant for incidental expenditure during journey each way.  
Board and lodging: Upto Rs. 10/- per participant per diem.
5. The number of participants under a guide at any given time under the scheme should not exceed four.
6. No honorarium or allowance or remuneration is permissible to the guide and instructional supporting staff.
7. Details of expenditure for laboratory supplies, books and journals and on field trips, if any, in the case of biology participants should be clearly indicated in the budget estimates.

#### Selection

Advisory Committee constituted for the purpose will recommend proposals and the Commission will approve such proposals within the resources available (each institution may forward proposals of not more than two outstanding students in one discipline). Selection will be based on the scholastic attainments, ability and an aptitude for research work and readiness for hard work on the part of aspiring students.

#### Submission of proposals

Proposals will have to be submitted by aspiring participants duly signed by the head of the institution in which they study, to the research guide under whose supervision a project is to be undertaken.

437

The project guide should forward the proposals fully recommended through the university to the University Grants Commission.

The proposals be submitted in the application form as per proforma attached\* so as to reach the Secretary, University Grants Commission Bahadur Shah Zafar Marg, New Delhi-1 by 31st January of the year.

---

\*Appendix

\*VK\*

APPLICATION FORM

RESEARCH PARTICIPATION FOR POSTGRADUATE STUDENTS IN THE BASIC SCIENCES

- 1. Name and address of the participant.....
- .....
- 2. Qualifications, rank and division in previous examinations.....
- .....
- 3. Name of the institution.....
- 4. Name and address of the project guide.....
- a) Qualification and field of specialisation.....
- b) Experience.....
- 5. Title of the project.....
- 6. Period covered in the proposal.....Starting date.....
- Ending date.....

.....  
Signature of participant

.....  
Signature of Head of the  
Institution

.....  
Signature of the Project Guide

.....  
Countersigned by University  
Registrar

BUDGET

- 1. No. of participants.....
- 2. TA & DA for outstation participants.....
- 3. Laboratory supplies, books and journals.....

Confidential

UNIVERSITY GRANTS COMMISSION

Meeting :  
Dated : 1st December 1971.

Item No. 75 : To consider the question of providing financial assistance to full-time research scholars/research fellows working in Universities/Colleges for their visits abroad either in connection with their research work or for attending International Conferences.

The University Grants Commission provides financial assistance to University and College teachers to the extent of 50% of the travel expenses (first class rail fare in India and air-economy class abroad) in special cases where a teacher has been invited to chair the Conference or a section of it or has been specially selected to read a paper, provided the remaining 50% is provided by the University/College/State Government and not by the teacher himself. In the case of college teachers, financial assistance is made available by the Commission to the college direct, if the proposal has the support of the University. In the case of university teachers, the universities themselves are authorised to grant contribution of the UGC from out of the 'unassigned grant' which is placed at their disposal every year. The balance 50% is to be met by the University from its own resources (in the case of Central Universities from maintenance grant paid by the Commission).

A Committee with the following composition had been appointed to work out the details of the scheme to provide assistance to research scholars/fellows in universities/colleges to enable them to go abroad either in connection with their research work or for attending conferences/seminars:-

1. Professor B.R. Seshachar,  
President,  
Indian National Science Academy.
2. Dr. P.N. Wahi,  
Director-General,  
Indian Council for Medical Research.

440

3. Professor A.R. Verma,  
Director,  
National Physical Laboratory.
4. Professor F.C. Auluck,  
Head of the Physics Department,  
Delhi University
5. Professor U.N. Singh,  
Head of the Mathematics Department,  
Delhi University.

The Committee at its meeting held on 17th November 1971 recommended that assistance may be provided to research scholars in universities/colleges to enable them to go abroad either in connection with their research work or for attending conferences. The assistance may be on cent per cent basis and restricted to only outstanding research scholars/fellows working in universities and colleges who are going to adopt research as their career and whose participation in international conferences, seminars and intensive courses would be of considerable value to their research work. Only those scholars may be provided assistance, who are making a presentation of their work at the international conferences and which has been accepted or to those who have been specially invited to spend sometime at a research centre abroad in connection with their research work or have been invited to attend the seminar/intensive course. The universities and colleges may send their proposals at least two months before the scholar proposes to leave the country. The Committee may meet three or four times a year to recommend the proposals, where assistance is provided by the Commission.

It is proposed that an amount of Rs. two lakhs per annum may be provided for this scheme in the UGC budget.

The matter is placed before the Commission for consideration.

EQ(GD).

441

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:  
Dated : 1st December, 1971

Item No.76 : To consider the suggestions made by the Committee appointed by the C.S.I.R. to review the working of the schemes for Meritus Scientists and Retired Scientists.

.....

The C.S.I.R. appointed a Committee to review the working of the scheme for Meritus Scientists and Retired Scientists. The meeting of the committee was held on 3th September, 1971. The following members were present.

- |   |                     |
|---|---------------------|
| 1. Shri C. Subramaniam,<br>Minister of Planning &<br>Vice-President, C.S.I.R.                   | Chairman            |
| 2. Dr. S. Bhagavantam   | Member              |
| 3. Dr. D.S. Kothari,<br>Chairman, J.B.C.  | Member              |
| 4. Dr. B.P. Pal,<br>Director General,<br>Indian Council of Agricultural<br>Research, New Delhi. | Member              |
| 5. Dr. P.N. Mahi,<br>Director General,<br>Indian Council of Medical<br>Research, New Delhi.     | Member              |
| 6. Dr. B.D. Nag Chaudhuri,<br>Scientific Adviser to the<br>Minister of Defence, New Delhi       | Member              |
| 7. Dr. Y. Nayidanna,<br>Director-General, C.S.I.R.  | Member              |
| 8. Shri K.S. Krishnamurthi  | Secretary, C.S.I.R. |



442

The Committee has made certain suggestions regarding the working of the schemes for retired teachers. The U.G.C. has been operating, since 1962, the scheme for utilisation of services of retired teachers towards teaching/research work. The suggestions made by the Committee and the present position with regard to the working of the U.G.C. scheme for retired teachers are indicated below :

Suggestions made by the Committee.	Present position about the working of the U.G.C. Scheme for Retired Teachers.
i) The scheme of Meritus Scientists should be abolished and that there should be only one scheme of Retired Scientists which should carry the uniform emolument of Rs.500/-p.m.	The U.G.C. has at present only one scheme for utilising the services of retired teachers which carries an honorarium of Rs. 6,000/- per annum and contingency grant of Rs. 1,000/- per annum.
ii) The cases of scientists who are due to retire should be taken up for consideration six months or a year in advance before their date of retirement.	Selections are held twice in a year in February and August and teachers generally apply for assistance under the scheme before their retirement.
iii) No assistance to any retired scientist should be provided under the scheme beyond the age of 65.	Assistance under the scheme is available up to the age of 68 but the total period of tenure does not normally exceed 5 years.
iv) The retired scientist may be permitted to accept limited consultancy which did not come in the way of his research work and was not in the nature of employment or regular emoluments.	The retired teachers may after obtaining the prior approval of the Commission receive additional honorarium from the institution where they work up to a maximum of Rs. 4,000/- per annum, in addition to Rs. 6,000/- p.a.

443

v) The provision of Research Fellows/ staff and contingent grant should be examined on the merit of each case and sanctioned.

The rules provide that if an awardee needs special laboratory or library facilities which are not available at the institution where he works, his request for additional assistance may be considered by the Commission.

vi) The scheme will normally be restricted by the organisation to their own employees but could be extended to others, particularly those in the universities provided the problem on which the scientist was working was directly relevant to the programme of the organisation appointing him as a retired scientist. He may be permitted to work in the organisation from which he retired or one of his choice.

Assistance is available to the teachers who retire from universities/colleges.

The suggestions made by the Committee appointed by the C.S.I.R. about the working of the scheme for Retired Teachers are placed before the Committee for consideration.

EO(SF)/DO(S).

Confidential

University Grants Commission

(444)

Meeting:

Dated : 1st December 1971

Item No.77: To consider a proposal received from Utkal University for the sanction of additional grant towards the salary of one Reader and one Lecturer in the Department of Physics outside the fourth plan allocation.

.....

The Commission on the recommendations of the Fourth plan Visiting Committee approved the creation of posts of two Readers and two Lecturers in the Physics Department of Utkal University. The University has provided for two Readers and three Lecturers within its fourth plan allocation. In July, 1970 the University approached the Commission for creation of additional posts of one Reader and one Lecturer in the Physics Department. It was mentioned, by the University that they have decided to impart teaching in three special papers viz. (i) Solid State Physics (ii) Nuclear Physics and (iii) High Energy Physics from the academic session 1970-71 and these posts will be required for this purpose. The University also agreed to meet the expenditure within the over-all fourth plan allocation. The request of the University was accepted by the Commission on the condition that the expenditure on these posts will be met within the fourth plan allocation of the University. But later the University informed the Commission that it would not be possible to meet the expenditure on these posts within the fourth plan allocation and requested the Commission to sanction grant outside the fourth plan allocation for these posts. The proposal of the University was not accepted.

The Head of the Department of Physics, Professor B.B. Deo has again requested the Commission that proposal for additional staff may be considered and the grants sanctioned outside the fourth plan allocation. He has mentioned that in his department, there are only six staff members and it is not at all possible to give any spare time for constructive thinking and even to carry out normal teaching work. There is no body in the department to teach Nuclear Physics except himself. The Syndicate has already agreed to creation of the posts of one Reader and one Lecturer but the University is unable to meet this expenditure within the plan allocation. He has requested the Commission to sanction grant of about Rs.40,000 outside the

p.t.o

445

plan allocation for the salary of these posts from 1st January 1972. University has also recommended the proposal.

The proposal of the University is placed before the Commission for consideration.

E.O.(Sc.I)/D.O.(S)