

**MINUTES OF THE 171ST MEETING OF THE
UNIVERSITY GRANTS COMMISSION HELD ON
AUGUST 11 & 12, 1975 AT NEW DELHI.**

UGC

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Minutes of the 171st meeting of the University Grants Commission held on August 11 & 12, 1975 at New Delhi.

The following were present:

Professor Satish Chandra	- Vice-Chairman (in the Chair)
Shri K.N. Channa	- Member
Dr. Ajit Mozoomdar	- Member
Professor R.S. Sharma	- Member
Professor Rais Ahmed	- Member
Professor M. Santappa	- Member
Professor J.B. Chitambar	- Member
Professor B.M. Udgaonkar	- Member
Shri K.T. Chandy	- Member
Shri R.K. Chhabra	- Secretary

Professor S. Gopal and Dr. Amarjit Singh could not attend.

SECRETARIAT

Dr. D. Shankar Narayan	- Addl. Secretary
Dr. J.N. Kaul	- Joint Secretary
Dr. S.K. Dasgupta	- Joint Secretary
Shri S. Viswanath	- Deputy Secretary
Shri I.C. Menon	- Deputy Secretary
Dr. S.C. Goel	- Deputy Secretary
Dr. M.L. Mehta	- Deputy Secretary
Dr. T.N. Hajela	- Deputy Secretary
Shri Y.D. Sharma	- Deputy Secretary
Shri A.B. Gupta	- Deputy Secretary
Shri R.P. Bhattacharjee	- Finance Officer

Item No. 1 : To receive the minutes of the meeting of the Commission held on 14th & 15th July, 1975. .

The Minutes of the 170th meeting of the Commission held on July 14 & 15, 1975 were confirmed, subject to the following:

Part I - Item No. 36:

The last paragraph may read as follows:

With regard to the reference from the Ministry of Education & Social Welfare regarding reservation provided in the Kerala University Act, the Commission was of the view that as far as the teaching posts are concerned, reservation may be provided only for Scheduled Castes and Scheduled Tribes and that this may be confined to Lecturers only.

Part II - Item No. 6:

The following may be added to para IV:

"With regard to the recommendation of the Visiting Committee that the three Postgraduate Centres could ultimately become affiliating Universities, it was noted that the Commission had already agreed to the setting up of a Unitary University at Warangal.

In view of the proposal of the State Government to have a University at Guntur, the State Government may be advised to appoint a Committee in consultation with the UGC to prepare a plan for strengthening the Guntur Centre and for giving it functional autonomy. The development of the Centre may be reviewed in due course. It was observed that the State Government does not propose to set up a University at Anantpur but steps should be taken to develop it as an autonomous campus."

Arising out of the minutes, the Commission desired that the recommendations of the Science Research Council with regard to departmental projects in the three universities may be brought up before the Commission at its next meeting. (Item No.34).

The following may be added to the general guidelines in regard to the implementation of the V Plan schemes:

(i) The Universities will make all appointments through open advertisement for posts sanctioned by the Commission in accordance with the provision made in the respective Acts and Statutes.

(ii) If persons already in the service of the University are appointed against the posts approved during the V Plan period, the Universities will be required to fill in the resultant vacancies within a period of six months.

...

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

The Commission approved the action taken on items listed in Appendix I*.

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

This was noted.

...

Item No. 3 : To approve the statement of grants released after the last meeting of the Commission held on 14th & 15th July, 1975.

The Commission approved the grants released after the last meeting of the Commission held on July 14-15 (Appendix II*).

...

Item No. 4 : To receive a statement of expenditure incurred by the University Grants Commission during 1975-76 upto ~~31st May~~, 1975.

30th June .

This was noted.

...

Item No. 5 : To consider a reference made by the Ministry of Education regarding the recommendations made by the evaluation committee on the National Cadet Corps appointed by it.

The Commission desired that the recommendations made by the Defence Ministry for consideration of the UGC may be referred to a committee, which may have a representative each of the Ministry of Education and the Director-General, N.C.C.

...

Item No. 6 : To consider certain measures proposed by the Ministry of Education for the speedy disposal of unsold books produced by the various autonomous organisations functioning under its administrative control.

(a) The Commission desired that the concerned agencies may be requested to give the following information with regard to the books published by them in the last five years and available with them:

(i) Titles of books, which are of relevance to university courses, with names of authors and year of publication, subject-wise;

(ii) Names of the persons, who evaluated the manuscripts.

(b) Similar information in respect of books of a general nature and considered to be useful for the University level students may also be obtained from the agency concerned.

Information when obtained relating to (a) above may be referred to the Subject Panels for advice and information on (b) may be placed for advice before a committee to be constituted for the purpose.

The Commission agreed that while the recommendations made by the Panels and the Committee would be brought to the notice of the universities and the Colleges for their guidance, it would not be possible for the UGC either to purchase these books and supply them to the Universities and Colleges or make it obligatory for the universities and colleges to buy them.

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Item No. 7 : To consider a note on the implementation of the UGC Scheme for the preparation of university level books by Indian authors.

The Commission noted that the Subject Panels have already been requested to identify (a) the areas in which text books are urgently required and (b) the authors who may be requested to write such books, keeping in view the need to fill in the existing gaps.

The Commission generally accepted the recommendations made by the Review Committee regarding the implementation of the scheme for preparation of university level books by Indian authors sponsored by the Ministry of Education & Social Welfare subject to the following:-

(i) in the case of fellows who have worked for two years and have shown evidence of satisfactory work, the value of the fellowships may be increased to Rs.600 per month with effect from 1.9.1975;

(ii) in the case of in-service teachers working under the scheme, the Commission accepted the recommendations that in their case the basic salary may be protected upto Rs.1,100 per month and they would also be entitled to draw such allowances etc., which they would have drawn had they continued in their parent institution. It was further agreed that the duration of such in-service teacher fellowships should not exceed two years;

(iii) in the case of fresh fellows to be appointed, the value of the fellowship under the scheme would now be Rs.600 per month and it would be desirable to appoint fellows with a Ph.D. degree as far as possible.

In addition to the existing provision in the scheme, the following additional provision may be made for inviting teachers to write university-level books:

"Invited author may be given a lump-sum honorarium of Rs.10,000 for undertaking the writing of a book, as approved by the Commission, within a period of three years. This amount would include provision for any expenditure which the author has to incur in the preparation of the manuscript. A grant upto Rs.5,000 may be made available in suitable instalments during the period of preparation of the manuscript and the remaining Rs.5,000 be paid after the manuscript has been accepted by the Commission. Under this provision, the author would not receive any additional support for appointment of a fellow."

The Commission further desired that the status report of the titles which have already been accepted may be obtained.

...

Item No. 8 : To consider further the basis of assistance for the development of postgraduate studies in the Humanities including Social Sciences and Sciences in the colleges during Fifth Plan period.

The Commission agreed to provide assistance for the development of postgraduate studies in (a) humanities and social sciences and (b) science subjects, subject to the following ceiling, as UGC share during the V Plan period:

For Postgraduate Humanities and Social Sciences Departments

All postgraduate departments in the humanities and social sciences. Upto Rs. 1 lakh per department.

For Postgraduate Science Departments

1. Physics, Chemistry Departments Upto Rs.2 lakhs per Department.
2. Botany, Zoology, Geology, Bio-Chemistry and Home Science Departments. Upto Rs.1.5 lakhs per Department.
3. Anthropology, Geography and Mathematics including Statistics Departments. Upto Rs.1 lakh per department.

The Colleges would be expected to send composite proposals for the development of these postgraduate studies which would be examined with the help of a visiting committee.

No assistance under the scheme will be available to the colleges for starting new postgraduate courses.

Assistance for postgraduate departments will be available only for such departments which have provided facilities for postgraduate studies for at least two years and are in a position to supply the results of the first batch of students, from the college, in the university examination.

The Commission further desired that as recommended by the Postgraduate Courses Committee, the Universities concerned may again be advised to carry out a survey of postgraduate departments in the colleges in relation to the norms already suggested by the Commission. Assistance may be provided, if necessary, to enable the Universities to take up such a survey.

...

Item No. 9 : To consider the question of fixation of rates of non-practising allowance to be paid to the teaching staff of Medical Colleges of the Central Universities in the revised scales of pay.

The Commission agreed that the teachers of the medical faculties of the Central Universities be paid non-practising allowance on the same pattern as laid down by the Third Pay Commission and accepted by the Government of India for the corresponding scales of pay.

...

Item No.10: To consider a proposal of the Aligarh Muslim University for continuation of the scheme of Personal Promotions of teachers in the Central Universities.

The Commission could not accept the proposal of Aligarh Muslim University for implementation of the personal promotion scheme for 1973.

...

Item No.11: To consider the programme of academic collaboration from the Universities of Poona (Departments of Chemistry and Physies) and Panjab under Indo-British University Collaboration.

The Commission accepted the programme of academic collaboration proposed by the Universities of Poona (Departments of Chemistry and Physies) and Panjab (Department of Chemistry) under the Indo-British University Collaboration Programme. It was noted that the collaboration will extend for a period of three to five years. The Commission further noted that efforts are being made to obtain sophisticated equipment, components, etc. (which are essential in the pursuit of agreed joint research projects and which are not available indigenously) separately under Colombo Plan assistance, the rupee cost of which the Universities would be expected to meet out of their funds available for V Plan normal development.

The Commission's assistance under this programme would be primarily for exchange of personnel on either side as per terms of agreement. The collaboration programme should not be utilised by the concerned departments for initiating a new area of specialisation but mainly for consolidation and strengthening of existing specialisation in the Departments.

....

Item No.12: To consider further the question of providing financial assistance to full-time Research Scholars/Junior Research Fellows Working in Universities and Colleges for visits abroad either in connection with the research work or for attending international conferences.

The Commission agreed to provide assistance on a 100% basis to enable a few post-doctorate fellows and research associates to participate in international conferences to present the results of their research work. Such awards would provide only international travel expenses (after taking into account any assistance the sponsors of the conference may make) and would be limited to 10 in a year.

...

Item No.13: To consider the recommendations of the Standing Committee on New Universities and University Centres made at its meeting held on 6th August, 1975.

This was withdrawn.

...

Item No.14: To consider the question of raising the value of fellowships awarded to students in computer science and instrumentation from Rs.250 to 400 p.m. per fellow.

The Commission agreed that the value of the fellowship/studentship given to students admitted to post-M.A./M.Sc./B.E. courses approved by the Commission may be raised from Rs.250 to Rs.400 per month with effect from the current academic year.

...

Item No.15: To consider the report of the Committee appointed by the Commission to examine the proposal of declaring of Gandhi Gram Rural Institute of higher education as a Deemed to be University under Section 3 of the UGC Act.

This was withdrawn.

...

Item No.16: To consider the recommendations of the Expert Committee appointed by the Commission to examine the proposal of the University of Bombay for the development of computer facilities.

The Commission accepted the recommendations of the Committee appointed to examine the proposal of the Bombay University for the development of computer facilities and agreed to provide a grant upto Rs.30 lakhs for purchase of a computer and the installation cost not exceeding Rs.2 lakhs. The question of assistance for staff and other recurring purposes may be worked out in consultation with the Standing Committee on Computers.

....

Item No.17: To note the date and place for the next meeting of the Commission.

It was agreed that the next meeting of the Commission will be held in New Delhi on 29th September, 1975. In this connection, the Vice-Chairman mentioned that it is proposed to convene the next Conference of Vice-Chancellors of the Universities on 30th September and 1st October, 1975 at New Delhi. The Commission also agreed that its monthly meetings during the rest of 1975 may be held as follows:

October	-	27-28
November	-	24-25
December	-	22-23

...

Item No.18: To consider the report of the Visiting Committee on Jamia Millia Islamia.

The Commission considered the report of the Visiting Committee to Jamia Millia Islamia. In this connection it was noted that the question regarding the future development of Jamia Millia was separately under discussion with the Chancellor of the Jamia. In view of this, the Commission agreed that the results of such discussion be awaited before further action is taken on the report of the Committee. The Commission was of the view that while maintaining the special character of the Jamia there was an urgent need to strengthen and restructure its undergraduate courses (including teacher education) to make them more meaningful.

The Commission agreed that in the meanwhile Jamia Millia may be assisted for completion of its library building and for books and journals.

...

Item No.19: To consider the reports of Visiting Committee which assessed the development needs of the Universities in Assam (Dibrugarh University and Gauhati University).

The Commission felt concerned about some observations made by the Visiting Committee, particularly relating to posts which have remained vacant for a considerable time and lack of coordination amongst departments in the same university. The reports may be sent to the two universities and discussed with the Vice-Chancellors of the two Universities and the representative of the State Government. Pending this, assistance may be provided for meeting immediate requirements of the Universities in respect of important continuing programmes and purchase of equipment needed for teaching purposes.

...

Item No.20: To consider the proposals of University of Hyderabad for institution of M.Phil. & M.A. Courses for creation of teaching posts for its schools as well as purchase of books, journals and equipment.

The Commission considered the proposal of the University of Hyderabad for institution of M.Phil. and M.A. courses, for creation of teaching posts for its Schools as well as purchase of books, journals and equipment. The Commission noted that the University had since sent its requirements for starting of M.A. Course in English and also the funds required for capital works during the current year.

The Commission reiterated its earlier decision that Government of India be requested to indicate and provide earmarked allocation for the establishment of the University of Hyderabad in view of the special circumstances under which the University was established and that the University be requested to prepare its development plan within the allocation that may be agreed to. The State Government may also be requested to indicate the funds that would be provided for the development of the Campus. The Commission noted that the State Government had allotted land measuring about 2300 acres for the University of Hyderabad and the different phases in which this may be developed would be discussed with the University.

The Commission accepted, in principle, the university instituting a few M.Phil. courses with effect from the current academic year and which could be organised with the help of facilities available at Regional Research Laboratory, National Geophysical Research Institute and the Administrative Staff College and M.A. courses in collaboration with the C.I.E & F.L. and also agreed to the institution of some fellowships for these M.Phil. courses. Only those courses may be instituted immediately which could be provided for within the budget provision made for the University of Hyderabad during 1975-76. The Commission could not agree to the provision of scholarships for M.A. course in English as no such scholarships are provided to other Central Universities. The Commission was further of the view that except for basic books and journals needs for specialised books and journals and the equipment required for different courses should be considered after the Professors have been put in position. The needs of costly equipment, especially those involving considerable amount of foreign exchange should be considered carefully in relation to the specific scientific programmes planned by the University after the Senior Faculty has been appointed.

The Commission further desired that the Vice-Chancellor, University of Hyderabad, may be invited to discuss the proposal in the light of above.

Item No.21: To receive a report on the action taken by Delhi University on the recommendations of the Committee to review the working of Tutorials and Preceptorials in the Delhi Colleges.

This was noted.

...

Item No.22: To consider the recommendations of the convenors of the panels in humanities and social sciences in their meeting held on 22nd July, 1975 on the suggestion of the Economics Panel for initiating a scheme for assistance to research scholars who are not University/College teachers towards their research work.

The Commission considered the recommendations of the Convenors of the Panels in the humanities and social sciences and was of the view that assistance required for such Ph.D. students could be made available by the universities, if they so desired, out of the research grants to be placed at the disposal of the universities.

...

Item No.23: To consider the recommendation made by the Convenors of panels in humanities and social sciences at their meeting held on the 22nd July, 1975 on the question of giving DA to the teachers selected for assistance for short-term projects.

The Commission considered the recommendations made by the Convenors of panels in the humanities and social sciences and agreed that candidates selected for assistance under the short-term research projects may be allowed TA & DA for field work according to the rules of their universities and upto a maximum limit of 20 per cent of the approved grant, provided there is adequate justification for it and the panels are satisfied that the project cannot be implemented without field work.

...

Item No.24: To consider the objection raised by the Audit on the proposal of Jawaharlal Nehru University for construction of students hostels, etc.

The Commission approved additional expenditure of Rs.13.60 lakhs incurred towards the construction of the hostel block and faculty housing etc., consequent upon the change in specifications.

...

Item No.25: To consider the suggestions of the Working Group constituted by the Commission in respect of the recommendations made by the Committee on the status of women in India.

The Commission generally accepted the suggestion of the Working Group constituted by the Commission in respect of the recommendations made by the Committee on the status of women in India.

...

Item No.26: To consider certain Establishment Matters of the University Grants Commission.

The Commission approved the draft Scheme of "Joint Consultative Committee for UGC Employees" formulated for all employees of the UGC excepting Class I Officers and desired that it may be adopted in the office of the University Grants Commission.

The Commission noted that the Secretary, University Grants Commission, will be the Chairman of the proposed Committee. The Commission appointed the following 3 members to represent the official side on the proposed Joint Consultative Committee:

- (1) Dr. D. Shankar Narayan
- (2) Dr. S.K. Dasgupta
- (3) Shri P.N. Advani

...

Item No.27: To receive the report of the Committee on Visva-Bharati appointed by the Ministry of Education & Social Welfare.

The Commission desired that the report of the Review Committee may be referred to the Visva-Bharati University for its comments in the first instance.

Item No.28: To consider a letter from the Ministry of Education & Social Welfare requesting for the views of the Commission on the scheme of the national merit examinations to be conducted by the Union Public Service Commission.

The Commission generally welcomed the scheme of the Working Group regarding the conduct of the National Merit Examination at the A & B levels by the Union Public Service Commission and to utilise it for recruitment of staff to specified categories of jobs in the public and private sectors. In regard to the specific question whether persons securing high grades in the 'B' level National Merit Examination would be considered for junior research fellowship and for appointment as lecturers in the universities and colleges, the Commission, while accepting the proposal in principle, was of the view that this would need further examination after broad details of the curriculum and other relevant information regarding the examination become available.

R.K. Chhabra
Secretary

Satish Chandra
Vice-Chairman

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 11th & 12th August, 1975
Time : 10.00 A.M.
Place: U.G.C. Office, New Delhi.

A G E N D A

- Item No.1: To receive the minutes of the meeting of the Commission held on 14th & 15th July, 1975.
- Item No.2: (a) To approve the action on certain matters.
(b) To receive the items of information.
(c) To receive the statement of proposals which could not be accepted by the Commission.
- Item No.3: To approve the statement of grants released after the last meeting of the Commission held on 14th & 15th July, 1975.
- Item No.4: To receive a statement of expenditure incurred by the University Grants Commission during 1975-76 upto 30th June, 1975.
- Item No.5: To consider a reference made by the Ministry of Education regarding the recommendations made by the evaluation committee on the National Cadet Corps appointed by it. P. 1-21
- Item No.6: To consider certain measures proposed by the Ministry of Education for the speedy disposal of unsold books produced by the various autonomous organisations functioning under its administrative control. P.22-25
- Item No.7: To consider a note on the implementation of the UGC Scheme for the preparation of university level books by Indian authors. p.26-67
- Item No.8: To consider further the basis of assistance for the development of postgraduate studies in the Humanities including Social Sciences and Sciences in the colleges during Fifth Plan period. P.68-77

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- Item No.9: To consider the question of fixation of rates of non-practising allowance to be paid to the teaching staff of Medical Colleges of the Central Universities in the revised scales of pay. P.78-89
- Item No.10: To consider a proposal of the Aligarh Muslim University for continuation of the scheme of Personal Promotions of teachers in the Central Universities. P.90-99
- Item No.11: To consider the programme of academic collaboration from the Universities of Poona (Department of Chemistry and Physics) and Panjab Under Indo-British University Collaboration. P.100-138
- Item No.12: To consider further the question of providing financial assistance to full-time Research Scholars/Junior Research Fellows Working in Universities and Colleges for visits abroad either in connection with the research work or for attending international conferences. P.139-143
- Item No.13: To consider the recommendations of the Standing Committee on New Universities and University Centres made at its meeting held on 6th August 1975. P.144
- Item No.14: To consider the question of raising the value of fellowships awarded to students in computer science and instrumentation from Rs.250 to 400 p.m. per fellow. P.145
- Item No.15: To consider the report of the Committee appointed by the Commission to examine the proposal of declaring of Gandhi Gram Rural Institute of higher education as a Deemed to be University under Section 3 of the UGC Act. (Withdrawn)
- Item No.16: To consider the recommendations of the Expert Committee appointed by the Commission to examine the proposal of the University of Bombay for the development of computer facilities. P.147-154
- Item No.17: To note the date and place for the next meeting of the Commission.

Any other item.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 11th & 12th August, 1975
Time : 10.00 A.M.
Place: UGC Office, New Delhi.

A G E N D A

- Item No.18: To consider the report of the Visiting Committee on Jamia Millia Islamia. p 155-158
- Item No.19: To consider the reports of Visiting Committee which assessed the developmental needs of the Universities in Assam (Dibrugarh University & Gauhati University). p 159-164
- Item No.20: To consider the proposals of University of Hyderabad for Institution of M.Phil. & M.A. Courses, for creation of teaching posts for its schools as well as purchase of books, journals and equipment. p 165-196
- Item No.21: To receive a report on the action taken by Delhi University on the recommendations of the Committee to review the working of Tutorials and Preceptorials in the Delhi Colleges. p 197-202
- Item No.22: To consider the recommendations of the conveners of the panels in humanities and social sciences in their meeting held on 22nd July, 1975 on the suggestion of the Economics Panel for initiating a scheme for assistance to research scholars who are not University/College Teachers towards their research work. p 203
- Item No.23: To consider the recommendation made by the conveners of panels in humanities and social sciences at their meeting held on the 22nd July, 1975 on the question of giving DA to the teachers selected for assistance for short-term projects. p 204-206
- Item No.24: To consider the objection raised by the Audit on the proposal of Jawaharlal Nehru University for construction of students hostels etc. p 207

- Item No.25: To consider the suggestions of the Working Group constituted by the Commission in respect of the recommendations made the Committee on the status of women in India. p208
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- Item No.26: To consider certain Establishment Matters of the University Grants Commission.
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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Minutes of the 170th meeting of the University Grants Commission held on 14th & 15th July 1975 at New Delhi.

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The following were present.

Professor Satish Chandra	-	Vice-Chairman (in the Chair)
Shri K.N. Channa	-	Member
Dr. Ajit Mozoomdar	-	"
Professor R.S. Sharma	-	"
Professor Rais Ahmed	-	"
Professor S. Gopal	-	"
Professor M. Santappa	-	"
Dr. Amarjit Singh	-	"
Professor J.B. Chitambar	-	"
Professor B.M. Udgaonkar	-	"
Shri R.K. Chhabra	-	Secretary

Shri K.T. Chandy could not attend.

SECRETARIAT

Dr. D. Shankar Narayan	-	Addl. Secretary
Dr. J.N. Kaul	-	Joint Secretary
Dr. S.K. Dasgupta	-	Joint Secretary
Shri S. Viswanath	-	Deputy Secretary
Shri I.C. Menon	-	Deputy Secretary
Dr. S.C. Goel	-	Deputy Secretary
Dr. M.L. Mehta	-	Deputy Secretary
Dr. T.N. Hajela	-	Deputy Secretary
Shri Y.D. Sharma	-	Deputy Secretary
Shri R.P. Bhattacharjee	-	Finance Officer

PART I

Item No.1: To receive the minutes of the meeting of the Commission held on 2nd June 1975.

...

The minutes of the 169th meeting of the Commission held on 2nd June 1975 were confirmed, subject to the following:

Item No.(6) The first two sentences may read as follows:

"The Commission noted the recommendations of the Planning Group. It was further noted that during 1974-75 it had become necessary to re-appropriate, purely as a temporary measure, for ways and means purposes, a sum of Rs.1.03 crores from Plan to Non-Plan expenditure."

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

...

The Commission approved the action on items listed in Appendix I*.

During the discussions, the following points emerged:

2(a)(8): It was suggested that in cases of specific projects accepted by the Commission and where both non-recurring and recurring grants have been approved, care should be taken to see that implementation is taken up in respect of both items simultaneously.

2(a)(11): It was noted that criterion no.2 for selecting non-Cosip colleges for participation in the COHSIP was as follows:

If a college scores zero in the grading system for not having Ph.D. or 1st class M.A., on its staff, it may still be considered for selection, other conditions being the same.

It was noted that a consistently good academic record of the teaching staff would be a better criterion than Ph.D. and first class postgraduate degree considered in isolation.

2(a)(19): It was noted that the posts created under National Education Survey Scheme were temporary and for the duration of the Survey only and that persons promoted against these posts would not claim any title on that account for regular appointment against these posts, after the Survey is completed.

Item No.3: To approve the statement of grants released after the last meeting of the Commission held on 2nd June 1975.

...

The Commission approved the grants released after the last meeting of the Commission held on June 2, 1975(Appendix II

* Not enclosed

Item No.4: To receive a statement of expenditure incurred by the University Grants Commission during 1975-76 upto 31st May, 1975.

...

This was noted.

Item No.5: To receive a statement indicating the progress of issue of utilisation certificates during the period ending 15.6.1975.

...

This was noted.

Item No.6: To consider the reports of the UGC Visiting Committee to Universities of Andhra, Osmania and Sri Venkateswara and P.G. Centres at Guntur, Warangal and Anantapur.

Item No.7: To consider further the reports of the UGC Visiting Committee to the Universities of Cochin, Calicut and Kerala.) Decision recorded in Part II of the minutes

Item No.8: To consider the reports of the UGC Visiting Committee to the Universities of Utkal, Sambalpur and Berhampur.)

Item No.9: To consider further the report of the Committee on Hamdard College of Pharmacy, Delhi University.

...

The Commission agreed that assistance may be provided to Hamdard College of Pharmacy, Delhi University, with effect from 1975-76 in accordance with the pattern laid down by the AICTE for B.Pharm. courses. It was noted that assistance would be provided to the College out of the funds available for technical education for the different items recommended by the Committee appointed by the Commission.

The Commission desired that Delhi University may frame necessary Statutes/Ordinances for appointment of Readers in this College.

Item No.10: To consider the recommendation made by the Law Panel for equating LL.M. with the M.Phil. course for purposes of award of Scholarships.

....

The Commission accepted the recommendation of the Law Panel that LL.M. course should be offered to whole-time students only and that such facilities should not be made available to part-time students. It was, however, desired that the views of the Universities may be invited on this matter.

The Commission decided that consequent upon the revision of scales of pay, the minimum qualification required for recruitment of Lecturers in the Faculty of Law and Law Colleges should be the LL.M. degree.

The Commission desired that the Law Panel may be requested to suggest the names of a few institutions which could be developed for creating adequate facilities for full-t. LL.M. courses and the assistance that may be required by these institutions for running such courses.

Item No.11: To consider certain measures proposed by the Ministry of Education for the speedy disposal of unsold books produced by the various autonomous organisations functioning under its administrative control.

...

Consideration of this was postponed to the next meeting.

Item No.12: To consider further the proposal of the Government of India for making National Service for a specified period as a pre-condition for the award of a degree.

...

The Commission agreed that it may be neither possible nor feasible to make the National Service for a specified period as a pre-condition for the award of a degree. Alternative methods (Appendix III) should be tried to realise the objectives of National Service Scheme.

Item No.13: To consider a reference made by the Ministry of Education regarding the recommendations made by the evaluation committee on the National Cadet Corps appointed by it.

...

Consideration of this was postponed to the next meeting.

Item No.14: To consider a reference contained in the proceedings of the Vice-Chancellor's Conference of U.P. Universities held on 19th & 20th January, 1975 at Lucknow.

...

The Commission agreed that assistance for construction of Men's Hostels for colleges located in the backward areas may be on the basis of 75:25 (U.G.C. share 75%).

Item No.15: To consider further the question of providing assistance for development programmes to Teachers Training Colleges during the Fifth Plan period on the basis of the recommendations of Panel of Education.

...

The Commission agreed that assistance to teacher training colleges may be provided within a ceiling of Rs.1.5 lakhs as UGC's contribution during the Fifth Plan period, on the following basis:

Name of the Scheme	<u>Pattern of Assistance</u>	
	<u>contri- bution by UGC</u>	<u>Contribution by college/ State Govt.</u>
Extension of libraries and laboratories, including furniture and fittings.	50%	50%
	33-1/3%	66-2/3%
Purchase of books and equipment	75%	25%
Additional staff for improvement of practice teaching.	100%	-
Developing teaching materials and audio-visual aids	100%	-

Item No.16: To consider further the question of eligibility of colleges already brought within the purview of UGC Act to receive Commission's assistance under various programmes.

...

It was noted that a large number of colleges have remained temporarily affiliated to the universities for long periods. The Commission desired that reasons for such continued temporary affiliation may be ascertained and the concerned universities requested to indicate when such colleges are expected to be given permanent affiliation.

Item No.17: To consider further the question of recognition of Autonomous Colleges.

...

The Commission noted the present position regarding the question of declaring colleges as 'Autonomous' by the universities. The Commission desired that in the light of the discussions held at the meeting, the universities concerned may be addressed to initiate urgent action in this regard.

Item No.18: To consider the questing of giving assistance to affiliated colleges for improvement to undergraduate facilities under 5 lakhs scheme during Fifth Plan Period.

...

The Commission agreed that in the case of colleges located in the backward areas, as defined by the Planning Commission, the eligibility conditions with regard to enrolment and the faculty strength for purposes of assistance under the Colleges scheme (Rs.5 lakh scheme) may be as follows:

	Minimum	
	<u>Enrolment</u>	<u>Faculty strength</u>
Three-Year Degree Course	300	15
Two-Year Degree Course	200	10

The Commission was not in favour of any relaxation of condition of minimum enrolment/faculty strength in the case of women's colleges located in other areas.

The Commission desired that proposals received from the colleges may be initially processed for assistance within the first priority of Rs. 3 lakhs in accordance with general guidelines and limits of assistance for different purposes,

already agreed to by the Commission. In such cases, in addition to the information sought for in the proforma, the colleges may be requested to provide the following information:-

- (a) Qualifications and experience of the teaching staff.
- (b) Examination results.
- (c) Expenditure incurred by the Colleges in the previous year towards:
 - (i) salary and allowances of the teaching staff.
 - (ii) Salary and allowances of the non-teaching staff.
 - (iii) library books and journals (Recurring).
 - (iv) maintenance of Laboratories (Recurring).
 - (v) other expenses (Recurring).
- (d) Total income.
- (e) Qualification of Librarian.

The Commission desired that in case of accepted proposals, grants beyond Rs. one lakh should not be sanctioned for payment unless the college has provided the above information.

Proposals which required assistance beyond the initial assistance of Rs. 3 lakhs may be placed before the Commission.

In this connection, it was agreed that universities/ State Governments be requested to set up a machinery to continuously review the development of the colleges and proper utilisation of development grants available to them.

Item No.19: To consider the question of providing grants to the Departments of Special Assistance for Fellowship awards beyond the Fifth Plan Period.

...

The Commission agreed that fellowships awarded by the Department under the scheme of 'Special Assistance to Departments' upto 1978-79 may be permitted to complete their full duration and that necessary assistance be provided even after 31st March, 1979 to cover expenditure on this account.

Item No.20: To consider the question of providing financial assistance to full-time Research Scholars/Junior Research Fellows working in universities and colleges for visits abroad either in connection with the research work or for attending international conferences.

...

The Commission desired that a detailed note giving the present practice of providing assistance to teachers/Research Scholars to attend international conferences and for visits abroad for collecting materials may be placed before the Commission.

Item No.21: To consider a note on the implementation of the UGC Scheme for the preparation of university level books by Indian Authors.

...

Consideration of this was postponed to the next meeting.

Item No.22: To consider the question of relaxing the condition of minimum enrolment in the case of colleges situated in backward and rural areas under the scheme of setting up of Book Banks in Colleges.

...

In view of the need for providing Book Banks to most of the colleges, the Commission agreed that colleges which have an enrolment of not less than 100 and not more than 249 in degree classes may also be assisted for establishing Book Banks. The assistance to such colleges will be limited to Rs.8,000/-, on usual sharing basis (U.G.C. share Rs.6,000).

It was also mentioned that some of the Nationalised Banks have a scheme for providing assistance towards Books Banks. The Commission desired that information in this regard may be obtained and placed before the Commission.

Item No.23: To consider proposal of the Roorkee University for enhancement of the value of stipend paid by the university to the students selected for training at Water Resources Development Training Centre.

....

The Commission regretted its inability to accept the proposal of the Roorkee University to increase the

value of the stipend paid to the sponsored students for training at the Water Resources Development Training Centre. The University, may however, request the agencies which sponsor such in-service personnel for training to provide for the enhanced stipends.

Item No.24: To consider a proposal of the Aligarh Muslim University for continuation of the scheme of Personal Promotions of teachers in the Central Universities.

....

Consideration of this postponed to the next meeting.

Item No.25: To consider the proposal of Pachaiyappa's College, Madras for assistance towards the construction of Second Non-Resident Students Centre which was undertaken without prior approval of the Commission in the matters.

....

In view of the circumstances explained by the Pachaiyappa's College, Madras, the Commission agreed to provide an assistance of Rs.35,000/- to the College for the construction of second Non-Resident Students' Centre.

Item No.26: To note the date and place for the next meeting of the Commission.

...

It was noted that the next meeting of the Commission will be held at New Delhi on 11th and 12th August, 1975.

Item No.27: To consider the report of the Visiting Committee to Rabindra Bharati University.) Decision recorded in Part II of the Minutes.

Item No.28: To consider the report of the Visiting Committee to Kalyani University.)

Item No.29: To consider the report of the Committee appointed by the Commission to examine the proposal of the Kerala University for obtaining Computer facilities.

...

The Commission accepted the proposal of the Kerala University for purchase of a computer of the level of TDC-16 system at an estimated non-recurring cost of Rs.21 lakhs, and installation expenditure not exceeding Rs. one lakh. The recurring cost involved for maintenance and staff of the computer centre may be decided in consultation with the Standing Committee on Computers.

Item No.30: To consider the report of the Committee appointed by the Commission to examine the proposal of the University of Poona for the development of Computer facilities.

...

The Commission accepted the proposal of the University of Poona for the development of a Computer Centre jointly with the National Chemical Laboratory, Poona and the Engineering College, Poona. It was noted that the actual cost of the computer system and also the recurring costs for staff and maintenance of the computer centre would be shared equally by the three participating institutions. The Commission's share towards purchase of the computer and its installation would be about Rs.20 to 25 lakhs. The extent of recurring assistance that may be required may be decided in consultation with the UGC Committee on Computers.

Item No.31: To consider the basis of assistance for the development of postgraduate studies in the Humanities including Social Sciences and Sciences in the colleges during the Fifth Plan period.

...

The Commission desired that this item may be brought up at its next meeting alongwith the proforma in which the proposals would be invited from the colleges.

The Commission further agreed that in the meanwhile basic grants for (a) purchase of scientific equipment and (b) library books and journals, may be provided to such colleges which had been assisted during the Fourth Plan period. The basic grants so provided to these colleges would be taken into account towards the ceiling grant to be determined for the Fifth Plan.

Item No.32: To consider the proposal from the Delhi University for financial assistance for the reconstruction of Auditorium of the Lady Shri Ram College for Women, New Delhi.

...

The Commission agreed to provide assistance to Lady Shri Ram College, Delhi University towards fittings, furniture and equipment of the auditorium on the condition that the College would undertake to repair the auditorium building out of its own resources.

Item No.33: To consider certain establishment matters of the University Grants Commission.

...

(i) Recommendations made by the Committee appointed to work out the details for setting up "Documentation-cum-Evaluation and Planning Unit" in the University Grants Commission.

(ii) To consider the recommendations of the U.G.C. Standing Committee on Establishment Matters made at its meeting held on 8th July 1975.

...

(i) The Commission accepted the recommendations of the Committee and agreed to the setting up of a "Research & Planning Unit" on the pattern suggested by the Committee with the following main functions:

- (i) Collection, compilation and presentation of different types of data relating to higher education.
- (ii) Undertaking analytical studies on the development and growth of higher education in the country and abroad.
- (iii) Preparing draft plans, projects and forecasts on the basis of the information collected from different sources.
- (iv) Monitoring and evaluation of on-going programmes.
- (v) Bringing out brochures, publications, etc. on different aspects of higher education.

The Commission also agreed to the creation of the following permanent posts in the office of the University Grants Commission in relaxation of the Government of India orders on the subject and desired that the concurrence

of the Government of India may be obtained before the posts are filled up:

<u>S.No.</u>	<u>Designation of the post.</u>	<u>Scale of pay</u>	<u>No. of post(s)</u>
1.	Experts	Rs.2,750 (fixed)	3
2.	Consultants	Rs.2,250 (fixed)	3
3.	Senior Statistical Officer	Rs.1200-50-1600	1
4.	Junior Statistical Officer	Rs.840-40-1000-EB-40-1200	2
5.	Senior Librarian	Rs.700-1300	1
6.	Documentation Officer	Rs.700-1300	1
7.	Senior Statistical Assistant	Rs.550-25-750-EB-30-900	2
8.	Statistical Assistant	Rs.425-15-500-EB-15-560-20-700	3

The Commission further agreed that the supporting staff on professional and secretarial side for the proposed Unit as well as in the Library and the Information and Statistics Division may be determined for creation of additional posts and provided as and when the need arises keeping in view the report of the Staff Inspection Unit.

(ii) (a) The Commission accepted the recommendations of the Standing Committee on Establishment Matters and pending report of the Staff Inspection Unit agreed to the creation of the following posts in the office of the University Grants Commission in relaxation of the Government of India orders banning creation of new posts on an ad hoc basis initially for a period of one year with effect from the dates of filling the posts in order to meet its immediate requirements subject to concurrence of the Government of India:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
<u>S.No.</u>	<u>Designation of the post</u>	<u>Scale of pay</u>	<u>No. of post</u>
1.	Deputy Secretary	Rs.1500-60-1800	1
2.	Education Officer	Rs.1200-50-1600	2

1	2	3	4
3.	Assistant Secretary	Rs.1200-50-1600	1
4.	Assistant Editor	Rs.840-40-1000-EB-40-1200	1
5.	Production Assistant	Rs.550-25-750-EB-30-900	1

(b) The Commission accepted the recommendation of the Establishment Committee that pending an assessment by the Staff Inspection Unit, posts of one Book Production Officer (Rs.1200-50-1600) and one Junior Stenographer (Rs.330-560) already sanctioned by the Ministry of Education and Social Welfare may be revived and the existing sanctioned posts of one Assistant and one L.D.C./Typist may be upgraded to that of Section Officer (Grade II) (Rs.650-30-740-35-880-EB-40-960) and Junior Stenographer (Rs.330-10-380-EB-12-500-EB-15-560) respectively for the Ministry of Education & Social Welfare schemes of Production of Core Books and Fellowships Programmes and the National Award of Prizes to Indian Authors for original standard works of University level in Indian languages respectively.

(c) The Commission accepted the recommendations of the Establishment Committee on the request of Shri M.R. Rao, presently working as Officer on Special Duty and while not accepting his representation desired that Shri Rao may be considered for the scale of pay of the post of Assistant Secretary in the U.G.C. as and when due in his turn at a point to be reckoned with reference to his notional seniority as Personal Assistant and subsequent stages, as per cadre rules and that such a revision of scale of pay of the post of Officer on Special Duty would be personal to him.

Item No.34: To consider the recommendations of the Science Research Council made at its meeting held on 11th July 1975.

...

The Commission accepted the recommendations of the Science Research Council to provide assistance in respect of 179 projects at a cost of Rs.99,98,200 over a period of three years (Appendix IV)*.

The Commission also accepted the other recommendations of the Science Research Council, as given in Appendix (V).

* not enclosed

The Commission desired that the recommendations of the Science Research Council with regard to departmental projects in the three universities may be considered separately.

Item No.35: To consider the reports of the Visiting Committee to Jammu & Kashmir Universities to assess their needs for their Fifth Plan period.

...

Decision recorded in Part II of the Minutes.

Item No.36: To further consider the recommendations made by the Committee of Vice-Chancellors of Central Universities at its meeting held on 23rd May 1975, regarding reservation of posts of various categories in the Central Universities to persons belonging to Scheduled Castes and Scheduled Tribes communities.

....

The Commission accepted, in principle, that reservation may be provided for Scheduled Castes and Scheduled Tribes for recruitment to the posts of Lecturers in the Universities and Colleges and that the mechanics of such reservations may be worked out.

The Commission was of the view that in order that the teaching posts may not remain vacant for long periods, such reservations may not be operated on a roster system nor should the reserved posts be carried forward from year to year.

With regard to the reference from the Ministry of Education regarding reservation provided in the Kerala University Act, the Commission was of the view that as far as the teaching posts are concerned, reservations may be provided only for Scheduled Castes and Scheduled Tribes and not for other backward communities.

R.K.Chhabra
Secretary

Satish Chandra
Vice-Chairman.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

...

Proceedings of the 170th meeting of the University Grants Commission held on 14th & 15th July, 1975.

P A R T II

Item No. 6 : To consider the reports of the UGC Visiting Committee to the Universities of Andhra, Osmania, Sri Venkateswara and the Post-graduate Centres at Guntur, Warangal and Anantpur.

The Commission considered the reports of the Visiting Committee to the Universities of Andhra, Osmania and Sri Venkateswara, and the Postgraduate Centres at Guntur, Warangal and Anantpur and Generally accepted the recommendations, subject to the following modifications :

I. OSMANIA UNIVERSITY

(a) Fellowships

The Commission was not in favour of allocating specific number of fellowships to each Department. It, however, agreed to provide a total of 25 fellowships in the first instance to be utilised according to the guidelines to be indicated by the Commission for the purpose.

(b) Department of Micro-biology

(i) Assistance recommended for this Department would only be available to the University if it organises a School of Biosciences as recommended in the report of the Visiting Committee and to include in it the Department of Microbiology also; and

(ii) The courses and research work in this Department should be related to local/regional needs in the areas of industrial microbiology, fermentation and also nutrition and be developed in collaboration with other R&D institutions in the region;

(c) Department of History

Besides Art History, the department may also specialise in Medieval History and this may be done by transferring the vacant post of Professor in the Department of Islamic Studies;

(d) The study of West Asian Studies should not be taken up by the Department of Islamic Studies;

(e) The Commission could not agree at this stage to provide assistance for the construction of residential accommodation for non-academic staff in the universities other than Class IV.

The Commission agreed to provide assistance during the V Plan to the University for non-recurring and recurring purposes as indicated in Appendix A.

II. ANDHRA UNIVERSITY

(a) A total of 20 fellowships be provided in the first instance to be utilized according to the guidelines to be indicated by the Commission for the purpose;

(b) The postgraduate course to be started in the Department of Physics should be in the nature of a post-B.Sc. diploma course in radio and television technology and related electronic instrumentation.

The Commission agreed to provide assistance during the V Plan to the University for non-recurring and recurring purposes as indicated in Appendix B.

III. SRI VENKATESWARA UNIVERSITY

The Commission agreed to provide assistance during the V Plan to the Sri Venkateswara University for non-recurring and recurring purposes as indicated in Appendix C.

IV. POSTGRADUATE CENTRES AT GUNTUR, WARANGAL AND ANANTPUR

The Commission agreed to provide assistance during the V Plan to the Postgraduate Centres at Guntur, Warangal and Anantpur for non-recurring and recurring purposes as indicated in Appendices D, E & F.

...

Item No. 7 : To consider further the reports of the UGC Visiting Committee to the Universities of Cochin, Calicut and Kerala.

/for The Commission considered the reports of the Visiting Committee to the Universities of Cochin, Calicut and Kerala and agreed to provide grants/non-recurring and recurring purposes as indicated in Appendices G & H. + I

With regard to provision of reservation of teachers, see item No.36.

...

p.t.o.

Item No. 8 : To consider the reports of the UGC Visiting Committee to the Universities of Utkal, Sambalpur and Berhampur.

The Commission considered the reports of the Visiting Committee to the Universities of Utkal, Sambalpur and Berhampur and agreed to provide assistance for non-recurring and recurring purposes as indicated in Appendices I, J & K. 4

The other specific suggestions made by the Commission are given below:-

I. UTKAL UNIVERSITY

(a) The proposed Centre of Regional Studies at the Utkal University may take up forward looking and modern projects especially those related to the socio-economic and educational development of the tribal population. The social science departments of the University have to play a major role in this programme. It would, therefore, be advisable if a few social scientists having background and knowledge of tribal problems are associated with the Planning Committee to be set up to work out the programme of researches and studies for this Centre;

(b) The Department of Analytical and Applied Economics and that of Labour Welfare may initiate programmes and undertake projects of practical value, in consultation with the State Planning Department. It would be more useful if these departments keep themselves in close contact with the Welfare and Planning Departments of the State Government and reframe their courses of studies in such a way as to fulfil the requirements of personnel of these departments. The Department of Analytical and Applied Economics should take up new areas of research and projects which may be relevant to the developmental needs of the region;

(c) The Department of History at the Utkal University may give special emphasis on exploring the modern regional history. The post of Reader (with specialisation in archaeology) recommended by the Committee for the Department of Anthropology will be attached to the Department of Anthropology but the person appointed will also help the Department of History in archaeological excavations;

(d) The Department of Physics of the University may establish suitable collaboration programmes in matters of teaching and research with the Institute of Physics, established on the campus of the University.

II. BERHAMPUR UNIVERSITY

(a) The Commission could not accept the recommendation of the Visiting Committee for providing assistance to the Berhampur University for the establishment of the Department of Journalism;

(b) The University may obtain expert advice for organisation of courses in marine biology, from institutions such as the National Institute of Oceanography, Goa; and the Centres of Advanced Study in Marine Biology, Annamalai University; and Cochin University. The courses should have relevance to the local problems of marine ecology and marine productivity and should include appropriate project work also.

III. GENERAL OBSERVATIONS

(a) The Commission further desired that all the three Universities be advised that the number of teaching periods may be cut down as recommended by the Visiting Committee and the number of tutorials/seminars be increased. The number of tutorials/seminars conducted by each teacher should be included in the teaching load of the teacher concerned by the University/State Government;

(b) It would be in the interest of the Universities themselves that whenever a new department is to be set up, prior concurrence of the State Government is obtained.

...

Item No. 27 : To consider the report of the UGC Visiting Committee to Rabindra Bharati University.

The Commission considered the report of the Visiting Committee to Rabindra Bharati University. In this connection the Commission also considered a letter from the State Government suggesting that though the Commission may examine the developmental schemes of the Universities located in West Bengal, before approving any of such schemes, the position relating to availability of funds from the State Government after cessation of grant from the UGC may be ascertained from the State Government itself. The Commission could not accept the suggestion of the State Government and felt that the reports of the Visiting Committee may be examined and the decision of the Commission conveyed to the Universities and it is for the Universities themselves to approach the State Government for obtaining necessary assurance of commitments for meeting the matching share and the liability of committed expenditure subsequently.

The Commission accepted the general observations made by the Visiting Committee to Rabindra Bharati and desired that the same may be communicated to the University. The Commission agreed that the West Bengal Government may be advised to set up a Committee as suggested in para 6.12 of the report of the Visiting Committee and in the light of the deliberations of that Committee, Rabindra Bharati may be advised to send revised V Plan proposals for the consideration of the Commission.

KALYANI UNIVERSITY

The Commission considered the report of the Visiting Committee to the Kalyani University and agreed to provide assistance during the V Plan to the University for non-recurring and recurring purposes as indicated in Appendix M

....

Item No. 35 : To consider the reports of the Visiting Committee to Kashmir and Jammu Universities to assess their needs for their Fifth Plan period.

The Commission considered the recommendations of the Visiting Committee to Kashmir and Jammu Universities and generally accepted the recommendations subject to the following modifications:

• KASHMIR UNIVERSITY

- (a) The Commission could not agree to the setting up of new Departments of (i) Biochemistry, (ii) Geology, and (iii) the appointment of coaches;
- (b) The University may be advised to send a suitable proposal for setting up a Department of Geography to encourage studies in regional development;
- (c) The University may take steps necessary for the development of Kashmiri language and literature;
- (d) To begin with, steps may be taken for provision of teaching of Russian language only;
- (e) The staff and facilities of the Gulmarg Research Laboratory may be integrated with the Department of Physics and the question of organising courses in environmental physics may be examined with the help of an Expert Committee as suggested in the report;

- (f) It was noted that a provision of Rs.12 lakhs (UGC share - Rs.6 lakhs) had been made in the recommendations for construction of a social sciences block. The Commission felt that before this is done, the possibility of utilizing part of the library building for accommodating the social sciences departments may be examined, and if necessary, the amount suggested could be utilised in the library for the purpose;

The Commission agreed to provide assistance during the V Plan to the Kashmir University for non-recurring and recurring purposes as indicated in Appendix N.

JAMMU UNIVERSITY

- (a) The Commission could not accept the recommendation of the Visiting Committee to the Jammu University for setting up Departments of Geography, Sociology and Panjabi.

The Commission agreed to provide assistance to the Jammu University during the V Plan for non-recurring and recurring purposes as indicated in Appendix N.

GENERAL RECOMMENDATIONS

On the basis of the consideration of the suggestions contained in the different reports of the Visiting Committees, the Commission felt that the following general aspects may be kept in view in the implementation of the programmes during the V Plan period in the universities :

1. It is essential to set up in each State an Inter-University Coordination body so as to make the best use of facilities and expertise available for co-ordinated development of the academic programmes in the State. This Inter-University Coordination body may consist of the Vice-Chancellors of the different Universities and representatives of the State Government. A representative of the UGC may be associated with it.
2. Each University may set up a Planning Board which would engage itself in a continuous review of the implementation of the various academic programmes in the University and also suggest measures to be taken to make these programmes relevant to the local needs. It may also suggest or constitute a separate committee to suggest measures to be taken for coordinating the development of higher education in the affiliated colleges of the Universities.

3. The Universities would be required to give due consideration to the various suggestions made in the reports of the Visiting Committees and by the Commission in respect of development programmes accepted to be implemented during the V Plan period. No change should be made either with regard to the items of expenditure accepted or as regards the specialisations suggested for different posts approved by the Commission. Wherever such changes are considered necessary, the University may approach the Commission with full justification.
4. Non-recurring and recurring items should both be taken up for implementation simultaneously.
5. The Commission would provide its share of actual expenditure in respect of recurring items, particularly academic and other positions approved from the date of appointment of such staff and up to the end of the V Plan period. Accordingly, there will be no savings which would accrue because of delays in appointments etc., which could be utilised for other purposes.
6. In view of the limited resources available to the UGC, the Universities be advised to explore the possibility of obtaining funds from Life Insurance Corporation of India, HUDCO, State Housing Corporations, etc., for construction of residential accommodation.
7. The Universities should not be encouraged to start M.Phil. courses unless the University Department concerned already has a well-organised postgraduate programme of teaching and research (Master's and Ph.D. degree courses). M.Phil. courses should be started only in such subjects where it is considered essential taking into account regional needs and existing facilities.
8. Where Universities desire to organise post-M.Sc. courses in specialised subjects, it would be appropriate to organise such courses as post-M.A./M.Sc. diploma courses. Where the Universities desire to organise vocational/job-oriented courses, such courses may be organised in consultation with the user agencies, industries, etc. and with the help of part-time staff.
9. Adequate provision may be made in the plans of all the universities as may be agreed to by the Commission for institution of certain number of junior fellowships and a specified amount to appoint Visiting Professors from within the country.
10. Where the Visiting Committees have recommended grants for publication within the plan allocation, the universities may utilise this amount in addition to the publication grant generally made available to all the universities by the Commission.

11. Each University would be required to send to the UGC annually a detailed report indicating the progress made in the implementation of the V Plan programmes and with reference to the suggestions contained in the report. This report should be made available to the Commission not later than 30th June, each year.

OTHER RECOMMENDATIONS

1. The Commission may consider providing separate unassigned/publication grants to such Postgraduate Centres which are declared autonomous by the universities.
2. The Commission as recommended by the Visiting Committee for Andhra Pradesh may take up with the Central Government the question of removal of exemption from the Presidential order which restricts admission to students of the areas, particularly relating to postgraduate admission.
3. The observations made by the Visiting Committee with regard to the development of academic programmes in the newly established University of Hyderabad may be brought to the notice of that University.
4. A Committee may be appointed to look into the requirements of the Non-Academic staff of the Universities.

R.K. Chhabra,
Secretary

Satish Chandra
Vice-Chairman

...

Appendix-III to the minutes
of the U.C.C. meeting held
on 14th & 15th July, 1975
(Item No.12).

Alternative methods for realisation of
objectives of National Service Schemes.

1. One way to introduce this scheme would be to integrate it in the curricula, so that a student while undergoing training goes periodically to a village or backward area, acquaints himself with the new surroundings and with the problems which the people in these areas face. For this purpose, the period of short-term visits to the villages and other backward areas should not only be increased but should also be properly phased within the duration of professional course. The visits for the national service programme should not be less than a week at a time. The work under this scheme should spread over to the entire duration of the professional course. In the first year, the students could be given a short orientation course on developmental needs of the rural and backward areas. This professional competence can be used in the III and subsequent years.
2. In medical course, there is at present a provision for one year of compulsory internship. This period could be fruitfully utilised for national service by restructuring the training and practical programmes e.g. students may be required to work for a period of not less than six months in a primary health centre situated in a rural or backward area under the supervision of the district medical staff. For the rest of the year, opportunities may be provided to him in the district hospital and the hospitals attached to the medical colleges for practical training in other required areas, the syllabi may have to be suitably revised to accommodate the new programme suggested here.
3. In engineering course, 1/3 of the period prescribed for practical training may be devoted exclusively to national service. The design of the prescribed course of training may be suitably reoriented to the requirements of the National Service Scheme. The training design should be so formulated and implemented that the students are able to use their subject skills in appropriate activities in the national service programme.

LIST OF RESEARCH PROJECTS APPROVED BY PANELS IN SCIENCE SUBJECTS.

PHYSICS.

1. No.	2. Name of the University.	3. Name of the Principal Investigator.	4. Title of the Project.	5. Grant recommended	Appendix V t ; the Minutes of the UGC Meeting held 14th/15th July. 1977 (Item No.34)
1.	AGRA (Sri Varshney College, Aligarh).	Dr. D.K. Gupta	Experimental Nuclear Spectroscopy.	Recurring Contingency Total: Rs. 5,000 - p.a. Rs.15,000 for 3 yrs..	
2.	Jammu University.	Prof. I.Prakash.	Study in Phenomena in High Energy Physics using Bubble chamber techniques.	Salary of the existing staff from the DAE Project & additional grant of Rs.15,000/- p.a. for computation etc., from 1.4.1976 onwards for 3 yrs. Total; Rs.75,000/- for 3 yrs.	
3.	Karnatak University.	Dr.C.V.Smeth.	Theoretical Investigations on the supporting power for Protons.	Recurring 1 JRF Computation & travel etc. Total: Rs.15,600 Rs. 5,000 - p.a. Rs.30,600 for 3 yrs.	
4.	Mysore University.	Dr.N.S.Murthy.	Molecular spectra of diatomic molecules.	Recurring 1 JRF Contingency. Total: Rs.15,600 Rs. 3,000 - p.a. Rs.24,600 for 3 yrs.	
5.	Borkee University.	Dr. B.P. Singh.	Perturbed angular correlation studies of the radiations from the radio active decay.	Non-recurring Equipment. (Multi-channel analyser) (This equipment is to be used as a departmental facilities. Fellow may be taken from general pool).	Rs.1,50,000
6.	Annamalai University.	Sri S.K.Ramaswamy & Shri S.S.Swetnarayan.	Construction of Nier type 10" 60° single focussing mass spectrometer.	The Panel recommended a grant of Rs.40,000/- for fabrication work. It was also felt that the comments of Prof.A.Ambasankar may be communicated to the Investigators. Total: Rs.40,000/-.	

1. Banaras Hindu Univ.

Dr.O.N.Srivastava.

Electron Microscope studies on the deformation & Alloying behaviour of rare earth metals and of the defect structure of rare earth metal oxides.

Non-recurring
Equipment. Rs.35,000
Recurring
Contingency,
travels & consum-
ables. Rs. 2,500/- p.a.
Total: Rs.42,500 for 3 yrs.

SRF may be appointed from the 'General Pool'.

2. Calcutta University.

Prof. B.K. Nag.

High Field surface carrier mobility in semiconductors.

Non-recurring
Equipment.Total: Rs.1,45,000/-

3. -do-

Prof.A.N.Daw.

Metallization of semiconductors and dielectrics by the electroless plating technique.

Non-recurring
Equipment. Rs.50,000
Recurring
1 SRF Rs.21,600
Contingency. Rs. 2,500 - p.a.
Total: Rs.79,100 for 3 yrs.

4. ~~Calcutta University~~

~~Prof. B.K. Nag~~

~~Study of crystallization kinetics and effect of substrate preparation on the growth of thin films~~

~~Non-recurring
Equipment. Rs.20,000~~

5. Jodhpur University.

Sri D.R. Gupta.

Electro Acoustic effects in plasma (Ionised Gas).

Non-Recurring
Equipment. Rs.20,000
Recurring
1 JRF Rs.15,600
Contingency.&
Travels. Rs. 2,500 - p.a.
Total: Rs.43,100 for 3 yrs.

1.	2.	3.	4.	5.
11. Panjab University.	Dr. D.D. Dubey.	Radiation damage to proteins irradiated in dry state.	<u>Non-recurring</u> Equipment.	Rs.13,000
			<u>Recurring</u> 2 JRF Contingency.& Travel.	Rs.31,200
			Total:	Rs. 5,000 - p.a. Rs. 59,200 for 3 yrs.
			(Also extracts from referees' report (Dr. Mittals') may be communicated to Dr. Dubey).	
12. Roorkee University.	Prof. S.K. Joshi.	Electronic transport properties in noble and transition metals and their dilute alloys.	<u>Recurring</u> Research Associate. (Rs.700/- - Rs.1100).	Rs.36,000
			1 JRF.	Rs.15,600
			Contingency.	Rs. 3,500 - p.a.
			Total:	Rs.62,100 for 3 yrs.
13. Sagar Univ.	Dr. J.D. Ranade.	Preparation of alkaline-earth binary oxides and their possible applications in research & industry.	<u>Non-recurring</u> Equipment.	Rs.83,000
			<u>Recurring</u> 2 JRF.	Rs.31,200
			Contingency.	Rs. 3,000 -
			Total:	Rs.1,23,200 for 3 yrs.
14. Kurukshetra Univ.	Dr. Vikram Singh.	Studies of the electric, magnetic and optical properties of the alloys in the crystalline and non-crystalline states.	<u>Non-recurring</u> Equipment.	Rs.15,000
			<u>Recurring</u> Contingency.	Rs. 9,000 - p.a.
			Total:	Rs.24,000 for 2 yrs.
Poona Univ.	Dr. K. Sathianandan	Fabrication of He-Ne Co ₂ , H ₂ and Ar Gas Lasers and Parameter Measurement.	I JRF & other items earlier approved.	Rs. 40,000/- for 2 years.

CHEMISTRY

- 4 -

S.No.	University	Name of Principal Investigator	Title of the Project and duration of the project.	Staff	Grant recommended
1.	2.	3.	4.	5.	6.
1.	Allahabad	Dr. M.P. Singh	Studies in kinetics and mechanism of oxidation of some organic compounds by some oxidants through one electron and two electron transfer processes.	1 S.R.F. 1 J.R.F. Contingency Total	Rs. 600 p.m. Rs. 400 p.m. Rs. 5000 p.a. Rs. 52,200 for 3 yrs.
2.	-do-	Dr. H.S. Singh	Mechanistic study of transition metal complexes catalyzed reaction between Ion & Dipolar molecules with special reference to structure & reactivity.	1 J.R.F. Contingency Total	Rs. 400 p.m. Rs. 3000 p.a. Rs. 24,600 for 3 yrs.
3.	Banaras Hindu University	Dr. S.N. Bhat	Electronic behaviour of biological materials	1 J.R.F. NR R Contingency Total	Rs. 10,000 Rs. 15,600 Rs. 3,000 p.a. Rs. 34,600 for 3 yrs.
4.	-do-	Dr. (Mrs) K. Rajeswari & Dr. K. Ranganayakulu.	The mechanism of rearrangement of cyclopropylallyl-cations.	1 J.R.F. Contingency Total	Rs. 400 p.m. Rs. 3000 p.a. Rs. 24,600 for 3 yrs.
5.	Bangalore	Dr. K.M. Sivanandaiah.	Synthesis of peptides of biological interest.	1 S.R.F. 1 J.R.F. Contingency Equipment Total	Rs. 600 p.m. Rs. 400 p.m. Rs. 7000 p.a. Rs. 36,000 (NR) Rs. 94,200 for 3 yrs.

:-2:-

	3.	4.	5.	6.
6.	Bhagalpur	Dr. O.P. Jha & others	Chemical & Biological screening of medicinal plants of Bhagalpur for antifertility and abortifacient properties.	1 J.R.F. Rs.400 p.m. Contingency Rs.2000 p.a. Equipment Rs.7000 (NR) Total Rs.31,600 for 3 yrs.
7.	Bhopal	Dr. H.P. Agarwal and others.	Studies on electrode - solution interfaces.	1 S.R.F. Rs.600 p.m. 1 J.R.F. Rs.400 p.m. Contingency Rs.5000 p.a. Total Rs.52,200 for 3 yrs
8.	Calcutta	Dr. Samal & Kundu.	Status of lipids & their compositional changes with vitamin deficiencies, protein calories malnutrition and diminished thyroid function.	1 S.R.F. Rs.600 p.m. 2 J.R.F. Rs.400 p.m. Equipment Rs.18000 Contingency Rs.10000 p.a. Total Rs.1,00,800 for 3 yrs.
9.	-do-	Dr. S. Mukherjee	Studies on regulation of Hypercholesterolemia & Hypertriglyceridemia in Humans & Experimental animals by 'Modified Butterfat'	1 S.R.F. Rs.600 p.m. 1 J.R.F. Rs.400 p.m. Contingency Rs.5000 p.a. Total Rs.52,200/- for 3 yrs.
10.	-do-	Dr. K.M. Biswas	Synthesis reaction with screening of Indole derivatives having pharmacological & insecticidal properties.	2 J.R.F. Rs.400 p.m. Contingency Rs.5000 p.a. Total Rs.46,200 for 3 yrs.
11.	-do-	Dr. S.K. Talapatra	Chemistry of the Biologically active principles of the medicinal plants of North-East India	1 SRF Rs.600 pm 1 JMF Rs.400 pm. Contingency Rs.5000 pa Total Rs.52,200 for 5 yrs.

1.	2.	3.	4.	5.	6.	
12.	Calcutta	Dr. P. Bandhyopodhyay	Investigation on the co-ordination chemistry of biologically active transition elements with vitamins and related compounds	1 JRF Contingency	Rs.400 pm Rs.2500 pa Total	Rs.23,100 for 3 yrs.
13.	-do-	Dr. Premmoy Ghosh	Chemical modification of natural polymers and synthesis of graft copolymers therefrom with the objective of obtaining improved properties	1 SRF 1 JRF Contingency Equipment	Rs.600 pm Rs.400 pm Rs.5000 pa Rs.10000 (NR) Total	Rs.62,200 for 3 yrs.
14.	-do-	Dr. A. Banerjee	Reaction of heterocyclic compounds Studies on Alkaloids oxygen and nitrogen heterocyclics, their transformations and synthesis	2 JRF Contingency	Rs.400 pm Rs.5000 Total	Rs.46,200 for 3 yrs.
15.	-do-	Prof. M.M. Chakrabarty.	i. Development of microanalytical techniques in the testing of vegetable oils based products with a view to use them for detection of adulteration. ii. Studies on modification of natural fats for edible and other industrial purposes by intersterification and hydrogenation reactions.	1 SRF 1 JRF Contingency Equipment Total	Rs.600 pm Rs.400 pm Rs.5000 p.a. Rs.2000 (NR) Total	Rs.72,200 for 3 yrs.
16.	Delhi	Dr. V.K. Ahluwalia	Studies in photodynamically Active Compounds	1 S.R.F. 1 JRF Contingency	Rs.600 pm Rs.400 pm Rs.5000 pa Total	Rs.52,200 for 3 yrs.

1.	2.	3.	4.	5.	6.	
17.	Delhi	Dr. M.V.R. Rao	Investigations on the conformation and hydrodynamic behaviour of proteins and synthetic polypeptides	2 JRF Contingency Rs.5000 pa For equipment fabrication Rs.2000 (NR) Total	Rs.400 pm Rs.5000 pa Rs.2000 (NR) Rs.48,200	(For first area only mentioned in the project) Rs.48,200 for 3 yrs.
18.	-do-	Prof. Harish C. Gaur	Thermodynamics and electro chemistry of Molten Salts	2 JRF Contingency Rs.5000 pa Total	Rs.400 pm Rs.5000 pa Rs.46,200	Rs.46,200 for 3 yrs.
19.	Gorakhpur	Dr. S.C. Tripathi Dr. S.C. Srivastava	Metal complexes of biological importance	1 SRF 1 JRF Contingency Rs.5000 pa Total	Rs.600 pm Rs.400 pm Rs.5000 pa Rs.52,200	Rs.52,200 for 3 yrs.
20.	-do- (M.L.K. College, and others. Balrampur)	Shri P.F. Singh	Structural studies of metal Tetrathiocyanate and Hexa thiocyanate complexes	2 JRF Contingency Rs.5000 pa. Equipment Rs.2000 NR Total	Rs.400 pm Rs.5000 pa. Rs.2000 NR Rs.66,200/-	Rs.66,200/- for 3 yrs.
21.	Jadavpur	Dr. S.C. Bera	Spectroscopic investigations of perturbed molecules	1 JRF Contingency Rs.3000 pa Total	Rs.400 p.m. Rs.3000 pa Rs.24,600	Rs.24,600 for 3 yrs.
22.	Jodhpur	Dr. Akshyamal	Volatic metal complexes of transition and inner transition elements (Lanthanides & actinides)	1 JRF Contingency Rs.3000 pa Equipment Rs.5000 (NR) Total	Rs.400 pm Rs.3000 pa Rs.5000 (NR) Rs.29,600	Rs.29,600 for 3 yrs.

1.	2.	3.	4.	5.	6.	
23.	Jodhpur	Dr. Sudhindra Misra	Reactions of co-ordinated ligands	2 RF Contingency Equipment Total	Rs.400 pm Rs.500 pa. Rs.3000 (NR)	Rs.49,200 for 3 yrs.
24.	Kalyani	Prof. P. Sengupta	Chemical & Biological investigations of fungal metabolites.	2 SRF 2 JRF Contingency Equipment Total	Rs.600 pm Rs.400 pm Rs.7000 pa Rs.4000 (NR)	Rs.1,35,400 for 3 yrs.
25.	Karnatak	Dr. V.D. Fatil	i. The synthesis of some selected "substituted phenyl Benzimidazolyl sulphides, sulphones ² and their dialkylami-noethyl derivatives.	1 JRF Contingency Equipment Total	Rs.400 pm Rs.3000 pa. Rs.15000 (NR)	Rs.39,600 for 3 yrs.
26.	Kurukshetra	Dr. S.M. Sawhney	ii. Synthesis of thiazol derivatives as potential anti-inflammatory agents.	1 JRF Contingency Total	Rs.400 pm Rs.3000 pa.	Rs.24,600 for 3 yrs.
27.	-do-	Dr. R.K. Nigam	Statistical thermodynamics of Binary mixtures of non-electrolytes.	1 SRF 1 JRF Contingency Total	Rs.600 pm Rs.400 pm. Rs.5000 pa	Rs.52,200 for 3 yrs.
28.	-do-	Dr. K.S. Sharma	Synthesis of pharmacological activity of Azasteroids	1 SRF 1 JRF Contingency Total	Rs.600 pm Rs.400 pm Rs.5000 pa.	Rs.52,200 for 3 yrs.

ii. The synthesis of substituted phenyl exagolo-(3,4-d)Pyrimidine sulphides, sulphones, ethers and their power studies.(3 years)

1.	2.	3.	4	5	6.	
29.	Lucknow	Dr. A.K. Sengupta	Studies on potential pesticides insect hormones and their derivatives	2 JRF Contingency	Rs.400 pm Rs.5000 pa Total	Rs.46,200 for 3 yrs.
30	Madras	Dr. P.S. Subramanian	Phytochemical studies on Indian Asclepiadaceae constituents of Leptadenia reticulata	2 JRF Contingency	Rs.400 pm Rs.5000 pa Total	(to be reviewed after 2 years) Rs.46,200 for 3 yrs.
31	-do-	D. N.V. Subramanian, Ramakrishna Mission Vivekananda College, Madras	Preparation of Dimethyl sulfoxide from lignin Waste	1 SRF 1 JRF	Rs.600 pm Rs.400 pm Rs.25000 for equipment and recurring expenditure for 1st year. Total	Rs.49,000/- for 2 years.
32.	-do-	Dr. V.T. Ramakrishnan	Organic photochemistry	2 JRF Contingency Equipment	Rs.400 pm Rs.5000 pa Rs.15000 (Mk) Total	Rs.61,200 for 3 yrs.
33.	-do-	Prof. S. Swaminathan	Chemistry of Natural products derived from Marine animals	1 SRF 1 JRF Contingency Equipment	Rs.600 pm Rs.400 pm Rs.5000 pa Rs.5000 (Mk) Total	Rs.57,200 for 3 yrs.
34.	Nagpur	Dr. K.N. Munshi	Studies in some mixed ligand complexes of rare earth metals		Rs.6000/ (Mk) for 2 yrs.	

1.	2.	3.	4	5	6.
35.	Nagpur	Dr. M.V. Kaulgud	Measurement of the thermodynamic & transport properties of aqueous binary liquid mixtures of Amino Acids, Amines, Alcohols, Poly-alcohols etc., with special reference to specific heat, Viscosity, Coefficient of cubical expansion & free energy.	1 JRF Equipment Contingency Total	Rs.400 pm Rs.23000 Rs.2000 pa. Rs.44,600/- for 3 years.
36.	-do-	Dr. A.P. Joshi	Solvent extraction study of some transition elements	1 JRF Contingency Total	Rs.400 pm Rs.2000 pa. Rs.21,600/- for 3 years.
37.	North Bengal	Prof. H.N. Khastagir	Investigation of Chemistry of natural products & their transformations - with particular reference to terpenoids and steroids.	2 JRF Contingency NR Total	Rs.400 pm Rs.5000 pa. Rs.25,000 Rs.71,200 for 3 yrs.
38.	-do-	Dr. A.K. Ghosh	Organotin coordination compounds preparation, physico-chemical Biocidal properties.	1 JRF Contingency Total	Rs.400 pm Rs.3000 pa. Rs.24,600 for 3 yrs.
39.	Osmania	Prof. T.N. Rao	i. Kinetics and mechanism of photochemical reaction ii. Preparative organic photo-chemistry.	1 JRF Contingency (for initiating the work for the 1st year)	Rs.400 pm Rs.3000 pa. Rs.7,800/-
40.	-do- (Nizam College Hyderabad).	Prof. M.M. Taqui-Khan.	Homogeneous catalysis by metal complexes of Group VIII.	1 SRF 1 JRF Contingency Equipment Total	Rs.600 pm Rs.400 pm Rs.5000 pa. Rs.40,000 (Gr) Rs.92,200 for 3 yrs.

1.	3.	4.	5.	6.	
41. Poona	Dr. M. Bharan	Study of effect of Radiation of the electrical conduction of some lithium and calcium salts & studies of their utilities as dosio-meter.	1 JRF Contingency Equipment Total	Rs.400 pm Rs.3000 pa. Rs.32000 (NR) Total	Rs.56,600 for 3 years.
42. -do-	Dr. A.J. Mukhedkar	Reaction of metal complexes and homogeneus catalysis	1 JRF Contingency Equipment Total	Rs.400 pm Rs.3000 pa. Rs.5000 (NR) Total	Rs.29,600 for 3 years.
43. Rajasthan	Dr. V.D. Gupta	Synthetic & structural aspects of co-ordination compounds of metals derived from Amidoximes and Hydroxamic	1 SRF Contingency Total	Rs.600 pm Rs.2500 pa Total	Rs.23,100 for 3 years.
44. Saugar	Dr. S.S. Nigam & Dr. V.K. Saxena	Search for Antifertile agent from Indian Medicinal plants.	1 SRF 1 JRF Contingency Total	Rs.600 pm Rs.400 pm Rs.5000 pa. Total	Rs.52,200 for 3 years.
45. Sambalpur	Dr. A. Nayak	Studies on Heterocyclic compounds of Pharmacological Importance.	1 JRF Contingency Total	Rs.400 pm Rs.2500 pa Total	Rs.23,100 for 3 years
46. -do-	Dr. G.B. Behora & Dr. A. Nayak	Studies on Heterocyclic Compounds	1 JRF Contingency Equipment Total	Rs.400 pm Rs.2500 pa Rs.20000 (NR) Total	Rs.43,100 for 3 years.

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1.	2.	3.	4.			6.
47.	Udaipur	Dr. O.P. Mehta	Self diffusion of Ions in single crystals of Alkali hydrogen phosphates	1 JRF Contingency	Rs.400 pm Rs.2500 pa. Total	Rs.23,100 for 3 years.
48.	Udaipur	Dr. O.P. Mehta	Ion exchange kinetics in nonaqueous & mix solvents using radio tracers	1 JRF Contingency	Rs.400 pm Rs.2500 pa Total	Rs.23,100 for 3 years.
49.	Visva Bharati	Dr. B.R. Rao	Studies in Polycyclic hydrocarbons & related systems.	1 SRF 1 JRF Contingency Equipment	Rs.600 pm Rs.400 pm Rs.5000 pa Rs.8000 (NR) Total	Rs.60,200 for 3 years.
50.	-do-	Dr. B.B. Nath	Investigations on the metal ion activation of the blood coagulant fractions of the Russell's Viper Venom.	1 JRF Contingency	Rs.400 pm Rs.3000 pa Total	Rs.24,600 for 3 years.
51.	-do-	Dr. B.P. Das	Studies of the insecticidal and aynorgistic activities of some carbazole derivatives and their degraded products.	1 JRF Contingency	Rs.400 pm Rs.3000 pa Total	Rs.24,600
52.	-do-	Dr.K.C. Roy	Studies on the electrochemical properties of metals oxide solution interface.	1 JRF Contingency	Rs.400 pm Rs.2000 pa Total	Rs.21,600 for 3 years.
53.	B.I.T.S., Pilani	Dr. A.S. Murthy	Molecular Interactions Spectroscopy and theory	1 JRF Contingency	Rs.400 pm Rs.3000 pm Total	Rs.24,600 for 3 yrs.
54.	-do-	Dr. R.C. Srivastva	Non-equilibrium thermodynamics of oscillatory phenomena in membranes.	1 SRF Contingency	Rs.600 pm Rs.3000 pa Total	Rs.30,600 for 3 years.

1.	2.	3.	4.	5.	6.	
55.	B.I.T.S. Filani	Dr. S.L. Gupta	Polarography of complex metalion with particular reference to (i) the structural influence of complex and (ii) the role of solvent on the stability of the complex and its kinetic parameter.	1 JRF Contingency	Rs.400 pm Rs.2000 pa Total	Rs.21,600 for 3 years.
56.	I.I.Sc., Bangalore	Prof. P.K. Bhatta- charya & Prof. C.C. Patel	Studies on the kinetics & specifically of metalions and their complexes in Enzyme models.	1 SRF 1 JRF Contingency	Rs.600 pm Rs.400 pm Rs.5000 pa Total	Rs.52,200 for 3 years.
57.	-do-	Prof. C.C. Patel	Construction of an Electron Spin resonance spectrometer.	NR. 1 Project Asst. 1 Lab. Technician Total NR + R		Rs.1,05,000 Rs. 50,000 <u>Rs. 1,55,000</u> for 3 years.
58.	J.N. Tech. University (Regional Engg. College, Warangal)	Prof. S. Rajagopal	Synthetic studies in Non-Steroidol antifertility agents.	1 JRF Contingency	Rs.400 pm Rs.2500 pa. Total	Rs.23,100 for 3 years.

BIOLOGICAL SCIENCES: BOTANY.

S.No.	University/ Institution.	Name of Principal Investigator	Title of the Project.	Grant recommended.	
1.	2.	3.	4.	5.	
1.	Allahabad.	Prof. D.D. Pant.	Comparative Morphotaxonomic studies of Living and Fossil Plants.	<u>Recurring</u> 2 JRF- Rs. 31,200 1 Lab. Attdt. Rs. 5,400 <u>Non-recurring</u> Equipment. Rs. 40,000 Total: <u>Rs. 76,600</u>	
2.	Andhra.	Prof. J.V. Pantulu.	Cytogenetic mapping of mutant phenotypes and cytochemistry of B-chromosomes in <u>Pennisetum typhoides</u> .	<u>Recurring.</u> 2 SRF Rs. 43,200 1 Lab. Attdt. Rs. 7,500 Contingency & working expenses. Rs. 8,000 -p.a. Total: <u>Rs. 74,700 for 3 yrs.</u>	
3.	Banaras Hindu University.	Dr. E.R.S. Talpasayi.	Physiological and biochemical studies on the perennation of blue-green algae.	<u>Recurring</u> 2 JRF Rs. 31,200 1 Tech. Asstt. Rs. 10,500 Contingency & working expenses Rs. 7,000 - p.a. <u>Non-Recurring</u> Equipment. Rs. 30,000 Total: <u>Rs. 92,700 for 3 yrs.</u>	
4.	Bhagalpur Univ.	Dr. K.S. Bilgrami.	Physiological & Biochemical studies on seed-microflora.	<u>Recurring</u> 1 SRF Rs. 21,600 1 JRF Rs. 15,600 1 Lab Bearer. Rs. 5,400 Contingency. Rs. 10,000 - p.a. Total: <u>Rs. 72,600 for 3 yrs.</u>	
5.	Bombay. (Instt. of Science, Bombay).	Dr. S.B. Chaphekar.	Effects of industrial air pollutants in plants. *Travel, Chemicals Glasswares.	<u>RECURRING:</u> 1 JRF Rs. 15,600 1 Lab. Attdt. Rs. 7,200 1 Field man. } Contingency.* Rs. 3,500 p.a.	

(Contd.)

			<u>Non-recurring</u> Equipment.	Rs. 11,100
			Total:	<u>Rs. 44,400</u> for 3 yrs.
6.	Burdwan.	Prof. S.K. Chatterjee.	Studies on the Physiology of senescence in plants and its practical implication.	
			<u>Recurring</u> 2 JRF	Rs. 31,200
			1 Field-cum-Lab. Asstt.	Rs. 7,200
			Contingency & chemicals.	Rs. 10,000 - p.a.
			<u>Non-recurring</u> Equipment.	Rs. 10,000
			Total:	<u>Rs. 78,400</u> for 3 yrs.
7.	Calcutta.	Dr. A.K. Chandra.	Exploring biological nitrogen fixation capabilities of the phyllosphere organisms in crop plants.	
			<u>Recurring</u> 2 JRF	Rs. 31,200
			1 Lab. Asstt.	Rs. 10,800
			Contingency.	Rs. 5,000 p.a.
			<u>Non-recurring</u> Equipment.	Rs. 16,000
			Total:	<u>Rs. 73,000</u> for 3 yrs.
8.	-do-	Dr. R.P. Furkayastha.	Investigation on the growth & improvement of an edible mushroom with a view to determine its suitability for cultivation.	
			<u>Recurring</u> 2 JRF	Rs. 31,200
			1 Tech. Asstt.	Rs. 7,200
			Contingency & working expenses.	Rs. 5,000 - p.a.
			<u>Non-recurring</u> Equipment.	Rs. 10,000/-
			Total:	<u>Rs. 63,400</u> for 3 yrs.
9.	Calicut.	Dr. K.S. Manilal.	A reinvestigation of the medical plants in Hortus Malabaricus.	
			<u>Recurring</u> 1 JRF	Rs. 15,600
			1 Field Asstt.	Rs. 10,800
			Contingency.	Rs. 3,000 p.a.
			Total:	<u>Rs. 35,400</u> for 3 yrs.
10.	Delhi.	Prof. A.S. Paintal & Prof. S.C. Maheshwari.	Investigations on the existence and physiological role of acetylcholine in plants.	
			<u>Recurring</u> 1 SRF	Rs. 21,600
			1 JRF	Rs. 15,600
			Contingency & working expenses.	Rs. 10,000 - p.a.
			Total:	<u>Rs. 67,200</u> for 3 yrs.

<u>1.</u>	<u>2.</u>	<u>3.</u>	<u>4.</u>	<u>5.</u>
11.	Jodhpur.	Dr. B. D. Sharma.	Ferns & fernallies of Rajasthan morphology anatomy and Physiological studies.	<u>Recurring.</u> 1 JRF Rs. 15,600 Contingency. Rs. 5,000 - p.a. Total: <u>Rs. 30,600</u> for 3 yrs.
12.	Karnatak.	Dr. M. G. Panchaksharappa.	Cytochemical analysis of plant tissues in the vegetative and reproductive structures.	<u>Recurring</u> 1 SRF. Rs. 21,600 Contingency. Rs. 5,000 - p.a. Total: <u>Rs. 36,600</u> for 3 yrs.
13.	-do-	Dr. S. G. Bharati.	Limnological studies in ponds and lakes of Dharwar, Karnatak State.	<u>Recurring</u> 1 JRF Rs. 15,600 Contingency. Rs. 2,500 - p.a. Total: <u>Rs. 23,100</u> for 3 yrs.
14.	Madras.	Dr. C. V. Subramanian.	Study of the fungus flora of South India.	<u>Recurring</u> 1 SRF Rs. 21,600 1 JRF Rs. 15,600 1 Cultural Asstt Rs. 12,600 1 Driver. Rs. 6,000 Travels. Rs. 15,000 - p.a. Contingency. Rs. 5,000 - p.a. Chemicals & Slides. Rs. 10,000 - p.a. <u>Non-recurring</u> Jeep. <u>Rs. 35,000</u> Total: <u>Rs. 1,80,800</u> for 3 yrs.
15.	-do-	Prof. T. V. Desikachary.	Studies on South Indian Algae.	<u>Recurring</u> 1 SRF Rs. 21,600 1 JRF Rs. 15,600 Contingency. <u>Rs. 5,000</u> - p.a. Total: <u>Rs. 52,200</u> for 3 yrs. (The facilities of Jeep and services of driver etc. approved for the project to be undertaken by Prof. Subramanian may be used for this).
16.	-do-	Dr. D. Subramanian.	Biochemistry of Host. Pathogen interactions in fungal diseases of plants.	<u>Recurring</u> 1 SRF. Rs. 21,600 1 JRF Rs. 15,600 Contingency. <u>Rs. 7,000</u> - p.a. Total: <u>Rs. 58,200</u> for 3 yrs.

1.	3.	4.	5.
17.	Madras (St. Josephs' College, Tiruchirappalli).	Dr. K.M. Mathew.	17. The carnatic flora project.
			<u>Recurring</u> 2 JRF Rs. 31,200 Travel. Rs. 5,000 - p.a. Contingency. Rs. 3,000 - p.a. <u>Non-recurring</u> Herbarium, Cupboards & mounts. Rs. 10,000 Equipment. Rs. 10,000 Books & journals. Rs. 5,000 Total: <u>Rs. 80,200</u> for 3 yrs.
18.	do.	Dr. R. Kalyanasundaram.	Fungal Immunoserology.
			<u>Recurring</u> 1 JRF Rs. 15,600 1 Animal Attdt. Rs. 5,400 <u>Non-recurring</u> Equipment. Rs. 50,000 Total: <u>Rs. 71,000</u> for 3 yrs.
19.	do.	Dr. E.K. Janaki Ammal.	Ethnobotanical survey of South Indian Economic Plants with special reference to collection and utilisation of primitive cultivars.
			<u>Recurring</u> 1 SRF. Rs. 21,600 1 JRF Rs. 15,600 1 Field attdt. Rs. 5,400 Contingency. Rs. 10,000 - p.a. Total: <u>Rs. 72,600</u> for 3 yrs.
20.	M.S. Univ. of Baroda.	Dr. A.R. Mehta.	Physiological & Biochemical investigations of differentiation in higher plants.
			<u>Recurring</u> 2 JRF Rs. 31,200 Contingency. Rs. 5,000 - p.a. Total: <u>Rs. 46,200</u> for 3 yrs.
21.	North-Eastern Hill University.	Prof. P.S. Ramakrishnan.	Ecosystem function of pine forests of Meghalaya.
			<u>Recurring</u> 2 JRF Rs. 31,200 1 Field Asstt. (Rs. 250/-p.m.) Rs. 9,000 Contingency Rs. 6,000 - p.a. Field work. Rs. 4,000 - p.a. <u>Non-recurring</u> Equipment. Rs. 50,000 Total: <u>Rs. 1,20,200</u> for 3 yrs.

1.	2.	3.	4.	5.
22.	Osmaria.	Dr.N.Ramayya.	Floristics and filiar demotypes of the angiosperm of Hyderabad District.	<u>Recurring</u> 1 SRF Rs.21,600 1 Tec6.Asstt. Rs.10,800 Contingency. Rs.14,000 Total: <u>Rs.46,400 for 3 yrs.</u>
23.	-dc-	Dr.K.V.N.Rao.	Inves igitations on the corre- lation between the structure & the growth regulating activity of proanthocyanidins or leucoa- n thocyanin and their effect on the growth and metabolism of cultured carrot explants.	<u>Recurring.</u> 2 JRF. Rs.31,200 Contingency, Chemicals & gla.s.s wares. Rs.15,000 - p.a. <u>Non-recurring</u> Equipment. Rs.15,000 Total: <u>Rs.91,200 for 3 yrs.</u>
24.	Patna.	Dr.Baz i H.P.Sinha.	Cytogenetic & Miosystematic studies in ferns.	<u>Recurring</u> 1 SRF Rs.21,600 1 JRF Rs.15,600 1 Field Attdt. Rs.5,400 Contingency. Rs.21,000 <u>Non-recurring</u> Equipment. Rs.15,000 Total: <u>Rs.78,600 for 3 yrs.</u>
25.	Sardar Patel.	Dr.G.L.Saha.	Phytosociological studies on vegetation of Gujarat State.	<u>Recurring</u> 1 SRF Rs.21,600 1 JRF Rs.15,600 1 Hort.Asstt. Rs.7,200 Contingency. Rs.10,000 <u>Non-recurring</u> Equipment. Rs.5,000 Total: <u>Rs.59,400 for 3 yrs.</u>
26.	-do-	Prof.J.J.Shah.	Studies in sapwood & heartwood of forest rees in Gujarat.	<u>Recurring</u> 1 SRF. Rs.21,600 1 JRF. Rs.15,600 Contingency, Travel & Chemi- cals. Rs.10,000 - p.a. Total: <u>Rs.67,200 for 3 yrs.</u>

1.	2.	3.	4.	5.
27. Vikram.	Dr. K. C. Gupta .	Development of genetics of drought-resistant and drought sensitive crops.	<u>Recurring</u> 2 JRE. Contingency. Total:	Rs. 31,200 - <u>Rs. 6,000</u> - p.a. <u>Rs. 49,200</u> for 3 yrs.
28. J.N. University.	Dr. S. pra Guha Mulhorejeo.	Effect of Light and hormones on the control of enzyme synthesis in higher plants.	<u>Recurring:</u> 1 SRF. 1 JRF Contingency. Total:	Rs. 21,600 Rs. 15,600 <u>Rs. 10,000</u> - p.a. <u>Rs. 67,200</u> for 3 yrs.

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BIOLOGICAL SCIENCES: ZOOLOGY.

S.No.	University/ Institution.	Name of Principal Investigator.	Title of the project.	Staff required.	Financial requirements.
1.	2.	3.	4.	5.	6.
1.	St. John's College, Agra. (Agra Univ.)	Dr.Santokh Singh	Ecology of High Altitude Soil Anthropods.	2 J.R.F. Contingency	Rs. 31 200-00 <u>Rs. 5,000-00 p.a.</u> <u>Rs. 46,200-00 for 3 yrs.</u>
2.	Andhra	Dr. R. Madhavi.	"Bionomes of Helminth Parasites of fresh water fishes <i>Pseudocox</i> <i>Panchax</i> and <i>P. Melatigma</i> "	Field work, Chemicals & Glassware Equipment, Books & Journals	Rs. 3,000-00 p.a. <u>Rs. 5,000-00</u> <u>Rs. 14,000-00 for 3 yrs.</u>
3.	Bangalore	Dr. A. R. Kasturi Bai.	Studies on some aspects of the behaviour correlative to infor- mation storage in grass hopper <i>Pocilloera picta</i> .	1 J.R.F. Contingency	Rs. 15,600-00 <u>Rs. 2,500-00 p.a.</u> <u>Rs. 23,100-00 for 3 yrs.</u>
4.	Central College, (Bangalore Univ.)	Dr. B. N. Chowdaiah	Mosquito Cytogenetics.	2 J.R.F. 1 Lab. Asstt. Chemicals & materials Maintenance for animal room. Insectary colle- ction tools.	Rs. 31,200-00 Rs. 10,800-00 Rs. 5,000-00 p.a. Rs. 3,000-00 p.a. <u>Rs. 3,000-00 p.a.</u> <u>Rs. 75,000-00 for 3 yrs.</u>
5.	Bombay	Dr. P. V. Rangaekar	Studies of the Neuro- endocrine control of Moulting, Growth and reproduction in labsters.	1 S.R.F. Equipment Contingency	Rs. 21,600-00 Rs. 6,000-00 <u>Rs. 8,000-00</u> <u>Rs. 35,600-00</u>
6.	B.H.U.	Prof. M. S. Kanungo	Studies on the a uses and prevention of aging of mammalian tissues.	1 J.R.F. 1 J.R.F. 1 Animal Atten- dant and contin- gency.	Rs. 21,600-00 Rs. 15,600-00 <u>Rs. 15,000-00 p.a.</u> <u>Rs. 82,200-00 for 3 yrs.</u>

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1.	2.	3.	4.	5.	6.	
7.	Calcutta	Dr. D. N. Raychaudhuri.	Studies on the aphids of Nagaland and Manipur with special reference to biology and control of some of the economically important Aphid species.	Equipment 1 S. R. F. 2 J. R. F. 1 Field Asstt. 1 Lab. Attendt. Contingency Working expenses & travels.	Rs. 10,000-00 Rs. 21,600-00 Rs. 31,200-00 Rs. 10,800-00 Rs. 5,400-00 Rs. 10,000-00	<u>Rs. 1,09,000-00 for 3 yrs.</u>
8.	Calcutta	Dr. A. S. Mukherjee	Genetic dissection of eukaryote genomic organization: Role of nonhistone phosphoprotein.	1 S. R. F. 1 J. R. F. 1 Technician Contingency & working expenses	Rs. 21,600-00 Rs. 15,600-00 Rs. 9,000-00 <u>Rs. 45,000-00</u>	<u>Rs. 91,200-00 for 3 yrs.</u>
9.	-do-	Dr. A. Choudhury.	Ecology of the tidal creeks & Mud flats of Sagar Island, Sunderbans, West Bengal.	1 J. R. F. Contingency	Rs. 15,600-00 <u>Rs. 3,000-00 p. a.</u>	<u>Rs. 24,600-00 for 3 yrs.</u>
10.	Delhi.	Dr. C. M. S. Dass & Dr. S. Tyraiswami.	The mammalian salivary gland as a model for the study of regulation of cell division & differentiation.	2 J. R. F. 1 Lab. Attendt. Contingency, Animal Feed, Chemicals etc.	Rs. 31,200-00 Rs. 8,000-00 <u>Rs. 15,000-00 p. a.</u> <u>Rs. 84,200-00 for 3 yrs.</u>	
11.	-do-	Dr. C. L. Talesara	Histophysiological investigations concerned with the fibre architecture differentiation, energy metabolism and its regulation in mixed and un-mixed vertebrate skeletal muscles.	1 J. R. F. 1 Lab. Attendt. including contingency. Non-recurring: Rs. 12,500/- (for air-conditioner, electronics stimulator, animal cages etc.).	Rs. 15,600-00 <u>Rs. 6,000-00 p. a.</u> <u>12,500-00</u> <u>Rs. 34,500-00</u>	

1.	2.	3.	4.	5.	6.
12.	Gorakhpur.	Dr. K. Swarup.	Studies on endocrine glands related to plasma calcium regulation in certain vertebrates.	1 J.R.F. Contingency & working expenses	Rs. 15,600-00 Rs. 5,000-00 p.a. <u>Rs. 30,600/- for 3 yrs.</u>
13.	Gujarat.	Dr. V.C. Shah	Genetics, cytogenetics, cytochemical, and Biochemical studies on Leucoderma.	1 S.R.F. 2 J.R.F. Contingency & working expenses	Rs. 21,600-00 Rs. 31,200-00 Rs. 15,000-00 p.a. <u>Rs. 97,800-00 for 3 yrs.</u>
14.	Gujarat.	Dr. S.C. Lekhotia.	Regulation of puffing and Gene activity in the polytene cells of Drosophila.	<u>Recurring:</u> 1 Research Assistant 1 Jr. Res. Tech. Asstt. Chemicals Glassware and Contingencies Publication and purchase of reprints etc. <u>Non-recurring:</u> Laboratory: Equipment: Total:	Rs. 300/- p.m. Rs. 250/- p.m. Rs. 2,500/- p.a. Rs. 2,000/- p.a. for 3 yrs. Rs. 1,000/- p.a. Rs. 15,000/- Rs. 20,000/- Rs. 71,300/- for 3 years.
15.	Jodhpur.	Dr. S. S. Choudhary	Hydrobiology and productivity of some freshwater reservoirs/lakes of semi-arid zone, Jodhpur (Rajasthan).	2 J.R.F. 1 Tech. Asstt. Contingency Special chemicals & Glasswares.	Rs. 31,200-00 Rs. 9,000-00 Rs. 3,000-00 p.a. <u>Rs. 6,000-00</u> <u>Rs. 55,200-00 for 3 yrs</u>
16.	Kerala	Dr. K.M. Alexander	Studies on Releaser Pheromones of the Musk Shrew, <u>Suncus Murinus viridescens.</u>	1 J.R.F. 1 Technical Asstt. Contingency. Chemicals etc.	Rs. 15,600-00 Rs. 10,800-00 Rs. 5,000-00 p.a. <u>Rs. 41,400/- for 3 yrs.</u>

1.	2.	3.	4.	5.	6.
17.	Madurai Univ. (A.P. Arts College).	Dr. P. J. Pandian.	Ecophysiological studies on culture of Air-breathing fishes.	Acquara & nets. 1 S.R.F. 1 J.R.F. Contingency.	Rs. 15,000-00 Rs. 21,600-00 Rs. 15,600-00 <u>Rs. 5,000-00 p.a.</u> <u>Rs. 67,200-00 for 3 yrs.</u>
18.	D. A. V. College, Muzaffarnagar. (Meerut Univ.)	Dr. V. P. Agrawal & Dr. S. V. S. Rana.	Studies on the effect of some of the main air pollutants on the chemical make up of trachea, lungs, heart and brain of a few mammals.	Equipment (Vibrator). 1 J.R.F. Contingency & working expenses	Rs. 6,000-00 Rs. 15,600-00 Rs. 5,000-00 p.a. <u>Rs. 36,600-00 for 3 yrs.</u>
19.	Osmania	Dr. J. V. Kamana Rao.	An enquiry into physiological responses of larvicidal fish to pollution and ground water chemical alterations as a means to thwart public health consequences of fish mortality.	2 J.R.F. Contingency.	Rs. 31,200-00 <u>Rs. 5,000-00 p.a.</u> <u>Rs. 46,200-00 for 2 yrs.</u>
20.	Panjab.	Dr. G. P. Sharma.	Cytogenetics of the Mosquitoes of India.	2 J.R.F. 1 Lab. Asstt. working expenses & contingency.	Rs. 43,200-00 Rs. 9,000-00 <u>Rs. 6,000-00 p.a.</u> <u>Rs. 70,200-00 for 3 yrs</u>
21.	Utkal	Dr. D. B. Naik	Studies on the Pituitary Gland of Reptiles.	N.R.C. Kolkata. (As requested by Government)	Rs. 38,700-00

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1.	2.	3.	4.	5.	6.
22.	Visva-Bharati.	Dr. N.C. Sukul.	Studies on the Ecology of Soil micro-fauna and microflora with special emphasis on nematode and micro-arthropods of nematodes diseased of crop plants.	<u>Recurring:</u> 1 S.R.F. Rs. 21,600 1 J.R.F. Rs. 15,600 Contingency Rs. 15,000 Rs. 52,200/-	
				<u>Non-recurring:</u> Warburg Apparatus Rs.13,000-00 <u>Rs. 65,200.00</u> (for 3 years)	
23.	-do-	Prof. Asit Bam Das.	Evaluation of Physiological and Biochemical responses of fish chronically exposed to low levels of intersecting thermal and chemical pollutional stresses, with reference to Tamla Nullah and Damodar River (Durgapur, West Bengal).	<u>Recurring:</u> 1 J.R.F. Rs. 15,600.00 1 Field Asstt. including contingency Rs. 30,000-00 p.a.	
				<u>Non recurring:</u> Spectrophotometer Rs. 25,000/- Centifuge Rs. 20,000/- <u>Rs. 90,600/-</u> (for 3 years)	

1.	Banaras Hindu Univ.	Prof. D. P. Burma.	Structural topography of the ribosomes and their sub units.	<u>Recurring</u> 1 SRF. Rs. 21,600 1 JRF. Rs. 15,600 Tech. Asstt. Rs. 10,800 Chemical. Rs. 5,000 - p.a. Glass wares. Rs. 2,500 - p.a. Total: <u>Rs. 70,500</u> for 3 yrs.
2.	Delhi.	Dr. T. A. V. Subramanian.	Metabolic studies on Drug resistant and sensitive mycobacteria.	<u>Recurring</u> 2 SRF Rs. 43,200 Working expenses. Rs. 10,000 - p.a. Glasswares. Rs. 6,000 - p.a. Chemicals. Rs. 2,000 - p.a. Total: <u>Rs. 1,39,200</u> for 3 yrs.
3.	Osmania.	Sh. T. N. Pattabiraman.	Metabolism of plant fructans.	<u>Recurring</u> 1 JRF. Rs. 15,600 Working Expenses. Rs. 6,500 - p.a. <u>Non-recurring</u> Equipment. Rs. 25,000 Books & Journals. <u>Rs. 2,500</u> Total: <u>Rs. 62,300</u> for 3 yrs.
4.	-do-	Dr. K. Sivaraman Sastry	The photochemistry of purines and nucleic acids.	<u>Recurring:</u> 1 JRF Rs. 15,600 Chemicals & Glassware Rs. 8,000 - p.a. Contingency Rs. 2,000 - p.a. <u>Non-recurring</u> Equipment. <u>Rs. 11,000</u> Total: <u>Rs. 56,600</u> for 3 yrs.
5.	Poona (Almednagar College, Ahmednagar).	Dr. John Barnabas.	Molecular forms, genetics and evolution of hemoglobins of <u>Bovids in Descent.</u>	<u>Recurring</u> 1 JRF Rs. 15,600 1 Tech. Asstt. Rs. 10,800 Contingency. Rs. 10,000 - p.a. <u>Non-recurring</u> Equipment (Electrophoresis apparatus. Rs. 10,000 Automatic Shaker. Rs. 10,000 Total: Rs. 76,400 for 3 yrs.

BIOLOGICAL SCIENCES - MICROBIOLOGY

1.	2.	3.	4.	5.	6.
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1. I.I.Sc. Bangalore.	Dr. Y.I. Shethna.	Structural characteristics and their relationship to the entitumbur and insecticidal activities of a crystalline protein component of bacillus thuringiensis var. thuringiensis.	2 S.R.F. Equipment working expenses & contingency	Rs. 21,600-00 Rs. 4,000-00 Rs. 8,000-00 p.a. <u>Rs. 49,600-00 for 3 yrs.</u>
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ANTHROPOLOGY.

1. Delhi.	Dr.P.K. Seth	Genetical and behavioural variability in Rhesus Monkeys living under different ecological conditions.	2 J.R.F. Contingency & working expenses Animals glass-ware etc.	Rs. 31,200-00 <u>Rs. 10,000 p.a.</u> Rs. 61,200. for 3 years.
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BIOLOGY

1. Annamalai.	Dr. V.K. Venugopalan	Studies on organic matter in the coastal waters of Porto Novo.	2 J.R.F. Contingency	Rs. 31,200. <u>Rs. 10,000/- P.A.</u> Rs. 61,200. for 3 years.
2. Jammu	Dr. M.K. Jyoti	Studies on the productivity on Shuian-Sar Lake, Jammu.	2 J.R.F. Contingency Equipment	Rs. 31,200. Rs. 5,000. P.A. <u>Rs. 7,500.</u> Rs. 53,700. for 3 years.
3. Madurai	Dr. J. Jayaraman	Dynamic Nature of Mitochondrial Membrane Function in Relation to Cellular Environment.	2 J.R.F. Working Expenses Equipment	Rs. 31,200. Rs. 45,000. P.A. <u>Rs. 45,000.</u> Rs. 1,21,200.
4. "	Dr. A. Gnanam	Regulation of Photosynthetic carbon flow by Ammonium compounds	2 J.R.F. 1 Tech. Asstt. Chemicals, glass-ware & Contg.	Rs. 31,200. Rs. 10,800. <u>Rs. 10,000 P.A.</u> Rs. 72,000. for 3 years.

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5.	Dr. Jayaraman Dr. Jayaraman	Genetics of RNA polymerase in XXX Escherichia coli.	1 Technician (Rs. 250/- P.M.)	Rs. 9,000.
			Contingency working expenses & chemicals	Rs. 15,000. P.A.
			Equipment	Rs. 10,000.
				Rs. 64,500. for 3 years.
6.	" Dr. V.R. Muthukkaruppan	<u>Immunogenetic in Reptiles</u> - A Phylogenetic approach to understand immunological mechanisms.	1 J.R.F.	Rs. 15,600.
			1 Animal Caretaker	Rs. 5,400.
			Contingency	Rs. 5,000. P.A.
				Rs. 36,000. for 3 years.
7.	Punjabi Dr. P.K. Shrivastava	Human antigens research programme	1 S.R.F.	Rs. 21,600.
			1 J.R.F.	Rs. 15,600.
			1 Animal Homekeeper	Rs. 8,700.
			1 Tech. Asstt.	Rs. 10,800.
			Travel	Rs. 30,000
			Recurring expenses/working expenses.	Rs. 45,000
			Contingency	Rs. 6,000
				Rs. 1,37,700/- for 3 years.

1.	2.	3.	4.	5.
1.	Osmania.	Dr. J. S. Murthy.	Anthropogenetic studies of Andhra Pradesh tribes.	<u>Recurring.</u> 2 JRF Rs. 31,200 2 Field Man. Rs. 10,000 Travel Rs. 5,000 - p.a. Convtingency. Rs. 5,000 - p.a. Total: <u>Rs. 72,000</u> for 3 yrs.
2.	-do-	Dr. O. S. Reddy.	Studies on the Genetics and Somantic effects of carbon-14 in mice.	<u>Recurring</u> 3 JRF Rs. 46,800 2 Lab. Attat. Rs. 28,000 3 Kamatees. Rs. 22,500 Chemical, Glass wares, Animal feed, Radioisotopes & Conting. Rs. 40,000 - p.a. Total:- <u>Rs. 2,07,300</u> for 3 yrs.
<u>PHYSIOLOGY/MEDICINE:</u>				
1.	H. H. U.	Dr. Anil Kumar Mukhopadhyay	A study on nucleic acid and proteins metabolism in rat phythalamus.	<u>Recurring:</u> 1 SRF 1 JRF Rs. 15,600 Contingency Rs. 10,000 Total: <u>Rs. 25,600</u> for 3 yrs.
2.	-do-	Dr. Shivnath Chosal,	Chemical and Pharmacological evaluation of Psycho active substances occuring in Indian Medicinal Plants.	<u>Recurring</u> 1 SRF Rs. 21,600. 1 JRF -Rs 15,600. Contingency Rs. 10,000 Total <u>Rs. 67,200</u> for 3 years.

2.	3.	4.	5.
1. Andhra University	Dr. J. Gopala Krishna	"Probability techniques, with special reference to theory and applications to differential equations in several complex variables"	2 J.R.F. Rs. 31,600.00 Contingency Rs. 15,000.00 (Rs. 5000/-P.A) Total Rs. 46,600.00 for 3 yrs.
Suggestions/comments made by Prof. K.B. Athreya may be communicated to the Investigator.			
2. Benaras Hindu University	Dr. R.N. Pandey	"Transport Mechanism of living Organism"	2 S.R.F. Rs. 21,600.00 Contingency Rs. 6,000.00 (Rs. 2000/-P.A) Total Rs. 27,600.00 for 3 years.
3. Bangalore	Dr. N. Rudraiah	i. "Stability of Conducting and Non-conducting Flows" ii. "Waves in a conducting fluids-Incompressible and compressible" iii. Flow problem including lubrication problems"	2 S.R.F. Rs. 43,200.00 1 J.R.F. Rs. 15,600.00 Contingency Rs. 15,000.00 (Rs. 5000/-P.A) Computation Rs. 18,000.00 (Rs. 6000/-P.A.) Equipment Rs. 72,000.00 Total Rs. 1,63,800.00 for 3 yrs.
4. Dornampur	Prof. Nand Kishore	"Theory and applications of summability"	1 J.R.F. Rs. 15,600.00 Books and Contingency Rs. 9,000.00 (Rs. 3000/-P.A.) Total: Rs. 24,600.00 for 3 years.

1.	2.	3.	4.	5.	
5.	Berhanpur	Dr. Narhari Farhi	"A study of boundary value-problems for functional differential equations".	1 J.R.F. Books and) Contingency) (Rs. 2000/- P.A.) Total	Rs. 15,600.00 <u>Rs. 6,000.00</u> Rs. 21,600.00 for 3 yrs.
6.	Berhanpur	Dr. (Miss) D. Rath	i. "Studies in Abstract Harmonic Analysis". ii. "Aspects of summability in sequence and function spaces".	1 J.R.F. Books and) Contingency) Total	Rs. 15,600.00 Rs. 9,000.00 <u>Rs. 24,600.00</u>
The Investigator may combine both the projects.					
7.	Burdwan	Dr. A. I. Khanab	"A study on operations in Topology and functional analysis, particularly on theory of fixed points"	1 J.R.F. Books and) Contingency) (Rs. 2000/- P.A.)	Rs. 15,600.00 <u>Rs. 6,000.00</u> Rs. 21,600.00 for 3 yrs.
8.	Burdwan	Dr. S. K. Chakrabarty	"Study of the effect of initial stresses and Inhomogeneities on wave propagation in elastic and plastic media"	1 S.R.F. 1 J.R.F. Books and) Contingency) (Rs. 3000/- P.A.) Computation (Rs. 2000/- P.A.)	Rs. 21,600.00 Rs. 15,600.00 Rs. 9,000.00 Rs. 6,000.00 <u>Rs. 52,200.00</u> for 3 yrs.
9.	Gorakhpur	Dr. V. B. Johri	"New theories of gravitation and their cosmological validation".	1 J.R.F. Books and) contingency) (Rs. 3000/- P.A.) Total	Rs. 15,600.00 Rs. 9,000.00 <u>Rs. 24,600.00</u> for 3 yrs.

1.	3.	4.	5.
10. Kerala	Professor(Miss) A. George	"Probability models in fertility"	1 J.R.F. Rs. 15,600.00 Books and Contingency) Rs. 1500/-P.A.) <u>Rs. 4,500.00</u> Total <u>Rs. 20,100.00</u> for 3 yrs.
11. Kurukshetra	Dr. M.L. Gongra	"Calculation of the Regional Travel time for the Indian Region".	1 S.R.F. Rs. 21,600.00 1 J.R.F. Rs. 15,600.00 Books and) Contingency) Rs. 15,000.00 (Rs. 5000/-P.A.) Total <u>Rs. 52,200.00</u> for 3 yrs.
12. Saugar	Prof. D.N. Misra	"Some problems in general topology"	2 J.R.F. Rs. 31,200.00 Books and) Contingency) Rs. 9,000.00 Rs. 3000/-P.A.) Total <u>Rs. 40,200.00</u>
13. South Gujarat	Dr. A.F. Verma	"Physico Mathematical Study of Flow Systems in porous media"	1 S.R.F. Rs. 21,600.00 1 J.R.F. Rs. 15,600.00 Contingency &) Computer time) <u>Rs. 12,000.00</u> (Rs. 4000/-P.A.) Total <u>Rs. 49,200.00</u> for 3 yrs.
14. Regional Engineering College, Warangal	Dr. S.K. Lakshmana Rao	"Basic Studies in Polar fluid media".	Books and) Contingency) Rs. 7,500.00 for 3 yrs.

GEOLOGY & GEOPHYSICS

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S.No.	University	Name of Principal Investigator	Title of the Project	Grant Recommendations & duration	
1.	2.	3.	4.	5.	
1.	Aligarh Muslim University.	Dr.S.N. Bhalla	A study of microfossils from the shelf regions off Goa and Kerala.	N.R.Es. 30,000 J.R.F.-2 Contingency etc Rs. 5,000/-P.A. for 3 years	Rs. 30,000/- Rs. 31,200/- Rs. 15,000/- <u>Rs. 76,200/-</u> for 3 yrs.
2.	- do -	Dr. Syed M. Zainuddin	Geo-chemistry, Control and enrichment of major & accessory minerals in pegmatites of Bihar & Rajasthan Mica belt.	J.R.F.-2 Contingency Rs. 3000 PA Field Work 5000/-P.A. for 2 years.	Rs. 10,200/- Rs. 6,000/- <u>Rs. 10,000/-</u> <u>Rs. 35,200/-</u> for 2 yrs
3.	Calcutta University	Dr. S. Sen	Comparative studies of Erosion & sedimentation in Humid & Semi Arid environments.	Eqpt. -Rs. 5000 S.R.F. -1. J.R.F. -1 Contingency- Rs. 200(P.A. Fieldwork Rs. 5000 PA	Rs. 5,000/- Rs. 21,600/- Rs. 15,600/- Rs. 6,000/- <u>Rs. 15,000/-</u> <u>Rs. 63,200/-</u> for 3 yrs.
4.	- do -	Dr. Aniruddha Das	Volcanic History of Ore Mineralogy of the Deccan Trap flow & intrusions in the Satpura Region, M.P.	Eqpt. Rs. 5000/- Lab. Asstt. -1 (Part-time basis) Field work Cont. Rs. 5,000/-PA for 3 yrs.	Rs. 5,000/- Rs. 10,800/- <u>Rs. 15,000/-</u> <u>Rs. 30,800/-</u> for 3 yrs
5.	- do -	Dr. Zairuddin Banerjee	Study of Paleocurrents in the Vindhyan Basin	S.R.F.-1. Field Asstt.-1 Field work & Contingency Rs. 5000/-PA for 2 years.	Rs. 14,400/- Rs. 6,000/- <u>Rs. 10,000/-</u> <u>Rs. 30,400/-</u> for 2 yrs.

	VJadavpur University	Dr.S.Basu Malik	The investigations into the magnetization processes and the Palaeomagnetics measurements of rocks.	Eqpt-Rs.5,000/- S.R.F.-1. J.R.F.-1. Field work and Contingency Rs.3,000/-P.A for 3 years.	Rs. 5,000/- Rs. 21,600/- Rs. 15,600/- <u>Rs. 9,000/-</u> <u>Rs. 51,200/-</u> for 3 yrs.
7.	- do -	Shri Sachinath Mitra	A study of the dispersion of mercury & near-rearh elements soils & preferential absorption by clay minerals & plants over mineralised regions in Singbhum, Gujarat & Tamil Nadu.	Fabrication of Eqpt.20,000 S.R.F.-1. Tech.Asstt.-1. Contingencies Rs.1,000/-P.A.	Rs. 20,000/- Rs. 15,600/- Rs. 12,000/- <u>Rs. 3,000/-</u> <u>Rs. 50,600/-</u> for 3 yrs
8.	Calcutta University	Dr.Supriya Roy	Geological, mineralogical & Geochemical study of the manganese ore deposit of Karnataka(Mysore)State with particular reference to Sandur manganese deposits, Bellary Distt.	J.R.F.-2 Lab.Expdt. Rs.5000/-P.A Contingency & Field work Rs.5,000/-P.A for 3 years.	Rs. 31,200/- Rs. 15,000/- <u>Rs. 15,000/-</u> <u>Rs. 61,200/-</u> for 3 yrs.
9.	Jadavpur University	Dr.S.K. Chanda	Proterozoic tidal deposits in parts of Madhya Pradesh and Rajasthan & their palaeogeographic implications.	J.R.F.-1 Field work & Contingency- Rs.2,500/-P.A. for 3 years.	Rs. 15,600/- <u>Rs. 7,500/-</u> <u>Rs. 23,100/-</u> for 3 yrs.
10.	- do -	Dr.A.D.Mukherjee	Metmorphism & deformation of sulphide ore deposits of Rajasthan with special reference to the mineralogy of the ores and its application to ore dressing.	J.R.F.-1 Field work & Contingency- Rs. 2,000/-P.A. for 3 years.	Rs. 15,600/- <u>Rs. 6,000/-</u> <u>Rs. 21,600/-</u> for 3 yrs.

1.	2.	3.	4.	5.
11. Karnatak University	Prof. M. S. Sadashivaiah	Study of the fluorine-bearing water of Bilarwar, Balgaum, Gulbarga Districts & Erackish water of Naralgund and Naralgund of Karnatak State	N.R. Rs. 6,000 Chemist (Analytical)-1 Rs. 15,800 Rs. 6,000/- S.R.F.-1. Rs. 21,600/- (Field Officer) Glassware, chemicals, field work & Contingency Rs. 10,000/- for 3 years.	<u>Rs. 30,000/-</u> <u>Rs. 77,800/-</u> for 3 yrs.
12. Mysore University	Prof. M. N. Viswanathiah,	i. Hydrothermal growth & characterisation of Quartz crystals eloped with rare elements. ii. Phara equilibria studies of lanthanide H ²⁰ systems.	N.R. Rs. 22,000 J.R.F.-2	Rs. 22,000/- <u>Rs. 31,200/-</u> <u>Rs. 53,200/-</u> for 3 yrs.
13. - do -	Dr. V. Venkatachalarathy	a) Palynological studies in the Precambrians (Kaladgis and Badnis) of Karnataka b) Micro-palaeontological studies from the sediments of West coast of India.	Lab. Technician-1. Rs. 330/- (P.M.) Field work Rs. 3,000/- Chemicals Rs. 2,000 PA for 3 years.	Rs. 10,800/- Rs. 9,000/- <u>Rs. 6,000/-</u> <u>Rs. 25,800/-</u> for 3 yrs.
14.		c) Micro-palaeontological investigations of the inter-trappeans of India		
14. Osmania University	Prof. V. L. S. Phani-sankarum,	Development of Integrated well logging equipment for shallow boreholes	N.R. Rs. 1,20,000 J.R.F.-2. Technical Assistants-2	Rs. 1,20,000/- Rs. 31,200/- <u>Rs. 24,000/-</u> <u>Rs. 1,75,200/-</u> for 3 yrs.

2.	3.	4.	5.
15. PUNE University	Prof. B. G. Deshpande,	Groundwater resources of the Deccan Trap region with special reference to (a) Mahatma Phule Krishi Vidyapeeth area, Rahuri, Nagar Distt. Maharashtra (b) Depoli Krishi Vidyapeeth area, Depoli Ratngiri, Distt., Maharashtra	J.R.F.-2 Rs. 19,200/- Total N.R. Rs. 18,200/- Rs. 37,400/- for 2 yrs.
16. Poona University	Dr. G. G. Deshpande	Geology of the area around Kambhavi, Gulbarga District, Karnataka	N.R.-Rs. 1,000 J.R.F.-1. Rs. 1,000/- Rs. 15,600/- Rs. 16,600/-
17. Saugar University	Dr. J. K. Babu	Study of Basaltic Glasses	N.R. Rs. 500/- Recurring Rs. 1,700/- Rs. 500/- Rs. 1,700/- Rs. 2,200/- for 1 year
18. Sambalpur University	Dr. B. K. Sahu	Geometrical and statistical properties of Porous media	N.R. Rs. 4,000 Working expenses- Rs. 2,000/- P.A. for 3 years. Rs. 4,000/- Rs. 6,000/- Rs. 10,000/- for 3 years.
19. Bikaner University	Dr. K. K. Singh	Acidic Mafic ultramafic magnetism and related mineral deposits in parts of M.P. and joining regions.	N.R.-7000 J.R.F.-2 Lab. Technician-1 Rs. 7,000/- Rs. 31,200/- Rs. 12,000/- Rs. 50,200/- for 3 yrs.
20. Jadavpur University	Dr. S. K. Bakshi.	Stratigraphy of the sedimentary sequence around Neyveli with special reference to Neyveli Lignite.	J.R.F.-1 Working Expenses Rs. 2,500/- P.A. for 3 years. Rs. 15,600/- Rs. 7,500/- Rs. 23,100/- for 3 yrs.

1.	2.	3.	4.	5.
21.	M.S. University of Baroda.	Prof. S. S. Nerh,	Quaternary geology and geomorphology of Gujarat with special reference to the coastal areas.	N.R.S. 5,000 J.R.F.-2 Working expenses Rs. 5,000/-F.A. Rs. 5,000/- Rs. 31,200/- <u>Rs. 15,000/-</u> <u>Rs. 51,200/- for 3 years.</u>
22.	Presidency College Calcutta (Calcutta Univ.)	Dr. A. K. Banerjee	Geological evaluation of the Precambrian belt of North Singhbhum-an integrated approach	N.R. Rs. 10,000 (Scintillation Counter) J.R.F.-4 Working expenses- Rs. 10,000/-F.A. for 3 years. Rs. 10,000/- Rs. 62,400 <u>Rs. 30,000/-</u> <u>Rs. 7,02,400/- for 3 yrs.</u>
23.	Saugar University	Dr. B. Das	Stratigraphy, structure and tectonic history of the area alongwith Great Boundary Fault, Rajasthan	J.R.F.-2 Working expenses Rs. 500/-PA for 3 years. Rs. 31,200/- <u>Rs. 15,000/-</u> <u>Rs. 46,200/- for 3 yrs.</u>

Appendix V to the minutes of the
UGC meeting held on 14th & 15th
July, 1975 (Item No. 34).

1. Regional Instrumentation Centre for the Western Region
at the University of Bombay.

Keeping in view the recommendations made by the Physics Panel the Science Research Council has recommended the acceptance of the proposal in principle and to provide initially a grant of Rs.50,000/- to the University of Bombay to appoint a core staff of three persons (including 1 person at professors level and the other two at readers/lecturers level) to prepare a feasibility report on the basis of a survey to be conducted with regard to the servicing functions, repair and maintenance functions and design and fabrication of new equipment functions to be taken up by the Centre. The feasibility report, which should be made available within a period of six months, and in no case later than 9 months, should indicate the phasewise, disciplinewise, prioritywise as well as costwise aspects of the development of the Regional Instrumentation Centre. The university, for purposes of this feasibility report, may associate the expertise available in the Tata Institute of Fundamental Research, Bombay, Bhaba Atomic Research Centre and also the department of Physics, Poona University. The feasibility report could then be considered by the Science Research Council and specific recommendations made with regard to the non-recurring and recurring expenditure that may be approved for the duration of the fifth plan period for the development of the Regional Instrumentation Centre. The University may provide the required secretarial assistance for the preparation of the feasibility report mentioned above by the core staff to be appointed for the purpose.

The grant of Rs.50,000/- recommended would include provision for the salaries of the academic technical staff appointed as well as for working expenses related to survey etc. The Council also felt that the University of Bombay may create minimum facilities of workshop for day to day use by its various science departments located at the new campus with the help of the normal fifth plan allocation available to it.

2. Proposal of the Indian Institute of Science, Bangalore for
continued support required for its research project "Phosphazenes -
A group of Phosphorous nitrogen compounds".

The Council noted with appreciation the high quality of work so far done under this project and the appreciation which it has received both from the scientific point of view and as an international collaboration project taken up with the department of Chemistry, Birkbeck College, London. The Council, therefore, recommended that the University Grants Commission may continue to provide support for this project for another period of five years on the existing basis i.e. Rs.3 lakhs for the five year period. The principal investigator may be given necessary freedom to adjust the expenditure of recurring and non-recurring items as per emerging needs of this project.

The Council further noted that this research project had yielded processes and products which may have significant applications in different areas, such as agriculture, health, textile etc. In view of this important application aspect, the principal investigator may be requested to consider whether further collaboration with the Birkbeck College at the stage of application would be necessary and if so, necessary clearance of the government of India may be obtained. It was requested that in the course of next two years the principle investigator may identify the possible application areas for these compounds and also prepare specific proposals indicating financial needs required for undertaking such industrial/agricultural applications. The Council could then consider providing support for these purposes either through the University Grants Commission alone or in collaboration with the user industries and ministries of Government of India.

3. Core support for research by university teachers.

The Council considered the views expressed by the University Grants Commission in April, 1975 on the recommendations made by the Council earlier to evolve a scheme by which core support could be given to every teacher for engaging himself in useful research activity. The Council agreed with the suggestion made by the Commission that a suitable annual grant, (in 2 levels Rs. 1 lakh and Rs. 50,000/- as was made during the fourth plan period) may be made available to each university for providing such support to individual teachers. This lumpsum grant at the disposal of each university should be utilised, in accordance with the guidelines to be prescribed by the sub-committee of the Science Research Council. Such support upto a prescribed ceiling in each case would be available to teachers who have not received any support from any other source by way of specific research project and who have no access to other contingent grant etc. available to their research scholars working with them. The detailed guidelines may be laid down by a committee consisting of Professor Rais Ahmed, Professor R.C. Mehrotra and Professor B.M. Udgaonkar.

4. The Council considered the views expressed by the sub-committee with regard to the action to be taken to help the Universities for bringing to use equipment presently remaining "d" idle". It was agreed that a letter may be addressed to all heads of science department of the universities to obtain latest information, (in the form of a questionnaire to be prepared for this purpose) with regard to the items of equipment which are not presently in use and which could be repaired and put to use. On the basis of the information obtained the Central Scientific Instruments Organisation, Chandigarh and a few other institutes, such as Central Drug Research Institute, Lucknow, Bhaba Atomic Research Centre, Bombay, Indian Institute of Science, Bangalore etc. may be requested to make an on-the-spot evaluation of the nature of such "idle" equipment and suggest measures to be taken for their repairs and early commissioning them to use. On the basis of such reports to be received in respect of different

categories of equipment, the Council may then suggest appropriate action to be taken. The expenditure involved in conducting such a survey and on-the-spot inspection may be met by the University Grants Commission.

5. The Council considered the recommendations made by the Earth Science Panel with regard to the provision of studentships to the M.Sc./Applied Geology students in institutions approved by the University Grants Commission for starting such three years M.Sc. course in Applied Geology. The Council recommended that the suggestion made by the Panel may be accepted and studentships of the value of Rs.250/- P.M. may be made available to the students only during the third year of the course, which is an additional year to be spent by the students for purposes of this course. Studentships of this value may be given for a period of 12 months, to all students who have secured at least 55% marks in the annual examination held at the end of the second year.

6. The Council welcomed the suggestion made by the different Panels regarding the collaboration with the CSIR laboratories in specific areas of research of national importance. The Council suggested that the specific suggestions made by the Biological Science Panel may be forwarded to the CSIR so that suitable joint research programmes could be developed. Recommendations of the other Panels, as and when received may also be forwarded to the CSIR for similar action. The Council noted that a certain number of fellowships had been created by the University Grants Commission and also by the CSIR for purposes of exchange of visits for periods ranging from six months to a year between scientists and teachers in the universities and the national laboratories. The Council also supported recommendations of the Earth Sciences Panel for the creation of five such fellowships each way for similar exchange between the universities and the Geological Survey of India/ONGC etc. The fellowship could provide for continued payment of the salary etc. of the scientists concerned by the parent organisation and provision for an allowance for living expenses at Rs.500/- P.M. and travel to and fro once to be met by the Universities Grants Commission in the case of the scientists as well as the teachers from the universities.

7. With regard to the question of promoting developmental activities with regard to design and fabrication of equipment required for use by the universities, the Council noted that the Department of Science and Technology and the CSIR had recently constituted a committee to look into these aspects and to develop necessary capacity for indigenous manufacture of such items. The members of the Council were requested to indicate the items of such equipment required by the universities, in their own specific areas, so that these may be communicated to the committee of the department of Science and Technology.

8. The Council noted that some of the Panels had suggested specific courses on much advanced level to be organised during the fifth plan period in certain universities. Since the organisation of such courses on an all India basis with adequate advanced planning and involvement of the expertise available within the country would help in the upgrading of the competence of the teachers, the Council recommended that these suggestions may be accepted by the Commission and necessary action taken for organisation of the institutes suggested by the different Panels.

General recommendations made by the Panels in Science.

9. It was noted that the Faculty Improvement Programme has been introduced by the UGC, which includes a provision for teacher fellowships to enable teachers to spend a year or more at selected Centres for Advanced Studies or Research. The Panel recommended that a fairly large number of teachers who give an evidence of an active interest in advanced studies or an aptitude for research may be given an opportunity to spend a whole year for advanced studies/research under the Teacher Fellowship Programme, and out of them a certain number may be given an opportunity to spend an additional period so as to be able to complete the Ph.D. In view of the fact that the number of teachers who could be accommodated in the programmes of teachers fellowships for a year or more may not be large, the Commission may consider a graded programme wherein most of the teachers first go through a summer institute workshop programme (as outlined above), and out of them some are selected on the basis of the performance at the summer institute, for a teacher fellowship programme of longer duration. Year-long teacher fellowships may, of course, be given on the basis of other evidence of interests/apptitude provided by a teacher.

10. The Panels recommended that the conversion of a Senior Fellowship into a Junior Research Fellowship under Research Projects may be allowed at the time of recruitment. However, one senior research fellowship may not be converted into 2 Junior Fellowships.

11. Keeping in view the fluctuations in prices of scientific equipment, chemicals etc., the Panels felt that in respect of non-recurring grants approved under different research projects, the Principal Investigators may be allowed the flexibility of variation upto 10% of the amount approved. The UGC may make available additional grant for this purpose, wherever required, without reference to the Panel. In the case of the recurring grants, the Principal Investigators may be allowed to make necessary adjustments upto 10% from one budget head to other as per needs. However, any savings that may be available because of delays in appointment of staff, i.e., research follows, would not be available for use. Since the research grants are generally approved for a three year period and annual ceilings are indicated for different items of recurring expenditure, the Panels felt that the savings available under the recurring heads in any one year may be allowed to be carried forward to the subsequent year provided at least 50% has been spent during the year concerned under the particular head.

12. The Geology and Geophysics Panel considered the request of Geological Survey of India regarding making available a copy of each thesis accepted by the University in Geology & Geophysics and felt that, keeping in view the practical difficulties and also, the expenditure to be incurred by the students in getting additional copies for this purpose, it would be appropriate to request the universities to inform annually the Geological Survey of India with regard to the theses accepted for award of Ph.D. degrees in Geology and other earth science subjects. The GSI could then obtain, on loan, the university library copy and prepare a microfilm which could be stored and made available as reference material for persons interested not only in the GSI but also for university personnel. If GSI could have duplicate copies of such microfilms, it could also have a lending service so that other universities can obtain them on loan for definite periods.

13. The Panel in Mathematics felt that the organisation of two-year Post-M.Sc., Pre-Ph.D. training courses could be included under the Faculty Improvement Programme of the UGC. The departments to be designated to accept Teacher Fellowships may be encouraged to organise post-M.Sc. courses also in special areas in Mathematics. The Commission as soon as possible may invite proposals from universities, in consultation with the Panel, so as to identify departments as being eligible for support in this regard. Such departments may be provided with a fixed number of fellowships for students admitted to two-year post-M.Sc. courses, in addition to Teacher Fellowships. They may also be given assistance for other facilities required for implementing this programme.

14. The Panels recommended that steps may be taken by UGC to include the I.I.Ts. and the National Laboratories in the list of laboratories approved for study/research, where fellowships could be availed of by teachers under the Teacher Fellowship Programme. Such a list should cover all laboratories of CSIR, Department of Atomic Energy, Department of Space, ICAR and the Agricultural Universities, all the I.I.Ts. and various other National Laboratories.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 11th & 12th August, '75

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

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- (1) Osmania University - Grants towards the purchase of Computer Equipment - Sanction of Additional grant for the.

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The Commission at its meeting held on 6.12.72 considered the proposal of some Universities for assistance towards the provision of Computer facilities and interalia agreed to provide assistance to the tune of Rs.11,81,815/- outside the 4th plan allocation to the Osmania University. The above expenditure, however, did not include the Sales Tax, etc. On a reference from the university, in this regard, the Commission agreed that the question of providing additional assistance for sales tax etc. will be considered on the basis of actual expenditure incurred in this regard and the university was requested to submit the copies of the bills received from the suppliers (i.e. M/s Electronics Corporation of India limited, Hyderabad). The University submitted the necessary bills and documents and on the basis of these the Commission agreed to provide assistance of Rs.14,43,076.23 in all instead of Rs.11,81,815 approved earlier and the university has been informed about the approval on an additional amount of Rs.2,61,261.23 vide letter No.F.28-1/73 (Sc.I/D.I(a) dated 19.7.75. The Commission has so far sanctioned a grant of Rs.14.20 lakhs to the University and the balance of Rs.23,076.23 will be sanctioned (vide orders dated 18.7.75) after the receipt of the utilisation certificate and audited statement of accounts.

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- (2) Acceptance of the recommendations regarding the selection of National Associates by the panel on Engineering & Technology under the scheme of National Associateship.

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In the year 1970, the University Grants Commission

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initiated the scheme of National Associateship to enable outstanding young teachers from universities and colleges engaged in research to visit and work for short periods at University Centres, Research Institutes, National Laboratories etc., which have special facilities relevant to their respective fields of study and research. Initially, the Commission instituted 100 positions. Later, this has been raised to 200 by the Commission at its meeting held on 10th December, 1973. The Commission at its meeting on 10th December 1973 inter alia decided that the selection of National Associates may be done in consultation with the subject panel. Accordingly the nominations received under the National Associateship Scheme were referred to subject panel on Engineering & Technology which met on 17th February 1975 and recommended candidates for award under the scheme as given below:-

<u>Name</u>	<u>Department</u>	<u>Name of the Institution</u>
1. Dr. S.K. Bordia, Assistant Professor.	Mining Engineering	Indian School of Mines, Dhanbad.
2. Shri T.K. Mitra, Lecturer.	Applied Physics.	Calcutta University
3. Shri Pati N. Dubey, Assistant Professor.	Civil Engineering	Birla Institute of Technology & Science.
4. Shri M.U. Deshpande, Assistant Professor.	Electrical Engineering.	Nagpur University
5. Patcha Ramachandra Rao, Reader	Metallurgical Engineering	Banaras Hindu University.
6. Shri Bhagvanth Rao, Lecturer	Chemical Engineering	Osmania University
7. Dr. K.B. Misra Reader	Electrical Engineering	Roorkee University
8. Shri Subhendu Das Lecturer.	-do-	Jadavpur University
9. Shri AP Bhattacharya Reader	Mechanical Engineering	Banaras Hindu University
10. Shri K.R. Chellapilla, Associate Lecturer.	-do-	Andhra University

The recommendations made by the Engineering and Technology panel have been accepted on 7th June, 1975.

The total number of positions filled in so far is one hundred forty one against two hundred.

- (3) Extension of the period of award in respect of Professor B.K. Bachawat, Professor D. Sinha, Professor K.J. Shah and Professor K.S. Murty under the National Fellowship Scheme.

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The Commission awarded National Fellowships to Professor B.K. Bachawat, Professor D. Sinha, Professor K.J. Shah and Professor K.S. Murty for two years. According to the rules prescribed the maximum period for which a scholar can work under the scheme can be upto 3 years. The above scholars desired that their fellowships may be extended beyond the first 2 year period by one year more in order to enable them to complete their work and the same has been agreed to (vide orders dated 28.4.1975) as indicated below:-

S.No.	Name	Date of Joining	Initial period of award	Extension granted
1.	Prof. B.K. Bachawat	1.4.73	2 years upto 31.3.75	1.4.75 to 31.3.76
2.	Prof. D.Sinha	16.8.73	2 years upto 15.8.75	16.8.75 to 15.8.76
3.	Prof. KJ Shah	1.11.73	2 years upto 31.10.75	1.11.75 to 31.10.76
4.	Prof. KS Murthy	1.7.73	2 years upto 30.6.75	1.7.75 to 30.6.76

- (4) Allocation of basic books grant of Rs.1,00,000 to Kameshwar Singh Darbhanga Sanskrit University for the 5th Plan period.

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At the beginning of the current plan period, the

Commission had allocated basic grants for purchase of library books and journals for the 5th plan period ranging from Rs.50,000/- to Rs.5,00,000 to the universities and institutions deemed to be universities pending the finalisation of their 5th plan proposals. As the Kameshwar Singh Darbhanga Sanskrit University was not allocated the basic grant, on a request received from the Vice-Chancellor of the University in February 1975 an amount of Rs.1,00,000 has been allocated (vide orders dated 14.3.1975) to the Kameshwar Singh Darbhanga Sanskrit University, Darbhanga, as basic grant for purchase of library books and journals for the various departments pending the finalisation of its 5th plan allocation and the university has been informed accordingly.

(5) North Eastern Hill University, Creation of Teaching posts.

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The Commission has agreed to the creation of 15 posts of Professors, 14 posts of Readers and 19 posts of Lecturers to enable the North-Eastern Hill University to start the preparatory work on the establishment of various Schools proposed by the university as also for starting various postgraduate courses in the university. This was reported to the Commission earlier in its meeting held on 10th February, 1975.

The University has again approached the Commission for the creation of 7 posts of Readers and 15 posts of Lecturers urgently needed for the existing Schools of the university for the academic year 1975-76. The Vice-Chancellor in his letter addressed to the University Grants Commission stated that "we need the extra staff by July at the latest before the next academic year begins as the enrolment is doubled. Except in English and Mathematics, we have only the M.A./M.Sc. previous". The matter was considered and the creation of the posts as requested by the university was agreed to (vide orders dated 10.6.75).

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The ~~all~~ positions indicating the number of posts sanctioned so far for the various departments of the university is given in the

- (6) Norms for living room furniture in hostels of Central Universities.

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A Committee was appointed to review the norms laid down for living room furniture and to suggest norms for other furniture and for setting up of messes in the hostels of Central Universities. The Committee has submitted its report. It has been desired that the recommendations made by the Committee may be referred to the Panel on Students' Welfare. In the meantime it has been agreed (vide orders dated 5.7.75) that the limit of the expenditure on living room furniture in the hostels be raised from Rs.250 to Rs.325 per seat.

- (7) Financial Assistance to teachers for short-term Projects in the humanities and social sciences - first award during 1975-76.

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The University Grants Commission invited applications from teachers for financial assistance for short-term projects for the first award during 1975-76. These applications were placed for consideration before the panels concerned in the humanities and social sciences which met in April/May 1975.

The Panel on Modern Indian Languages recommended the following two short-term projects for the approval of the Commission:

<u>Name and designation and Institution</u>	<u>Topic of work</u>	<u>Amount recommended</u>	<u>Purpose</u>
<u>Modern Indian Languages</u>			
Dr. Gangaram Garg, Lecturer, Government College, Karauli (Rajasthan University)	A comparative analysis of the contribution made by Jain Bhaktas to Hindi Poetry.	Rs.1200/-	for travel and books.
Shri Lila Dhar Viyogi, S.D. College, Ambala Cantt.	Evaluation and preparation of a descriptive catalogue of manuscripts per- taining to Ramnchi Sampradaya.	Rs.2000/-	field work/ stationery & manu- scripts.

The recommendation made by the Panel has been accepted (vide orders dated 18.7.75) and the colleges/awardees concerned have been informed accordingly.

- (8) Support for Advanced Research in the Humanities and Social Sciences - first award during 1975-76.

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The University Grants Commission invited proposals from university and college teachers for support for advanced research in the humanities and social sciences for the first award during 1975-76. The proposals received from the universities and colleges were placed for consideration before the concerned panels in the humanities and social sciences which met in April, and May, 1975. The Panel on Teacher Education recommended a grant of Rs.1,32,800/- as per details given below for the research project entitled "Evaluation of Satellite Instructional Television Experiment (soft ware) Karnataka cluster" to be undertaken by Professor K.E. Eagen, Professor and Head of the Department of Communication, U.V. College of Engineering, Bangalore University:-

Sl. No.	<u>Approved Item</u>	<u>Amount approved</u>
	<u>Recurring</u>	<u>Rs.</u>
1.	Sr. Research Officer (for 2 years)	24,000.00
2.	Sr. Research Assistant (for 2 years)	19,000.00
3.	Stenographer (for 2 years)	10,000.00
4.	Estimated expenses on travel/ field work (for 2 years)	24,000.00
	Total:	77,000.00

Non-Recurring

1.	Books & Journals	2,000.00
2.	Computation charges	5,000.00
3.	Portable Video-monitor (2 nos.)	12,000.00
4.	Video Play back unit (2 nos.)	20,000.00
5.	Stationery & Postage	10,000.00
6.	Questionnaire printing etc.(for 2 yrs.)	2,000.00
7.	Miscellaneous (Monthly average of Rs.200)	4,800.00
	Total:	55,800.00
	Grand Total:	1,32,800.00

The recommendation of the panel was accepted and the matter was reported to the Commission at its last meeting held on the 14th and 15th July, 1975 under Item No.2(a) (12). Professor Eapen requested for the approval of the Commission for the appointment of a Director in a senior position for the above project in addition to the allocation/already approved. The proposal of Professor Eapen was examined and it has been agreed to provide for the project an additional post of Senior Research Assistant-cum-Coordinator in the grade of Rs.1100-1600 for a period of one year at an estimated expenditure of Rs.16000/- thereby raising the total approved expenditure for the above project from Rs.1,32,800 to Rs.1,48,800 subject to the condition that Professor Eapen will remain as Honorary Director and the entire responsibility of the project will be his. The Bangalore University and the awardee have been informed accordingly.

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- (9) College Humanities and Social Sciences Improvement Programme - Selection of colleges.

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On the basis of criterion accepted by the Commission, the St. Xavier's College, Bombay has qualified for participation in COHSIP. This is a COSIP College and its performance under this programme has been reported to be very good. In view of this the College has been finally selected for participation in the College humanities and social science improvement programme.

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- (10) Support for advanced research in the Humanities and Social Sciences - 1975-76.

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The University Grants Commission is providing financial assistance to the teachers of the universities and colleges for advanced research in the humanities and social sciences.

The research proposal of Dr. L.S. Bhatt of Jawaharlal Nehru University on "Spatial and Socio-economic Profile : Squatter Settlements in Delhi" was referred

for comments to two experts, namely Dr. M. Anas of Geography Department, Aligarh Muslim University and Dr. M.P. Thakore, Principal, Bhagat Singh College, Delhi. On the recommendations of these experts, the research project of Dr. Bhatt has been accepted and the following grants have been approved (vide orders dated 24.7.1975).

1. One research associate for 18 months at Rs.900/- p.m.	Rs.16,200
2. One Junior investigator for 18 months at Rs.400/- p.m.	Rs. 7,200
3. Typist	Rs. 2,400
4. Travel	Rs. 500
5. Stationery (including Cartographic material)	Rs. 1,000
6. Contingencies	Rs. 1,000
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Total for 18 months.	Rs.28,300

In addition to above computation charges will be paid on the basis of actual cost.

The University and awardee concerned have been informed accordingly.

(11) College Humanities and Social Science Improvement Programme - Selection of Colleges.

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The University Grants Commission at its meeting held on the 10th March, 1975 decided that selection of COSIP colleges for participation in the COHSIP should be contingent on their good performance in the COSIP.

Keeping in view the above decision 12 COSIP Colleges have been selected for participation in the COHSIP. This was reported to the Commission at its meeting held on the 14th & 15th July, 1975 vide Item No.2(a) (13). Of these 12 colleges the following 4 colleges have started their COSIP activities only recently:-

1. Government Arts and Science
College, Aurangabad (Marathwada University).
2. B.N. College, Patna (Patna University)
3. A.N. College, Patna (Patna University)
4. D.S. College, (Agra University)

It has since been decided that the colleges indicated above may be requested to implement the COHSIP after they have run the COSIP for a year or so. (vide orders dated 22.7.75).

(12) Banaras Hindu University - Establishment
of Examination Reform Unit.

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The Commission at its meeting held on 8th July, 1974 (Item No.9) considered the question of inclusion of some more Universities in the scheme of special assistance towards examination reform programme and was of the view that if any University has a specific programme of Examination Reform, it may submit its proposal and this may be considered within the ceiling of Rs.60 lakhs already earmarked for examination reform programme during the V Plan.

In the light of the above resolution of the Commission, the proposal of the Banaras Hindu University for the establishment of an Examination Reform Unit at an estimated cost of Rs.2,70,000/- for the V Plan period as detailed below has been accepted (vide Vice-Chairman's order dated 11.6.1975) according to usual terms and conditions.

A.	STAFF			ESTIMATED EXPENDITURE
i)	Assistant Registrar (Rs.700-1300)	-	One	Rs.1,30,000/-
ii)	Statistician (Rs.550-900)	-	One	
iii)	Typist (Rs.260-450)	-	One	
iv)	Junior Clerk(Rs.260-450)	-	One	

B. Other Items

a)	Stationery & Printing	Rs.21,000/-
b)	T.A., D.A. to Experts & Training	Rs.70,000/-
c)	Books & Journals	Rs.14,000/-
d)	Contingencies & Miscellaneous	Rs.10,000/-
e)	Furniture and Equipment	Rs.25,000/-

Total: Rs.1,40,000/-

Grand Total:- Rs.2,70,000/-

It may be mentioned in this connection that the Academic Council of the University has accepted the Plan of Action and guidelines for examination reforms. The University has decided to introduce internal assessment in all the postgraduate classes in the Faculties of Science, Agriculture, Law, Institute of Medical Sciences and Institute of Technology and also in the postgraduate courses in M.A. in Psychology, Statistics, Geography and Mathematics and Master in Business Management. The University is also willing to introduce 7 point scale of Grading and Grade Point Average instead of Divisions.

(13) Mysore University - Implementation of Adult/Continuing Education Programme.

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The Standing Committee on Adult Education at its meeting held on 24th September, 1974 considered the proposal received from the University of Mysore for financial assistance towards undertaking Adult Education programme and recommended that the programme of (i) Nutrition and food preservation course for women, (ii) Course on health and (iii) Indian Philosophy may be accepted "in principle" and an "on account" grant of Rs.30,000/- may be sanctioned to the University for initiating these programmes.

Accordingly the proposal of the University was accepted at an estimated cost of Rs.20,980/- as detailed below:- U.G.C. share @ 75% being limited to Rs.15,735/-. The University was informed vide letter No.F.8-2/74(TE) dated 10.3.1975.

i)	Nutrition and food preservation courses for women.	Rs. 1,500/-
ii)	Courses on Health	Rs. 1,450/-
iii)	Indian Philosophy	Rs. 1,500/-
iv)	Assistance towards the post of one Coordinator, one Ist Division Clerk and Typist only for one year/six months.	Rs.16,530/-

Total:- Rs.20,980/-

(14) Approval of candidates under the scheme of Utilization of Services of Retired Teachers.

.....

The Committee constituted under the scheme of Utilisation of Services of Retired Teachers at its meeting held on 7th September, 1974 and 11th March, 1975 inter-alia desired that the cases of teachers referred to experts before the meeting of the Selection Committee, but whose comments were not received till that time, may be decided by the Vice-Chairman on receipt of the same. Accordingly, the following candidates were approved for award under the retired teachers scheme on receipt of favourable comments from both the experts in each case:-

S. No.	Name of the candidate	Subject	University/ Institution	Date of approval
1.	Prof. A.B. Dadarkar	Urdu	Maharashtra College of Arts and Science, Bombay.	10.6.1975

2. Dr. Dashrath Ojha Hindi University of Delhi 16.6.1975
3. Prof. G.H.Tarlikar Sanskrit Poona University 19.2.1975

The Selection Committee constituted under the U.S.R.T. Scheme at its meeting held on 11th March, 1975, inter-alia, desired that in the case of recommendations received from Vice-Chancellors for extension of tenure of teachers working under the USRT Scheme, the extension may be granted as recommended by the Vice-Chancellor for a maximum period of two years or attainment of 68 years of age whichever is earlier. It was also resolved that the cases of extension with recommendations of the Vice-Chancellors where the term expires before the next meeting of the Selection Committee may be decided by the Vice-Chairman as and when they are received. On this basis, extension of tenure under the USRT scheme was granted to the following retired teachers:

S.No.	Name of the candidate	Subject	Institution	Period of extension	Date of approval
1.	Dr. P.L.Chaudhury	History	Dayanand Girls College, Kanpur	18.7.75 to 12.12.77	5.6.1975
2.	Sri K.K. Narayana Kurup	Philosophy	Maharaja's College, Ernakulam.	4.2.75 to 3.2.77	28.5.1975

(15) Award of Research fellowship in Engineering & Technology during 1975-76 for the year 1974-75.

.....

A Committee consisting of the following members was constituted by the Commission to consider 145 applications for the award of Research fellowship in Engineering and Technology and to recommend candidates for award during 1975-76 for the year 1974-75.

1. Professor P.G. Madan,
Vice-Chancellor,
M.S. University of Baroda.

2. Professor M.C. Chaturvedi,
Department of Applied Mechanics,
Indian Institute of Technology,
New Delhi.
3. Professor Gopal Krishna,
Department of Chemical Engineering,
Roorkee University, Roorkee.
4. Professor Harkishan Singh,
Department of Pharmaceutical Sciences,
Panjab University, Chandigarh.
5. Professor H.C. Verma,
Department of Electrical Engineering,
Panjab Engineering College, Chandigarh.
6. Professor Shankar Lal,
Department of Mechanical Engineering,
Roorkee University, Roorkee.

The Committee which met on 5.7.75 recommended award of Research fellowship in Engineering & Technology to 60 candidates as per list attached (Annexure). (vide orders dated 17.7.75). Necessary award letters have been sent to the Universities/Institutions concerned with copies to the candidates.

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- (16) Grant of Special pay to the incumbents of the posts of Key Punch Operator in the office of the University Grants Commission with effect from the 1st January, 1973.

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In accordance with the provisions of the Ministry of Finance (Department of Expenditure) Office Memorandum No. F.6(18)-E.III(B)/74 dated the 21st October, 1974 and on the recommendations of the UGC Standing Committee on Establishment Matters made at its meeting held on the 8th July, 1975 ((Item 5(ii)), 2 Key Punch Operators out of the 3 Key Punch Operators in position, who fulfil the conditions stipulated in the Government of India orders referred to above, have been granted Special Pay at the rate of Rs.20/- per month instead of the existing rate of Rs.15/- per month with effect from the 1st January, 1973 (vide orders date the 29th July, 1975). The 3rd Key Punch Operator who had drawn special pay @ Rs.15/- per month provisionally will not be eligible for the Special Pay.

The regulation of the special pay to the Key Punch Operators in future will also be subject to fulfilment of the conditions stipulated in the Government of India orders referred to above.

-
- (17) Discontinuation of Special Pay to Selection Grade Daftri/Daftri in the 'R&I' Branch handling Franking Machine, in the revised scale(s) of pay with effect from the 1st January, 1973.

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On the recommendation of the U.G.C. Standing Committee on Establishment Matters made at its meeting held on the 8th July, 1975((item 5(iii)), the Special pay drawn by the Selection Grade Daftri/Daftri in the 'R&I' Branch handling Franking Machine in the revised scale(s) of pay has been discontinued with effect from the 1st January, 1973 vide orders dated the 29th July, 1975.

-
- (18) Amendment of Rule 3 of the UGC (Terms and Conditions of Service of Employees) Rules, 1958.

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Rule 3 of the UGC (Terms and Conditions of Service of Employees) Rules, 1958 provided:-

"The Commission may appoint such number of officers and other employees as may be determined by it (subject to the general financial limits in the budget accepted by the Central Government in the Ministry of Education), provided that no post, the maximum remuneration of which exceeds Rs.2,000/- per mensem shall be created by the Commission without the prior sanction of the Central Government".

2. Consequent upon the recommendations of the Third Pay Commission as accepted by the Government of India and the University Grants Commission, the Ministry of Education and Social Welfare was requested for amendment of the above quoted rule with a view to raising the limit of Rs.2,000/-

per mensem in the above quoted rule to Rs.2,500/- per mensem. The Ministry amended the rule raising the limit to Rs.2,250/- and issued a notification to that effect.

On a reference again made by the Commission to raise the limit to Rs.2500/-, the Ministry has regretted that the matter cannot be reviewed as "all the relevant facts were taken into account before issuing the notification raising the limit from Rs.2,000/- per mensem to Rs.2,250/- per mensem. The above quoted rule stands amended accordingly.

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Annexure to item No.2(a)(5)

Statement indicating the sanctioned strength for different departments.

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Department	No. of posts sanctioned earlier.			No. of posts now sanctioned			Total No. of posts		
	P	R	L	P	R	L	P	R	L
1. English	1	2	4	-	-	2	1	2	6
2. Chemistry	1	-	1	-	-	-	1	-	1
3. Political Sc.	1	2	2	-	-	2	1	2	4
4. History	1	1	2	-	1	2	1	2	4
5. Economics	1	1	2	-	-	2	1	1	4
6. Education	1	3	1	-	-	1	1	3	2
7. Philosophy	1	1	2	-	1	1	1	2	3
8. Sociology	1	-	-	-	-	-	1	-	-
9. Cultural Anthropology	1	-	-	-	-	-	1	-	-
10. Mathematics	1	-	3	-	2	1	1	2	4
11. Physics	1	-	-	-	-	-	1	-	-
12. Geography	1	-	-	-	-	-	1	-	-
13. Zoology	1	1	-	-	2	1	1	3	1
14. Botany	1	2	2	-	1	2	1	3	4
15. Geology	1	-	-	-	-	1	1	-	1
16. Continuing Education- Total	-	1	-	-	-	1	-	1	1
	15	14	19	-	7	15	15	21	34

Annexure to Item No.2(a)(15)

LIST OF CANDIDATES RECOMMENDED FOR THE AWARD OF RESEARCH FELLOWSHIPS IN ENGINEERING & TECHNOLOGY OF THE VALUE OF Rs.500/- p.m. EXCEPT WHERE OTHERWISE STATED.

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S.No.	Name of the candidate	University
<u>MECHANICAL ENGINEERING - 9 CANDIDATES</u>		
1.	Shri Satyanarayana Beela	Andhra University
2.	Shri Arun Kumar Singh	Banaras Hindu Univ.
3.	Shri Om Prakash	-do-
4.	Shri Prabhakar Raghunathrao Sajjanpawar	Indian Institute of Science, Bangalore
5.	Shri Kankasetty Radhakrishna	-do-
6.	Shri Ashok Kumar	Roorkee University
7.	Shri Kiran Prakash	Roorkee University
8.	Shri Shashi Kant Diwan	Roorkee University
9.	Shri Dayal Saran Mishra	Roorkee University

ELECTRICAL ENGINEERING- 12 CANDIDATES

10.	Shri Raj Sonani	M.E. Engg. College, Allahabad
11.	Shri P.K. Goswami	Calcutta University
12.	Shri G.R. Datta	Calcutta University
13.	Shri S.V.K. Shastry	I.I.Sc., Bangalore
14.	Shri C.S. Warnekar	I.I.Sc., Bangalore
15.	Shri H.V.K. Shetty	I.I.Sc., Bangalore
16.	Shri N.Rajan	I.I.Sc., Bangalore
17.	Shri N.Parameswaran	I.I.Sc., Bangalore
18.	Shri S.C. Parti	Roorkee University
19.	Shri E. Baleguruswamy	-do-
20.	Km. G. Agnihotri	-do-
21.	Smt. Swarna Prabha	-do-
22.	Shri R.W. ...	L.I.T., Nagpur
23.	Shri R.R. Das Agarwal	Banaras Hindu Univ.
24.	Shri R. Das	Jadavpur University
25.	Shri S.K. Pal	Indian Statistical Institute, Calcutta.

METALLURGICAL ENGINEERING -2 Candidates

26	Km. H.M. Aruna	I.I.Sc., Bangalore
27	Shri B.G.S. Prasad	-do-

CERAMICS ENGINEERING -1 CANDIDATE

28	Shri Syed Abdul Jaleel	Osmania University
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Contd.

CIVIL ENGINEERING - 5 CANDIDATES

29	Shri B.V. Somashankar	I.I.Sc., Bangalore
30	Shri K.S. Janakiram	-do-
31	Shri V. Ramarajan	-do-
32	Shri K.V. Shivarudrappa	College of Engg.
33	Shri R. Rangaswami	Madras -do-

34 CHEMICAL ENGINEERING - 12 CANDIDATES

34.	Shri Kodali Mahadeva Rao	Andhra University
35.	Shri Rathindranath	-do-
36	Shri Sri Chand	B.H. University
37	Shri Damodar Singh	-do-
38.	Shri Markandey Singh	-do-
39.	Shri Nirmal Kumar Sinha	-do-
40.	Shri Narendra Narain (Scholarship recommended Rs.600/- as he already has his Ph.D.)	Bombay University
41	Shri Sauriundranath Maity	Calcutta University
42	Shri Tapen Kumar Pal	Jadavpur University
43	Shri P.R. Madhavan	Madras University
44.	Shri Perisetla Ramanaiah	Jawaharlal Nehru Tech. University Warrangal.

METALLURGICAL ENGINEERING - 2 CANDIDATES

45.	Shri Niramalendu Shekhar Mishra	B.H. University
46.	Shri Rashmikant G. Vasha	-do-
47.	Shri Channagiri Laxminarayana	I.I.Sc., Bangalore
48.	Shri S. Illangovan	-do-
49.		

BIO-CHEMICAL ENGINEERING - 1 CANDIDATE

49.	Shri Abhinandan Kumar Jain	H.B. Tech. Instt. Kanpur (Kanpur U)
50.		

PHARMACEUTICAL SCIENCES - 8 CANDIDATES

50	Shri S.S. Murty	Andhra University
51	Shri T. Satyanarayana	-do-
52	Shri K.Pattabhi Rama Choudary	-do-
53.	Shri M. Apparao	-do-
54.	Shri N.K. Alawadhi	Panjab Univ. Chandigarh

55. 12 Shri H.R. Batra Panjab University,
Chandigarh.
56. 13 Shri R.K. Madan Saugar University
57. Shri A.K. Sharma -do-

APPLIED GEOLOGY - 1 candidate

58. Shri Narendra Kumar Gupta Saugar University
- APPLIED CHEMISTRY - 2
candidates
59. Shri A.K. Mitra Calcutta University
60. Shri S. Biswas -do-

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 11th & 12th August, '75

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

.....

- (1) Indo-Polish and Indo-Romanian Cultural Exchange Programmes 1974-76 - Items assigned to University Grants Commission for implementation.

.....

Indo-Polish Cultural Exchange Programme - 1974-76

<u>Item</u>	<u>Particulars</u>
1.	Both sides shall promote exchange of visits of delegations of 6 teachers/specialists with a view to identifying areas/disciplines in which cooperation and collaboration between universities and institutions of higher learning of the two countries could be profitably promoted. The bilateral academic programme will include:- a) exchange of teachers/specialists in specific areas/disciplines between the two specified universities and institutions of the two countries on short and long term basis; b) exchange of literature and other publications of common interest; c) exchange of scientific equipment/gadgets/teaching slides etc. of common interest; and d) joint research programmes of common interest, details of which may be mutually agreed upon.
2.	Both sides shall exchange three professors/specialists in order to deliver lectures and to exchange experience. (Upto 4 weeks each)
3.	The India side shall send to Warsaw University a Professor/teacher in Indian studies, and the Polish side shall send to the University of Delhi a professor/teacher in Polish studies.

(2) Indo-Romanian Cultural Exchange Programme
1974-75

<u>Item</u>	<u>Particulars</u>	<u>Duration</u>
1.	The Romanian side will send and the Indian side will receive a Professor of Romanian language, literature and civilization to teach at an Indian university.	Not indicated. Generally it is for one academic year.
2.	Both sides will promote exchange of visits of a delegation of about 6 teachers/specialists/academicians with a view to identify areas/disciplines in which cooperation and collaboration between specific institutions of the two countries can profitably be promoted.	3 weeks
3.	Both sides will exchange annually 3 persons of university teaching staff for specialization in mutually acceptable fields.	One academic year each.

Action for the implementation of the above items is being taken.

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Confidential

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated 11th & 12th August, 1975.

Item No. 3 To approve the Statement of grants released after the last meeting of the Commission held on 14th/15th August, 1975.

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PLAN

No.	University	Purpose	No. of Instalment	Amount Released.
	Agra University			
	<u>Affiliated Colleges.</u>			
	S.M. Medical college, Agra	Students Welfare Programme	Final	3,775-59
	Daudayal Mahila Mahavidyalaya, Firozabad	Students Aid Fund		391
	S.M. College, Chandausi	Development of play field & purchase of accessories for games and sports	Final	1,023
	S. Hindu Degree College, Chandpur Sian (Bijnor)	Financial assistance to teachers in the Universities/colleges for undertaking research or learned work in Humanities/Social Sciences	First	1,500
	Agra college, Agra	Junior Fellowships in Sciences		1,500
				<hr/> 8,089.69
	<u>ALIGAH MUSLIM UNIVERSITY</u>			
		Augmentation of Electric 11th supply in the Univ. campus		50,000
		Research fellowship in Engineering & Technology		900
		-do-		6,000
		-do-		900
		-do-		6,000
		-do-		7,200
		Financial assistance to teachers for undertaking research or learned work in Humanities and Social Sciences.	Ist	500

p.t.o.

ALIGARH MUSLIM UNIVERSITY CONTD.

Financial assistance to teachers in the Universities and colleges for undertaking research or learned work in Humanities and Social Sciences/ Sciences.	Ist	500
-do-		966.63
-do-		1,250
-do-		1,250
-do-		1,500
-do-		1,500
-do-	2nd	750
Institution of senior Fellowship @ Rs.1,000/- p.m. for two years to Dr. S. Kasim Dadgar from Afghanistan at J.N.U Medical College, A.M.U.		6,000
Introduction of part-time post-graduate course in Business Management - Purchase of equipment	Final	1,476
Students Amenities Programme - Purchase of furniture for V.K. Hall Auditorium.		10,000
Organisation of Computer course during 1975-76		10,000
Construction of building for P.G. diploma course in Business Management	6th	15,000
Unassigned grant for 74-75 & 75-76		23,056-50
Research fellowship in Engineering and Technology		2,329-03
Provision of additional(External Electrical Services).	8th	40,000
Assistance for the Research project entitled 'Reactions of Transition Metal Halides in the Solid State' of Dr.M.A. Beg, Deptt. of Chemistry	2nd	4,000
-do- Dr.G.S. Gupta	2nd	4,000

Total: 1,95,078.15

3. ALLAHABAD UNIVERSITY

Research fellowship in Humanities and Social Sciences		2,690.32
Assistance for research/learned work in Humanities and Social Sciences/Sciences		2,500
Basic grant for the purchase of equipment during the V Plan period for the development of Engineering and Technology.	Ist	40,000

Contd.

ALLAHABAD UNIVERSITY CONTD.

Basic grant for the purchase of Library books and journals during 5th plan period for development of Engineering and Technology.	10,000
Research fellowship in Sciences	1,488-94
Construction of Boys hostel	2,00,000
Construction of Hostel at S.D.I	30,000

FILIIATED COLLEGES

Opening Christian College, Allahabad	Financial assistance for research work in science	Ist	2,000
			<hr/>
			2,88,178.94

ANDHRA UNIVERSITY

Writing of University level books	2,000	
Research fellowship in Engineering and technology.	900	
-do-	800	
-do-	6,000	
-do-	5,566-67	
-do-	900	
-do-	6,566.67	
-do-	900	
-do-	5,083.33	
-do-	900	
-do-	6,000	
-do-	64.62	
-do-	900	
-do-	3,666.67	
-do-	1,948.84	
Programmes of Special Assistance to Selected Departments - Botany	18,900	
Research fellowship in science	2,000	
-do-	1,500	
-do-	4,000	
-do-	1,000	
-do-	2,200	
Summer Institute in Political Science for College Teachers during 1972	Final	2,511.13
Award of studentship of the value of Rs.150/- to the P.G. students of applied Geology course	50,000	
National Associateship Scheme	1,000	

ANDHRA UNIVERSITY CONTD.

Introduction of Post-graduate Courses in Civil, Electrical & Mechanical Engineering		1,50,000
All India Summer Institute in Physics and Chemistry for College teachers held during 1974		2,762.27
Writing of University level books	Final	2,000
Construction of Men Students Hostel	Final	5,523
Research Fellowship in Science	Ist	2,500

AFFILIATED COLLEGES

AI College of Education Guntur	Research assistance in science	Ist	1,175
S.K.B.R. College, Anaparthi	Development of play field & purchase of accessories for games and sports	Final	1,350
Shrimathi Kandkuri Rajyalakshmi College for women, Rajamundri	Students Aid Fund		1,000
Sree Konaseema Phani. Benars college, Anaparthi	-do-		2,750
R.V.V.N College, Charanikota	-do-		750
Anaravati J.M.J. College for women, Tenali	-do-		1,000
Total:			<u>2,88,518.20</u>

ANNAMALAI UNIVERSITY

Centre of advances Study in Linguistics		75,000	
Award of Junior Fellowship of the value of Rs.400/-p.m. in Engineering & Technology		18,000	
-do-		18,000	
Development of Schemes during 5th plan - Unassigned grant		2,057.21	
Research fellowship in Science and humanities.	First	1,000	
Total			<u>1,14,057.21</u>

P. SINGH UNIVERSITY

AFFILIATED COLLEGES

Chaharaja college, Chhatanour	Grants to colleges for loan of books to students	Final	2,994.96
Swami Vivekananda Mahavidyalaya, Bonthar	-do-	First	5,000
			<hr/>
			7,994.96

BAHARAS HINDU UNIVERSITY

Research fellowship in Engineering and Technology			6,000
-do-			900
-do-			900
-do-			4,274.19
-do-			900
-do-			3,733.33
-do-			7,200
-do-			2,329.03
-do-			6,000
-do-			900
-do-			2,000
Research fellowship in Science			3,093.87
-do-			3,087.83
-do-	Ist		1,500
Financial assistance to teachers for research/learned work in sciences and humanities including social sciences	2nd		500
-do-	2nd		500
Development of Agriculture Studies Faculty of Agriculture			3,404
Utilisation of Services of Outstanding Retired Teachers			3,956.60
National Associateship Scheme			1,000
Preparation of Historical Grammar of Hindi Language			960.68
Development of Engineering and Technology - Purchase of Equipment	Final		10,000
-do-	Final		10,000
Basic grant for purchase of library books and journals for development of Engineering and technology.	Final		50,000
Construction of Postgraduate Hostel for 24 students for faculty of Education.	Ist		40,000

Contd.

BANARAS HINDU CONTD.

Consolidation and Development of the Deptt. of Civil Electrical Mechanical Engg.	Final	13,000
Writing of University level books/monographs		3,030
Programme of Special Assistance to Selected Departments - Deptt. of Metallurgy		1,00,000
Assistance for the Research project entitled 'Mechanism of Recombination in Eukaryotes' Deptt. of Genetics		10,000
Providing boundary wall fencing around the staff quarters	Ist	40,000
Dupoty for advanced research in the Humanities and Social Sc.	Ist	2,000
Purchase of equipment for Institute of Medical Science	Final	2,17,622.18
-do-		48,377.82
Purchase of furniture for students Home	Final	687.19
Construction of teachers Hostel consisting of 48 quarters	7th	1,00,000
Construction of Air Conditioned room for Growth Chamber for the Deptt. of Botany under US million dollar loan scheme		10,000
		<hr/>
	Total:	7,07,856.72
		<hr/>

8. Bangalore University

Basic grant for the purchase of Scientific equipment during 5th plan period.		1,00,000
Research fellowship in Engineering and Technology.		4,000
-do-		900
Financial assistance to Teachers for research work in science	Final	600
Hindi Poets Conference for one day in November 1975 i.e. 15.11.75		2,000

AFFILIATED COLLEGES

Mount Carmel college Bangalore	College Humanities and Social Sciences	Ist	10,000
St. John's college, Bangalore	Development of play fields and purchase of accessories for games and sports	Final	1,500
			<hr/>
		Total	1,19,000
			<hr/>

9. BERHAMPUR UNIVERSITY

Financial assistance to teachers for research/learned work in sciences	Final	500
Research fellowship in science Humanities and social science		9,572.50
Construction of 50 seated Girls Hostel	Final	62,103
Construction of 12 Nos. D type staff quarters	Final	14,273
National Associateship Scheme		1,000

Affiliated Colleges

Govt. Evening College, Berhampur	Research assistance in science	First	1,000
Govt. college, Tikamgarh	-do-	First	500
Ganjam College, Ganjam	Development of play field and purchase of accessories	Final	1,286
Total:			90,834.50

10. BHAGALPUR UNIVERSITY

AFFILIATED COLLEGES

S.P. College, Dumka	Students Aid Fund		1,000
T.N.R. college, Bhagalpur	Assistance to teachers for research/learned work in sciences	2nd	500
Total:			1,500

11. BHOPAL UNIVERSITY

Establishment of Study Centre	11,744
Publication of Research works including Doctoral theses	3,000

AFFILIATED COLLEGES

M.G.C.T. college, Bhopal	Research fellowship in Engineering & Technology		900
-do-	-do-		3,950
Gal Bahadur Shastri college, Ganj Basoda	Grants to college libraries for loan of books to students (Book Bank)	First	6,000
Total:			25,594

12. Bihar University

Grant-in-aid towards the construction of Post-graduate Arts Block	6th	1,50,000
Research fellowship in Engineering and Technology		500
Financial assistance to teachers for research/learned work	2nd	500
Grants to college libraries for loan of books to students	First	10,000
Book-Bank		

Total 1,61,000

12. BOMBAY UNIVERSITY

Allocation of unassigned grant during the 5th Five Year Plan	First	20,000
Grant for support of research in the Universities - Fourth Five Year Plan Period	Final	4,725.81
Establishment of research unit in Economics of Education		65,000
Establishment of research unit in Economics Department of Education		999.70
Research fellowship in Science		3,920

AFFILIATED COLLEGE 3

Sophia college, Bombay	College Humanities and Social Sciences Development Programme	15,000
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Kapila Mahavidyalaya, Sanshodhan Vasanthi	Books grant for 1969-70	Final 1,000
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Total: 1,15,645.51

Contd.

13. University of Burdwan

Grant in aid towards the construction of a Store Room for explosive chemicals - Chemistry Building	1st	12,000
-do-	4th	20,000
National Associateship Scheme		1,000
Grant-in-aid for the purchase of scientific equipment various Science Deptts. during the Vth Plan period.		1,42,000
Grant-in-aid for the setting up of a Botanical Garden and Botanical Museum.	final	12,000
Unassigned grant for 1975-76	1st	15,000
Payment of grant towards the establishment of the Study Centre - 1975-76.	4th	4,000

Affiliated Colleges

Raja Rammohan Roy Mahavidyalaya, Radhanagar P.O. Nangulpara, Distt. Hooghly.	Grant-in-aid for the construction of Teachers' Hostel - release of further grant.	5th	1,81,448
Vivekananda Mahavidyalaya, Burdwan.	Grants to College Libraries for loan of books to students (Book Bank) during Fifth Plan.	1st	11,000
Saldiha College, P.O. Saldhia, Distt. Dabndara.	-do-	1st	8,000
Total:			4,06,448

14. University of Calcutta

Programme of Special Assistance to Selected Departments - Department of Pure Chemistry - Release of 'on account' grant.	1,14,200
Senior/Junior Research Fellowships in Science and Technology - payment of contingency grant.	2,500
-do-	2,000
-do-	1,500
-do-	1,500

Calcutta University (Contd.)

Grant-in-aid for the purchase of Library Books and Journals during the Vth Plan period.	2nd	75,000
Development of the Computer Centre	3rd	3,00,000
Utilisation of Services of Outstanding Retired Teachers - payment of grant in respect of -		7,000
Installation of an Electron Microscope in the Department of Physics - Fifth Plan Scheme.		55,000
Grant-in-aid for the purchase of Scientific Equipment for the Vth Plan period - Basic grant.	final	1,04,010

Affiliated Colleges

Rama Krishna Mission Mahavidyamandira, Belur Math (Howrah);	College Humanities and Social sciences Department Programme - payment of grant.	1st	8,000
Narasinha Dutt College, 129, Bellious Road, Calcutta.	Grants to College Libraries for loan of books to student (Book Bank) during Fifth Plan.	1st	17,000
Yogoda Satsanga Palpara Mahavidyalaya, P.O. Palpara Distt. Midnapore.	-do-	1st	8,000
Ram Thakur College, Agartala, Tripura, (W.B.)	-do-	1st	8,000
Raja Binendra Chandra College of Commerce, Kandi, (Murshidabad).	-do-	1st	6,000
Sripat Singh Jiaganj, Distt. Murshidabad.	-do-	1st	11,000
Sitandnia College, P.O. Nandigram, Distt. Midnapore.	-do-	1st	6,000
Asutosh College, 92, Syama Prasad Mookerjee Road, Calcutta-26.	-do-	1st	14,000
Dhurha Chandra Maldar College P.O. Dakshia Barsat, Distt. 24-Parganas.	-do-	1st	11,000'

Calcutta University (Contd.)

Affiliated Colleges

Rani Dhaniya Kumari Coll e of Commerce, Jiaganj (Murhidabad).	Grants to College Libraries for loan of book sto students (Book Bank) during Fifth Plan.	1st	6,000
Sri Shikshyatan College, 11, Lord Sinha Road, Calcutta.	-do-	1st	11,000
Bagnan College, P.O. Bagnan, Distt. Howrah.	-do-	1st	8,000
Bangabasi College of Commerce, 8/1, Santosh Mitra Square, Calcutta-12.	-do-	1st	6,000
Khudiram Bose Central College, 71/2A, Bidhan Surani (Cornwallis street) Calcutta.	-do-	1st	6,000
Rama Krishana Miss- ion Residential College, P.O. Narendrapur, Distt. 24-Parganas.	College Humanities and Social Sciences Depart- ment Developmental Programme - payment of grant.	1st	15,000
Vidyasagar College for Women, 39, Shankar Shah Lane, Calcutta.	Financial Assistance to Teachers for research/ learned work in Sciences and Humanities including Social Sciences - Payment of second instalment of grant.	2nd & final	1,000
Ram Mohan College, Calcutta.	Establishment of Book bank	2nd & final	5,500
Sri Chaitanya College, Distt. 24-Parganas.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences/Sciences.	1st	1,500
Vidya Sagar College, 39, Sankar Ghosh Lane, Calcutta.	College Humanities and Social Science Development Programme - payment of grant.	1st	10,000

Calcutta University (Contd.)

Affiliated Colleges

Banwari Lal Bhalotia College, Asansol, Distt. Burdwan.	Grant-in-aid for the extension of laboratory building for Physics Department.	final	6,331.15
Krishnagar Govt. College, Krishnagar, Nadia.	Financial Assistance to Teachers for research/ learned work in Sciences.	2nd & final	500
N.B. Mahavidyalaya Itachuna, Distt. Hooghly.	-do-	2nd & final	500
Nabadwip Vidya- sagar College, P.O. Nabadwip.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humainties and Social sciences/Sciences.	1st	1,000
P.K. Haridas Nandi College, P.O. Kanpur.	-do-	1st	500
K.K. Das College of Commerce Baishnab Ghats, Distt. 25- Parganas .	Grant-in-aid for the purchase of library books (Book Bank).	2nd & final	3,250
Bangabasi College, 19, Scott Lane, Calcutta-9.	-do-	1st	13,000
Gaur Mohan Sachin Mandal Mahavidyalaya V & P.O. Bireswar- pur, Distt. 24- Parganas.	Students' Aid Fund		1,000
Rammohan College, 102/1, Anherst Street, Calcutta.	Financial Assistance to Teachers for research/ learned work in Sciences.	2nd & final	750
Bastraguru Surendra nath College, Calcutta.	-do-	1st	1,250
Bankura Sammilani College, Bankura.	Students' Welfare Programme	2nd & final	3,885.50
Sanskrit College, Bankim Chatterjee Street, Calcutta.	Development Programme during 150th Anniversary of the College.	2nd	20,000

Total: 8,73,676.6

15. Calicut University

Construction of Student Homs in the University Campus.	40,000
Utilisation of Services of Outstanding Retired Teachers - payment of grant in respect of.	6,000
Employment of Trained Coaches - Reimbursement of expenditure for 1973-74,	12,000
Workshop-cum-Seminar on Postgraduate Teaching 25th August to 30th August, 1975.	4,800

Affiliated Colleges

Farook College, Calicut.	Financial Assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences/Sciences - Students' Aid Fund	1st	750
Government College, Chittur, Palghat. (Distt.)			1,160
Sree Naraya Verma College, Trichur.	Utilisation of Services of Outstanding Retired Teachers payment of grant in respect of -		7,000
Farook Training College, Farook College P.O. Calicut.	Development of teachers training programmes in teachers training colleges - Construction of library and laboratory building - Regarding.	3rd	4,333
Farook College, P.O. Calicut.	Financial Assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	1,250

Total: 67,293

16. Cochin University

Construction of Central Library Building.	1st	1,00,000
Students' Aid Fund in Universities - Regarding.		925
Writing of university level books and monographs.		983.87
	Total:	<u>1,01,908.87</u>

17. Delhi University

Financial Assistance to Teachers for research/learned work in Sciences and Humanities including Social Sciences.	2nd & final	750
Construction of extension to the library building for the Department of Business and Management .	1st	75,000
Junior Research Fellowships in Science - payment of Fellowship.		4,800
Utilisation of Services of Outstanding Retired Teachers - payment of grant in respect of -		2,321.
-do-		6,000
Celebration of the 400th Anniversary of Ram Charit Manas - Release of grant.		10,000
Senior/Junior Research Fellowships in Sciences/Humanities including Social Sciences/Research Fellowships in Engineering and Technology - payment of fellowship and contingency grant.		8,600
-do-		2,400
Construction of a storage tank and over head tank for -		50,000
Junior Research Fellowships in Humanities including Social Sciences - payment of contingency grant.		1,497
-do-		1,499
Additional bed room on the existing terrace in Vice-Chancellors' lodge.		8,000
Provision of permanent electric substation to food press building/ cngg. stores and P.G. women's Hostel.	1st	50,000

Delhi University (Contd.)

U.G.C. Assistance for the Research Project entitled "The Chemistry of Some Metal Chelate Compounds" of Dr. R.P. Singh, Department of Chemistry - Fifth Five Year Plan period.	2nd	7,500
Development 4.7 acres plot on Probyn Road under Campus Development Scheme.		11,200
Support for advanced research in the Humanities and Social Sciences - 1975.	1st	8,000
Junior Research Fellowships in Humanities including Social Sciences - payment of fellowship and contingency grant.		7,000
Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	1,000

Affiliated Colleges

Ram Lal Anand College (Day Classes) Anand Niketan Marg, New Delhi.	Construction of Class Rooms, Staff Room, Common Room and Library Block.		50,000
College of Pharmacy, Pusa, New Delhi.	Travel Grant to Shri B.D. Miglani, Assistant Profe. for attending the 4th Asian Congress of Pharmaceutical sciences held at Bangkok from 3rd December, 1972 to 9th December, 1972.		996
Maulana Azad Medical College and Associated Irwin and G.B. Pant Hospital, New Delhi.	Travel Grant.		3,909
Miranda House, Delhi.	Financial Assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	500

Delhi University (Contd.)

Affiliated Colleges.

Hans Raj College, Delhi.	Construction of Teachers- cum-Tutorial Block.	2nd	11,012.8
Kirori Mal College, Delhi.	Grant for existing sprills in the college building.		3,236.8
Dyal Singh Collge New Delhi.	Financial Assistance to Teachers for research/ learned work in Sciences.	2nd & final	500
Sri Venkateswara College, Dhaula Kuan, New Delhi.	-do-	2nd & final	750
College of Voca- tional Studies, 7, Doctors' Lane, Gole Market, New Delhi.	Barbed wire fencing over the boundry wall of the site allotted to the college - payment of grant for.		15,000
Deshibandhu College, Kalkaji, New Delhi.	Purchase of furniture for the students common rooms and two additional lecture rooms.		30,000
Kirori Mal College Delhi.	Construction work to over the position of the plat form.		3,410
Swami Shardhanand College, Alipur.	Financial Assistance to Teachers for researchp/ learned work in sciences and Humanities including Social Sciences -	2nd & final	250
Shivaji College, Karampura, New Delhi.	Construction of College Building.		1,00,000
Total:			4,55,033.41

18. Dibrugarh University

Studies and Research in community development corporation and Panchayati Raj a research project.	final	1,337
Grant-in-aid for the construction of Women's Hostel - 4th Plan Scheme	6th	1,20,000

Dibrugarh University (Contd.)

Grant-in-aid towards the construction of Mathematics and Statistics Block.	final	5,000
Unassigned grant for the year 1975-76.		15,000

Affiliated Colleges

Jagannath Barooah College, Jorhat.	College Humanities and Social Science Development Programme - Payment of grant.	1st	15,000
J.B. College, Jorhat.	Financial assistance to teachers in universities and colleges for undertaking research or learned work in Sciences -	1st	1,500
Dergaon Kamal Dowarah College, P.O. Dergaon (Sibsagar).	Grants to College libraries for loan of books to students (Book Bank) during Fifth Plan.	1st	6,000

Total: 1,64,237.87

19. Gauhati University

Award of Scholarships for post-graduate Studies in Arabic during 1975-76.		1,800
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Affiliated Colleges

Goalpara College, Goalpara P.O.	Establishment of Text Book Library - release of final instalment.		1,000
Pragjyotish College, Gauhati.	Construction of additional class rooms & laboratories.	4th	4,000
Darrang College, Tezpur.	Grants to college libraries for loan of books to students (Book Bank) during Fifth Plan.	1st	8,000
Ghaiduar College, Gohpur, Darrang.	-do-	1st	6,000
Goalpara College, P.O. Goalpara.	Book grant 1970-71 - release of final instalment.		750

Gauhati University (Contd.)

Affiliated Colleges

Kokrajhar B.T. College, Kokrajhar, Goalpara.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities and Social Sciences.	1st	1,500
Jawaharlal Nehru Centre of Post-graduate Studies, Imphal.	-do-	1st	750
L.M.S. Law College, Imphal.	Construction of Cycle Shed release of final instalment of grant.		1,314
Arya Vidyapeeth College, Gauhati.	Grants to College Libraries for loan of books to students (Book Bank) during Fifth Plan.	1st	12,000
M.C. College, Barpeta.	-do-	1st	8,000
Cottan College, Gauhati.	-do-	1st	8,000
Kokrajhar College, P.O. and T.O. Kokrajhar, Distt. Goalpara.	-do-	1st	6,000
			59,114
		Total:	

20. Gorakhpur University

Affiliated Colleges

Udai Pratap College, Varanasi.	Writing of university level of books/monographs.		3,000
S.N. College, Azamgarh.	Financial Assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences/ Sciences.	1st	1,250
Sahkari Degree College, Mihrawan, Jaunpur.	-do-	1st	750
Nagark Degree College, Janghai, Jaunpur.	-do-	1st	1,250

P.T.

Gorakhpur University (Contd.)

Affiliated Colleges

Madam Mohan Malviya Degree College, Bhatnagar Rani (Deoria).	Students' Aid Fund in the colleges-Grant for 1974-75.		2,250
Rana Pratap Singh Degree College, Sultanpur.	-do-		1,000

Total: 65,500

21. Gujarat University

Financial Assistance to Universities for employment of book and coaches sanction of grant for.	final	1,207
College Science Improvement Programme - University Leadership Project in Biological Sciences. Grant-in-aid.	1st	1,00,000

Affiliated Colleges

Banathantha Arts and Science College, Palanpur.	Book Grants to the college libraries.	1st	6,000
Shri Sarwajanik Degree College of Education, Godhra.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences/Sciences.	1st	1,240
C.L.S. Arts College, Ahmedabad.	-do-	1st	900
Gujarat College, Ahmedabad.	-do-	1st	1,500
Smt. B. C. J. science College, (Disstt. Caira)	Book grants.	1st	6,000
Sheth C.K. Municipal Commerce College, Kalol.	-do-	1st	6,000
C.N. Shah science College, Ashram Road, Ahmedabad.	-do-	1st	6,000

Gujarat University (Contd.)

Affiliated Colleges

Shri U.P. Arts College and Smt. M.G. Panchal Science College, Pilwai.	Grants to college libraries for loan of books to students (Book Banks).	1st	6,000
Government Arts and Commerce College, Gandhinagar.	-do-	1st	6,000
Sir P.T. Science College, Wodasa.	-do-	1st	6,000
Shri Kishandas Kikanv Arts and Commerce College, Dhandhuka (Distt. Ahmedabad).	-do-	1st	6,000
St. Xavier's College, Ahmedabad-9.	College Science Improvement Programme - Selected Colleges Project - Grant-in- aid.	2nd	50,000
		Total:	<u>2,02,847</u>

22. Guru Nanak University

Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	1,000
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Affiliated Colleges

Guru Teg Bahadur College, Sathiala.	Purchase of Semi-Micro Analysis Equipment.	final	5,000
Dayanand Amarjath College of Education Nawanshahr Doaba (Jullundur).	Students' Aid Fund		750
Khalsa College, Amristsar.	-do-		3,750
Sikh National College, Qadian (Distt. Gurdaspur).	Book grant	1st	5,625

Guru Nanak University (Contd.)

Affiliated Colleges.

Hindu Kanya College, Kapurthala.	Book grants.	1st	5,625
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Total: 21,755

23. Harvana Agricultural University

Affiliated College

College of Basic Sciences & Humani- ties, Hissar.	Junior Research Fellowships in sciences - payment of contingency grant.		1,499.63
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Total: 1,499.63

24. Himachal Pradesh University

Financial Assistance to Teachers for research/learned work in Sciences and Humanities including Social Sciences.	2nd & final	1,000
Junior Research Fellowships in Humanities including Social Sciences - payment of fellowship and contingency grant.		7,874.19

Total: 8,874.19

25. Indore University

Construction of Library Building		1,00,000
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Affiliated College

Govt. Girls' Post- graduate College, Indore.	Financial assistance to to colleges/universities for development of play- fields and purchase of accessories for games.	2nd & final	1,500
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Total: 1,01,500

P. T. O.

26. Jabalpur University

Junior Research Fellowships in Sciences - Extension of Fellow- ship tenure - payment of fellow- ship to -	3,006.45
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Affiliated Colleges

Navyug Arts and Commerce and Educa- tional College, Jabalpur.	Book grants.		10,000
-do-	-do-	1st	6,000

Total:	19,006.45
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27. Jadavpur University

Research Fellowships in Engineering & Technology - payment of Fellowship.	900
-do-	2,100
-do-	900
-do-	6,000
-do-	900
-do-	6,000
-do-	900
-do-	1,000
-do-	5,725.81
-do-	1,000
-do-	900
-do-	2,700
-do-	900
-do-	5,532.26
-do-	900
-do-	5,432.66
-do-	8,600
-do-	2,500

U.G.C. Assistance for the Research project entitled "Equilibrium and Non-Equilibrium Properties of Ligands and Solutions" of Prof.R.V. Gopala Rao, Department of Chemistry - Fifth Five Year Plan period - release of grant for the period from 23.8.74 to 31.3.75.

Jadavpur University (Contd.)

Support for advanced research in the Humanities and Social Sciences - 1975-76.	1st	1,500
Matching share of grant from the State Government for Construction of Examination Hall.	3rd	20,000
Holding of Symposia, Discussion groups, Essay Competitions and exhibition etc. in connection with the 25th Anniversary of India's Independence.		2,179
Writing of University level books and monographs.		1,533.05
Basic grant for purchase of equipment during the 5th Plan period for development of Engineering and Technology.	1st	75,000
Utilisation of Services of Put-standing Retired Teachers - payment of grant in respect of -		7,000
		<hr/>
	Total:	1,60,102.78
		<hr/>

7. Jammu University

National Associateship		1,000
Purchase of books & Journals during Fifth Plan period - Adhoc Basic grant.		2,00,000
Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	1,000

Affiliated College

Government College for Women, Jammu.	-do-	1st	750
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Total: 2,02,750

P.T.O.

28. Jawaharlal Nehru University

Development of site for academic complex and residential complex in Sector IV of the -	6th	1,50,000
Award of teacher fellowship under the area studies programme - Dr. V. Suryanarayana.		1,066.40
Installation of 200 lines BABY Board in the New Campus of -		1,17,000
Purchase of furniture/equipment for students hostel, dinning hall & common room in sector IV of J.N.U. Campus.		1,279.58
Installation of a Bulgarian R-1020 Computer for the School of Computer and System Sciences in J.N.U.		20,00,000
Setting up of the School of Environmental Sciences of the University - Purchase of equipment.	1st	2,00,000
Writing of university book on "The Geography of Kashmir Valley" under the supervision of Prof. Moonis Raza.		
		<hr/>
Total:		24,69,345.98
		<hr/>

29. Jiwaji University

Affiliated College

Madhav Mahavidyalaya, Gwalior.	Book grants	1st	14,000
			<hr/>
Total:			14,000
			<hr/>

30. Jodhpur University

Junior Research Fellowships in Sciences - payment of fellowship and contingency grant.			2,893.55
-do-			4,800

Jodhpur University (Contd.)-

Financial Assistance to Teachers for research/learned work in Sciences.	2nd & final	250
Grant-in-aid for the development of scientific education and research - Payment of salaries to IIIrd Plan additional staff.	final	56,615.67
Total:		64,559.22

31. Kalyani University

Senior/Junior Research Fellowships in Science/Humanities including Social Sciences/Research Fellowships in Engineering & Technology - payment of Fellowship.		200
-do-		3,000
-do-		3,000
-do-		1,882.26
Unassigned grant during the 5th plan period - 1975-76 -	1st	12,500
-do-	1st	25,000
Total:		45,382.26

32. Kanpur University

Affiliated Colleges

Acharya Narendra Dev, Mahapalika Mahila Mahavidyalaya, Varshnagar, Kanpur.	College Humanities and Social Sciences Development Programme.	7,500
D.S.N. College, Unnao.	Utilisation of Services of Outstanding Retired Teachers payment of grant in respect of -	7,000
V.S.D. College, Kanpur.	-do-	6,000

P.T.O.

Kanpur University (Contd.)

Affiliated Colleges

H.B. Technological Institute, Kanpur.	Research Fellowships in Engineering & Technology - payment of fellowship.	3,733.33
-do-	-do-	717.86
-do-	-do-	900
Brahmanand College, Kanpur.	Students' Aid Fund	2,100
Nalim Muslim Degree College, Kanpur.	-do-	834
A.N.D. Mahapalika Mahila Mahavidyalaya, Harash Nagar, Kanpur.	-do-	1,866
P.P.N. College, Kanpur.	Development of Post-graduate Studies in the Science Subjects.	5,000

Total: 35,151.19

33. Kashi Vidyapeeth

Construction of Arts College Building during IVth Plan.		25,000
Golden Jubilee grant - Construction of 1st floor over the main building.	2nd	75,000
Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	500

Total: 1,00,500

34. Karnatak University

Senior/Junior Research Fellowships in Humanities including Social Sciences - payment of fellowship and contingency grant.	5,874.19
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Karnatak University Contd.

Support for advanced research in the Humanities and Social Sciences - 1975-76.	Ist	4,000.00
Financial Assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences/Sciences - Payment of first instalment of grant.	Ist	3,000.00
Programme in connection with the Celebration of 2500th Nirvan Mabotsav of Bhagwan Mahavir.		3,796.50
Senior/Junior Research Fellowships in Sciences/Humanities including Social Sciences/Research Fellowships in Engineering & Technology--payment of fellowship and contingency grant.		2,154.84
Senior/Junior Research Fellowships in Science/Humanities including Social Sciences/Research Fellowships in Engineering & Technology - payment of Fellowship.		7,200
Development Schemes under 5 Plan Period. Employment of Trained Coaches.		83,997
Financial Assistance to Teachers for research/learned work in Sciences and Humanities including social sciences - Payment of second instalment of grant.	2nd	1,155.52

Affiliated Colleges

Karnatak Arts College Bharwar (Karnatak State)	Grants towards the loan of books to students-setting up of books banks 1974-75.	20,000
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Affiliated Colleges Contd.

B.L.D.E. Associations New Arts College, Bijapur, (Karnatak State)	Grants towards the loan of books to Students-setting up of books banks	Ist	5,625.
MPE Society's College Arts and Science College, Honavar (North Kanara) Karnatak State	-do-	Ist	5,625
Gokhale Centenary College, Ankola (N. Kanara) Karnatak State	-do-	Ist	5,625
Laxmi Venkatesh Desai College	-do-	Ist	5,625
Karnatak Science College, Dharwar	-do-	Ist	8,500
Veerasaiva College Bellary-2(Mysore)	College Science Improvement Programme-Selected Colleges Project: Grant-in-aid	4th	50,000

2, 12, 178.05

35. Kashmir University, Srinagar

Purchase of books & journals and proposal of the University for adhoc grant for books and journals and equipment.

1,50,000

1, 50, 000

p.t.o.

36. Kerala University

Writing of University level books/monographs. 3,000

Affiliated Colleges

Union Christian College, Alwaya-2(Kerala) College Humanities and Social Sciences Development Programmes - Payment of grant Ist 10,000

St. Thomas College Development of Post graduate studies in Science subjects in affiliated colleges during the IVth Plan period. 2nd 30,000

St. Teresa's College Ernakulam (Kerala) Financial Assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences/ Sciences-Payment of grant Ist 250

G.M.S. College, Kottayam-Kerala College Science Improvement Programme - Selected Colleges Project - Grants-in-aid. 4th 7,478.55

College for Women, Trivandrum Purchase of Laboratory equipments-Assistance towards. 7,500

University College, Trivandrum College Humanities and Social Sciences Development Programmes - Payment of grant. Ist 10,000

68,288.55

37. Kerala Agricultural University

Utilisation of Services of Outstanding Retired Teachers - payment of grant in respect of Prof. C.M. George

6,000

-do-

4,000

10,000

38. Kumaon University

Affiliated Colleges

D.S.B. Govt. College, Construction of
Nainital (UP) Women's Hostel

3rd 70,000

70,000

39. Kurukshetra University

Financial Assistance to Teachers for research/learned work in Sciences - Payment of Second instalment of grant.

2nd

500

Senior/Junior Research Fellowship in Sciences - payment of contingency grant

1,500

Allocation of Unassigned Grant for the year 1975-76 - Release of grant.

Ist

15,000

p.t.o.

Kurukshetra University Contd.

Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences/Sciences - Payment of first instalment of grant	Ist	1,000
Salaries of Non-teaching Staff of Study Centres at Ambala Cantt., Rohtak & Karnal for 1974-75 & 1975-76 - Release of grant		8,836.70
National Associateship Dr. M.L.H. Kaul.		900
Salaries of Teaching Staff sanctioned for Education Department Kurukshetra University - Release of grant for 1974-75 & 1975-76.		29,411

Affiliated Colleges

Bhaj Mandal College, Hodal (Haryana)	Financial Assistance to Teachers for research/learned work in Sciences and Humanities including social sciences - Payment of second instalment of grant.	2nd	500
Government College, Jind	Establishment of Book Bank		2,950.83
Arya College, Panipat	Grant towards the loan of books to students setting up of Book Bank	Ist	8,437

p.t.o.

Affiliated Colleges Contd.

C.R. College of Education, Rohtak	Financial assistance to teachers in the universities and colleges for undertaking research of learned work in Humanities including Social Sciences* P*	Ist	4,000
D.A.V. College for Women, Karnal (Haryana)	Construction of Library Building and purchase of Furniture and Library Books		8,539
Pt. J.L. Nehru Government College Faridabad	Financial Assistance to Teachers for research/learned work in Sciences.	2nd	250
Arya Girda College, Ambala Cantt. (Haryana)	Students' Aid Fund in the Colleges - Grant for 1974-75.		1,000
University College Kurukshetra	Financial Assistance to Teachers for research/learned work in sciences.	2nd	1,250
B.N.C. Govt. College, Bhiwani (Haryana)	Financial assistance to teachers in the universities and college for undertaking research or learned work in Humanities including Social Sciences.	Ist	1,000
D.A.V. College for Women, Karnal	Students' Aid Fund in the colleges - Grant for 1974-75.		1,750

86,824.53

40. Lucknow University

Utilisation of Services of Outstanding Retired Teachers - Payment of grant in respect of Dr. N.H. Hashmi (Urdu)		7,000
Writing of University level books/monographs.		3,000
Junior Research Fellowships in Sciences payment of fellowship and contingency grant.		1,741.94
Senior Research Fellowships in Sciences/Humanities including Social Sciences/Research Fellowships in Engineering & Technology - payment of fellowship and contingency grant.		7,600
Junior Research Fellowships in Science payment of Fellowship		5,758.06
Financial Assistance to Teachers for research/learned work in Sciences and Humanities including social sciences - Payment of second instalment of grant	2nd	750
Appointment of Additional Staff during IVth Plan period - (Science) Sanction of grant for.		70,000
Utilisation of Services of Outstanding Retired Teachers - payment of grant in respect of Dr. D.P. Yadava		7,000
Programme of Special Assistance to Selected Departments - Department of Biochemistry		1,84,000
Construction of 96 Mens' Hostel - Sanction of grant for.		50,000

p.t.o.

Affiliated Colleges

Khun Khunji Girls Degree College, Chcwk, Lucknow	Construction of four class rooms	4th	10,000
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2,46,850

Lalit Narayan Mithila University

Affiliated Colleges

C.M. College, Darbanga	Junior Research Fellow- ship in Humanities includ- ing Social Sciences - payment of contingency grant to M.K. Thakur.		1,000
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1,000

41. Madras University

Development Schemes under IVth Plan period.	IVth	5,000
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-do-	IVth	5,000
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-do-	Ivth	25,000
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-do-	IVth	25,000
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-do-	IVth	25,000
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Research Fellowships in Engineer- ing & Technology- Payment of Fellowship.		5,517.26
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-do-		900
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p.t.o.

Madras University Contd.

Senior/Junior Research Fellowships in Sciences/Humanities including Social Sciences/Research Fellowships in Engineering & Technology - payment of contingency grant.	1,987.37
Junior Research Fellowships in Sciences payment of contingency grant	1,500
Development Schemes under 5th Plan Period Establishment of Study Centres.	20,000

Affiliated Colleges

N.G.N. College, Pollachi-642001.	Grants to college Libraries 2nd for loan of books to Students (Book Bank).	2nd	3,000
The New College, Madras	Grants to affiliated colleges for establishment of Book Bank Scheme	2nd	5,500
Nehru Memorial College, Puthanampatti.	Grants towards the loan of books to students - setting up of books banks.	Ist	5,625
Govt. Arts College for Women, Thanjavur.	-do-	Ist	8,000
Shri G.V.C. Visalakabi College Udam-Ipet, Coimbatore	-do-	Ist	8,500
Govt. Arts College, Salen	-do-	Ist	14,000
Sri Sarda College for Women, Alagapuram, Salem-4.	-do-	Ist	11,250

Madras University Contd.

Affiliated Colleges

Kalaignar Karunauithi Govt. Arts College Tiruvenur, Distt. Tanjora	Grants towards the loan of books to students - setting up of books banks.	Ist	8,500
Chikkaiah Naieker College, P.B. No. 102, Gode.	-do-	Ist	11,250
Presidaney College, Madras.	-do-	Ist	16,875
D.N.B.C.C.C Hindi College, Dharamurthi Nagar, Pattabiram Madras.	-do-	Ist	5,625
P.S.G. College of Technology, Coimbatore.	Writing of University level books/monographs		4,282.50
Vivekanand College Mylapore, Madras	College Science Improve- ment Programme - Select- ed Colleges Project - Grant-in-aid.		4,989.70
Christian Medical College, Vellore, Tamilnadu.	Financial Assistance to Teachers for research/ learned work in sciences-	2nd	250
Madras Christian College, Tambaram Estt. Madras.	Grants to affiliated colleges for Laboratory equipment - during 1972-72	2nd	4,000
Kalsignar Karunanithi Govt. Arts College, Tiruvannamalai.	Construction of Men's Hostel during IVth Plan	2nd	2,00,000

4,26,551.85

42. Madurai University

Development Schemes under V Plan period - award of six studentships for the study of Molecular Biology.	2nd	5,400
UGC Assistance for the Research Project entitled "Development of Immune Functions in Fishes" of Dr. V.R. Muthukkaruppan, Department of Biological Sciences Fifth Five Year Plan period - Unassigned grant for year 1974-75	2nd	7,200
Development Schemes under IV Plan period - Construction of Professor's quarters.	final	2,856.20
	final	1,816.18

Affiliated Colleges

V. Venkateswamy Naidu College, Kovillpatti, Tirunelveli Distt.	Grants towards the loan of books to students - setting up of book banks.	1st	8,500
S.N. College, Madurai.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	2,000
Arignar Anna College, Aramboly, Kanyakumari Distt.	-do-	1st	750

Total: 28,522.38

43. Magadh University

Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities & Social Sciences	1st	1,500
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Affiliated Colleges

A.N.S. College,	Grants to college libraries for loan of books to students (Book Bank) during Fifth Plan.	1st	8,000
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P.T.O.

Magadh University (Contd.)

Affiliated Colleges

Gaya College, Gaya.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	2,000
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Total: 11,500

44. M.S. University of Baroda.

Revision of salary scales of University teachers under III Five Year Plan Scheme.			1,21,997.07
Award of Scholarship for post- graduate studies to the students belonging to the Hill Areas of North Region of India during 1974-75.			1,900
Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities includ- ing Social Sciences.	1st		1,500
Establishment of a department of Adult/continuing education - sanction of grant for.			50,000

Total: 1,75,397.07

45. Marathwada University

Assignment of Russian Language Teacher - claiming grants from the U.G.C.			9,300
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Affiliated College

P.E.S. Milind College of Arts, Aurangabad.	Students Aid Fund		4,250
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Total: 13,550

46. Meerut University

Utilisation of Services of Outstanding Retired Teachers -		3,000
payment of grant in respect of -		
Junior Research Fellowships in		1,767.74
Science - payment of Fellowship.		
-do-		1,250

Affiliated Colleges

Kisan Degree College, Simbhaoli (Mrrut).	Grant towards the loan of books to students -	1st	5,625
N.A.S. College, Meerut.	setting up of Book Bank.		
	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	475
-do-	-do-	1st	500
Meerut College, Meerut.	-do-	1st	1,250
Manohar Lal Bahila Mahavidyalaya, Meerut.	Development of play field and purchase of accessories for games & sports.	2nd & final	1,299
J.V. Jain College, Saharanpur.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities and Social Sciences.	1st	1,500

Total: 17,266.74

47. Mysore University

Purchase of furniture to the new extension of the Chemistry Block at Manasa Gangutri, Mysore.	1st	10,000
Development Schemes under - Plan Period.	3rd	70,000
Summer School in Applied Linguistics at the Central Institute of Indian Languages, Bhartiya Bhasha Sansthan, Mysore during 1975-76.		10,000
Utilisation of Services of Outstanding Retired Teachers - payment of grant in respect of -		7,000

Mysore University (Contd.)

Establishment of an examination reform unit - organisation of national seminar. 5,000

Affiliated Colleges

St. Agnes College, Mangalore.	College Humanities and Social Sciences Development Programmes - payment of grant.		10,000
Maharaja's College, Mysore.	Grants towards the loan of books to students - setting up of book banks for the year of 1975-76.	1st	14,000
Municipal College, Chickhallapur.	-do-	1st	5,625
Aswathaiah Esthuri Sangeevaman, National College Gauribidnaur, (Kerala).	-do-	1st	5,625
A.V.K. Manthamma College for Women, Hassan.	-do-	1st	5,625
Yuvaraja's College, Mysore.	Purchase of furniture of the laboratory block.	2nd & final	6,365.
St. Agnes College, Mangalore.	College Science Improvement Programme - Selected Project - Grant-in-aid.	3rd	70,000
College of Fine Arts, Manasa, Gangortti-Mysore.	Construction of lecture theatre.	6th	5,000
St. Philomena College, Puttur.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	500
Govt. Arts College, Chitradurge.	Students Aid Fund		1,750

Total: 2,26,490.51

48. Nagpur University

College Science Improvement Programme - Selected University Leadership Project in Physics : Grant-in-aid.	3rd	50,000
Indo-USSR Cultural Exchange Programme request for Financial assistance for recruitment of Russian Language Teachers in the University.		17,267.30
Basic grant for the purchase of Scientific Equipment during the 5th Five Year Plan Period.		1,59,000
Purchase of Library books and journals for the Development of Teachers Education in the University, University College of Education -		20,000
National Associateship Dr. K.N. Swamy.		1,000
Grant-in-aid for the construction of building for the introduction of New U.G. courses in the Laxminarayan Institute of Technology -	1st	50,000
Conference of the Teachers of Economics of Nagpur University and affiliated colleges of the University for 3 days from 26th to 28th October, 1975.		2,000

Affiliated Colleges

C.P. & Berar Education Society's College, Nagpur.	Grants to college libraries for loan of books to students' (Book Banks).	1st	14,000
-do-	-do-	1st	14,000
University College of Education, Nagpur.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	2,000
Janata College of Education, Chandrapur.	-do-	1st	250
Vaniija Mahavidyalaya Yeotmal.	Construction of a Gymnasium.	3rd & final	6,387

Total: 3,35,904.30

49. North Bengal University.

Affiliated Colleges

Kaliyaganj College, P.O. Kaliyaganj, Distt. West Dinajpur.	Grants to college libraries for loan of books to students (Book Bank) during Fifth Plan.	6th	6,000
Prasannadeb Women's College, Jalpaipuri.	-do-	1st	8,000
Kuraeong College, Distt. Darjeeling.	Financial assistance to colleges/universities for development of play field & purchase of accessories for games & sports.	2nd & final	1,500
P.D. Women's College, Jalpaiguri.	Financial Assistance to Teachers for research/ learned work in Sciences.	2nd & final	250
Balurghat College, Balurghat.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	1,000
Mathabhanga College, P.O. Mathabhanga (Coach Bihar).	-do-	1st	2,000
A.C. College, Jalpaiguri.	-do-	1st	250
A.C. College of Commerce, Jalpaiguri.	-do-	1st	1,000
Total:			20,000

50. North-Eastern Hill University

Payment of grant for the year
1975-76. 2nd 10,00,000

Affiliated College

St. Mary's College,
Shillong. Book grant 1st 6,000

Total: 10,06,000

51. Orissa University of Agriculture & Technology

Establishment of students Aid Fund 688

Total: 688

Osmania University

Grant-in-aid for the development of P.G. courses in Engineering and Technology - Recurring grant for maintenance and library.		50,000
Development of P.G. course in Engineering & Technology - Department of Civil Engineering - Purchase of Equipment.	2nd	70,000
Development of P.G. course in Engineering and Technology - Department of Chemical Engineering - Purchase of Library Books.	2nd	10,000
Grant-in-aid for the development of P.G. courses in Engineering and Technology - Recurring grant for maintenance and library.		50,000
Grant-in-aid for the purchase of Library Books and Journals for all Science & Humanities Departments during 5th Plan.		1,50,000
Utilisation of Services of Outstanding Retired Teachers - payment of grant in respect of - Centre of Advanced Study in Astronomy - Grants for the year 1975-76.		7,000
Grants towards the purchase of Computer Equipment.	4th	2,40,000

Affiliated Colleges

Regional Engineering College, Warangal.	Financial Assistance to Teachers for research/learned work in Sciences.	2nd & final	250
-do-	-do-	2nd & final	250
Nanakram Bhagwan- Das Science College, Hyderabad.	Grant to Colleges for Laboratory Equipments.	2nd & final	6,300
St. Franch College for Women, Secunderabad.	Students' Aid Fundn in the Colleges-Grant for 1975.		1,250
Sardar Patel College, Secunderabad.	Grants towards the loan of books to students - Setting up of Book Banks.	1st	14,000
S.V.N.S. Telugu Kalasala (Evening) Vidyanagar, Hyderabad.	-do-	1st	8,000

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Osmania University (Contd.)

Affiliated Colleges

Government College, Grants towards the loan Mancherial, of books to students - Adilabad Distt. Setting up of Book Banks.	1st	8,000
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Total: 6,65,050

53. Punjab University

Establishment of an examination reform unit.		25,000
College science Improvement Programm - University Leader- ship Project in Chemistry: Grant-in-aid.	6th	1,00,000
Award of junior research fellow- ship under Gandhi Centenary programme.	final	721.91
Centre of advanced Study in Mathematics - Awards of National Scholarships - Release of grant for 1975-76.		4,000
Writing of university level books/monographs.		2,000
Construction of Library Building	2nd	50,000

Affiliated Colleges

Government College Grant towards the loan for Women, Ludhiana. of books to students Setting up of Book Bank.	1st	8,437
Guru Nanak College, Killinanwali (Mandi Darewali).	-do-	5,625
S.G.G.S. Khalsa College, Mahilpur, (Distt. Hoshiarpur).	-do-	8,437
Hindu National College, Haryana (Distt. Hoshiarpur).	-do-	5,625

Total: 2,09,845.91

54. Punjab Agricultural University

Financial Assistance to Teachers for research/learned work in Sciences.	2nd & final	250
Financial Assistance to the University for the Employment of Coaches - 1973-74.	final	3,219.25

Affiliated Colleges

College of Veterinary Medicine, Ludhiana.	Junior Research Fellowships in Science/ payment of contingency grant.	1,485.49
College of Basic Science & Humanities, Ludhiana.	Senior Research Fellowships in Sciences/ payment of contingency fellowship.	100

Total: 5,054.74

55. Patna University

Senior/Junior Research Fellowships in Science/Humanities including Social Sciences/Research Fellowships in Engineering & Technology payment of Fellowship.		8,340
Utilisation of Services of Outstanding Retired Teachers - payment of grant in respect of -		4,000
Senior/Junior Research Fellowships in Sciences/Humanities including Social Sciences/ Research Fellowships in Engineering & Technology - payment of fellowship and contingency grant.		2,358.71

Affiliated Colleges

Patna College, Patna.	Award of scholarships for Hons. Studies in Arabic during 1973-74 in respect of Mohd. Sikander.	1,200
B.N. College, Patna.	Book Grant.	1st 12,000

Total: 27,898.71

56. Poona University

Support for advanced research in the Humanities & Social Science - 1975-76.	1st	5,000
Programme of Special Assistance to Selected Departments - Department of Chemistry.		2,36,529
Travel grant to Shri Kenneth Chawngliana under the scheme.		329
Junior Research Fellowship in Humanities including Social science to the students belonging to Hill Areas of North Eastern Region of India - 1974-75.		
Basic grant for the purchase of books & journals during the 5th Five Year Plan Period (Science Departments).		50,000
National Associateship Scheme Statement of actual expenditure incurred during the year 1973-74 in respect of Centre of Advanced Study in Sanskrit - Payment of grant for.	final	98.93 40,000

Affiliated Colleges

St. Maira's College for Girls, 10, Sahdu Vaswani Path, Poona-1.	Book Grants.	1st	6,000
S.S.V.P. Sanstha's Science College, Dhulia.	-do-	1st	6,000
Arts, Science and Commerce College, Satara.(Nasik).	Purchase of library books & Journals.	final	6,000
Forgusson College, Poona	Assistance for construction of Residential Flats for Teachers.	final	19,251
M.J. College of Arts & Science, Jalgaon.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	1,500

Poona University (Contd.)

Affiliated Colleges

Shri S.G. Maharaj College, Kopergaon Distt. Ahmedabad.	Construction of Men's Hostel & Principal Bunglow.	4th	30,000
Sir Paracharabhan College, Poona.	Utilisation of Services of Outstanding Retired Teachers - payment of grant in respect of -		7,000
Ahmednagar College, Ahmednagar.	College Humanities and Social Sciences Development Programme - Payment of grant.	1st	10,000
N. Wadia College, Poona.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	1,000
Total:			4, 18, 707.93

57. Paniabi University

National A ssociataship			1,000
Reallocation of grant for development scheme under the 4th plan period ending 1973-74, Department of Philosophy, Military Science and Social Anthropology.	final		30,000

Affiliated Colleges

S.D. College, Barnala.	Construction of Physics Laboratory and Lecture theatres.	final	7,039
Government Mahendra College, Patiala.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	1,000
Government Ripudaman College, Nabha.	Grants to colleges for Purchase of Laboratory Equipment.	final	5,000

Panjab University (Contd.)

Affiliated Colleges

Government Ripudaman College, Sabha.	Grants to colleges for Purchase of Laboratory Equipment.	final	5,000
-do-	Students' Aid Fund in the colleges - Grant for 1974-75.		1,750
Total:			50,789

58. University of Rajasthan

U.G.C. Assistance for the Research Project entitled "Study of Electron Momentum Distribution and Defects in Materials using Positron Annihilation Technique" of Dr. B.L. Saraf, Department of Physics - Release of 1st instal- ment of grant (Recurring).			5,000
Utilisation of Services of Out- standing Retired Teachers - payment of grant in respect of -			7,000

Affiliated Colleges

Government College, Ajmer.	College Science Improve- ment Programme - Selected Colleges Project - Grant- in-aid.	final	8,745.43
-do-	-do-	1st	15,000
Government P.G. College, Sri Ganga- nagar.	Financial Assistance to Teachers for research/ learned work in Sciences.	2nd & final	1,000
Government College, Ajmer.	Utilisation of Services of Outstanding Retired Teachers - payment of grant in respect of -		7,000
M.S.J. College, Bharatpur.	-do-		7,000
Dungar College, Bikaner.	Financial assistance to teachers in the univer- sities and colleges for undertaking research or learned work in Human- ities including Social Sciences.	1st	1,250

Rajasthan University (Contd.)

Affiliated Colleges

Government P.G. College, Sri Ganganagar.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	1,250
Raj Rahi College, Alwar.	Book Grants	1st	17,000
S.S.G. Pareek College, Jaipur.	Utilisation of services of Outstanding Retired Teachers - Payment of grant in respect of Dr. G.S. Verma.		7,000

Total: 78,245.43

59. Ranchi University

	Financial assistance to teachers in the universities & colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	2,000
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Affiliated Colleges

Marwari College, Ranchi.	Book Grants	1st	8,000
Ranchi College, Ranchi.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	500

Total: 10,500

60. Ravi Shankar University

Affiliated College

Govt. Arts and Sc. College, Durg.	Establishment of Book Bank.	2nd & final	3,000
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Total: 3,000

61. Roorkee University

Research Fellowships in Engineering and Technology - payment of Fellowship.		3,966.67
-do-		900
Recurring grant for Water Resources Development Training Centre during 1975-76.		2,00,000
Construction of a Towar for propagation Studies in Electronics and Communication Engineering Department.	7th	60,000
Award of Senior Research Fellowships in Engineering & Technology @ Rs.500 p.m. (upto 1972-73 batch).		23,641
Establishment of Computer Training Centre - Payment of grant for.	4th	10,000
Financial assistance to the School of Research and Training in Earthquake Engineering - Payment of maintenance grant for 1975-76.	1st	1,50,000
-do-	final	50,000
-do-		650
-do-	final	50,000
Purchase of equipment for the Geology & Geophysics Departments.		50,000
Basic grant for Scientific Equipment during the 5th plan period.		90,000
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Total:		<u>6,89,157.67</u>

62. Sambalpur University

Grant-in-aid development of Postgraduate course in Engineering and Technology - Payment of Recurring and non-recurring grant for library books.		4,567
Introduction of U.G. Courses in Electronics and communication Engineering at the -		1,00,000
Grant-in-aid for the development of Postgraduate course in Engineering and Technology - Payment of recurring and non-recurring grant - Regarding.		15,000
Financial assistance to teachers in the universities & colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	350

Sambalpur University (Contd.)

Affiliated Colleges

Govt. Training College, Sambalpur.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	2,000
S.V.M. College, Jagat Singhpur, Cuttack.	-do-	1st	1,000
Gangadhar Mohar College, Sambalpur.	College Science Improvement Programme - Selected Colleges Project - Grant-in-aid.	final	10,000
Rajendra College, Bolangir .	Students' Aid Fund		1,000

Total: 1,33,917

63. Sampurnanand Sanskrit Vishwavidyalaya

Unassigned grant during 1975-76		15,000
-do-	final	6,240.90

Total: 21,240.90

64. Sardar Patel University

Construction of the lecture hall for Chemistry building.	final	46,940
Allocation of unassigned grant during 1975-76 - Release of grant for.	1st	12,500

Total: 59,440

65. Saugar University

Junior Research Fellowships in Sciences - payment contingency grant.		1,499.80
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Saugar University (Contd.)

Award of Junior fellowship in Engineering & Technology to Students admitted to P.G. course in Pharmacy during 1974-75.	2nd	55,000
Research Fellowships in Engineering & Technology - payment of Fellowship.		3,241.74
-do-		3,000
-do-		900
-do-		900
-do-		3,129.09
-do-		200
-do-		900
Indo-USSR Cultural Exchange Programme - Reimbursement of salary of Russian Language Teachers.		1,801.94
Appointment of staff for the Study Centre - Sanction of grant for -		10,000

Affiliated Collages

Government Home Science College, Hoshangabad.	Assistance for the purchase of Chalk Boards.	2nd & final	480
Government Degree College, Pipariya.	Book banks grant	1st	6,000
Mabhanlal Chaturved Government Girls Degree College, Khandwa.	-do-	1st	6,000

Total: 93,052.57

66. Saurashtra University

Affiliated Colleges

Matushir Virbajma Mahila College, Rajkot.	Students' Aid Fund		3,750
Samaldas Arts College, Bhavnagar.	Financial assistance to teachers in the universities & colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	1,000

P.T.O.

Saurashtra University (Contd.)

Affiliated Colleges

D.K.V. Arts and Science College, Jamnagar.	Book grants	1st	12,000
Smt. C.J. Seheth Commerce College, Norvi.	-do-	1st	6,000

Total: 22,750

67. Shivaji University

Grant-in-aid towards the construction of Women's Hostel for 50 students.			1,00,000
Establishment of Study Centres at Kolhapur and Sholapur.			13,450.60

Affiliated Colleges

Acharya Jawadekar Adhyapak Mahavidyalaya, Vishwanathnagar (Gargoti).	Students' Aid Fund		115
Gopal Krishna Gokhale College, Kolhapur.	Financial Assistance for the purchase of laboratory equipments/furniture and library and furniture.	3rd & final	9,508

Total: 1,23,073.60

68. S.N.D.T. Women's University

Research Project - A Comparative Study of Literary Linguistics and Socio-Political aspects of Gujarati and Marathi Literature of the 19th Century - Sanction of grant for.			10,000
Allocation of unassigned grant for 1973.74 - Release of grant for.		final	1,618.60

P.T.O.

SNDT Women's University (Contd.)

Grants to teachers training colleges.	20,450
Grants to Teachers Training Colleges - Appointment of Additional Staff (Education) at Poona.	10,000
Higher Education and Research - Development Schemes for the Fourth Plan period - Purchase of Equipment.	11,826
Grant-in-aid towards the construction of Women's Hostel at Poona.	1,50,000

Total: 2,03,894.60

69. South Gujarat University

IV Plan Development Schemes and Social Science - Construction of Humanities Block - Sanction of grant for.	1,00,000
Construction of Vice-Chancellor's Bunglow - Sanction of grant for.	5,000
Construction of Science Block - 4th Plan Development Scheme.	50,000
Payment of Recurring grant for the department of Business and Industrial Management.	36,036.40

Affiliated Colleges

Shri J.S. Bhakta and Shri K.M. Bhakta Arts College and Shri A.N. Shah Science College, Kholwad, Distt. Surat.	Construction of Non-Resident Students' Centre.	final	20,000
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Total: 2,11,036.40

70. Sri Venkateswara University

Support for advanced research in the Humanities and Social Sciences - 1975-76.	1st	3,000
-do-	1st	5,000
-do-	1st	3,000
Senior/Junior Research Fellowships in Sciences/Humanities including Social Sciences/Research Fellowships in Engineering & Technology - payment of contingency grant.		1,321.59
Grant-in-aid for the development of P.G. courses in Engineering & Technology - Regarding.	2nd	25,000
Engineering College Educational Tour - Grant-in-aid - Regarding.		5,443
Grant-in-aid for the development of P.G. courses in Engineering & Technology - Regarding.	2nd	25,000
-do-	3rd	50,000
Basic grant for purchase of Scientific Equipment for University Postgraduate Centre at Anantapur during V Plan period (1974-79)	1st	1,00,000
Recurring grant for the development of undergraduate courses in Engineering & Technology.	6th	30,000

Affiliated Colleges

Sri Padmavathi Women's College, Tirupati.	College Humanities and Social Science Department Programme - Payment of grant.	1st	15,000
S.D.G.S. College, Hindupur.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences	1st	250

Total: 2,63,014.59

71. Tamil Nadu Agricultural University

Support for advanced research in the Humanities & Social Sciences.	1st	5,000
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Total: 5,000

72. Utkal University

Setting up of employment information-cum-Advisory Bureau IV Plan period.	1st	2,200
Purchase of installation for the gas plant fume exhausts and fume ducts for the Postgraduate Department of Chemistry.		15,000
Purchase of Scientific Equipment for the Statistics Department - Basic grant for the Fifth Year Plan.	2nd	10,000
Unassigned grant for 1975-76.	1st	15,000
UGC Assistance for the Research Project entitled "Annealing and Thermal Decomposition Behaviour of Irradiated Solid Substances" of Professor S.R. Mohanty, Head of the Department of Chemistry - Fifth Five Year Plan period - Release of grant for purchase of equipment.		40,000

Affiliated Colleges

Women's College, Balasora.	Students' Welfare Programme final		2,500
Regional College of Education, Bhubaneswar.	Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	750
P.R.R. & V.S. Government Arts & Science College, Vidavalur.	-do-	1st	250
S.V.M. College, Jagatsinghpur, Distt. Cuttack.	Book Grants	1st	8,000
Total:			93,500

73. Udaipur University

Unassigned grant for 1974-75	10,000
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Udaipur University (Contd.)

Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences.	1st	2,000
-do-	1st	2,500
-do-	1st	1,500

Affiliated Colleges

Udaipur School of Social Work, Rajathan Vidya- peeth, Udaipur.	-do-	1st	1,500
-do-	-do-	1st	1,500

Total: 19,000

74. Vikram University

Assistance towards undertaking scheme on Bhoja's Sanskrit Works on different branches of Indological Studies - Sanction of grant for.		5,000
Financial Assistance to Teachers for research/learned work in Sciences and Humanities including Social Sciences.	2nd & final	1,000

Affiliated College

Government College, Ratlam.	-do-	1st	2,000
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Total: 8,000

75. Visva-Bharti.

National Associateship Scheme Grant-in-aid for construction of Library Building.	final	1,000 732.82
Junior Research Fellowships in Humanities including Social Sciences Research Fellowships in Engineering & Technology - payment of fellowship.		7,100

Total: 8,832.82

INSTITUTIONS DEEMED TO BE UNIVERSITIES.

76. <u>Birla Institute of Technology & Science</u>		
Writing of Books on "Essential of Animal Physiology"		1,000
Writing of University level books/monographs.		500
Reimbursement of the salary of Russian Teacher.		3,033.40
Junior Fellowship for P.G. Students in Engineering and Technology admitted during the session 1972-73		42,125
		<u>46,658.40</u>
77. <u>Central Institute of English & Foreign Languages</u>		
Workshop on Lexicography at Central Institute of English & Foreign Languages, Hyderabad.		11,925
	Total:	<u>11,925</u>
78. <u>Gujarat Vidyanith</u>		
Establishment of Student Aid Fund in Universities 1975-76.		1,844
-do- 1974-75	Final	651
Basic grant for the purchase of equipment and audio-visual aids to the Department of Education for the Development of Teachers Education and research during IV plan		:
	Final	2,000
Employment of Trained Coaches in 1972-73		
	Final	339.98
	Total	<u>4,834.98</u>
79. <u>Indian Agricultural Research Institute</u>		
11th Annual Conference of the North India Economics Association.		2,000
		<u>2,000</u>
80. <u>Indian Institute of Science, Bangalore</u>		
Research fellowship in Engineering and Technology		600
-do-		3,483.57
-do-		900
-do-		900
-do-		900

INDIAN INSTITUTE OF SCIENCE, BANGALORE

Research fellowship in Engineering and Technology	213.33
-do-	2,600
-do-	900
-do-	2,600
-do-	900
-do-	2,766.67
-do-	900
-do-	3,000
-do-	2,600
-do-	3,032.26
-do-	520
-do-	900
-do-	263.33
-do-	900
-do-	3,000
Writing of University level books/monographs	<u>2,000</u>

81. INDIAN SCHOOL OF MINES

Total 3,2,879.16

Payment of recurring grant for staff	1,00,000
Establishment of Book-Banks in Engineering Technological Institute/ Departments of the Universities.	<u>11,250</u>
	1,11,250

82. JAMIA MILLIA ISLAMIA

Construction of Guest House	4th	40,000
Basic grant for the purchase of library books and journals during Vth Plan Period.	3rd	30,000
Research assistance to teachers in Humanities and Social Sciences		4,000
		<u>74,000</u>

83. Tata Institute of Social Science, Bombay

Implementation of National Service Scheme	<u>244.71</u>
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Total: 244.71

Total Plan: 1,45,56,089.47

NON-PLAN

1. ALICARH MUSLIM UNIVERSITY

Maintenance grant for 1975-76	3rd	85,31,250
	Total:	<u>85,31,250</u>

2. BANARAS HINDU UNIVERSITY

Maintenance grant for 1975-76	3rd	1,16,81,250
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Revision of scales of pay of non-teaching staff, Rates of Dearness allowance, Compensatory (City) Allowance and House Rent Allowance consequent upon the decision of the Govt. of India on the recommendations of the University Grants Commission Payment of grant for meeting the expenditure of the.	4th	10,00,000
	Total:	<u>1,26,81,250</u>

3. DELHI UNIVERSITY

Maintenance grant for 1975-76	3rd	59,06,250
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CONSTITUENT COLLEGES

Bharati Mahila College New Delhi	Additional expenditure on account of revision of scales of pay of the teaching staff	1,14,000
Jesus & Mary College, Chankyapur, N. Delhi	-do-	1,10,000
Dyal Singh College, (Evening) Lodi Road, New Delhi.	-do-	1,21,000
Dyal Singh College (Day classes) Lodi Road, New Delhi.	-do-	1,85,000
Rajdhani College, Kirti Nagar, New Delhi.		31,000
Rajdhani College, Kirti Nagar, New Delhi	-do-	5,700
Lady Irwin College, Sikandra Road, New Delhi.	-do-	11,500

Contd.

DELHI UNIVERSITY CONTD.

AFFILIATED COLLEGES

	Grant for Hostel Mess Staff for 1975-76		
Central Institute of Education, Delhi			2,600
Miranda House, Patel Chest Marg, Delhi	do-	2nd	11,000
Shri Ram college of Commerce, Delhi	do-	2nd	4,500
Kirori Mal College, Delhi	do-	2nd	4,800
Hindu College, Delhi	do-	2nd	8,100
Ramjas College, Delhi	do-	2nd	4,100
Lady Shri Ram College for Women, Lajpat Nagar, New Delhi.	do-	2nd	6,400
St. Joseph's College, Delhi.	do-	2nd	27,600
Delhi College (Day) Ajmeri Gate, Delhi	do-	2nd	1,700
Delhi School of Social Work, University of Delhi, Delhi.	do-	2nd	2,400
Hans Raj College, Delhi	do-	2nd	7,100
Indraprastha College, for Women, Shom Nath Marg, Delhi.	do-	2nd	4,000
Shyam Lal College (Evening Classes) Shahdara, Delhi.	do-	2nd	94,000
Mata Sundri College for Women, Mata Sundri Lane, New Delhi.	do-	2nd	5,15,000
Gyan Devi Salwan College, Salwan School Marg, Rajindra Nagar, New Delhi.	do-	2nd	1,35,000
Gargi College, Lajpat Nagar, New Delhi.	do-	2nd	2,00,000
Shyamlal College (Day) Shahdara, Delhi.	do-	2nd	2,63,000
Deshbandhu Colleges (Evening Classes) Kalkaji, New Delhi.	do-	2nd	1,88,000

Contd.

Deshbandhu college (Day classes) Halkaji, New Delhi.	Maintenance grant for 1975-76	2nd	4,10,000
P.G.D.A.V. College, (Day classes) Nehru Nagar, Ring Road, New Delhi.	-do-	2nd	2,09,600
Kirori Mal College, Delhi.	-do-	2nd	4,17,000
Ramlal Anand College, (Evening Classes) Anand Niketan Marg, New Delhi.	-do-	3rd	1,01,000
Rao Tula Ram College, Ram Tula Ram Marg, New Delhi-1.	-do-	3rd	95,000
Shyama Prasad Mukherjee College for Women, New Delhi.	-do-	2nd	2,44,000
Institute of Home Economics, South Extension, Part-I New Delhi.	-do-	2nd	1,72,000
Swami Shardhanand College, Alipur, Delhi.	-do-	2nd	2,43,000
Laxmibai college, Ashok Bihar-III Wazirpur, Delhi.	-do-	2nd	3,10,000
Jesus & Mary College, Chanakyapur, New Delhi.	-do-	3rd	84,000
P.G.D.A.V. College (Evening Classes) Mandir Marg, New Delhi.	-do-	2nd	1,84,000
Janki Devi Mahavidyalaya, Poorvi Marg, New Delhi.	-do-	2nd	3,42,000
Atama Ram Sahatan Dharma College, Dhaura Kuan, New Delhi.	-do-	3rd	2,48,000
Shivaji College Govindpura, New Delhi.	-do-	2nd	3,43,000

Contd.

DELHI UNIVERSITY CONTD.

AFFILIATED COLLEGES

	Maintenance grant for 1975-76		
Shri Ram College of Commerce, Patel Marg, Delhi		2nd	3,03,000
Central Institute of Education, Chhatra Marg, Delhi.	-do-	2nd	2,47,000
Bhagat Singh College (Evening Classes) Kalkaji, New Delhi	-do-	3rd	1,46,000
Sri Venkateswara College, Dhaula Kuan, New Delhi.	-do-	2nd	1,75,000
St. Stephen's College, Delhi	-do-	2nd	3,35,000
Lady Shri Ram College for women, Lajpat Nagar, New Delhi.	-do-	2nd	4,02,000
Ramjas college, Delhi.	-do-	4th	1,74,000
S.G.T.B. Khalsa college, (Day) Delhi.	-do-	2nd	4,92,000
Lady Irwin College, Sikandra Road, New Delhi.	-do-	2nd	2,97,000
Indirparastha college for Women, Shom Nath Marg, Delhi.	-do-	2nd	4,45,000
Hindu College, Delhi.	-do-	2nd	3,83,000
Hans Raj College Delhi.	-do-	2nd	5,09,000
Delhi College (Day Classes) Ajmeri Gate, Delhi.	-do-	2nd	4,61,000
Ramjas College, Delhi.	-do-	3rd	1,00,000
Shivaji College, Karam Pura, New Delhi.	-do-	1st	3,43,000
Satyawati Co-Educational College (Evening Classes) Timarpur, Delhi.	-do-	3rd	1,17,000

Contd.

DELHI UNIVERSITY ONTD.

AFFILIATED COLLEGES

	Maintenance grant for 1975-76		
S.G.T.B.Khalsa College, Karol Bagh, New Delhi.		3rd	1,55,000
Sri Arvindo Mahavidyalaya Malvia Nagar, New Delhi.	-do-	3rd	2,33,000
Satyawati co-educational college, Timarpur, Delhi	-do-	2nd	1,80,000
College of Vocational Studies, Doctor's Lane, Gole Market, New Delhi.	-do-	2nd	1,34,000
Bharati Mahila College, Karol Bagh, Link Road, New Delhi.	-do-	3rd	56,000
Vivekananda Mahila college, Gandhi Nagar, Delhi.	-do-	2nd	1,38,000
Bhagat Singh College (Day Classes) Govind Puri, Kalkaji, New Delhi.	-do-	2nd	3,03,000
Kalindi College, East Patel Nagar, New Delhi.	-do-	2nd	2,67,000
Maitreyi College, Netaji Nagar, New Delhi.	-do-	2nd	2,33,000
Hastinapur College (Evening) Moti Bagh, New Delhi.	-do-	2nd	1,72,000
Rajdhani College, New Delhi.	-do-	2nd	4,15,000
Kamla Nehru College, New Delhi.	-do-	2nd	3,19,000
Hastinapur college (Day) New Delhi.	-do-	2nd	3,55,000
R.L.A. College, New Delhi	-do-	2nd	64,000
Miranda House, Delhi	-do-	2nd	5,04,000
Delhi School of Social Work, Delhi.	-do-	2nd	1,29,000
D.S. College, New Delhi	-do-	3rd	88,000
Delhi College (Eve) Delhi	-do-	2nd	1,98,000
Daulat Ram College, Delhi	-do-	2nd	5,08,000
D.S. College, (Day) New Delhi	-do-	3rd	3,55,000

2,10,99,100

4. Jawaharlal Nehru University

Maintenance grant for 1975-76 3rd 29,66,250

Total: 29,66,250

5. Visva-Bharti

-do-

3rd 24,15,000

Total: 24,15,000

Total Non-Plan: 4,76,92,600

Grand Total (Plan+Non-Plan: 6,22,48,639.47

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REVISED

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 11th & 12th August, '75

Item No.4: To receive a statement showing expenditure incurred by the University Grants Commission during the year 1975-76 upto 30th June, 1975.

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<u>SECTION I NON PLAN PROJECT</u>	<u>BUDGET ESTIMATES (in lacs)</u>	<u>EXPENDITURE UP TO 30th June, 1975 (in lacs)</u>
A. Administration charges	60.00	11.52
B. Block Grants to Central Univ.	1260.00	489.03
C. Maintenance grant to Constituent/ Affiliated Colleges of Delhi Univ.	480.00	292.65
D. Scheme not covered under Block Grants.	308.00	4.52
Total Section-I	<u>2108.00</u>	<u>797.72</u>
<u>SECTION II - PLAN PROJECTS</u>		
A. Grants to Central & State Universities for Humanities	257.25	64.46 *0.42
B. Grants to Central & State Universities for Science	769.51	142.04 * 0.62
C. Grants to Central & State Universities for Engg. & Tech.	285.31	42.36
D. Grants to Constituent/ Affiliated Colleges	466.95	78.92
E. Grants to Central & State Univ. for Misc. Schemes	1322.01	188.14 *0.16
F. Misc. Expenditure Unesco Coupons	32.05	4.43 1.60
Total Section-II	<u>3133.08</u> <u>@400.00</u>	<u>521.95</u> <u>* 1.20</u>
Total Section I and II	<u>5241.08</u> <u>@400.00</u>	<u>1319.67</u> <u>* 1.20</u>

@ Adhoc requirement on the basis of recommendation of Visiting Committees to Universities.

* By adjustment.

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SECTION III - Expenditure out of grants received from Govt. of India and other sources for specific purposes.

i)	Evaluation of Books	2,800
ii)	Grants to Universities for organising Summer Institutes for School teachers (out of contribution received from NCERT)	-
iii)	Fellow for writing of books	1,65,080
iv)	<u>National Sports Organisation Programme</u>	@ 10,100
	a) Construction of Gymnasium	4,09,049
	b) Play fields	18,325
v)	Dr. Zakir Hussain Memorial Lectures	-
vi)	Aurbindo Memorial Lecturers	-
vii)	Gandhi Samarak Niidhi	-
viii)	National Award of Prizes	3,595
ix)	National Service Scheme	82,332
	Total Section. III	6,91,257
	Total Section I, II & III	13,26,58,457
		*1,20,335

Section - IV: Deposits & Advances

i)	Conveyance advance	4,000
ii)	Festival Advance	-
iii)	House Building Advance	42,866
iv)	Fan Advance	-
v)	UGC Deptt. Canteen	-
	Total Section IV:	46,866

Expenditure during 1974-75 (upto 30.6.1974) was as under:-

Section I Non-Plan Project	7,98,06,330
Section-II Plan Project	7,39,31,958
Total Section I & II	15,37,38,288

* By adjustment
@ Administration charges

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UNIVERSITY GRANTS COMMISSION

Meeting:

Dated :

11th & 12th Aug. 1975

①

Item No.

To consider a reference made by the Ministry of Education regarding the recommendations made by the evaluation committee on the National Cadet Corps appointed by it.

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The Government of India had set up in December, 1972 the evaluation committee under the chairmanship of Dr. G.S. Mahajani to review the working of the National Cadet Corps. The Committee has completed its work and the Ministry of Education and Social Welfare have forwarded a summary of the recommendations made by this Committee for the comments of the U.G.C. Annexure-I.

The main recommendations of this Committee are indicated below:-

1. The evaluation Committee feels that in spite of the vicissitudes through which the NCC have passed over the last 25 years, it continues to be an active force and is the largest and best-run of all youth organisations of the country and it has succeeded to a large extent in inculcating the ideas of discipline, leadership and co-operative working amongst our young men and women. In order to improve the functioning of the NCC, the Committee has recommended that its aims may be modified as below:-

(a) When the NCC was started in 1948, its first aim was "development of leadership, character, comradeship and the ideal of service." This may be improved as "development of leadership, character, comradeship, spirit of sportsmanship and the ideal of service."

The Committee feels that the "students should spend a judicious portion of their time in sports and acquire efficiency in games and the spirit of sportsmanship. Not every one can acquire efficiency, but every one could and should imbibe the spirit of sportsmanship meaning 'playing fair' - a spirit needed in all walks of life".

(b) As against the Second aim viz: "stimulation of interest in the defence of the country to the widest possible extent", the Committee has suggested modification as "to create a force of disciplined and trained manpower which in a national emergency could be of assistance in the defence of the country". The Committee considered this change necessary as there are at present a number of agencies to achieve the earlier aim of stimulation of interest in defence of the country,

(c) Regarding the third aim of the NCC viz., "building up of a reserve of potential officers to enable the armed forces to expand rapidly in a national emergency", the Committee has proposed to change it as "to provide training for students with a view to developing in them officer

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(v)

like qualities, thus enabling them to obtain commission in the armed forces." This the Committee feels is necessary in the changed context as the earlier aim was formulated just after the Second World War. At that time there was a pressing need to have a preserve of potential officers to enable the armed forces to expand rapidly in a national emergency; but the situation has changed considerably now. The essential requirement for victory in conflicts is to have an efficient and well-trained fighting machine. In view of this, the NCC should be enthused and trained for taking up commissions in the three services and the bulk of them will constitute a force of trained and disciplined manpower which can always be used in a national emergency.

2. The Committee has further recommended that the NCC, NSS and NSO which are basically different in concept and aims should be run separately and not mixed up under one authority.

3. The Committee has also made recommendations to strengthen the NCC organisations to increase its efficiency. For this the enrolment in the NCC would continue to be voluntary and selective, and the need to strengthen the junior divisions be considered as greater enthusiasm is noticed among the members of the junior division. As for the senior division, the Committee has recommended that its strength can be reduced from the level of six to four lakhs on a gradual basis. But the strength of the naval and air wings be maintained at the present level.

4. The Committee has also recommended that the strength of the junior and senior wings of the girls division be increased.

5. As for age of entry, the recommendation is that the age of enrolment of junior division be raised to 14 years from the present 13 years, in the light of the changing pattern of education. For senior division, the age of enrolment must be 18 plus.

6. The clothing and uniform material as well as camp items must be made available to each cadet as per entitlement.

7. Good quality equipment in current use with services must be provided to the NCC Units. There would be frustration if the trainees of NCC Cadets are given obsolete and out-dated equipment.

8. The washing and polishing allowances may also be continued and revised rates have been recommended by the Committee in this respect.

9. The Committee has also made suggestions in paras 7 and 8 of the summary regarding attendance certifications, preference to NCC certificate holders for employment and admission to postgraduate and professional courses as also training during college hours.

Observations made by the Ministry of Defence.

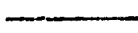
In a letter to the Ministry of Education & Social Welfare the Defence Ministry has indicated that the following recommendations made by the Mahajani Committee to create incentive for NCC Cadets would strengthen the programme.

- i) Attendance at a NCC activity may be treated as academic attendance.
- ii) Universities having Military Studies Departments should offer Military Science as an elective subject, open to NCC Cadets.
- iii) The possibility of NCC 'B' Certificate being treated as a subsidiary elective subject should be examined on the basis of a revised syllabus. A revised syllabus has also been attached (Annexure-II).
- iv) Other things being equal, a student who has successfully completed N.C.C. training may be given preference for admission to Postgraduate and Professional studies.
- v) The teaching periods should be compressed to 5 days and one day in the week should be designated as Field Day to be devoted to NCC activities as well as other youth activities, such as National Service Scheme and N.S.O.

The Defence Ministry has also sought views on the following recommendations of the Committee.

- i) The Directors of National Cadet Corps in the States may be given powers to award 'displeasure' and 'Severe displeasure' to the Part-Time National Cadet Corps Officers with the provision for an appeal to the Vice-Chancellors.
- ii) The Heads of Colleges/Institutions should have powers of discharge of Senior Division NCC Cadets as the Headmasters exercised these powers in respect of Junior Division Cadets.

The matter is placed before the Commission for its consideration.



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Annexure to Item No. 1

Copy of letter D.O. No.F.7-26/75-Leg.Unit, Government of India, Ministry of Education & Social Welfare (Deptt. of Education), New Delhi dated 20th June, 1975 received from Shri M.N. Sinha, Under Secretary, addressed to Shri M.P. Balakrishnan, Education Officer, University Grants Commission, New Delhi.

.....

Dear Shri Balakrishnan,

I enclose* a copy of the summary of recommendations made by the Evaluation Committee on the National Cadet Corps. The Committee was constituted by the Government of India in December 1972 with Dr. G.S. Mahajan as Chairman to review the Working of the N.C.C.

I shall be grateful if the comments of the Commission on the Summary of the recommendations are made available to me immediately and at the latest by 23.6.1975.

With kind regards,

.....

ASSESSMENT

Appendix

(5)

For an evaluation of the NCC and its progress and performance it would be convenient to divide the last 25 years into four periods:-

1948 -52; The NCC was in its formative stage and it was very popular.

1952-62; As a large number of school students wanted to join the Junior Division and as the financial resources were not sufficient and Auxiliary Cadet Corps (ACC) was formed in 1952 as a supplement to the Junior Division of the NCC with "Service to the country" as its motto. The per capita expenditure on an ACC Cadets were only Rs.14/- while the per capita expenditure on a Junior Division NCC Cadet was about Rs.100/-. Subsequently a similar situation arose in respect of Senior Division and to cope with the large number of applicants for joining this Division, the NCC Rifle(NCCR) units were raised in February, 1960. The per capita expenditure on NCC Rifles was about Rs.80/- ,while that on the Senior Division NCC was about Rs.250/-.

1963-64; After the Chinese aggression the Ministry of Defence agreed with the recommendations of the Inter-University Board to make NCC compulsory in all colleges. Auxiliary Cadet Corps and NCC Rifles were merged with the NCC in April 1964.

1965. Uptodate ; After enrolment in NCC was made compulsory for all college students, a decline in the efficiency of the Corps was noticeable due to-

- (a) Enrolment of a number of indifferent cadets having no inclination to join NCC.
- (b) Lack of adequate number of officers to train the cadets, and
- (c) Lack of equipment and weapons.

However, the unbridled growth of NCC was checked from 1969 onwards when many Universities made it optional for the students to join the NCC. The strength of the NCC gradually diminished.

In 1972 Government agreed with the recommendations of the Inter University Board to make enrolment in NCC voluntary and accordingly reduced the number of cadets to be enrolled in the NCC Senior Division during the year 1972-73.

From the opinions which we have recorded from a large number of eminent public men, University authorities and high officials we find that although the NCC has not been able to maintain the high standard of efficiency expected of it, there is practically unanimity of opinion that NCC should continue to function as a distinct entity and that every encouragement should be given to it for improving the standards of training. We feel that in spite of the vicissitudes through which the NCC have passed ever the last 25 years this organisation continues to be a live and active force fulfilling the aspirations of youth to a considerable

contd...

(6)

extent. It is the largest and best run of all youth organisations in the country and it has succeeded to a large measure in inculcating the ideas of discipline, leadership and cooperative working amongst our young men and women. Consideration of aims of the NCC.

The term of reference (a) concerns the aims and objectives of the NCC. When NCC was started in 1948, the following were the declared aims:-

- First Aim - Development of leadership, character, comradeship and the ideal of service.
- Second Aim - Stimulation of interest in the defence of the country to the widest possible extent, and
- Third Aim - Building up of a reserve of potential officers to enable the Armed Forces to expand rapidly in a national emergency.

We have carefully examined the extent to which these aims have been fulfilled and whether it would be necessary to make any amendments in these declared aims. As a result of our examination, we feel that the first aim as worded at present should continue as like to suggest a slight amplification by the inclusion of the words 'spirit of sportsmanship'. We expect students to spend a judicious portion of their time in sports and acquire efficiency in games and the spirit of sportsmanship. Not every one can acquire efficiency, but every one could and should imbibe the spirit of sportsmanship meaning 'playing fair'- a spirit needed in all walks of life". A regrettable aspect of sports these days is the lack of sportsmanship among most competitors. To reverse this trend, the UNESCO sponsored about ten years ago the scheme of 'Fair Play Trophies'. It is meant to honour men and women who place the highest value on the spirit of sportsmanship even at the cost of losing a contest. This aim should therefore read as:-

First aim- Development of leadership, character, comradeship, spirit of sportsmanship and the ideal of service.

As regards the second aim of "stimulation of interest in the defence of the country to the widest possible extent", we feel that this aim is already sought to be achieved by many agencies. We, therefore, feel that this aim should be recast suitably. With regards to the third aim, we feel that in the changed context an amendment is necessary. This aim was formulated just after the Second World War which lasted for nearly six years. During this World War thousands of officers were commissioned from the educated class and therefore, there was pressing need to have a preserve of potential officers to enable the armed forces to expand rapidly in a national emergency." Since 1945 the world situation as well as the situation of India vis-a-vis her neighbouring countries has changed considerably. India was engaged in intense conflicts of brief duration with her neighbours in 1962, 1965 and 1971. The essential requirement for victory in these conflicts is to have a very efficient and well trained fighting machine. Calling up of reserve during such emergencies is only a secondary factor. In any event, in a war lasting for two or three weeks, it is impossible to draw officers from a potential reserve to man the fighting machine. An ideal to be aimed at by the country's youth. However, we would

In view of these considerations, we feel that the third aim of the NCC should be to enthuse and train as many cadets as possible for taking up commissions in the three services. However, only a fraction of NCC cadets are likely to take up commission in the Armed Forces. The bulk of the NCC cadets after leaving the educational institutions will constitute a force of trained and disciplined man-power which will be of use to the country in a National Emergency. In the circumstances, we suggest that the second and third aims be recast as follows:-

- Second aim- To create a force of disciplined and trained man-power which in a National Emergency could be of assistance in the defence of the country.
- Third aim- To provide training for students with a view to developing in them officer-like qualities thus enabling them to obtain commission in the Armed Forces.

Comparison of NCC with NSS and NSO.

Under the term of reference (b) we have to take note of the other two organisations NSS and NSO. Ideally speaking, we should endeavour to cover the entire body of youth in the country by youth activities both statutory and voluntary. It is obvious that the three movements NCC, NSS and NSO are too inadequate to meet the requirement. For financial and other reasons, there are, and have to be, ceiling on the numbers who join. Hence, time is not yet ripe to compel every student to join one of the three streams. It has to be admitted that there will be a body of students not joining any of these in our Universities and colleges. For that matter, these streams leave untouched nearly 95% of the country's youth of college level age-groups who are not in the stream of higher education. Therefore, how to organise NCC, NSS and NSO remains an important issue before the Government.

24. The Committee gave careful thought to this question which, we found had also exercised the minds of our witness. They were from various fields and included Lieutenant General Candeth, two ex-Directors General, NCC and eminent civilians like Pandit Munzru and two chairmen of the University Grants Commission. Only one of them pleaded that the three programmes NCC, NSS and NSO should be run as unified compulsory programme and that these must be coordinated by the NCC. But all others, in substance expressed the view that the three organisations, must be run separately and be not mixed up under one authority. We accept this view for the following reasons:-

- (a) NCC, NSS and NSO are basically different in concept and aims.
- (b) NSS and NSO recently started, have yet to get into stride.
- (c) Even at present the resources of the NCC are considerably strained ; and it is not desirable to load the NCC Directorates with any added responsibility of looking after and coordinating the activities of NSS and NSO with NCC.

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pected We hope, however, that the NCC will render, whenever approached by NSS and NSO, advice and the benefit of their experience, but it cannot be ~~to~~ to divert its attention from its own duty of maintaining the NCC at a high level of efficiency.

Improvements to be effected in the NCC Organisation to increase its efficiency.

Recommendations.

We make the following recommendations in this regard:-

(1) Strength of NCC.

Enrolment in the NCC should be made voluntary, and also selective. Selectivity should be decided both with regard to physical fitness and mental alertness and ability to absorb the training given to them and only those who are found suitable in these respects should be taken. Thirdly those who do not attend the prescribed number of parades should be discharged without the least hesitation. Unless Unit are fully subscribed and all ancillary facilities are provided by State Government, they should not be raised.

With regard to the future strength of the NCC, it is difficult to stipulate any figures because this would depend upon :

- (a) the funds available ;
- (b) availability of suitable officers and permanent instructional staff (PI Staff) from the three services ; and
- (c) The encouragement given by the University authorities and the State Governments.

Junior Division.

In respect of the Junior Division, however, we feel that, by and large, it should be maintained at its present level. We hope that Government will consider increasing the strength of the Junior Division at the appropriate time, particularly in view of the great enthusiasm which we have noticed among the members of the Junior Division. In this connection, it would be pertinent to quote the view expressed by Prof. S.Nurul Hassan, Minister of Education and the Social Welfare.

"Much more has to be done in respect of JD NCC. To instil a sense of discipline, there is much scope in JD than in SD. The cadet can be moulded and his thinking power can be enhanced. The strength of the JD can be ten lakhs".

Dr. Kothari gave evidence as follows:-

"If it is a matter of economy, my personal view is that totally to scrap the JD programme would be false economy ; if you have to abolish something, abolish Senior Division rather than Junior Division, but I am for retaining both".

contd....

D. Senior Division.

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Considering the amendment which we have suggested to the third aim of the NCC, one of the objects of the Senior Division is to produce potential officers for the Armed Forces. If this object is to be achieved, more intensive training will have to be given to the Senior Division cadets under the supervision of competent officers. To achieve this aim, the strength has necessarily to be reduced to manageable proportions. In this context the strength can possibly be reduced from the present level of six lakhs to a level of four lakhs or seven less, on a gradual basis. The strength of the Naval and Air Wings should however, be maintained at the present level of 12,600 and 11,600 respectively. This would mean that the proposed reduction in the Senior Division will be exclusively in the Army Wing.

C. Girls Division.

The present strength of the Girls Division is rather meagre considering the expansion of women's education in this country during the recent years. To quote Pandit H.N. Kunzru "At present there is little attention paid to the Senior Division of Girls... The ratio of SD Girls vis-a-vis, SD Boys is 1:10. I feel some more attention is required to be paid towards the increase of SD Girls. After all it is a matter of looking after the family. The girls getting greater amount of training, will be able to give good training to their children in future". To quote Prof. S.Nurul Hasan, Minister of Education and Social Welfare "All importance needs to be given to Girls Division. By joining NCC they will be able to liberate their minds". Prof. Moonis Raza of Jawaharlal Nehru University gave evidence in this regard as follows:-

"I would consider Girls Division to be important from another point. It is an instrument of modernisation as far as girls are concerned. It provides facilities for the girls, otherwise not available to them, which boys normally get outside."

Other evidence also uniformly support this.

We therefore, recommend that the strength of Junior and Senior wings of the Girls Division be increased to 100,000 and 75,000 from the present strength of 67,000 and 61,000 respectively.

(2) Age of Entry.

We suggest that the age of enrolment of Junior Division be raised to 14 years, from 13 years as at present, in the light of the changing pattern of education. This would mean that roughly children from 8th year and above and till the 12th year of schooling would be eligible to join the NCC. For Senior Division, the age of enrolment must be '18 years plus' and educationally in the 13 year and above.

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(3) Clothing

Clothing, uniform material and camp items must be made available as per entitlement. Shortage are bound to affect the enthusiasm of cadets adversely. With the contemplated reduction in the strength of NCC, it should not be difficult to meet the requirement in full.

(4) Equipment

Good quality equipment in current use with Services must be provided to the NCC Units. Obsolete and out dated equipment leads to disappointment and frustration among the NCC Cadets 7.62 mm (SLR) should be introduced as early as possible. Automatic weapons such as Light Machine Guns and Sten Guns of a pattern in current use in the Army should also be provided subject to security considerations.

(5) Refreshment and 'Washing and Polishing' Allowance.

Uniformity in all States as regards payment of refreshment allowance and 'Washing and Polishing' Allowances is desirable. We feel that the present rates of these allowances which were fixed long ago, are totally inadequate in view of the large increase in the price of food articles, detergents and wages.

Following rates are recommended:-

- (a) Refreshment Allowance at 30 Paise per hour per cadet for both Senior and Junior Divisions at the present prices, as against present rate of 20 Paise per hour per cadet.
- (b) 'Washing and Polishing' Allowance at Rs.2/- per month per cadet for the training period for both Senior and Junior Divisions against the present rate of Rs.1/- per month per cadet.

(6) Involvement of Heads of Institutions in NCC Activities.

The Heads of Institutions (Principals and Headmasters) should associate themselves closely with the NCC activities. They should address the cadets jointly with the O.C. immediately after the enrolment and pay visit to parades and see that Officers and Cadets are regular in their attendance.

(7) Concessions

We are against granting to NCC Cadets academic concessions by way of marks. In the first place they

introduce an extraneous element on the popularity of the Corps and cannot be justified on ground of sound education. Secondly, we expect students to join one of the four streams of NCC, NSS, NGO and work-experience (commended by Education Commission); and if concession is given to one, it will have to be extended to all and it will thus lose all value. And thirdly out of some 100 Universities, only some four or five have this practice of giving academic credit for non-academic work.

We suggest, however, that:

- (a) attendance at any activity connected with NCC should count towards the academic attendance as required by rules.
- (b) Universities having Military Studies, Department should offer military Science and elective subject open to NCC Cadets.
- (c) Universities be requested to consider if NCC 'B' Certificate could included in the list of subsidiary elective subjects in the curriculum. Syllabus for 'B' Certificate should be revised suitably.
- (d) Government should consider issuing a directive to the effect that other things being equal, NCC Certificate holders should be given preference in employment in Government Services as well as public sector undertakings. We expect that private sector undertakings also would give due weightage to NCC qualifications in view of the leadership qualities which they acquire through NCC training.
- (e) We hope that other things being equal preference will be given to NCC Cadets completing training successfully for admission to postgraduate and professional studies.

(8) NCC training during school/college hours.

Over the years all concerned with the NCC Cadets, parents Officers and instructional staff, have expressed the desirability of having NCC activities during school/college hours. The difficulty that comes in the way is that only a few boys in an institution are in the NCC and they will miss their lessons if parades are held during school hours. In USSR, military and pre-military training is compulsory for all and, therefore, the following arrangement works well. In the Mendeleev Chemical Technological Institute (i.e. college), which the study group visited

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the military chair in consultation with the principal has divided the students of the Institute into six batches. The military activities of each batch are confined to only one day in week ("military day" for that batch). On a military day, there are six periods of military instructions, field work, two periods of self-preparation (like our tutorials) in the subjects of the day and one period of patriotic educations. Thus, instead of parades on two different days in a week as we have here, a USSR Cadet spends only one day a week in military activities.

A similar system could be considered for introduction in this country with considerable advantage. It should be possible to compress our present six days of academic teaching within five days. The sixth day can be called a "field day" during which the boys and girls in schools and colleges could be given patriotic training for an hour followed by separate training for NCC, NSS, NSO and other hobbies. NCC boys could be given lectures and demonstrations followed by parades or weapons/equipment training. NSS Cadets can go to some institution or nearby village for social service. NSO boys and girls can devote their time to sports and other activities. Boys and girls who do not belong to any of the three streams can be trained in other hobbies like dancing, singing, photography, art elocution etc. Such an arrangement to have a field day once a week in all educational institutions will go a long way in improving the health, morale and well being of the children.

'CPUGH'

Annexure-II to Item No.

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Copy of the letter No.F.7-26/75-Leg.Unit dated 28th June, 1975 received from L.M.N. Sinha, Under Secretary, Ministry of Education & Social Welfare addressed to Sri M.P. Balakrishnan, Education Officer, University Grants Commission.

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In continuation of my. d.o. letter of even number dated 20.6.1975 regarding the Evaluation Committee on the National Cadet Corps.

Appendix

I enclose* a copy of Ministry of Defence D.O. letter No.3547/JS(G)/75 dated the 6th April, 1975, together with a copy of the Revised Syllabus for your consideration. It is requested that the comments on the points raised in the letter received from the Ministry of Defence may kindly be furnished at a very early date.

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Appendix

COPY

(14)

L. Dayal
Joint Secretary

D.O. No. 3547/JS(G)/75
Government of India
Ministry of Defence,
(Department of Defence)

New Delhi, April 6, 1975.

Subject: Incentives and facilities to be given by Educational authorities ; Recommendations of the Mahajani Committee.

Dear Sri Channa,

You would be aware that Government appointed a Committee under the Chairmanship of Dr. G.S. Mahajani, to make an appraisal of the N.C.C. programme and submit its recommendations. The Report of the Mahajani Committee was received last year and its recommendations are under examination. A copy of the Report (with two spares) is now enclosed.

2. The Committee has made certain recommendations which would require consideration at the hands of the Ministry of Education and University authorities. The Committee have disfavoured the idea of giving any academic credit (that is, marks) for the NCC activities of a student. However, they have made the following recommendations to create incentive for NCC Cadets and thus strengthen this programme:-

- i) Attendance at a NCC activity may be treated as academic attendance.
- ii) Universities having Military Studies Departments should offer Military Science as an elective subject, open to NCC Cadets.
- iii) The possibility of NCC 'B' Certificate being treated as a subsidiary elective subject should be examined, on the basis of a revised syllabus. A suggested syllabus is enclosed herewith (Enclosure).
- iv) Other things being equal, a student who has successfully completed N.C.C. training may be given preference for admission to Post-Graduate and Professional studies.
- v) The teaching periods should be compressed to 5 days and one day in the week should be designated as Field Day to be devoted to NCC activities as well as other youth activities, such as NSS and NSD.

3. The Mahajani Committee has also made the following two recommendations:-

- i) The Directors of NCC in the States may be given powers to award 'displeasure' and 'Severe displeasure'

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to the Part-Time NCC officers with the provision for an appeal to the Vice-Chancellors.

- ii) The Heads of Colleges/Institutions should have powers of discharge of Senior Division NCC Cadets as the Headmasters exercise these powers in respect of Junior Division Cadets.

4. It is requested that the authorities concerned may be advised to examine these recommendations early, so that we are able to convene a meeting at an early date in order to have discussions.

With high regards,

Yours sincerely,
Sd/- L. Dayal.

Shri K.N. Channa,
Secretary,
Ministry of Education,
Shastri Bhawan,
New Delhi

REVISED SYLLABUS FOR 'B' CERTIFICATE

The following subjects have been prescribed for consideration appearing for 'B' Certificate as one of the elective subjects in the University examination. Details of topics to be covered under each subject have been shown in Annexures mentioned against them:-

<u>Subject</u>	<u>Annexure</u>
(a) Drill with and without arms (including Smartness and turnout)	(i)
(b) <u>Weapon Training</u>	
Rifle	(ii)
Bayonet	(iii)
Grenade-HE/Smoke/Anti-Tank	(iv)
Sten Machine Carbine	(v)
LMG	(vi)
2" Mortar	(vii)
(c) <u>Field Training</u>	
Fieldcraft	(viii)
Section leading	(ix)
Patrol (including ambushes and Frontoon Tactics)	(x)
(d) Map Reading	(xi)
(e) Organisation of Armed Forces	(xii)
(f) Civil Defence	
(g) Military History (choice 3 questions to be answered)	
(h) Military Geography (choice 2 question to be answered)	
2. To pass the examination a candidate must obtain 40 percent marks in each subject and 50 percent in aggregate.	

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REVISED SYLLABUS FOR 'B' CERTIFICATE

The following subjects have been prescribed for consideration appearing for 'B' Certificate as one of the elective subjects in the University examination. Details of topics to be covered under each subject have been shown in annexures mentioned against them:-

<u>Subject</u>	<u>Annexure</u>
(a) Drill with and without arms (including smartness and turnout)	(i)
(b) <u>Weapon Training</u>	
Rifle	(ii)
Bayonet	(iii)
Grenade-HE/Smoke/Anti-Tank	(iv)
Sten Machine Carbine	(v)
LMG	(vi)
2" Mortar	(vii)
(c) <u>Field Training</u>	
Fieldcraft	(viii)
Section leading	(ix)
Patrol (including ambushes and Evacuation Tactics)	(x)
(d) Map Reading	(xi)
(e) Organisation of Armed Forces	(xii)
(f) Civil Defence	
(g) Military History (choice 3 questions to be answered)	
(h) Military Geography (choice 2 question to be answered)	
2. To pass the examination a candidate must obtain 40 percent marks in each subject and 50 percent in aggregate.	

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ANNEXURE I

Drill without arms

Sl. No.	Subject	Remarks
1.	Attention, stand at ease and stand easy	
2.	Turning	
3.	Dressing	
4.	Forming up in three ranks and numbering	
5.	Open and close order march	
6.	Dismissing and falling out	
7.	Setting on parade	
8.	Marching Length of pace and time of marching	
9.	Marching in quick time and halt.	
10.	Formation of squads	
11.	Side pace	
12.	Pace forward and to the rear	
13.	Wheeling	
14.	MAKING TIME FORWARD AND HALT: IN QUICK TIME	
15.	Saluting at the halt and on the march	
16.	Getting on parade, dressing up, turning and marching(revision)	
17.	Squad drill	

DRILL WITH ARMS

1. Attention, stand at ease and stand easy
2. Getting on parade with Rifle - the short trail
3. Dressing at the order
4. Shoulder from the order and vice versa
5. Shoulder from the order and vice versa (revision)
6. Present from the order and vice versa
7. Dismissing and falling out
8. The salute at the shoulder
9. Examine arms
10. Present from the shoulder and vice versa (revision)
11. Platoon and coy drill
12. Guard mounting
13. Guard of honour

Cone Drill.

1. Attention, stand at ease, marching and halting
2. Turning about and dismissing
3. Saluting at the halt on the march and to the front

Rifle

1. Characteristics of a Rifle and Rifle aim
2. Fire power of a Rifle
3. Stripping, assembling, and slight setting
4. Care and cleaning
5. Loading and unloading
6. Carrying position and hold

Sl No.	Subject	Remarks
7.	Aiming I - Range and Figure targets	
8.	Trigger control	
9.	Firing and shot	
10.	Miniature range firing	
11.	Aiming II - Alternation of sights.	
12.	Bold manipulation	
13.	Theory of a group	
14.	Snap shooting	
15.	Aiming III - Aiming off for wind	
16.	Aiming IV - other points of aim	
17.	Firing from other positions in the open	
18.	Firing from low cover	
19.	Firing from other types of cover	
20.	Firing at moving targets	
21.	IS OET	

BAYONET

1. On guard and hip firing
2. The ping
3. Two points
4. The training stick
5. Self defence

GRANADE - HE/SMOKE/ANTI-TANK

1. General description and characterisation
HE & Smoke, Hand and rifle
2. Explanation of mechanism
3. Grenade throwing from different types of cover
4. Grenade anti-tank

HEAVY MACHINE CARTRIDGE

Annexure-V

1. Introduction and characteristics
2. Stripping, assembling and cleaning
3. Loading, unloading, carriage and firing

LIGHT MACHINE GUN

Annexure VI

1. Introduction and characteristics
2. Stripping and assembling the piston group
3. Loading, unloading and sight setting
4. Stripping and assembling the barrel and butt group
5. Aiming and holding
6. Stripping and assembling the body and bipod group
7. Mechanism
8. Immediate action and stoppages
9. Elementary handling
10. Mounting the gun on various types of cover

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Sl No.	Subject	Remarks
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2-IN MORTAR

Annexure VII

1. Introduction and characteristics
2. Wrapping, assembling and cleaning
3. Recognition, mechanism and packing of 2.in mortar bomb
4. Preparation of bombs, loading and unloading and laying for firing.
5. Angle of fire, direct and indirect
6. Employment of smoke
7. Duties of mortar detachment and fire control

FIELD CR/FT

Annexure VIII

1. Recognition and description of targets
2. Judging distance.
3. Personal camouflage and concealment
4. Fire discipline
5. Advance observation and concealment exercise
6. Keeping direction
7. Selection of fire positions
8. The individual stalk

SECTION LEADING

ANNEXURE IX

1. Selection formation
2. Field signals
3. Indication of landmarks
4. Fire orders
5. Fire and movement
6. Section Battle drill
7. Section post
8. Scouts
9. Simple verbal orders
10. Occupation of Section post, sitting of weapons, preparation of range cards, camouflage and tack discipline and daily routine.

PATROLLING

ANNEXURE X

1. The types of patrols, their tasks and necessity
2. Preparation and preliminaries for a patrol
3. Practical conduct and patrolling (by cadets).
4. Briefing and debriefing
5. Ambushes (by cadets)

Sl No.	Subject	Remarks
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Platoon Tactics

- (i) Platoon formations Demo
- (ii) Platoon battle drill demo practice
- (iii) Verbal orders - Demo
- (iv) Demos - Platoon in defence
- (v) Sec in attack exercises (by cadets)
- (vi) Sec in defence exercises (by cadets)

M/P READING

ANNEXURE XI

1. Relief - Contours and other methods
2. Conventional signs
3. Grid system
4. Setting a map and finding north
5. Finding position on map
6. Prismatic Compass (Types' & General discription)
7. Setting a compass for night march
8. Compass bearings
9. Service protactor
10. Scales
11. Intervisibility

ORGANISATION OF ARMED FORCES

ANNEXURE XII

1. Rifle Section and platoon
2. Rifle Company
3. Infantry Battalion

CIVIL DEFENCE AND FIRST AID

ANNEXURE XIII

1. Instruction, maining and scope of civil defence.
2. Civil Defence at Mohalla level
3. Clearance of debris and rescue of trapped persons.
4. Evacuation of casualties
5. Air raid - measure for protection against air raids.
6. Fire, its constituents, fire fighting operations and fire fighting parties.
7. Psychological warfare - its importance, in civil defence.
8. Rescur party - its organisation, equipment and function.
9. Manning of civil posts.
10. Civil defence patrols/lookouts.

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Sl No.	Subject	Remarks
11.	Messenger service, routes and location of important places.	
12.	Civil defence exercises.	

FIRST AID

1. Principles of First Aid, A brief description of the structure and functions of the body.
2. The triangular bandage and its application to the head, chest back, shoulder, Elbow Hand, Hip. Fractures, Causes, Varieties, signs and symptoms, Treatment of fractures general rules individual fracture. The skull, lower jaw, spine ribs breast bone, collar bone, shoulder blade, arms, forearm and hand.
3. Treatment of fractures, application of splints, individual fractures (continued) Pelvis, thigh knee cap, leg and foot Treatment of fractures, treatment of sprains.
4. General description of the heat and blood vessels, circulation of blood. Wounds and hemorrhage, wounds accompanied by arterial haemorrhage, the situation of the main arteries - pressure points. Wounds accompanied by capillary or venous hemorrhage - varicose veins. Hemorrhage from special regions. Bruises, compression of arteries.
5. Injuries to internal organs, haemorrhage, Burns, scalds stings, bites of snakes and rabid animals. Frost bite. Foreign bodies in eye, ear and nose.
6. Treatment of Fractures and hemorrhage.
7. Respiration - natural and artificial. Asphyxia. The nervous system, insensibility artificial respiration.
8. Poisons. Transport of injured for males, hand seats and stretcher exercises.
9. Treatment of injured.

MILITARY HISTORY

ANNEXURE XIV

1. Nature of war
2. Evolution of warfare before gun powder age

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Sl No.	Subject	Remarks
3.	Evolution of warfare - Gun powder age	
4.	Evolution of warfare - World War I to present day	
5.	History of Indian Army under East Indian Company	
6.	History of Indian Army under the crown	
7.	History of Indian Army - post independence period	
8.	Indo-Pak struggle	

MILITARY GEOGRAPHY

ANNEXURE XI

1. Geographical factors and their influence of defence of the country
2. India's geography and its bearing on defence
3. India's neighbours - friendly countries
4. India's neighbours - beliligerents
5. India's physical features and defence
6. India's resources and war potentialities
7. India's communication.

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 11th & 12th Aug. 1975

Item No. 11 b To consider certain measures proposed by the Ministry of Education for the speedy disposal of unsold books produced by the various autonomous organisations functioning under its administrative control.

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The Ministry of Education has set up a number of autonomous organisations/directorates with a view to producing quality books in different subjects and these organisations have been approaching the Commission for recommending books and other reading material brought out by them for purchase by university and college libraries. In this connection, the Ministry of Education has recently considered the question of unsold stock of publications brought out by these organisations. It was indicated that there was a large accumulation of unsold books at present and the main reason for this had been the inadequate attention paid to the sale and distribution of these books.

In order to improve the sale position, a suggestion has been made that the University Grants Commission should bring to the notice of colleges and universities the full details regarding the books available, the level to which they would be useful and other related details. It has also been suggested that the Commission could advise the libraries of all universities and colleges that they should stock at least two copies of each of the titles brought out by the different units like the Central Hindi Directorate, the National Book Trust, the Sahitya Academy, the Indian Council for Social Science Research, I.C.S.S.R., etc. which have all undertaken sizeable programmes of book production useful for students in universities and colleges. Besides, the University Grants Commission is also implementing a programme of producing university level books in different subjects.

These books have all been produced with the help of competent scholars and researchers. Evaluation as to contents, quality etc. has also been done by competent evaluators before such books are printed and as such quality and standards have been ensured and prices are also kept reasonable.

The Central Hindi Directorate has already produced about 800 titles in various subjects useful for university



level students and teachers. The National Book Trust has similarly a large number of university level books in low priced editions: some of them are Indian authored textbooks, reference books and supplementary reading books; others are translations of Indian Science and Technology textbooks translated to other Indian languages and Indian Language translations or adaptations of American books on Science and Technology. One hundred such books have already been brought out: this is in addition to a large number of other university level books.

The Sahitya Academy has also similarly brought to the notice of the Commission details regarding the books produced by them - the books released so far exceeds 750 in 22 Indian languages. The Academy has indicated that these books are of high literary quality and elaborate procedures are followed by it to maintain the quality produced by it and as such these books deserve a place in every university and college library as they are invaluable to students of comparative literature, a field which is encouraged in a large measure in a multi-lingual society like ours.

A number of books/monographs, etc. have been/are also being brought out by organisations like I.C.H.R., I.C.S.S.R., etc.

It may be noted that in the National Policy on Education adopted by the Government the need for producing quality textbooks and other teaching-learning material at comparatively low cost has been highlighted with a view to raising standards. Comprehensive programmes of book production at the National Level have accordingly been undertaken by the Government agencies indicated above and they have done so, after mobilising the best talents in the country. It should, therefore, be taken for granted that these books would be of adequate standards and as such it is necessary to give the widest possible publicity regarding these books among the academic community. In the absence of an effective machinery to ensure purchase of these books by university and college libraries, there is a large accumulation of unsold books produced by these agencies in different subjects.

The Ministry of Education has further emphasized the need to optimise utilisation of indigenously produced educational material by National Book Trust in place of imported books. As the quality of the books so produced has, not only been ensured but their contents, etc. are also comparable to the books that are at present imported from overseas. The Ministry of Education has further

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indicated that the need to purchase these books by universities and colleges is only too obvious and has suggested necessary steps be taken by the Commission to ensure that such indigenously produced quality textbooks in different subjects are prescribed or recommended for such suitable courses of studies by the universities and colleges in place of imported ones.

Commission's present Policy

The Commission has recently brought to the notice of the universities the availability of these books recommending that these books may be considered for purchase by the libraries of universities and colleges affiliated to them. Letters recommending such books brought out by the Central Hindi Directorate, the National Book Trust and the Sahitya Academy have been written to All the Vice-Chancellors.

Beyond this the Commission has not taken any clear cut policy decision in respect of the books and reading materials brought out by these agencies including the university level books produced under Commission's scheme.

The Ministry of Education has suggested that some thing more will be required to be done by the Commission to ensure that these books produced by the agencies indicated above at such large investment are actually purchased by libraries of universities and colleges. A specific suggestion in this connection has been made that the purchase of these books be tied up with the programme of financial assistance by the Commission for purchase of books and journals.

For taking a policy decision in this respect the Commission may consider whether:-

- (a) It should only bring to the notice of universities and colleges the details of the books that are published by these agencies and in this connection it may farther be considered whether the Commission may recommend such a book merely because it has been brought out by one of these agencies indicated above and it would not be necessary for the Commission to satisfy itself that the book that it is recommending for purchase is of adequate standards and has been evaluated as such by competent evaluators. If the publishing agencies have already made such evaluation, it may perhaps not be necessary for the Commission to get them evaluated again before they are recommended.

(5)

- (b) It may advise universities and colleges that books and other materials already produced by these agencies and evaluated by competent evaluators, may be considered to be prescribed or recommended for various courses and two copies of each such titles be purchased from out of the book grants that are made available to universities and colleges under the development programmes of the University Grants Commission, and it may give similar advice to universities and colleges from time to time about books and other materials that would be produced in future. Such books to be recommended could include the following:-
- (i) Books recommended by evaluators appointed by the Ministry of Education;
 - (ii) University level books approved under the scheme of the University Grants Commission;
 - (iii) Books/monographs and other reading material approved by academic organisations like universities, I.C.S.S.R., I.C.H.R. etc.;
 - (iv) Books published by Central Hindi Directorate, National Book Trust, Sahitya Academy and other organisations set up by the Ministry of Education provided such books have been evaluated about their content, quality etc.
 - (v) Special attention will be paid to indigenously produced university level quality books in various subjects in this connection with a view to reducing the need for importing books from overseas.
- (c) Whether a condition may be incorporated in the terms governing release of grants by the Commission to the effect that atleast two copies of each of the books in different subjects suggested by the Commission would be purchased by the universities and colleges from the grant sanctioned to them by it for purchase of books and journals.
- (d) Whether the Commission may first evaluate such books produced by these organisations but have not been evaluated before printing.

The matter is placed before the Commission for its consideration.

E.O. (CP)

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Confidential.

UNIVERSITY GRANTS COMMISSION

Meeting :

Dated : 11th & 12th Aug., 1974

Item No. 7 To consider a note on the implementation of the UGC Scheme for the preparation of University Level Books by Indian Authors.

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With a view to supplement the efforts of the state governments and involving outstanding teachers and scholars in the universities and colleges and other institutions of higher learning and research, the University Grants Commission, in consultation with the Ministry of Education and Social Welfare, Government of India, initiated in 1970-71 a programme of providing support for writing of quality books required for university level studies. The scheme generally intended to encourage Indian authorship in the production of manuscripts of quality books for use in universities and colleges, not necessarily conforming to any ** training to be attended on different stages of university instruction. The scheme also aims at training of a language cadre of scholars in the supervision of outstanding teachers and established authors in our universities. A copy of the brochure on the scheme "Preparation of University Level Books by Indian Authors" is enclosed (Annexure-I). The funds for this scheme are provided by the Government of India (Ministry of Education and Social Welfare) over and above the normal budget of the Commission. In its meeting of 3rd February, 1971 (Item No.8), the Commission noted the progress and the guidelines laid down for the scheme. Subsequently in its meeting of 1.3.1972 (Item.39) it approved the brochure prepared under the scheme. The Commission in its meeting of 9th July, 1973 (Item No.11) agreed to the institution for short-term fellowships under the book writing scheme. In its meeting held on 16th Jan., 1974 (Item No.23) the Commission accepted 34 fresh projects already recommended by the selection committee during 1973-74.

MAIN FEATURES OF THE SCHEME.

2. The main features of the scheme are as under:

(a) Duration of the project: To begin with in 1970, the assistance under the scheme was tenable for three to five years. Later in 1971, it was modified as 'tenable for three years in the first instance'. In 1972, it has been indicated in the brochure that the book-writing project is generally of two-year duration and can be extended in special cases by another year bringing the total duration to three years.

** particular stage of syllabi but indicating the level of

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(b) Assistance: The Scheme provides for contingencies @ Rs. 2000/- p.a. (additional Rs.1000/- p.a. in exceptional cases) and a regular fellowship at a minimum of Rs.500/- p.m. and maximum of Rs.750/- p.m. (for inservice-teachers on leave without pay from their parent institution as protection of their salary, allowance etc.). In 1973 short-term fellowships from six to twelve months were also made available at Rs.300/-p.m. for M.A./M.Sc. candidates and Rs.500/- p.m. for Ph.D. candidates.

(c) Fellowship: Right from the beginning, it was clear that fellowship is a full time appointment. As the fellowship amount under this scheme was higher than the junior research fellowship of the UGC which was made available for fellows working for Ph.D. degree, a fellow (appointed under the book-writing scheme) shall not be eligible to register for Ph.D. degree concurrently.

(d) Qualifications of the Fellow: The scheme provides that the fellow should be of outstanding merit having a Ph.D. or first class M.A./M.Sc. degree. Since May, 1974 a candidate possessing a high second class M.A./M.Sc. degree, with over 55% of aggregate marks or B + in the grade system was made eligible for appointment as a fellow, if the author/university certifies that no first class M.A./M.Sc. could be found available.

(e) Publication of the Book: The publication of the books produced under the scheme would be through normal business channels and the supervisor and the fellow are entitled to royalty admissible. For the projects approved upto 1971, it was laid down that the copy right vested with the UGC/Ministry of Education. But later in 1972, it was envisaged that UGC assistance should be acknowledged in the publication. The Commission, however, recommends to the National Book Trust that the ~~Mass.~~ of selected books prepared under the scheme and adjusted to be of a high standard by a panel of experts, may subsidised towards its publication.

(f) Non-University Type Institutions: As the funds for the scheme have been provided by the Ministry of Education over and above allocation of the UGC, outstanding authors working in non-university type institutions are also eligible for assistance under the scheme.

IMPLEMENTATION OF THE SCHEME.

3. (a) Uptil March 1975, the Commission accepted 309 proposals for the preparation of university level books by Indian authors on the recommendation of selection committees appointed by the Commission. Of these 45 projects could not materialise and the work was not taken up on them, of the 264 projects undertaken, manuscripts of 33 books have been finalised (annexure-II) and some of them are under various

stages of publication. The distribution of remaining 231 projects which are at different stages of implementation is as under:-

Subject	No. of books under preparation.	Subject	No. of books under preparation.
Chemistry	14	Political Science and Public Administration.	10
Biochemistry	3	Sociology.	3
Geophysics	2	Law	2
Physics	15	Philosophy	5
Mathematics & Statistics	11	Education	6
Botany	16	Psychology	7
Zoology	16	Music & Fine Arts	3
Marine Biology	1	Town Planning and Architecture	1
Geology	11	Advertising and Campaign Planning	1
Geography	4	English	3
Anthropology	1	Hindi	2
Home Science	1	Sanskrit	4
History and Archaeology	12	Linguistics	6
Library Science	1	Agriculture	6
Economics and Commerce.	6	Engg. & Technology	44
		Medicine.	9
		Total:	231

The list of books under preparation alongwith the names of authors/supervisors is given in Annexure-III.

(b) By March 1975, about one hundred and twenty projects should have been completed and their Mss. finalised on the completion of three year tenure. Mss. of only 33 books have been finalised. No extension of assistance beyond three year tenure has been agreed to. The Supervisors/Senior authors are being requested demi officially to take all possible steps to complete such projects on their own without any assistance towards fellowships and contingencies from the UGC. The delay in the successful completion of the book writing projects could be attributed inter alia to the fact that (i) in some cases the fellow appointed under the scheme found to be enrolled for Ph.D. degree work concurrently, and obviously could not devote full time to this project ;(ii) in other cases, the fellow initially appointed under the scheme was not found to be possessing first class Masters degree in the subject concerned. (In May, 1974, this was relaxed to high second class master degree with 55% of marks or B+ in the grade system) and (iii) the project some time suffer with change/reappointment of fellows.

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4.(a) EXPENDITURE.

Fourth Plan. By the end of the Fourth Plan, an expenditure of Rs. 22,79,558/- was incurred on the scheme as under:-

<u>Year.</u>	<u>Expenditure</u> Rs.
1971-72	3,78,532/-
1972-73	8,89,289/-
1973-74	10,11,737/-
Total. (IVth Plan)	<u>22,79,558/-</u>

(b) Fifth Plan. The Ministry of Education and Social Welfare has made an allocation of Rs. 35 lakhs for the implementation of this scheme during the Fifth Plan period. Of this a sum of nearly Rs. 30 lakhs will be required as committed expenditure for the completion of the projects already approved and in operation. During the year 1974-75, the expenditure on the scheme was Rs. 8,67,992/- only.

REVIEW COMMITTEE FOR FIFTH PLAN.

5. The Commission appointed a committee to review the implementation of the scheme for providing financial assistance for the preparation of university level books by Indian authors and to suggest ways and means to ensure efficient implementation of the scheme during the Fifth Plan. The membership of the review committee is given in Annexure-IV. The Committee held meeting on 8th October 1974 and 16th April, 1975. The main observations and recommendations made by the committee are as under:-

(a) Funds being limited, it would be necessary to lay more emphasis on the preparation of books and monographs at the postgraduate level, instead of at the undergraduate level as done hitherto unless there is an outstanding proposal it may not be accepted. Subject panels may advise about the gaps that existed in various disciplines and needed to be filled also to identify the experts and outstanding academicians who could be requested to prepare books for filling in the gaps at the university level. Books so prepared in English or Hindi could be passed on the State Granth akademis for translation in different regional languages.

(b) The objectives of the scheme may be to produce books and monographs of high standard and to upto the fast increasing knowledge in various disciplines. The theme, subject matter and content of the books and monographs produced under the scheme should reflect present situation as obtaining in India and should be relevant to the social goals and the educational future visualised by the society. As far as feasible the multi approach may be encouraged.

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(c) It may be desirable to encourage the production of problem series and readings in various subjects. The senior author/supervisor in such a case should make a substantial/outstanding contribution by adding a significant introduction, editorial comments, bibliographies, indices, explanatory notes, etc. in respect of the subject matter included therein. While the more suitable agencies for undertaking such projects may be ICSSR, IHR etc. If this work was to be undertaken by the UGC, under this scheme the advice of the UGC subject panels should be sought. Preparation of abstracting series should in no case be undertaken by the UGC.

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(d) Fresh M.A.'s/M.Sc.'s may not be engaged as fellows. Persons with teaching experience and those who have shown distinct aptitude for research work may be approved as fellows. In order to make the scheme more practical, it was suggested that the final approval of the proposal should be conveyed only after the Commission had approved the appointment of the fellow to work on the scheme. It was emphasised that the fellows working under the scheme should have minimum high second class M.A./M.Sc. degree with 55% marks of B plus grade under the credit system. It would be desirable to appoint fellows with Ph.D. qualifications only as far as possible, as the scheme would hereafter be concerned largely with the preparation of the books at the postgraduate level. It was agreed that it would be desirable that the senior author/supervisor might take leave upto a period of three months at the final stages of the book, to complete it, and the Commission might agree to bear expenditure on his salary, allowances, etc., alongwith fellowship grants allowed earlier, in very special cases".

(e) No extension beyond three years should be possible, except in special cases depending upon the progress of the book writing, where extension upto a maximum period of upto one year could be allowed by the Commission. In such a case, the author/supervisor may be requested to complete the project within this extended period. Contingent expenditure upto a maximum of Rs.2000/- may be allowed in such a case. For shorter duration of extension the contingent grant may be reduced proportionately. No assistance for fellowship will be available during the extension period.

(f) Book writing fellowship should be considered a whole time job. No fellow should be permitted to enrol for Ph.D. work concurrently. Allowing a fellow to work for Ph.D. work concurrently will be detrimental to the preparation of the book production work.

(g) Continuation of the fellowship awarded under the UGC scheme for the preparation of university level books for Ph.D. work after approved book writing project has been completed should not be treated as automatic and could be considered on the merits of each case, depending upon the quality and standard of the book produced provided the supervisor certifies that the contribution of the fellow towards preparation of the book was exceptional and the fellow should be registered for a Ph.D. degree with a university after he has completed three years under this project. This was applicable to the projects which have already been approved.

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(h) It was noted that under the present rules, the maximum value of fellowship for an inservice teacher-fellow under the scheme was Rs.750/- .In view of the increased emoluments available to inservice teachers, it was suggested that a maximum of Rs.900/- per month may be allowed in the case of inservice teacher-fellows already approved. In cases where new UGC scales of pay have been accepted by the University/Institution and implemented therein, the Commission might protect the basic salary of an inservice-teacher-fellow upto Rs.1100/- p.m. plus all allowances and contribution admissible to him/her while in service.

(i) Fresh proposals received from the Universities and institutions for assistance under the scheme which have been recommended by the subject experts, may further be referred to the UGC subject panels for further advice.

(j) It was however, noted that the Ministries of Law and Health have also established cells for the publication of University level books in subjects connected with legal and medical education. With a view to avoid duplication of efforts, it was agreed that the UGC may not hereafter accept proposals pertaining to Law and Medicine.

(k) With a view to improving the standards of teaching, research and examination, as enjoined under the UC Act the Commission has a definite role to play, and the preparation of high quality books and monographs at the University level is a step in the right direction and this should be continued by the UGC in addition to the efforts made by the various publishers undertaking the production of University level books.

(l) The list of titles under preparation of the scheme may be published alongwith the names and addresses of the authors. Such a list may be published in the UGC bulletin from time to time. These lists could also be supplied to the publishers and those interested in the scheme.

(m) The Committee considered the reference received from the Ministry of Education and Social Welfare for review of the titles brought out in cheaper editions in (a) Indo-American Standard Books Programme ; (b) Joint Indo-Soviet Text Book Programme ; and (c) ELBS Series and decided that these may be referred to the subjects panels for their recommendations.

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6. In view of the fact that a fellow under the scheme for the preparation of university level books by Indian authors costs the University Grants Commission between Rs.16,000/- and Rs.24,000/- per book, a suggestion has been made that if a grant of Rs.10,000/- could be made available to an author for writing a book, many middle and even senior academics might be willing to write the book.

7. The observations and recommendations made by the Review Committee, as summarised in para 5, sub-paras (a) to (m) above, and the suggestion contained in para 6 above are placed before the Commission for consideration.

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UNIVERSITY GRANTS COMMISSION

PREPARATION OF UNIVERSITY LEVEL BOOKS BY
INDIAN AUTHORS.

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The Education Commission (1964-66) in its chepter on Science Education and Research has observed: "It is unfortunate that most of the quality books in science and technology, even at the undergraduate stage, are still very largely imported. All imported books are not quality books. A large-scale import of textbooks in science and technology, is not only expensive and costs foreign exchange but it is bad for our intellectual morale. The country has the talent and other resources required to produce first-rate books, but it appears that what is lacking is determination and planned effort. The Inter-University Board and the U.G.C. should take a lead in the matter so that by the end of the Fourth Plan most of the books required at the under - graduate level and a considerable number at the postgraduate level are produced within the country. It is important that learned and professional societies in the country lend active support and encouragement to the preparation of outstanding books and monographs and give high professional recognition to such works - it should enjoy a status accorded usually to research".

In the context of the prevailing situation it is of utmost importance that every effort is made to produce books in the country. This applies to writing of original books, translation into Indian languages of important foreign books, as also reprinting in India, both in English and Indian languages, of advanced books and books of reference at economic prices within the reach of the students and educational institutions. (In the academic and professional life in the country, the writing of books, unfortunately, has so far received scant attention). The key factor in the entire process is to interest outstanding teachers, researchers and scholars to take a lead in the preparation of quality books. This will set a fashion, as it were and also quality standards. In certain fields of biological sciences, earth sciences, agriculture and medicine, books imported from other countries do not deal adequately, and sometimes not at all, with materials and problems of relevance to India. (Also if students read books by Indian authors, it will help to promote a sense of confidence and closeness to their subjects of study).

In the interest of upgrading education and research it is necessary that writing of quality books, reviews and monographs is given adequate professional status. This, more than anything else, will promote a climate conducive to production of quality publications in the country. The nature of work involved in the preparation of an outstanding book is comparable to serious research effort and deserves to be accorded high professional recognition.

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In recent years, the Government of India in the Ministry of Education and Social Welfare has initiated, in consultation with the State Government schemes for production of books in Indian languages. It is generally expected that the books to be produced by the State Governments would mainly aim at making available textbooks in relation to the syllabi and courses of study followed by the educational institutions within that State. With a view to supplementing the efforts of the State Government and involving outstanding teachers and scholars in the universities and colleges and in other institutions of higher learning and research, the UGC in consultation with the Ministry of Education and Social Welfare, Government of India, has taken up a programme of providing support for writing of quality books required for university level studies. The scheme is generally intended to encourage Indian authorship in the production of manuscripts of quality books for use in universities and colleges, not necessarily conforming to any particular set of syllabi but indicating the level of training desired to be attained at different stages of university instruction. The scheme also aims at training of a young cadre of scholars in the technique and art of preparation of books under the supervision of outstanding teachers and established authors in our universities.

UGC PROGRAMME

With the above objectives in view, the UGC would make available opportunities and financial support to university teachers and other scholars in the preparation of books of high quality in any one of the following ways:

1. Outstanding teachers (generally at the level of Professors or Readers in universities and senior teachers in colleges) desirous of devoting full time over a period of one or two years for writing books would be encouraged to take leave from their positions without any loss of their seniority or increments etc. Such teachers would be paid by the UGC a sum equivalent to the salary and allowances drawn by them with provision for increments due during the period of their undertaking the project for writing of books. The teachers may, if they so desire, continue to participate for not more than four hours per week in the teaching/research activities of the department and devote the rest of their time in the preparation of the manuscripts of titles of books accepted under the project. Such teachers would also receive a contingent grant of Rs.2,000/- per annum for secretarial and other assistance, purchase of stationery and typing of the materials and also for collection of materials from other libraries etc. In special cases an additional sum of Rs.1,000/- may be given for such expenses.

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2. In the case of teachers who wish to undertake the book writing programme in addition to their normal teaching and research responsibilities in the universities and colleges, assistance would be available in the form of either (a) a fellowship of the value of Rs. 500 per month to be awarded to a junior author to be selected for this purpose by the senior author and contingent grant of Rs. 2,000/- per annum for the purpose described above or (b) where a teacher does not require the help of a fellows, only the use of a contingent grant would be permitted.

3. In the case of outstanding scholars and scientists who are not in service of a university or a college but in other organisations the provisions of the scheme described under 2 above would be available. It would however, be necessary for such persons to be sponsored for undertaking the book writing project by their employing organisation.

4. Outstanding scholars and scientists who may have retired from service from a university or a college, would also be encouraged to participate in this programme, provided they are below the age of 65 years and have not had the benefit of any superannuation scheme such as the UGC scheme of 'Utilisation of Services of Retired Teachers' or the CSIR/ICAR scheme for retired scientists for a period of 5 years. Proposals from such persons should be sponsored by a University indicating their willingness to make available the normal facilities of laboratory, library etc. for their use for the duration of the book writing project. Such persons would themselves be eligible to receive a fellowship of Rs. 500 per month besides the contingent grant of Rs. 2,000/- per annum purposes mentioned. Assistance of a fellow would not be available under this scheme.

5. It would also be possible for a group of upto three or five university teachers to jointly take up a book writing project and to produce sections of a book or course of reading material which could be put together in the form of a book. In such cases no fellowship provision would be available but each such author would have access to a contingent grant of Rs. 1,000/- p.a. for purposes indicated above. One of the teachers in the group may be named as Editor or Coordinator for such a project and would undertake the responsibility of getting the manuscript ready for publications. The normal duration of such project would be one year only.

6. It would also be possible under this scheme to award short term fellowship initially for a period of six months but in no case beyond twelve months. The value of such fellowship would correspond to the Junior and/Senior fellowship i.e. Rs. 300/- p.m. in the case of persons with Ph.D. degree. Such short term fellows will not be entitled to the benefit of continuation of this fellowship towards working for Ph.D. degree under this scheme. Such fellow would also not be treated as joint author nor in case of in-service teachers, get the benefit of protection of their salary as is possible in case of regular long term fellowships.

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DURATION OF THE PROJECT

The Book Writing project is generally of two years duration and can be extended in special cases by another year bringing the total duration to three years. The project can be terminated, however at an earlier date on the completion of the manuscript. If the authors desire to take up a second project during the remaining period, the proposal could be considered on merits.

OPPORTUNITIES FOR FELLOW TO CONTINUE THEIR RESEARCH WORK

Young teachers and scholars who may be awarded fellowship described under 2 (a) above would be encouraged to pursue their work for Ph.D. Degree, wherever necessary, by an extension of the fellowship at the conclusion of the book-writing project. The total period of the fellowship, inclusive of the period spent on the book writing project would not exceed five years. A Fellow appointed under the book writing scheme shall not be eligible to register for a Ph.D. Degree concurrently. The Fellows, if he so desires, could however use the material collected during the course of the book - writing project for his doctoral dissertation.

AWARD OF FELLOWSHIP AND SELECTION

In accordance with the provision under (2) above where a young teacher or a scholar may be associated as a junior author with the help of a fellowship for the duration of the project, fellowship will be awarded to persons of outstanding merit, either with a first class Master's Degree or a Ph.D. Degree and who will agree to work full time under the scheme for the duration of the project or upto the time of completion of the manuscript whichever is earlier. In case candidates with a first class Master's Degree in the subject concerned are not found available, the fellowship may be awarded to a candidate who has secured a high second class Master's Degree in the subject with a minimum of 55% of aggregate marks or at least B+ in the grade system. (This has been enforced w.e.f. April '1974). The Fellow would be required to give an undertaking to this effect. The fellowship can be terminated owing to unsatisfactory work and on the recommendation of the senior author to whom the project is entrusted. The selection of the fellow will be made by the senior author in charge of the project and under whom the Fellow shall work. The selection may be made either through advertisement or through personal contacts. The fellowship may also be awarded to an inservice teacher, generally of the level of a lecturer in a university or a college, and in such cases the Fellow will be paid an amount equal to the salary and allowance which he would have drawn in his post in the parent institution subject to a minimum of Rs.500/- p.m. and a maximum of Rs.750/- p.m. The university/college from which the teacher is selected will have to agree to give him study leave on loss of pay

and to protect his seniority, increments etc., for the period the teacher is working on the book writing project and allow him to rejoin his duty at the completion of the project. In some cases, the fellow may be given teaching work not exceeding 2 hours a week to enable him to continue his contact with teaching work.

TYPES OF BOOKS TO BE WRITTEN

Indian authors invited by the UGC to participate in this programme and taking up the project of preparation of university level books, may prepare manuscripts of books suitable for use by universities either at the undergraduate or postgraduate level, latest and comprehensive reviews in any subject discipline incorporating therein relevant and outstanding contributions made by Indian scientists and scholars and also monographs. No translations of available books would be possible under this scheme.

Generally only one book writing project can be taken up under this programme by a single teacher or scholar and a second project may be entrusted to him at an appropriate time on the merit of work done in the first project.

The inservice teachers undertaking book writing projects as senior authors under this scheme will not receive any honorarium in addition to the salaries drawn by them from their parent institutions. The teacher, alongwith the junior author appointed as a Fellow under the project will share equally the royalties that may accrue from the publication of the book prepared under this programme, in accordance with the usual practice. The contingent grant available under each project would be used by one or both the authors as the case may be.

EVALUATION AND ACCEPTANCE OF THE MANUSCRIPTS

A committee consisting of 3 persons may be constituted for each title of the books undertaken this scheme. It would be open for the teacher undertaking this project to request the UGC to constitute such a committee at an appropriate time during the preparation of the manuscript and to consult the members of the committee. This committee would be concerned mainly in ensuring proper standard and quality of the manuscript and may make suitable suggestions to the author in this regard. The treatment of the subject and the manner of presentation would, however, be the responsibility of the teacher to whom the project is entrusted. The same Committee would evaluate the final manuscript and make suitable recommendations for its publication.



PUBLICATION OF BOOKS

The details given so far mainly relate to the assistance available to Indian authors in the preparation of the manuscripts of quality books for use at the university level. It should be possible for the authors to arrange for the publication of these manuscripts through the publishing houses. Care should, however, be taken that the pricing of the books would be kept as low as possible, particularly since the publishers would have made no investment towards preparation of the manuscripts. Each such publication should make an acknowledgement to the assistance provided by the UGC in the preparation of the manuscripts. The UGC may also assist in the publication of such manuscripts in consultation with the National Book Trust, publications Directorate of the Ministry of Education, Government of India or some other suitable agency. It may also be possible to make available a suitable subsidy, both to the general publishing houses as well as others under the existing scheme of subsidised publication of books by Indian authors initiated by the National Book Trust, wherever necessary.

PROPOSALS

Proposals from university and college teachers and other scholars and scientists would be received through the universities concerned or other sponsoring agencies as detailed above, three times during a year at the end of February, June and October. The selection of the projects would be made with the help of a committee appointed for the purpose, thrice a year subsequent to the receipt of the proposals. The teachers whose projects are accepted under this programme would be informed of the same through the institutions concerned and work on the project should be initiated within six months from that date failing which the scheme shall be deemed to have lapsed and a fresh proposal would be necessary for reconsideration by the Committee. Necessary payments would also be made through the sponsoring institution. It is expected that it would be possible for the UGC to sponsor about 100 projects each year during the Fourth Plan period. About 200 projects are already active since 1970-71.

The proposals may be made in the proforma given in this booklet.

University Grants Commission
New Delhi-1.

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Preparation of University Level Books by Indian Authors.

PROPOSAL FORM

Three copies of the proposal should be sent to the UGC through the Head of the Department and the University/Institution duly completed along with certificate of sponsorship.

1. Names
2. Bio-data:
3. Books or monographs published, if any, indicating the title of the book, name of the publisher, year of publication, price, whether it is prescribed as a textbook and the approximate number of copies sold so far.
4. Subjects and title of the book to be taken up for original writing and a brief outline indicating important aspects and usefulness of the proposed publication and the period by which the manuscript would be ready for publication.
5. Name and particulars of the persons to be associated as a fellow (if already identified, and where applicable).

CERTIFICATE OF SPONSORSHIP

The University/Institution _____ agrees to sponsor the proposal received from _____ for undertaking the project of writing of books at the University level, entitled _____ and would make available the usual library and other facilities required by the author(s) and the Fellow to be appointed, if any, under this project. The institution would also ensure a successful completion of the project within the prescribed time and to make available to UGC the final manuscript and would undertake the responsibility of receiving and disbursing the amounts made available under this project and to furnish to the UGC six monthly progress report on the project, an annual statement of accounts duly audited and also utilisation certificate at the completion of the project.

Sd/-
Senior author to whom the project
is entrusted (Name and designation).

Sd/-
Registrar/Head of the Institution
(Seal of the Institution)
Date.

Preparation of University Level Books by Indian
Authors with Financial Assistance from U.G.C.

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List of the manuscripts completed (upto 31.5.75)

S.No.	Title of the Book	Author of the Book
1.	Introduction to Quantum Mechanics of Chemical Systems.	Prof. R.P. Rastogi and Dr. V.K. Srivastava, Gorakhpur University.
2.	Principles of Organic Chemistry (B.Sc. level)	Prof. L. Ramachandra Rao, Andhra University.
3.	Introductory Quantum Chemistry	Dr. A.K. Chandra, Indian Institute of Science, Bangalore.
4.	Flourine Chemistry	Prof. R.C. Paul, Panjab University.
5.	Molecular Spectroscopy Theory and Applications	Prof. R.D. Patel and Dr. R.P. Patel, Sardar Patel University, Vallabh Vidyanagar.
6.	A Text Book of Inorganic Chemistry	Prof. P.B. Janardhan Madras University
7.	Organic Mass Spectrometry	Prof. K.G. Das, National Chemical Laboratory, Poona.
8.	Elements of Quantum Mechanics	Dr. P.M. Mathews, Madras University.
9.	X-Ray Studies of Lattices Defects	Prof. G.B. Mitra, Indian Institute of Technology, Kharagpur.
10.	Introduction to Nuclear Physics (For B.Sc.)	Prof. M.R. Bhidey, Nagpur University.
11.	Introduction to Electronics	Dr. K.J.M. Rao, National Defence Academy, Poona.
12.	Postgraduate course in Electronics	Prof. Rais Ahmed Aligarh Muslim University (now Director NCERT)

S.No.	Title of the Book	Author of the Book
15.	South Indian Orchids	Prof. A. Abraham Kerala University.
16.	Biology, Genetics, Metabolism and Biological Revolution.	Prof. S. Shamanna St. Joseph's College, Bangalore.
17.	Virus Diseases of Tropical Plants	Dr. S.K. Raychaudhury IARI, New Delhi.
18.	A Text Book of Animal Physiology.	Dr. R.N. Nagabhushan Marathwada University.
19.	General Ecology of Animals	Prof. T.N. Anantakrishnan Loyola College, Madras.
20.	The Indian Ocean	Dr. C.T. Samuel Cochin University.
21.	Tribal Cultures of India	Dr. L.P. Vidyarathi Ranchi University.
22.	A book on Archaeology (Stone Age India)	Prof. H.D. Sankalia Poona University.
23.	University Libraries in India	Shri S.N. Srivastava Rajasthan University.
24.	Rural Economy of India	Dr. D.P. Sharma Sri Venkateswara University
25.	Public Relations and Adminis- tration in the Indian Context	Dr. S.P. Aiyar Bombay University.
26.	The Constitutional Law of India	Prof. H.C. Dholkia M.S. University of Baroda
27.	A Critical Survey of Modern Western Philosophy	Prof. S.S. Barlingay Poona University.
28.	Contemporary Architecture of Bombay - A Design Approach	Prof. A.K. Chatterjee Sir J.J. College of Architecture, Bombay.
29.	Russian Textbook for Students and Ph.D. Scholars of Indian Universities Learning Russian with a teacher.	Mr. G. Mukherjee Delhi University
30.	Structural Design & Drawing	Dr. D. Krishnamurthy M.I.T. College of Technolog Bhopal.



S.No.	Title of the Book	Author of the Book
31.	Manual of Clinical Methods	Prof. P.S. Shankar Medical College, Gulbarga.
32.	Textbook of Social Medicine	Dr. B.S. Rao JN Medical College, Belgaum
33.	A Book on Alcohol and other drug addictions-smoking and sex-permissiveness	Prof. K.S. Sanjivi Madras Medical College Madras.

Book Writing Scheme under Implementation under
the UGC Scheme of Assistance for the Preparation
of University level Books by Indian Authors.

S.No.	Name of Supervisor	Title of Book
1	2	3

CHEMISTRY

1.	Dr. N.K. Bose Professor of Chemical Engg. Calcutta University, Calcutta.	Mathematical Methods in Chemical Engineering.
2.	Dr.(Mrs.) K.K. Rohtagi Mukherjee, Reader in Chemistry Jadavpur University.	Fundamentals of Photo- Chemistry
3.	Prof. R.C. Paul Head of the Deptt. of Chemistry, Panjab University.	Flourine Chemistry
4.	Dr. V.R. Krishnan Professor of Chemistry S.V. University.	Physical Chemistry - Problems approach.
5.	Prof. S.R. Patel Prof. of Chemistry Sardar Patel University Vallabh Vidyanagar.	Organic reaction mechanisms.
6.	Prof. G. Gopalarao Professor of Emiritus Andhra University Waltair.	Principles & Practice of Volumetric Analysis in I Volume.
7.	Prof. C.C. Patil and Dr. D.N. Satyanarayana Department of Inorganic & Physical Chemistry Indian Institute of Science Bangalore.	Electronic & Vibrational Spectroscopy.
8.	Prof. L.K. Ramachandran Department of Biochemistry Osmania University Hyderabad.	Chemical Modification of Peptides & Proteins (Monograph)
9.	Prof. R.C. Mehrotra Rajasthan University.	ThomChemistry of Metal Oxygen Carbon Compounds.

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10. Prof. M.N. Sastry
Department of Chemistry
Andhra University. An Introduction to
Nuclear Science.
11. Dr. H.H. Mathur
Indian Institute of Technology
Bombay. Spectroscopy of Organic
Molecules.
12. Mrs. T. Jacob
Lady Irwin College, Delhi. Applied Chemistry for
Home Science and allied
Sciences.
13. Shri Birendra Nath
Chakraborty
Lecturer in Chemistry
Asansol Girls College,
Asansol. Industrial Chemistry.
14. Dr. B.N. Ghosh (Rtd.)
Head of the Department of
Pure Chemistry
Calcutta University. Immuno Chemistry

BIOCHEMISTRY

1. Dr. C.V. Ramakrishnan
Head of the Deptt. of
Biochemistry
M.S. University of Baroda,
Baroda. Laboratory techniques
in Biochemistry &
Nutrition.
2. Dr. R. Rajyalakshmi,
Biochemistry Department,
M.S. University of Baroda,
Baroda. Nutrition (P.G. Level).
3. Dr. P.J. Vithiyathil
Dr. S. Mahadevan,
Dr. S.S. Kumar
Indian Institute of Science
Bangalore. Experiments and research
techniques in general
biochemistry (Laboratory
manual for M.Sc. students)

GEOPHYSICS

1. Prof. B. Sundara Rama Rao
Principal
A.U. College of Science &
Technology,
Andhra University, Gravity & Magnetic
Methods of Prospecting.
2. Prof. V.L.S. Bhimasankaram
Head of the Geophysics and
Centre of Exploration
Geophysics
Osmania University. Electrical Methods of
Geophysical Prospecting.

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PHYSICS

1. Prof. R.S. Krishnan
Vice-Chancellor
University of Kerala. Photoelasticity of
Crystals.
2. Dr. P.K. Adhitya
Kurukshetra University,
Kurukshetra. 1. A Text Book on Applied
Physics for Engineering
Students.
2. Advanced experiments in
Physics.
3. Prof. L.R. Govil
Head of the Deptt. of
Mechanical Engineering
Banaras Hindu University
Varanasi. Applied Thermodynamics.
4. Dr. D.C. Sarkar
Reader in Physics
Kalyani University. Fundamentals of Radio
Communications.
5. Prof. S.N. Ghosh
Head, Deptt. of Applied Physics
Allahabad University
Allahabad. Electromagnetic Wave
Propagation.
6. Dr. S.K. Joshi
Department of Physics
Roorkee University
Roorkee. Solid State Physics
(Theory of Solids)
7. Dr. Y.R. Waghmare
Asstt. Professor
Department of Physics
Indian Institute of Technology
Kanpur. Introduction to Nuclear
Theory
8. Prof. N. Nath
Department of Physics
Kurukshetra University
Kurukshetra. General Nuclear Physics
9. Dr. P.K. Katti
Director
Instrument Research &
Development Establishment
Dehradun. Geometrical Optics &
Optical Instruments.
10. Dr. R. Hardya Nath
Instruments Research and
Development Establishment
Dehradun. Optical Workshop Technology
11. Dr. R.N. Singh
Prof. of Applied Physics
Banaras Hindu University
Varanasi. Electromagnetic Fields
& Waves.

12. Dr. R.G. Takwale
Professor of Physics
Poona University, Poona. Introduction to the
Classical Mechanics.
13. Shri B.N. Basu
Lecturer in Mathematics
Jadavpur University. Introduction to Astrophysics
14. Dr. J.S. Verma
Head of the Deptt. of Physics
Birla Institute of Technology
and Science, Pilani. Electromagnetic Theory
15. Dr. Devendra Kumar Rai
Reader, Deptt. of Physics
Banaras Hindu University,
Varanasi. Atomic Spectra and Atomic
Structure.

MATHEMATICS & STATISTICS

1. Dr. S.K. Srinivasan,
Professor of Mathematics,
Indian Institute of Technology,
Madras. Propability & Random
Processes - An Introduction
to Text Book for the students
of Science & Engg. at
Master's Level.
2. Dr. R. Rama Kumar,
Lecturer in Demography,
Kerala University,
Trivandrum. Technical Demography,
(M.Sc. level)
3. Dr. R.P. Aggarwal,
Prof. of Pure Mathematics,
University of Lucknow,
Lucknow. Generalised Hypergeometric
Series & its applications
to the Theory of Combinatory
Analysis & Partition Theory.
4. Dr. V. Krishnamurthy,
Deputy Director,
Birla Institute of Technology
and Science, Pilani. Finite Topologies.
5. Dr. N.M. Bhat,
Siri PF Institute of Science,
Bhavnagar. Theory of Probability &
its applications.
6. Professor KS Amur,
Department of Mathematics,
Karnatak University. An Introduction to Modern
Differential Geometry.
7. Dr. J.V. Doshpande
Bombay University. General Topology for
M.A./M.Sc. level.
8. Dr. S.G. Doo,
Department of Mathematics,
University of Bombay. Ordinary Differential
Equations & Stability
Theory.

9. Dr. B.R. Bhatt
Department of Statistics
Karnatak University.
10. Prof. P.C. Jain
Department of Mathematics,
Indian Institute of Technology,
Bombay.
11. Dr. S.K. Bose,
Reader, Department of
Mathematics & Astronomy,
Lucknow University,
Lucknow.

Probability Theory.

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Advanced Mathematics for
Engineers & Scientists
(Numerical Analysis)

Integral Function.

BOTANY

1. Prof. J.J. Chinoy
Professor of Botany,
Gujarat University,
Ahmedabad.
2. Dr. R.N. Singh,
Head of the Deptt. of Botany,
Banaras Hindu University,
Varanasi.
3. Prof. K. Ramakrishnan,
Dean,
Agricultural College &
Research Institute,
Coimbatore.
4. Prof. T.V. Desikachar,
Prof. of Botany,
Madras University,
Madras.
5. Prof. CV Subramanian,
Professor of Botany,
Madras University,
Madras.
6. Dr. H.K. Baruah,
Head of the Deptt. of Botany,
Gauhati University,
Gauhati.
7. Dr. (Mrs.) Archana Sharma
Head of the Deptt. of Botany,
Calcutta University,
Calcutta.
8. Prof. JJ Shah,
Department of Botany,
Sardar Patel University,
Vallabh Vidyanagar.

Role of Ascorbic acid
in plant Metabolism,
Growth & Flowering.

An Introduction to Algae.

Plant disease.

A text book on algae

A text book on fungi.

Text Book of Plant
Pathology.

Modern Cytology

Anatomy of some
Economic Plants of
India.

...../-

9. Dr. NS Subha Rao,
Head of the Division of
Micro-Biology,
Indian Agricultural
Research Institute,
New Delhi. Soil Micr-organisms in
relation to Plant Growth
10. Dr. KK Nanda,
Sr. Prof. of Botany,
Panjab University,
Chandigarh. A Monograph of Vegetative
reproduction of plants.
11. Dr. KS Thind,
Prof. of Botany,
(Mycology & Plant Pathology),
Panjab University,
Chandigarh. Physiological Studies in
Indian Fungi.
12. Prof. SK Pillai,
Prof. of Botany,
Deptt. of Biological Sciences,
Birla Institute of Technology,
and Science, Pilani. Developmental Plant
Anatomy.
13. Prof. VS Sundralingam,
Deptt. of Botany,
Pachaiyappa's College,
Madras. Morphology of Marine Algae
& Morphology of Lichens.
14. Dr. Virendra Kumar,
Delhi College,
Delhi. To prepare a Caromosome
Atlas.
15. Dr. KS Bilgrami,
Head of Postgraduate Deptt.
of Botany,
Bhagalpur University. Physiology of Fungi
16. Dr. GL Shah,
Reader in Botany,
Sardar Patel University Flora of Gujarat State

ZOOLOGY

1. Dr. SM Das,
Head of the Deptt. of Zoology,
Kashmir University,
Srinagar. Fundamentals of
Ichthyology
2. Dr. N. Balakrishnan Nair,
Professor of Marine Biology,
Cochin University,
Cochin. A text book of Marine
Ecology.
3. Dr. KK Nayar,
Professor of Zoology,
Kerala University,
Trivandrum. Textbook of comparative
physiology.

4. Dr. CL Mahajan,
Deptt. of Zoology,
University of Rajasthan,
Jaipur. The Biology of Fishes
(with special reference to
fishes of the Indian and
Subcontinent)
5. Dr. SN Prasad,
Reader in Zoology,
Allahabad University,
Allahabad. A textbook of Entomology
for Indian Students. Life
of Vertebrates.
6. Dr. S. Krishnaswamy,
Professor of Biology &
Head of the Deptt. of
Biological Sciences,
Madurai University,
Madurai-2. Biology of Indian Seas.
7. Dr. Karumuri S. Swami,
Head of the Deptt. of Zoology,
Sri Venkateswara University,
Tirupati. He has recommended a
physiology book. Competence
in Cell Biology.
8. Professor VC Shah,
Head of Zoology Department,
School of Sciences,
Gujarat University. Cell Biology
9. Dr. SC Rastogi,
Asstt. Prof. (Reader),
Deptt. of Biological Sciences,
BITS Pilani. Essentials of Animal
Physiology.
10. Dr. Kenoth Govinden Adiyodi,
Reader in Zoology,
Calicut University. Endocrinology of
Arthropods.
11. Dr. G. Madan Mohan Rao,
Principal & Professor of Zoology,
Sir Theagarya College,
Madras. Comparative & General
Animal Physiology
12. Dr. S.C. Goel
Reader in Zoology
Poona University. Principles of Animals
Physiology.
13. Dr. S.A.T. Venkatachary
Head of Department of Zoology
Yashwant Mahavidyalaya
Nanded. Comparative Animal
Physiology.
14. Mrs. P. Michel
Lady Doak College
Madurai. Ecology Work Manual.
15. Dr. B. Samanta Rai,
Utkal University. Plant Physiology
16. Dr. G.T. Tenapi,
Poona University. Fresh water Animals
of India.

MARINE BIOLOGY

1. Prof. C.V. Kurian, 'Prawn Fisheries of India'.
Cochin University,
Cochin.

GEOLOGY

1. Dr. MN Vishwanathiah, Introduction to Earth Science
Head of the Geology Deptt., and/or Introduction to Structural Geology
Mysore University,
Mysore.
2. Shri OP Verma, Economic Geology of Indian
Professor of Mining Geology, Mineral Deposits (English)
Indian School of Mines,
Dhanbad.
3. Dr. Supriya Roy, Manganese Formations.
Reader in Geology,
Jadavpur University,
Calcutta.
4. Dr. RC Sinha, Geochemistry
Head of the Deptt. of Geology,
Patna University, Patna.
5. Dr. SN Mitra, Chemistry & Geo-Chemistry of
Jadavpur University. Mercury.
6. Dr. S. Subba Rao, The Deccan Traps. (in consultation with Prof. WD West)
Vikram University.
7. Dr. SVLN Rao, Map analysis: Recent research
IIT, Kharasapur. in pattern recognition techniques
(Obtain the mss. on 'Computational
Methods and Progress in Earth
Sciences which is ready).
8. Prof. BC Roy, Indian Mineral Industries/
Retd. Dir. General Indian Mineral Economics.
Geological Service of (Dr. West to be consulted)
India.
9. Shri MG Chakrapani Naidu Engineering Geology
Prof. & Head of Deptt. of Geology of Dams with special
Zoology, reference to India.
SV University College,
SV University, Tirupati.
10. Dr. S. Deb, Industrial Rocks & Minerals
Retired Professor, of India.
Jadavpur University.
11. Dr. BP Guildyal, Soil Physics.
Head of the Deptt. of Soil
Sciences,
GB Pant University of Agri. &
Tech., Pant Nagar.

GEOGRAPHY.

Dr. E. Ahmed,
Head of the Deptt. of Geography,
Ranchi University,
Ranchi.

Dr. R.L. Singh
Head of the Deptt. of Geography,
Banaras Hindu University,
Varanasi.

Prof. Moonis Raza,
Professor of Geography,
Jawaharlal Nehru University,
New Delhi.

Sri V. Subramanyan,
Asstt. Prof. of Applied Geology,
University of Saugar,
Saugar.

Regional Planning with particular
reference to India.

The Cultural Geography of India
its people, economy and society.

Geography of the Kashmir
Valley.

The Land Farms of India- A Text
Book of Geomorphology.

ANTHROPOLOGY.

Dr. H.K. Kumbhani and
Dr. M.K. Bhasin,
Deptt. of Anthropology,
Delhi University.

Human Cytogenetics for Studies.

HOME SCIENCE.

Dr. (Mrs.) Rajamal Dardas,
Principal,
Vinashilingam Home Sc. College,
Coimbatore.

A text book on child development
(B.Sc. level).

HISTORY.

Dr. Lallenji Gopal,
Head of the Deptt. of
Indian Philosophy & Religions,
Banaras Hindu University,
Varanasi.

A history of ancient Indian
Political ideas with special
reference to social and religious
background.

Prof. S.K. Saraswati,
Head of the Deptt. of History
of Art, Calcutta University,
Calcutta.

A Book on Indian Art (Bharat
Shilpkatha with sub title story
of Indian Art).

Prof. Nurul Hasan,
Head of the Deptt. of History,
Aligarh Muslim University,
Aligarh.

A Book containing selection of
original source material for the
study of reign of Akbar.

contd...



INDIAN HISTORY.(contd.)

4. Dr. Fauja Singh,
Professor of History,
Punjabi University,
Patiala. History of Panjab or part thereof.
5. Professor K.D. Bajpai,
Saugar University,
Saugar. The Gupta Sculpture.
6. Sri S.C. Bhattacharya,
Allahabad University,
Allahabad. Development of Historiography in
Ancient India.
7. Sri L.K. Tripathi,
Banaras Hindu University,
Varanasi. Ancient Indian Architecture
(in English).
8. Dr. Satish Chandra,
J.L. Nehru University,
New Delhi. Social and Cultural Conditions in
Northern Indian during the 18th
Century.
9. Dr. K.M. Patra,
Utkal University. Orissa under the British Rule.
10. Dr. F.L. Mehra,
Panjab University,
Chandigarh. One Book at a time preferably .A
Dictionary of India-A History in the
British Period (1757-1947).
11. Sri C. Soman Sundra Rao,
Lecturer in History,
Andhra University,
Waltair. A work on History of Andhra up to
1336-AD.
12. Dr. A.A. Sankara,
Deptt. of Ancient Indian
History,
Karnatak University, Dharwar. Rock Paintings and Bruisings in
North Karnatak.

LIBRARY SCIENCE.

1. Sri C.D. Sharma,
Deptt. of Library Science,
Banaras Hindu University,
Varanasi. The Use of Libraries by Readers
of Different Categories.

contd....

ECONOMICS.

1. Prof. Gautam Mathur,
Osmania University,
Hyderabad. Theory of Capital & Industrial
Distribution in a Mixed Economy.
2. Dr. A. Ramaswamy,
Head of the Deptt. of
Economics,
Annamalai University,
Annamalainagar. Agricultural Economics.

COMMERCE.

1. Dr. Sansiddin,
Reader in Cooperation,
Aligarh Muslim University,
Aligarh. Co-operative Sector in India
after Independence.
2. Dr. Dool Singh,
Prof. & Head of the Deptt.
of Management,
Kurukshetra University,
Kurukshetra. Management Science and Art
of Entrepreneurship.
3. Dr. A.C. Agrish,
Jodhpur University,
Jodhpur. Some Problems of Public Finance
in an under-developed economy-
a case study of India.
4. Dr. H.K. Manmohan Singh,
Panjab University,
Patiala. Economics of Socialism.

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POLITICAL SCIENCE

1. Dr. M. Muthalib
Professor & Head of Public
Administration
Osmania University. Theory of Local
Government.
2. Prof. Iqbal Narain
Prof. of Indian Govt. &
Politics,
University of Rajasthan
Jaipur. INdian Govt. and
Politics.
3. Dr. A. Avasthi
Professor of Political
Science,
Sagar University
Sagar. Indian Administration
4. Prof. SP Verma
Prof. of Political Science
University of Rajasthan
Jaipur. Govt. & Politics in
South Asia.
5. Prof. Ziauddin Khan,
Prof. of Public Adm.,
University of Rajasthan
Jaipur. Comparative Public
Administration in
English.
6. Prof. VM Sirsikar
Mahatma Gandhi
Prof. of Political Science
University of Poona. Indian Political Parties
A Comparative Analysis.
7. Dr. KV Rao
Prof. of Politics
Banaras Hindu University
Varanasi. Government and Politics
of Indian States.
3. Dr. SN Ray
North Bengal University A Book on Comparative
Government
9. Dr. V.K. Sukumaran Nayar
University of Kerala Indian Nationalism

PUBLIC ADMINISTRATION

14. Dr. Ramesh K. Arora —
Rajasthan University. Development Administration
Conceptual and Empirical
Premises.

SOCIOLOGY

1. Dr. PKB Nayar
Head of the Department
of Sociology
Kerala University. A textbook of developme
administration (interdi
ciplinary approach)

- (5)
2. Dr. SC Dube
Head of the Sociology and
Anthropology Department
Saugar University. Sociology (~~Hons. Level~~)
 3. Dr. S.K. Lal
Reader, in Sociology,
Jodhpur University. Social Thought
 4. Prof. YB Damle
Head of the Deptt. of
Sociology & Anthropology,
Poona University. Caste, Religion & Politics
 5. Prof. C. Lakshmana
Head of the Deptt. of
Sociology
Osmania University,
Hyderabad. Applied Sociology
 6. Rev. Dr. J. Murickan S.J.
Trivandrum. Society and the Physically
Handicapped.
 7. Dr. NK Singhi
Rajasthan University, Recent Trends in Sociological
Theory (in English)
 8. Dr. S.V. Mehta
Assistant Director
Director of Adult Education. Study of Rural Sociology
in India.

L A W

1. Dr. S. Dayal
Head of the Deptt. of Law
Panjab University
Chandigarh. Jurisprudence
2. Dr. R.C. Hingorani
Prof. & Head of Faculty
of Law
Patna University. A Book on International Law

E D U C A T I O N

1. Dr. NV Thirtha
Head of the Deptt. of
Education
Bangalore University. Social Foundations of Indian
Education.
2. Prof. A.N. Misra
Saugar University
Sagar. Financing of Indian Education
in Hindi.

3. Prof. S.B. ~~Saxena~~ Saxena Teacher Education in India
Deptt. of Education
Allahabad University
Allahabad.
4. Shri N.V. Manuel Philosophic Foundations of
Kerala University. Education.
5. Shri KL Joshi Problems of Higher Education
(Retd. Vice-Chancellor) in India.
Gokhale Institute of
Politics and Economics,
Poona.
6. Shri Sachidanand Dhondiyal Philosophical Foundations of
Reader in Education Education.
Vidya Bhavan Teachers
College,
Udaipur.

P H I L O S O P H Y

1. Dr. NK Deva Raja Analytical Philosophy its
Head of the Deptt. of origin & development
Philosophy, (in two volumes).
Banaras Hindu University
Varanasi.
2. Dr. TMP Mahadevan, Contemporary Indian Philosophy.
Director
Centre of Advanced Study in
Philosophy
Madras University.
3. Dr. (Mrs.) S.Chennakesavan "Mind & Self."
Prof. of Philosophy
SV University
Tirupati.
4. Dr. Ganeswar Misra and Fundamental Problems of
four others, Utkal Philosophy - An Analytical
University. Study.
5. Dr. (Mrs.) G.P.Shery Fundamentals of Philosophy -
Principal An Analytical Study.
D.E.E. Women's Training
College,
Dayal Bagh
Agra.

P S Y C H O L O G Y

1. Prof. Durga Nand Sinha Social Psychology
Deptt. of Psychology
Allahabad University
2. Prof. CB Dave An Introduction to Industrial
Head of the Deptt. of Psychology
Psychology,
Gujarat University.

Psychology Contd.

3. Dr. EI George Child Psychology.
Head of the Deptt. of
Psychology
University of Kerala
Trivandrum.
4. Dr. AS Patel Research Methodology &
Head of the Deptt. of Statistics in Behavioural
Psychology Sciences.
Baroda University
Baroda.
5. Dr. VK Kothurkar Experimental Psychology -
Head of the Deptt. of A Systematic Introduction.
Experimental Psychology
University of Poona
Poona.
6. Dr. K. Ramakrishna Rao Indian Psychology: An
Head of the Deptt. of Introduction to the Study
Psychology & Parapsychology of Consciousness
Andhra University,
Waltair.
7. Dr. Jai Prakash Trends in contemporary
Reader Psychology.
Deptt. of Psychology
University of Saugar
Sagar.

MUSIC & FINE ARTS

1. Dr. Prem Lata Sharma English Translation of
Head of the Deptt. of "Sangit Ratnakar" (Translation
Musicology to be with critical connotations
Banaras Hindu University and comments).
Varanasi.
2. Shri RC Shukla Art & Artists of Modern India,
Reader & Acting Head of
the Deptt. of Painting,
Faculty of Music & Fine Arts
Banaras Hindu University.
3. Dr. Faiyaz Ali Khan Kishangarh School of Painting.
Retd. Sr. Lecturer in
English,
Postgraduate College of
Arts & Science,
Banasthali Vidyapith
Rajasthan
(Rajasthan University).

TOWN PLANNING AND ARCHITECTURE

1. Shri GB Krishna Rao Town Planning Legislation
School of Planning and
Architecture,
New Delhi.

ADVERTISING & CAMPAIGN PLANNING

1. Prof. NN Pillai
Deptt. of Advertising
& Campaign Planning,
Indian Institute of Mass
Communication,
New Delhi. Advertising and Campaign
Planning.

ENGLISH

1. Dr. RC Sharma and
Mr. K. Mohan
Faculty of Humanities
Birla Institute of
Technology & Science,
Pilani. A course in Comprehensive
Report Writing & Business
Correspondence.
2. Prof. DVK Raghavacharyulu
Deptt. of English
Andhra University Post-
graduate Centre, Guntur. American Literature -
A Historical Perspective
for Indian Reader.
3. Prof. C.D. Narasimaih
Deptt. of English
Mysore University. A Textbook of Sanskrit &
English Literary Criticism.

HINDI

1. Dr. R.P. Bhatnagar
Deptt. of Hindi
Sagar University
Sagar. History of European
Aesthetics (Paschatya
Saundarya Vivechanamak
Itihas in Hindi).
2. Dr. NE Viswanatha Iyer
Deptt. of Hindi
Cochin University. History of Malayalam
Literature in Hindi.

SANSKRIT

1. Shri GK Hedge
Deptt. of Sanskrit
L.E. College of Arts,
Science & Commerce, Surat. The Concept and Scope of Pur
in Sanskrit Literature.
2. Dr. Sitaram Shastri
Banaras Hindu University
Varanasi. Paniniya-Vyakarna Kosa
3. Prof. DM Hatwalane
Chhatrapati Shivaji College
Satara. History of Prakrit
Literature.
4. Dr. S. Bhattacharya
Banaras Hindu University
Varanasi. A Critical Edition of
Brihatkathamajari.

LINGUISTICS

1. Dr. CD Indapurakar
Janta College of Education
Chandrapur. The Structure of Marathi
2. Dr. B. Mhanty
Deptt. of Oriya
Utkal University
Bhubaneswar. Bhasha Vijnan : On the
Science of Language.
3. Prof. K. Mahadeva Sastri
Deptt. of Telugu
Sri Venkateswara University
Postgraduate Centre
Anantha pur. History of Telugu Language
4. Dr. M. Chidanandamurthy
Deptt. of Kannada
Bangalore University. ~~Tulānik~~ Bhasavijnana
Comparative Linguistics in
English.
5. Prof. VI Subramaniam
Deptt. of Linguistics
Kerala University Dialect Study in Indian
Language : Specially Dravidian
6. Shri O. Maqbool Ahmad
Centre West Asian Studies
Aligarh Muslim University,
Aligarh, Comparative Arabic Literature.

AGRICULTURE

1. Dr. Sant Singh
Deptt. of Soil Science
and Agricultural Chemistry
Banaras Hindu University
Varanasi. A book on Hindi in Soil Science.
2. Dr. MK Moolani
Prof. & Head of the
Deptt. of Agronomy,
Haryana Agricultural
University,
Hissar. A book on "Weed Control"
3. Dr. RK Grover
Haryana Agriculture University
Hissar. Diseases of Vegetable Crops in Tn
4. Dr. Thomas M. Verghese,
Haryana Agriculture
University,
Hissar. Reproductive Morphology of
Angiosperms.



ENGINEERING & TECHNOLOGY

1. Dr. PS Lele
Deptt. of Chemical Engg.
IIT, Delhi,
New Delhi. Automatic Control, Process
Dynamics & Instrumentation
for Chemical Engineers.
2. Dr. K. Chandrasekharan
Prof. of Chemical Engg.,
AC College of Technology
Madras. The Stirred Cell (Monograph
based on literature and
investigations).
3. Dr. BN Garudachar
Prof. of Electrical Engg.,
Osmania University
Hyderabad - 7. Electrical Circuit Analysis
4. Dr. Manohar Lal
Prof. in Electronics &
Communication,
Engineering Deptt.,
University of Roorkee
Roorkee, U.P. Introduction to modern
control systems.
5. Prof. MS Misra,
Prof. & Head, Civil Engg.,
Department,
UP Agricultural University
Pantnagar (Nanital). Irrigation Engineering
Practice and Design.
6. Prof. M.M. Dandekar
Head, Civil Engg. Deptt.,
MR Engineering College,
Jaipur. "Water Power Engineering"
7. Mr. P. Krishnamachar,
Asstt. Prof. & I/C,
Civil Engg. Deptt.,
Maulana Azad College of
Technology,
Bhopal-7. "Hydr-aulic Laboratory Manual"
8. Dr. Rama Shankar Varshney,
Roorkee University
Roorkee. Concrete Dams.
9. Prof. K. Seetharamiah,
Deptt. of Civil & Hydraulics
Engineering,
I.I.Sc. Bangalore. 1. Flow Measurement.
2. A Comprehensive Review on
Cavitation (Reference Book)
3. Manual for Hydraulic Lab.
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10. Prof. S.K. Sharma,
Prof. of Mathematics,
UP Agril. University,
Pantnagar.(Nainital). Mathematical Methods in Science
and Engineering.
11. Dr.(Mrs.) R.Chatterjee,
Indian Instt. of Science,
Bangalore. Microwave Engg. for undergraduate
and postgraduate students.
12. Dr. A.K.Kamal,
Prof. & Head of the Deptt.
of Electronics and
Communication Engg. .
Roorkee University,
Roorkee. Fundamentals of Modern
Electronics.
13. Mr. B.Hanumanth Rao,
Reader in Elec. Engg.,
College of Engineering,
Osmania University,
Hyderabad-7. Power System Analysis with emphasis
on Computer Application to power-
System studies.
14. Prof. B.Ravindranath,
Head, Deptt. of Elect. Engg.,
Malviya Regional Engg. College,
Jaipur-4. Protective Relays and Circuit
15. Dr. S.P. Sharma,
Reader in Mech. Engg.,
Roorkee University,
Roorkee. Fuels and Combustion.
16. Dr. D. Kumar,
Prof. & Head of Metallurgical
Engg. Deptt,
Malviya Regional Engg. College,
Jaipur with Sri N.K.Jain,
Lecturer .(address as above). Aluminium- The Science and
Technology of Metal and Alloys.
17. Dr. B.K. Ramiah,
Prof. & Head of the Civil
Engg. Department,
Visvesvaraya College of Engg.,
Bangalore and
P. Purushothamraj,
Lecturer in Civil Engineering,
Viz. College of Engineering,
and
H.V. Krishnamurthy,
Lecturer in Civil Engineering,
Viz. College of Engineering. A Hand Book of Stress Distribution
and Deformation in Soils.

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18. Dr. Radhey Lal, Dean, College of Agril.& Technology, Orissa University of Agril. and Technology, Bhubaneswar-3. Fundamentals of Agricultural Engineering.
19. Mr. Suresh Chander Associate Professor, UP Agri. University, Pantnagar.(Nainital). A text book on Electrical Engg. in five parts in Hindi for all branches of Engineering (Degree Courses).
20. Dr. M.N. Saxena, Prof. & Head of Metallurgical Engineering Department, Roorkee University, Roorkee. "Corrosion Engineering"
21. Dr. M.K. Achuthan, Deptt. of Elect. Engineering, Indian Institute of Technology, Madras. A Text Book on Transistor Circuits.
22. Dr. R.N. Mukherjee, Prof. of Chemical Engg., Jadavpur University and Dr. A.K. Mitra. Chemical Plant Design and Project Engineering.
23. Sri T.C. Mukherjee Metallurgical Engg. Deptt., I.I.T., Bombay. Theoretical Fundamentals of Costing Technology.
24. Dr. V.C. Venkatesh, Head of Production Engg. & Machine Tool Section, Mechanical Engg. Department, I.I.T., Madras. Experimental Methods in Metal Processing (This proposals is with joint authorship of Dr. VC Venkatesh and Dr. H.Chandrasekharan).
25. Dr. T.S. Madhava Rao, Prof. & Head of the Deptt., of Elect. Engineering, Roorkee University, Roorkee. Power System Protection.
26. Prof. T.R. Sarkari, I.I.T., Bombay. Theory of Petrol and Diesel Engines.
27. Sri N.V. Aranachalani, Lecturer in Structural Engg., College of Engineering, Guindy, Madras. (Madras University). Graphic Statics, Vol. II.

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28. Dr. A. ShanmugaSundram and
Sri S. Gangadharan,
Deptt. of Elect. Engg.,
PSS College of Technology,
Coimbatore. (Madras University).
29. Dr. P. Mukhopadhyay,
Prof. of Elect. Engg.,
Roorkee University, Roorkee.
30. Dr. URK Rao,
Indian Instt. of Technology,
Delhi.
31. Dr. G. Nanda,
Regional Engg. College,
Rourkela.
32. Dr. KL Kumar,
Indian Instt. of Technology,
Delhi.
33. Shri S. Nandeeswaraiya,
C.M.E., Poona.
34. Prof. L.L. Bhirud,
S.P. College of Engineering,
Bombay.
35. Shri S. Kamani,
Indian Instt. of Technology,
Madras.
36. Prof. MS Abdul Kadir,
Engineering College,
Trichur.
37. Shri K.P. Mamooty,
Engineering College,
Trichur.
38. Prof. S.V. Manaswamy,
Military Engg. Structures
College, Poona.
39. Shri S.S. Synghal,
- Electrical Machines Design
Data Book.
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- Engineering Manufacturing Inspection
and estimation by Dr. URK Rao.
- The Non -ferrous Extraction
Metallurgy.
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Design.
- Computer Programming for Civil
Engineers.
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Field Theory.
- (1) Basic Electrical Engineering.
(2) Instrumentation for Research &
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- (1) Prestressed Concrete Theory and
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(2) Reinforced Concrete Theory and
Design.
(3) Structural Steel S. Design.
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- 40. Dr. S.R. Jawalekar,
Indian Instt. of Technology,
Bombay. Vacuum Technology.
- 41. Dr. T.K. Bose,
Indian Instt. of Technology,
Madras. High Temperature Gasdynamics.
- 42. Prof. B.S. Sonde,
Indian Institute of Science,
Bangalore. Monographs on Solid State
Electronics Instrumentation-
Vol. I II-IV.
- 43. Dr. O.P. Gulati,
Haryana Agril. University,
Hissar. (Haryana). Drainage on Agricultural Lands.
- 44. Mr. K.S. Prabhu,
Indian Institute of Science,
Bangalore. Switching Circuits.

MEDICINE.

- 1. Dr. S.M. Marwah,
Instt. of Medical Sciences,
Banaras Hindu University,
Varanasi. A text book of practice of Social
Medicine for Teachers Practitioners
and students.
- 2. Dr. Gur Mohan Singh,
Reader in Skin & V.D.,
Instt. of Medical Sciences,
Banaras Hindu University,
Varanasi. Dermatology. (Ayurvedic Concepts in
relation to Modern Medicines).
- 3. Dr. Alauddin Ahmed,
Prof. of Vety Pharmacology,
Haryana Agril. University,
Hissar. Pharmacologic Principles in
Veterinary Practice.
- 4. Dr. J.M. Pahwa,
Prof. in Ophthalmology and
Nhru Instt. of Opthamology
and Research Eye Hospital,
Sitapur (UP). 1. Retinal detachment and its
modern treatment.
2. Visual Field.
- 5. Dr R.N. Sharma,
Preventive Veterinary
Medicines.

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MEDICINE, (Contd.)

6. Prof. M.N. Jindal, Pharmacology.
Department of Pharmacology,
B.J. Medical College,
Ahmedabad.
7. Dr. B.L. Mittal, Pharmaceutical Formulation.
Birla Instt. of Technology,
and Science, Pilani.
8. Dr. SK Mishra Prescription guide for
Institute of Medical Sciences, Medical Graduates.
Banaras Hindu University,
Varanasi.
9. Dr. M.B. Kher, Genetics for Medical Students.
Professor of Anatomy,
Lokmanya Tilak Municipal
Medical College,
Bombay.

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University Grants Commission

Review Committee on Preparation of University
Level Books by Indian Authors

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Government of India
Ministry of Education & Social Welfare
New Delhi.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

(68)

Meeting:

Dated : 11th & 12th August, 1975.

Item No. 8: To consider further the basis of assistance for the development of Postgraduate Studies in the Humanities including Social Science and Science subjects in the colleges during the Fifth Plan period.

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The University Grants Commission at its meeting held on 14-15th July, 1975 considered the question of ceilings of financial assistance to be provided to colleges for improvement of Postgraduate teaching and research in (a) Humanities and Social Science and (b) Science subjects in the Fifth Plan Period. A copy of the note placed before the Commission is attached (Item No. 31 - Annexure I). The Commission desired that this item may be brought up for its consideration at the August meeting along with the proforma in which the proposal would be invited from the colleges. The Commission also agreed that in the meanwhile, basic grants for purchase of scientific equipment and library books and journals may be provided to such colleges which had been assisted during the Fourth Five Year Plan and the basic grants to be so provided would be taken into account towards the ceiling grants to be determined for the Fifth Plan.

The draft letter and proforma to be used for inviting the proposals is enclosed as Annexure II for consideration of the Commission, particularly with regard to the following:-

- (a) The ceiling of grants as U.G.C. share, to be made available for (i) Humanities and Social Science departments and (ii) Science departments, upto end of V Plan period.
- (b) The information proposed to be obtained from the colleges, vide Proforma enclosed, to enable consideration of the proposals for development of Postgraduate Studies in affiliated Colleges.

The matter is placed before the Commission for its consideration.

E. O. (CP)

Copy of note placed before the Commission at its meeting held on 14th & 15th July, 1975 (vide item No.31).

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Policy in IVth Plan

The Commission has been providing financial assistance to colleges for improvement of post-graduate teaching and research in the humanities, social sciences and science subjects in the Fourth Plan. For this purpose the Commission had laid down guiding principles for the development of Postgraduate studies in the various subjects in the affiliated colleges Appendix I

The Commission had also for this purpose laid down certain ceilings upto which grants may be provided as Commission's share of expenditure for providing additional teaching accommodation, library and laboratory facilities, purchase of scientific equipment, library books and journals and appointment of additional teaching staff.

(2) For the development of postgraduate studies in humanities and social sciences the assistance from the Commission to a college inclusive of grants payable in respect of continuing projects from the earlier plan periods was limited to Rs.1.5 lakhs.

For the postgraduate departments in science subjects the Commission's grant to a college was:

- (a) Rs.1.5 lakhs for each of the department of Physics and Chemistry.
- (b) Rs.1 lakh for each of the departments of Botany, Zoology, Biochemistry, Home Science and Geology.
- (c) Rs.75,000/- each of the departments of Mathematics including Statistics, Anthropology and Geography.

(3) The pattern on which assistance was given, was as below:

<u>Non-recurring</u>	<u>UGC's Share</u>	<u>College/State Govt. Share.</u>
Buildings.	50%	50%
Equipment and books.	75%	25%
<u>Recurring.</u>		
Additional teaching staff.	50%	50%

(4) An assurance required was that additional posts created under the scheme would be continued and maintained by the college concerned when assistance from the Commission for this purpose ceases.

Ordinarily well established colleges which had done good work in postgraduate teaching were given this assistance under this scheme. The proposals were received from colleges through the concerned universities and they were in the light of the Fourth Plan policy and pattern approved by the Commission.

Expert Committees were normally appointed to visit the colleges concerned for examining existing facilities, the functioning and achievements of the departments concerned and the requirements for further development. The reports of these Committees were placed before the Commission. In the case of small grants for books and equipments, the proposals were examined within the framework of approved policy and approvals given. Payments were made in instalments to the colleges keeping in view the progress of work and expenditure.

(5) Policy in Fifth Plan.

During the Fifth Plan, the policy for development of post-graduate students has been reviewed by the Commission after consulting the subjects panels and the Standing Committee on postgraduate norms about the norms and conditions required to be ensured for proper maintenance of standards. Broad guidelines to be taken into account while developing post-graduate studies in colleges were also suggested at the regional work shops organised by the Commission during July-November, 1974.

(6) At its meeting held in May, 1974 (Item No.7) the Commission considered the recommendations made by the Planning Group regarding development of postgraduate studies in different subjects in affiliated colleges and decided

that the broad distribution of grants on major items for development of postgraduate education in affiliated colleges would be the same as for universities.

(7) The pattern of assistance in universities adopted by the Commission for the Fifth Plan for the period ending 1978-79 is as below for university departments.

	<u>UGC</u>	<u>Univ./State Govt.</u>
(1) Staff: Professor	100%	Nil
Reader *	100%	Nil
Lecturer	75%	25%
Technical Staff.	100%	Nil.
(2) Books & Equipment.	100%	Nil
(3) Buildings- (Teaching and laboratory and library).	50%	50%
(4) Workshop (including shed).	100%	Nil
(5) Animal House Facility	100%	Nil.

* The Commission at its meeting held in June, 1975 (Item No.15) has approved 100% assistance for Readers posts in colleges.

(8) The Commission had also decided that its assistance may conform to the following limits.

Building	25%	of the total allocation
Staff	27%	
Equipment	20%	
Books	20%	
Misc.,	8%	

Total: 100%

Further the expenditure on staff in postgraduate colleges should be so arranged that about 50% is utilised for appointment of additional staff and the remaining 50% for faculty improvement programmes.

F.T.O.

(9) The Commission had also at its meeting held in March, 1975 considered the recommendations made by the Committee on postgraduate norms regarding the general norms and conditions for introduction and improvement of postgraduate courses in colleges in respect of humanities social sciences and subjects as commonly as well as specifically applicable to them. These guidelines have already been brought to the notice of all Universities

Info - dia "

(10) It is now proposed that specific proposals may be invited from these colleges for development of postgraduate studies in various subjects on the following basis.

- i) The pattern of assistance to be adopted would be the same as for university departments as indicated in para 7 above.
- ii) The assistance for additional staff would be on the usual undertaking that the colleges would continue and maintain such posts when Commission's assistance ceases in 1978-79.
- iii) A specific programme of improvement would be drawn up by the college as a priority item to enable it to come up to the norms suggested by the Commission.
- iv) The ceilings for grants per college or per department during the Fifth Five Year Plan may be as below:-

For Post-graduate Science Departments.

- (1) Physics, Chemistry Departments: Rs. 2 lakhs per Deptt.
- (2) Botany, Zoology, Geology, Bio-Chemistry and Home Science Departments. Rs. 1.5 lakhs per department.
- (3) Anthropology, Geography, and Mathematics including Statistics Departments. Rs. 1.1 lakh per department.

For Post-graduate Humanities & Social Science Departments.

- (4) All Post-graduate departments in the Humanities and Social Sciences in affiliated colleges. Rs. 2 lakhs per college subject to a maximum of Rs. 50,000/- per department.

This is as against the assistance for these departments in the Fourth Plan indicated in para 2 above. The proposals will be invited in the usual proforma prescribed for these subjects by the Commission.

The matter is placed before the Commission for its consideration.

Fourth Plan Guidelines for Development of Postgraduate Studies in affiliated Colleges.

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1. The development of Post-graduate instruction in affiliated colleges should be limited to carefully selected institutions. One of the considerations in the selection should be the regional requirements for expansion of post-graduate facilities in the subjects concerned. Wherever possible a group of colleges located in the same place may be encouraged to undertake coordinated teaching by inter-institutional cooperation rather than each of the college doing such work independently.

2. Ordinarily colleges that have already done good work in post-graduate teaching for a fairly long period should be helped to carry on this work. The applications for assistance under this scheme may be forwarded only after the college has fulfilled the conditions for affiliation laid down by the University and affiliation has been granted for conducting the post-graduate courses in the subject concerned.

3. The University should ensure that the number on the rolls of the college in post-graduate classes is neither too small to be uneconomical in operation nor too large for the maintenance of proper standards. Care should however, be taken that the students admitted satisfy certain minimum admission requirements.

The assistance under this scheme should not be utilised for meeting any expenditure already incurred by the college prior to the date of actual sanction of the scheme in respect of each college, either for fulfilment of conditions of affiliation or for setting up of new laboratories or for maintenance of the laboratories and purchase of routine chemicals and glasswares and appointment of non-teaching staff. Accordingly the grants approved under the scheme, which are additional to the normal grants available to the college from other sources, will therefore have to be spent alongwith the required matching share, for the development of the departments concerned subsequent to the date of the sanction of the scheme.

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Copy of Letter No.F.9-1/74(D-4b) dated
April, 1975.

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Subject: Norms and conditions for introduction of postgraduate courses
in Colleges.
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I am directed to invite your attention to the D.O. letter No F.9-1/74(H.2(D-5a) dated 25th April, 1974 from the Chairman, University Grants Commission addressed to the Vice-Chancellors with regard to the maintenance of proper standards at postgraduate level in the affiliated colleges. The subject panels appointed by the Commission in Humanities and Social Sciences and Science subjects suggested norms and conditions for postgraduate courses in the affiliated colleges. These were then considered in all its aspects by the U.G.C. Committee on postgraduate Norms etc. The Commission at its meeting held on the 10th March, 1975 accepted the recommendations of the Committee regarding the conditions and general norms for introduction of postgraduate courses in Colleges (a) Common to Humanities and Social Sciences and Sciences (b) those for Humanities & Social Sciences and (c) Those for Sciences and other related matters given in the/I, II and III. It may be added in this connection that the specific norms for various Science subjects with regard to laboratory equipment, library books and buildings etc. are under preparation and will be sent to you in due course.

The Committee on postgraduate norms etc. laid emphasis inter-alia on the following points:-

- (1) The College seeking affiliation at the post-graduate level must be permanently affiliated at the under-graduate level.
- (2) The College should have shown consistently good results during the last five years at the under-graduate level.
- (3) The Committee recommended that it would be desirable for each university to carry out a survey of existing post-graduate colleges in relation to the norms suggested.
- (4) Many of the existing postgraduate colleges would have to put in considerable efforts to come up to the norms, and they must be upto same standard in order to be assisted by the University Grants Commission.
- (5) The Committee agreed that the appointments and procurement of books, equipment etc. may be phased over a period of two years since it may not be necessary to have all the facilities in the first year itself when only the M.A./M.Sc. (Prev.) classes could be running.

You are requested to take necessary action in the light of the recommendations of the Committee in respect of affiliation and development of postgraduate colleges.

Encl: I

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Conditions and Norms common to Humanities and Social Sciences and Sciences for introduction of Postgraduate courses in Colleges.

1. A college may be allowed to start postgraduate course in a subject only when there is persistent demand for teaching in that subject and enrolment of a minimum number of students every year is ensured. Opening of a new postgraduate class should be invariably linked with the manpower needs of the region. The college must be permanently affiliated and should have shown consistently good results at the undergraduate level during the last five years.
2. The College may be considered for further assistance, only if:-
 - (a) Available facilities in the shape of library, laboratory equipment and faculty reflect the commitment of the department and the college to the development of particular subject. The commitment of the college would in particular be seen from its overall recruitment policy, e.g. whether it has the practice of appointing only people of consistently good academic record and Ph.Ds' as far as possible.
 - (b) It serves the needs of the students community coming from the undergraduate colleges of the region as reflected in enrolment.
 - (c) The department has the scope and potentiality for development of a specialisation in a particular area not available in the other colleges and universities of the region.
 - (d) There is a clear out programme of research and training to ensure quality at the initial stage of starting a department.
 - (e) It has faculty comparable in quality to that of a University department and demonstrates potential of growth and specialisation.
3. Postgraduate courses need not necessarily be started only in such subjects which are taught at the degree level in the affiliated colleges. Inter-departmental/Interdisciplinary courses may be preferred.
4. The college should make provision of funds for enabling department teachers to attend National Conferences in their subjects every year.

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5. The condition for opening a postgraduate department in the college as prescribed by the university may insisted be upon specially with regard to the staff, books and equipment before providing any further support for the development of the department.
6. Annual colloquiums may be organised for the benefit of the college teachers and the students in which university and college teachers should participate.

Conditions and norms for introduction of Postgraduate courses in Humanities and Social Sciences in Colleges.

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1. A minimum of four teachers recognised by the University as postgraduate teachers (see paragraph 2 below) be appointed at the initial stage. The staff may be increased gradually depending upon the increase in the hours of work and the introduction of the special papers. In a postgraduate department there should be at least four teachers with M.Phil or equivalent degree or research work, of whom there should be at least two teachers with Ph.D. degree or equivalent research work.

2. For effective postgraduate teaching, the first pre-requisite is the quality of teachers. It is imperative that teachers at this stage should have developed critical faculties of evaluating the major developments in their subject. For this purpose it should be laid down that only those persons would be recognised for postgraduate teaching who have some papers to their credit in standard research journals. In addition:
 - (a) They should be required to go through and pass a post-Master's degree/diploma in Research Methodology.
 - (b) In order that a postgraduate teacher may be able to specialise and carry out advanced studies/research he should not be expected to take more than two papers in two years.
 - (c) The teachers should have enough time to keep themselves abreast with the latest development in their subjects. For this purpose, it may be laid down that the work load of a recognised teacher should not be more than 12 lectures a week.

3. A College department should have adequate material and other equipment. The departmental library should have enough copies of recommended books and at least three standard journals published during the last 10 years. For books and Journals the college should provide per department Rs.15,000/- as Non-recurring and Rs.5,000/- p.a. as recurring.

4. The College should provide a fixed amount every year, not less than Rs.5,000/-, for development of research activities in the department.

5. As far as possible at least two papers out of 8 papers should be different from those taught at the University.

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P.T.O.

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Enclosure III

CONDITIONS AND GENERAL NORMS FOR INTRODUCTION OF POSTGRADUATE COURSES
IN SCIENCE SUBJECTS IN COLLEGES,

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Strengthening of the teaching staff and recruitment of suitable qualified persons is the most important factor required for postgraduate education beside availability of necessary laboratory, library and other facilities. A department seeking affiliation for starting/running postgraduate classes should have at least six teachers with post M.Sc. qualifications such as M.Phil. or research experience as evidenced by publications. Further at least three such teachers should have a Ph.D. degree or research publications of equivalent standard. It will also be essential for such departments to have at least one viable research programme undertaken by the staff members. Similarly, before any particular specialisation in the subject can be offered as special paper at the M.A./M.Sc. level, the

should be on the staff of the department at least two persons who are qualified in that special discipline. The total strength of the staff of such departments would, however, depend upon the total work-load including undergraduate instruction.

Generally an intake of 15 students should be considered as an optimum size for a unit of postgraduate class. No postgraduate classes should be permitted to be started if the intake is less than ten students with 50% or more marks in the subject concerned. For purposes of increasing admissions also the unit of 10-15 should be taken into account.

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Annexure II to Item No. 8.

D. O. No. F. 7-1/74(P/CP)

August, 1975

Dear Registrar/Principal:

The University Grants Commission has decided to continue its programme of providing assistance to affiliated colleges for improvement of facilities for postgraduate courses on a selective basis, during the Fifth Five Year Plan. Accordingly, the Commission has finalised proforma etc for preparation of development proposals by colleges. I enclose a copy (Appendix) thereof, so that the college may prepare and send its development proposals for the plan period 1974-75 in accordance with these guidelines.

The assistance from the University Grants Commission for development of colleges during the Fifth Plan period will primarily be for strengthening the faculty, for improving the library and laboratory facilities and for providing workshop and other similar facilities which will enable colleges to achieve and maintain proper standards. In this connection, the norms prescribed for different postgraduate courses as notified vide this office letter No. F. 9-1/74(D) dated April, 1975 may be kept in view.

The purposes for which assistance would be available, the extent and pattern of assistance are indicated below:

PURPOSES

- (i) buildings upto 25% of the total grant
- (ii) equipment upto 20% of the total grant
- (iii) books upto 20% of the total grant
- (iv) additional staff upto 27% of the total grant
(including 10% for faculty improvement)
- (v) Miscellaneous items - 8% of the total grant

Ceiling of Assistance per college
in the Plan period

U.G.C. share

(a) Humanities and Social Sciences
All Postgraduate Departments in
the Humanities and Social Sciences
in affiliated colleges.

Rs. 2 lakhs per College
subject to a maximum
of Rs. 50,000/- per
department.

(b) Postgraduate science Departments

(1) Physics & Chemistry Departments

Rs. 2 lakhs per department

(2) Botany, Zoology, Geology,
Bio-Chemistry and Home
Science Departments.

Rs. 1.5 lakhs per
department

77(c)

(3) Anthropology, Geography and Mathematics including Statistics Department.

Rs.1 lakh per department

3. Sharing basis

<u>Building</u>	<u>UGC Share</u>	<u>University/State Government/College</u>
(Teaching and Laboratory, Library)	50%	50%
Equipment and books	100%	Nil
Workshop including Shed	100%	Nil
Animal House facility	100%	Nil

Additional Staff

Reader*	100%	Nil
Lecturer	75%	25%
Technical Staff	100%	Nil

* when sanctioned by the Commission.

Assistance for additional staff would be awaitable on the undertaking that colleges would continue and maintain such posts from their own funds, when Commission's assistance ceases at the end of 1978-79. A specific programme of faculty improvement would be drawn up by the College as a priority item to enable it to come up to the norms suggested by the Commission.

As you are aware, Commission's assistance is not available for starting new courses or for fulfilling any of the conditions of affiliation. It is also not available for purchase or acquisition of land or for purchase or acquisition of existing buildings or for renovation, dismantling and repairs of existing structures. It will also not be available for maintenance items as also for purchase of routine chemicals and glass-wares. Assistance under this programme is at present not available to colleges of agriculture, engineering and technology and medicine.

Five copies of the consolidated proposals should be sent by colleges through the Universities to which they are affiliated, to the UGC office as early as possible. A copy of the proposals may also be forwarded to the State Government (in the proforma prescribed for each purpose).

Yours sincerely

To

Principal, All Post-graduate colleges including under Section 2(f) of the UGC Act other than agricultural/medical and engineering & technological, and Registrar of all Universities.

p.t.o.

Appendix

BASIC INFORMATION ABOUT THE COLLEGE

(Information should relate to the academic year in which proposal is made by the College).

.....

SECTION I

- 1. Name of the College _____
- 2. Year of Establishment _____
- 3. University to which affiliated _____
- 4. Year and nature of affiliation _____

i.e. provisional/permanent. This may please be indicated coursewise and subject-wise. If the affiliation is not for the full course, for example for M.A./M.Sc./M.Com. Previous or 1st year only, information regarding this may be given clearly.

- 5. If the affiliation is not permanent, indicate the period the College has been on temporary or provisional affiliation, and reasons therefor _____

Please indicate those courses only for which the college has been granted affiliation by the university and mention the student enrolment for each year of the course.

- 6. Nature of management: _____
Is the college managed by Government or the University or by a Private body? If the college is managed by a private body, is the committee of management/governing body constituted according to the Statutes/Ordinances/Regulations of the University, and registered under the Societies Registration Act? A list of the members of the governing body/managing committee may be attached.

- 7. P.G. Courses of instruction in the college _____

- 8. Total enrolment (excluding PUC/ during one year:

Intermediate/ Pre-degree,*	under graduate	Post Gr. (Subject-wise)
----------------------------	----------------	-------------------------

- 9. Number of working days and working hours of the college _____

- 10. Total Teaching Staff Strength (excluding demonstrators) _____

- 11. Name of the scheme(s) for which proposal Building/Equipment/Books/ Staff/workshop is being made to the U.G.C. _____

- 12. Details of financial assistance, if any, received from the University Grants Commission since 1956, (for each plan period)

77(e)

Name of the project and Year of sanction, (indicate sanction letter No. & date)	Grant approved	Actual Payment	Utilisation of the grants (Indicate whether the grant has been utilised and completion documents sent to the Commission.)
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*(If this number falls short of the minimum enrolment prescribed by UGC a separate note may be attached giving necessary justification for making proposal for UGC Assistance).

SECTION-II

1. Detailed information in respect of enrolment of students during the last 5 years including the year in which this proposal is being made.

Arts(Humanities & Social Sciences)			Science			Commerce			Others, if any, please indicate			Total		
(1)			(2)			(3)			(4)					
Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total

a. Pre-University/
Pre-degree/
Intermediate

b. First Degree
Ist. Year
IIInd Year
IIIrd Year

c. Postgraduate
Ist Year
IIInd Year

d. Research
Other Courses,
if any(Diploma
courses etc.)

2. Examination results as below (for past 5 years)

Year	B.A.			B.Sc.			B.Com.		
	Appeared	Passed	in Division	Appeared	Passed	in Division	Appeared	Passed	in Division
	I	II	III	I	II	III	I	II	III
Year	M.A.			M.Sc.			M.Com.		
	Appeared	Passed	in Division	Appeared	Passed	in Division	Appeared	Passed	in Division
	I	II	III	I	II	III	I	II	III

(Subject-wise break-up results may be given in case of postgraduate degrees.)

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3. Number of postgraduate colleges located in the city and offering degree courses: Give names of such Colleges and the subjects offered at Master's degree level.

4. Students-residence-wise i.e. in

(i) Hostels:

(ii) Lodges: and

(iii) With parents and relatives (during this year).

5. Number of students of Scheduled Castes and Scheduled Tribes admitted to the Colleges during past 5 years

Under
Graduate

Post
Graduate

6. Whether the College has any remedial courses/programmes for students from under-privileged classes(Give details)

SECTION-III

(77h)

(1) Teaching Staff

- (a) Please attach a list giving total number of teachers, department-wise with their names permanent or temporary educational qualifications, length of service in the college, previous experience, research, experience, publications, if any. Give the no. of teachers recognised for P.Graduate teaching in each department.
- (b) Have any of the teachers been given study leave with pay or without pay during the last five years? If so, please give details. Is such a period of absence counted towards normal increment?
- (c) Please give the number of teachers who are on temporary appointments.
- (d) Average work-load per teacher per week for:
 - (i) Formal lectures
 - (ii) Tutorials/Seminars
 - (iii) Practical work, if any.
 - (iv) Other duties.

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SECTION-IV

Income and Expenditure of the College for the last five years.

(A)	Income	1	2	3	4	5
1.	Maintenance grant from State Govt.					
2.	Income from Fee etc.					
3.	Contribution of Management					
4.	Other sources					
Total Income						

(B)	Expenditure	1	2	3	4	5
1.	Salaries of teaching staff.					
2.	Administration Staff (including library staff)					
3.	Library books and Journals(Recurring)					
4.	Scholarships, Fellowships and stipends.					
5.	Others					
Total expenditure						

(C)	Development grant received from	1	2	3	4	5
i)	State Govt.					
ii)	U.G.C.					
iii)	Other sources					
Total :						

SECTION - V

77d

Other information:

- a) Has the College applied for or proposes to apply for status of autonomous college? If so, give a note on objectives, goals and programmes proposed.
- b) A brief note explaining the developmental activities and projects undertaken by the college. Any special difficulties and problems may be indicated.
- c) Please indicate any academic distinctions won by the College for the last five years.
- d) A note on N.C.C. activities in the college.
- e) A note on social service activities including National service Scheme in the college (only specific Programme to be indicated).
- f) Please give details regarding the extra-curricular activities of students' societies, Union, Clubs, etc.,
- g) If the college has organised orientation programme, health services, employment information and guidance, or any other activities-please give details. Details of provisions by way of fee concessions and scholarships may also be given.
- h) How are student hostels managed? Is the mess run by a Contractor or on a Co-operative basis by students?
- i) Are there Canteen facilities? If so, is it run by the College or by a Contractor.
- j) Please give details of the fees charged by the college from students:
 - i) Tuition fee.
 - ii) Other fees.
 - iii) Hostel fee.
 - a) room rent
 - b) mess charges
 - c) other fees.



PROPOSAL FOR V PLAN PERIOD

Extension of building: (a) Accommodation for Laboratories
(Postgraduate).

1. Name of College _____
2. University to which affiliated _____
3. Existing facilities for subjects for which laboratory accommodation is required:
 - (i) Subject Class-wise enrolment
 - (ii) Size and number batches for laboratory work in each subject.
 - (iii) Laboratory space available for each subject.
4. Details of the proposal:
 - (i) Need and justification for the proposed construction/extension.
 - (ii) Description of laboratory accommodation proposed to be constructed, indicating the subjects for which it is required.
 - (iii) Student enrolment in each subject (class-wise)
 - (iv) Floor area provided for in the plan and estimates.
5. Estimated cost of construction:-
 - (a) Construction of building as per current P.W.D. schedule of rates for the area Rs. _____
 - (b) Sanitary installation and water supply @ 5% Rs. _____
 - (c) Electricity installation @ 12½% (with fans) Rs. _____
 - (d) Contingencies 3% of the building cost including services. Rs. _____

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(e) Architect's fee

Not exceeding 4% of the estimated cost of building for preparation of plans and estimates and for supervision (for plans and estimates only not exceeding 2.6%).

Rs. _____

Total Cost (including services) Rs. _____

Date: _____

Signature of a qualified Engineer/Architect.

Full Name and Address:

It is certified that:

- (i) the college has fulfilled the conditions of affiliation laid down by the university for instruction in the subjects for which laboratory accommodation is proposed to be provided, and grant asked for is not for fulfilling these conditions of affiliation;
- (ii) the laboratory facilities proposed to be provided are for the course leading to the Master's degree and not for degree classes.
- (iii) all the expenditure over and above the Commission grant will be provided by the college;
- (iv) the college will undertake the implementation of the project as soon as the acceptance of the Commission is received and the project will be completed within _____ (here indicate the period); and
- (v) the land on which the proposed building is to be constructed is under the undisputed ownership and possession of the college.

Date: _____

Signature and Seal of the Principal of the College

Extension of Building:

(b) TEACHING ACCOMMODATION (CLASS-ROOMS AND LECTURE THEATRES) (FOR POSTGRADUATE CLASSES)

1. Name of the College _____

77 m

2. University to which affiliated _____

3. Existing facilities:

Course of instruction and subjects	Class-wise/subject wise enrolment	Teaching accommodation available (number of class-rooms/lecture theatres and the floor area)
------------------------------------	-----------------------------------	--

4. Details of the proposals:

- (i) Need and justification for additional teaching accommodation.
- (ii) Description of the additional accommodation to be constructed (number of class-rooms/lecture theatres and the subjects for which required)
- (iii) Floor area provided in the plans and estimates.
- (iv) Estimated cost of construction:
 - (a) construction of building as per current PWD schedule of rates for the area; Rs. _____
 - (b) Electricity installation @ 12½% (with fans) Rs. _____
 - (c) Contingencies 3% of the building including services. Rs. _____
 - (d) Architect's fee.
 - Not exceeding 4% of the estimated cost of building for preparation of plans and estimates and for supervision (for plans and estimates not exceeding 2.6%) Rs. _____
 - Total Cost(including services) Rs. _____

Dated: _____

Signature of a Qualified Engineer/Architect _____

Full Name & Address _____

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It is certified that:

- (i) The college has fulfilled the conditions of affiliation laid down by the university for instruction in the courses and subjects for which additional teaching accommodation is proposed to be provided, and the grant asked for is not for fulfilling these conditions of affiliation.
- (ii) The additional teaching accommodation proposed to be provided is for the course leading to the Master's degree.
- (iii) All the expenditure over and above the Commission's grant will be provided by the college.
- (iv) The college will undertake the implementation of the project as soon as the acceptance of the Commission is received and the project will be completed within _____ (here indicate the period) and
- (v) The land on which the proposed building is to be constructed is under the undisputed ownership and possession of the college.

Signature and Seal
of the Principal of the Col.

Dated _____

PROPOSAL FOR V PLAN PERIOD

WORKSHOPS FOR SCIENCE DEPARTMENTS/
ANIMAL HOUSE INCLUDING SHED:

1. Name of College _____
2. University to which affiliated _____
3. science courses for which workshop facilities are required:

<u>Course</u>	<u>Subject</u>	<u>Subject-wise Enrolment</u>
---------------	----------------	-------------------------------

4. Whether the college already has a workshop for science department? If so, give details.
5. Details of the proposal:
 - (i) Need and justification for the construction/extension of workshop facilities.
 - (ii) Description of workshop facilities (building and equipment) proposed to be provided, indicating the nature of work to be done in the proposed workshop.
 - (iii) Floor area provided in the plan of the workshop.
 - (iv) Number of students, with subjects, who are expected to use the workshop facilities proposed to be provided.
 - (v) Whether the college plans to introduce workshop practice into the curriculum.
 - (vi) Has the college made provision for the services of a mechanic? If so, give details.
 - (vii) Estimated Cost.
 - I. Building:
 - (a) Estimated cost of construction as per current P.W.D. schedule of rates for the area. Rs. _____
 - (b) Sanitary installation and water supply @ 5% Rs. _____
 - (c) Electricity installation * 12½% (with fans) Rs. _____

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(d) Contingencies @ 3% of the building cost including services. Rs. _____

(e) Architect's fee. Rs. _____
Not exceeding 4% of the estimated cost of building for preparation of plans and estimates and for supervision.
(For plans & estimates only, not exceeding 2.6%).

Total Cost.
(including Services) Rs. _____

II. Equipment:

Estimated cost of workshop equipment (indicate broad categories of equipment on a separate sheet). Rs. _____

Dated: _____

Signature of a
qualified Engineer/
Architect.

Full Name & Address

It is certified that:

- (i) the college has fulfilled the conditions of affiliation laid down by the University for instruction in the subjects for which workshop facilities are proposed to be provided and the grant asked for is not for fulfilling these conditions of affiliation;
- (ii) all the expenditure over and above the Commission's grant will be provided by the college;
- (iii) the college will undertake the implementation of the project as soon as the acceptance of the Commission is received and the project will be completed within _____ (here indicate the period); and

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(iv) the land on which the proposed building is to be constructed is under the undisputed ownership and possession of the college.

Dated: _____

Signature and seal of the
Principal of the College.

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PROPOSAL FOR V PLAN PERIOD

PURCHASE OF BOOKS AND JOURNALS

1. Name of the College _____
2. University to which affiliated _____
3. Library facilities available
 - (i) Library building/accommodation
{ Reading Room, Stack Room etc. }
floor area _____
 - (ii) Number of reading seats provided _____
 - (iii) Total number of books in Library _____
 - (iv) Number of journals being obtained _____
 - (v) Does the college have or plan to
have open shelf system?
 - (vi) Qualifications of Librarian.
4. Expenditure incurred on books and
Journals during the last three years
(year-wise) (Separately for books &
journals) _____
5. Present student enrolment (course-wise) _____
6. Estimated cost of books & journals
to be purchased.
7. Names of journals to be subscribed.

<u>Subject:</u>	Estimated Cost
	Total: _____

It is certified that:-

- (i) the grant sought for the purchase of books & journals is not for fulfilling the conditions of affiliation laid down by the university;
- (ii) the college will undertake the implementation of the project as soon as the acceptance of the Commission received, and complete it within _____

Dated: _____

Signature and Seal of the
Principal of the College.

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PROPOSAL

775

Assistant for the purchase of laboratory equipment and laboratory furniture

1. Name of the College _____
2. University to which affiliated _____
3. Laboratory space provided:
(Floor area)

Subject:

Area provided:

Total: _____ sq. ft.

4. Expenditure ~~of~~ laboratory equipment during the last three years (year-wise)

Subject:

Expenditure Incurred:

5. Estimated cost of laboratory equipment and laboratory furniture to be purchased:

Department

Subject

Estimated Cost:

Laboratory
equipment

Laboratory
furniture

Total: _____

77c

- 6.. Need and justification for proposed expenditure.
7. Student enrolment in subjects (class-wise) for which laboratory equipment/furniture is to be provided.

It is certified that:

- i) the proposed estimated expenditure on laboratory equipment does not include expenditure on items of glass ware or chemicals of routine nature.
- ii) the requirements are for courses leading to the Master's degree;
- iii) the conditions of affiliation laid down by the university for the courses for which assistance has been sought have been fulfilled and the grant asked for is not for fulfilling these conditions
- iv) the college will meet all expenditure over and above the assistance that may be provided by the Commission; and
- v) the college will undertake the implementation of the project as soon as the acceptance of the Commission is received and the project will be completed within _____ (indicate the period).

Dated: _____

Signature and Seal
the Principal of the
College.

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Proposal.

Proforma-V.

Assistance for additional Staff/Faculty Improvements.

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- A.
1. Name of the College:
 2. University to which affiliated:
 3. Details of existing staff of the College.
Department-wise (Please attache separate sheet, if necessary).
 - (a) Teaching.
 - (b) Technical/Supporting Staff.
 4. Details of additional Staff required to be appointed:
 - (a) Department:
 - (b) Designation and Scale of pay proposed:
 - (c) Justification for the additional Staff:
 - (i) It is certified (i) that the staff to be appointed is in addition to the existing strength:
 - (ii) The recruitment to the posts will be made in accordance with the qualification and procedures prescribed by the University.
 - (iii) The State Government/University/Managements agree to continue and maintain the posts effectively when Commission's assistance ceases at the end of March 1979.
- B. For faculty Improvement: (Please give separate sheet for each teacher to be trained).
- (The scheme will be operated on the same basis as teacher/Fellowships Scheme of the UGC.)
- Name of the Teacher proposed to be deputed for further training and his educational qualifications etc.
- (1) Name :
 - (2) Educational Qualification:
 - (3) Teaching experience & level
(Undergraduate/Postgraduate)
 - (4) Whether engaged in research :

77-K

- (5) Whether attended Summer Institute/Refresher Course etc. earlier.
- (6) Proposed place/Institution of training in India :
- (7) Period of training (One Year/3 years).
- (8) Whether for an advanced degree M/Phil or Ph.D.
- (9) Present salary and allowances which would be protected by the college and paid to the Teacher for the period of training and any bond obtained from the teacher to serve the college for a specified period.
- (10) Whether a substitute is to be appointed in his place and if so, scale of pay and amount required to be reimbursed by U.G.C.
- (11) Out station Allowance for the deputed teacher, if his place of training is different from the normal place of work and amount to be reimbursed by U.G.C.
- (12) Justification of need for training proposed and the benefits to the College.

Signature and Seal of the Principal
of the College.

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 11th & 12th August, 1975.

Item No. 9: To consider the question of fixation of rates of non-practicing allowance to be paid to the teaching staff of Medical Colleges of the Central Universities in the revised scales of pay.

.....

The question regarding prescribing of non-practicing allowance to be paid to the teaching staff of the Medical Colleges of the Central Universities consequent upon the revision of scales of pay was placed before the Commission in its meeting held on 14th April, 1975 (Annexure-I).

2. The consideration of the item was deferred as suggested by the Finance Secretary (Expenditure), who also desired that a note prepared by the Ministry of Finance (Education Unit) in this regard may be first examined by the U.G.C. Secretariat. The note of the Ministry of Finance (Education Unit) is attached as an (Annexure-II).

3. The matter was considered in the office of the Commission and the following reply was sent:-

"As suggested by you, the item relating to the fixation of non-practising allowance for teaching staff of medical colleges in Central Universities was not taken up at the Commission meeting held on April 14, 1975. Since you were not likely to attend the May and June 1975 meetings of the Commission, the item had not been included in the agenda for these meetings. In the meantime, the note prepared by the Deputy Financial Adviser to the Ministry of Education on this item has been examined.

It would be observed that the main contention in Shri Biswas's note is that since the revised scales of pay of teachers in the Medical Colleges of the Central Universities are higher than those of CHS Officers (comparing them with the pre-revised scales in both cases) they should be given lower non-practising allowance. The scales

P.T.O.

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of pay of teachers in the medical faculties of Central Universities are the same as for other faculties. Further the revised scales agreed to by Government of India for teachers are not replacement scales, but were a considerable improvement on them. The Commission has reiterated that the basic purpose of revision of scales of pay of the teachers was to give teachers an appropriate status in society and to attract better qualified persons and to raise the standard of education. It was in view of this that it had been decided to prescribe the minimum qualification for the posts of Lecturers.

In view of the above, it is felt that the non-practising allowance now to be prescribed with revised scales should be on the basis of these scales and not linked with the total emoluments payable keeping in view the pre-revised scales.

We shall be grateful if the above is taken into account for determining the non-practising allowance. If, however, it is felt that since with the pre-revised scales the non-practising allowance was on a fixed basis for different categories of staff and did not change with the pay in the scale, the Commission could continue to have the same basis, but with suitable modification keeping in view that the non-practising allowance for Professor should be Rs.600/- p.m. as compared to Rs.500/- p.m. with the pre-revised scales.

We shall be grateful to have your guidance in the matter and on hearing from you place the matter before the Commission."

The observations made by the Commission were again examined by the Ministry of Finance (Education Unit) and the following reply was received:-

"As you observe, the revised scales of pay of teachers are not replacement scales but are considerably higher. It does not follow that their non-practising allowances should also be correspondingly more. This allowance is in lieu of private practice; the teaching staff of the Medical Colleges in the Central Universities cannot claim higher rates of non-practising allowance than Doctors who seek other forms of Government service.

P.T.O.

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The Third Pay Commission recommended slab rates in the place of rates on a percentage basis (with an assured minimum and a restricted maximum). This change in the basis of the allowance does not significantly increase its quantum. In fact the slab rates introduced in the CGHS have reduced the maximum non-practising allowance and in some cases also intermediate stages, so that the total increase in emoluments is not disproportionately high.

I am therefore of the view that the non-practising allowance to the teaching staff of the Medical Colleges of the Central Universities should also conform to the pattern laid down by the Third Pay Commission for the corresponding categories of Doctors in the Central Government Health Service. On that basis Lecturers and Readers can be eligible for non-practising allowance ranging from Rs.150/- to Rs.300/- and Rs.250/- to Rs.400/- respectively. For Professors the existing fixed rate of Rs.500/- should be retained, considering the fact that the corresponding cadres of Doctors in the Central Government have not been given any increase.

You have suggested that non-practising allowance on a fixed basis with suitable modifications could also be considered. When all the other allowances like DA, HRA, CCA are on the basis of Third Pay Commission's recommendations, I do not think we should continue to have fixed non-practising allowance for Doctors in University Medical Colleges in preference to the slab rates recommended by the Third Pay Commission."

The question regarding the fixation of the non-practising allowance to the teachers of the Central Universities subsequent to the revision of their pay scales is placed before the Commission for consideration.

A.S./DS-2-5

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Note placed before the Commission held on
14th April, 1975 vide Item No.10.

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Prior to the present revision of the pay scales of the teaching staff in the Medical Colleges of the Central Universities, the scales of pay of such staff were as under:-

1. Lecturers	Rs.400-950
2. Readers	Rs.700-1250
3. Professors	Rs.1100-1600
4. Prof.(Sr. Grade)	Rs.1600-1800

In addition, they were entitled to the following fixed non-practising allowance per month.

1. Lecturer	Rs.300/-
2. Reader	Rs.400/-
3. Professor	Rs.500/-

The pay scales of the above category of teachers have now been revised w.e.f. 1.1.1973 as under:-

1. Lecturer	Rs.700-40-1100-50-1600.
2. Reader	Rs.1200-50-1300-60-1900.
3. Professor and Prof. (Sr. Grade)	Rs.1500-60-1800-100-2000- 125/2-2500.

In view of the above revision, it has now become necessary to determine the rates of non-practising allowance that may be paid to the teachers of the Medical Colleges of the Central Universities in the revised grades.

The Government of India in the Ministry of Health and Family Planning (Department of Health) has prescribed the rates of non-practising allowance to the Central Health Service officers on the basis of the recommendations of the IIIrd Pay Commission. A copy of the letter issued by the Ministry of Health and Family Planning in this regard is enclosed (Appendix-I).

Since the pay scales of the teachers in the Medical Colleges of the Central Universities are not identical to the various scales of pay of the Central Health Service Officers, it is for consideration if the following rates of non-practising allowance which are comparable to the rates approved by the Government of India for the Central Health Service Officers may be prescribed for the various categories of teachers in the Medical Colleges of the Central

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Universities as indicated below:-

<u>Lecturer</u>		<u>Scale Rs.700-1600</u>	
1st to 5th	stages	Rs.700-860	Rs.150/- p.m.
6th to 10th	"	Rs.900-1060	Rs.200/- p.m.
11th to 13th	"	Rs.1100-1200	Rs.250/- p.m.
14th to 15th	"	Rs.1250-1300	Rs.300/- p.m.
16th to 17th	"	Rs.1350-1400	Rs.350/- p.m.
18th to 19th	"	Rs.1450-1500	Rs.400/- p.m.
20th to 21st	"	Rs.1550-1600	Rs.450/- p.m.

<u>Readers</u>		<u>Scale Rs.1200-1900</u>	
1st stage	"	Rs.1200	Rs.300/- p.m.
2nd to 4th	"	Rs.1250-1360	Rs.350/- p.m.
5th to 6th	"	Rs.1420-1480	Rs.400/- p.m.
7th to 9th	"	Rs.1540-1660	Rs.450/- p.m.
10th to 12th	"	Rs.1720-1840	Rs.500/- p.m.
13th stage	"	Rs.1900	Rs.600/- p.m.

<u>Professors</u>	<u>Scales Rs.1500-2500 N.P.A.</u>
	Rs.600/-

The non-practising allowance in respect of teachers at Maulana Azad Medical College consequent to the revision of pay scales is given in the Appendix-II.

The matter is placed before the Commission for consideration.

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Copy of Government of India, Ministry of Health and Family Planning (Department of Health) letter No.A.45011/3/74-CHS. III, dated the 21st December 1974, addressed to the Director General of Health Services, New Delhi/A.G.C.R./All Accountants General etc.

Re: Recommendations of the Third Pay Commission- rates of N.P.A. for C.H.S. Officers.

I am directed to say that the rates of N.P.A. (Non-Practising Allowance) recommended by the Third Pay Commission for various grades of the Central Health Service Officers have been under consideration of the Government of India for some time. The President has now been pleased to decide that the rates of non-practising allowance in respect of the Central Health Service Officers should be as follows:-

Junior Class I scale

(Revised Scale: Rs.700-40-900-EB-40-1100-50-1300)

1 to 5 stages in the revised scale	Rs.150/- p.m.
6 to 10 stages in the revised scale	Rs.200/- p.m.
11 stage onwards	Rs.250/- p.m.

Senior Scale Class I

(Revised Scale: Rs.1100-50-1600)

1 to 3 stages	Rs.250/- p.m.
4 to 5 stages	Rs.300/- p.m.
6 to 7 stages	Rs.350/- p.m.
8 to 9 stages	Rs.400/- p.m.
10 to 11 stages	Rs.450/- p.m.

Specialists Grade II

(Revised Scale: Rs.1100-50-1500-EB-60-1800)

1 to 3 stages	Rs.300/- p.m.
4 to 6 stages	Rs.350/- p.m.
7 to 9 stages	Rs.400/- p.m.
10 to 12 stages	Rs.450/- p.m.
13 to 14 stages	Rs.500/- p.m.

Supertime Grade II

(Revised Scale: Rs.1500-60-1800-1000-2000). Rs.600/- p.m.

Specialist Grade I

(Revised Scale: Rs.1800-100-2000-1250-2250) Rs.600/- p.m.

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Supertime Grade I

(Revised Scales: Rs.2250-125/2-2500. Rs.600/- p.m.
Rs.2500-125/2-2750.

2. These orders are issued with the concurrence of the Ministry of Finance vide their U.O. No.5492-H/74 dated 30.11.1974.

sd/- K.SATYANARAYANA
DEPUTY SECRETARY TO THE GOVT. OF INDIA.

'CHUGH'

STATEMENT

Name of the post	Pre-revised pay scales	Non-practising allowance	Revised Pay Scales	Revised non-practising allowance
Professors	Rs.1300-60-1600-100-1800.	50% of pay subject to maximum of Rs.600/-p.m.	Rs.1800-100-2000 125/2-2250.	Rs.600/-p.m.
Readers/Assistant Professors	Rs.600-40-1000-EB-50-1300+Rs.100/-p.m. special pay.	-do-	Rs.1100-50-1500-EB-60-1800+Rs.100/-p.m. special pay.	1 to 3 stages (Rs.300/A) 4 to 6 stages (Rs.350/-) 7 to 9 stages (Rs.400/-) 10 to 12 stages (Rs.450/-) 13 to 16 stages (Rs.500/-)
B. Demonstrators	Rs.325-15-425.	Rs.150/-p.m.	i) Rs.650-30-740-35-880-EB-40-960 (for Medical). ii) Rs.550-20-750-EB-30-900 /non (For/Medical)	Rs.150/-p.m.
4. Registrar Clinical	Rs.375-25-425.	-	Rs.650-30-710.	-do-

Annexure II to item No.9

MINISTRY OF FINANCE
(Education Unit)

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Item No.10: To consider the question of the fixation of rates of non-practising allowance to be paid to the teaching staff of the Medical Colleges of the Central Universities in the revised scales of pay.

The present rates of non-practising allowance per month admissible to the teaching staff of the Medical Colleges of the Central Universities and the proposed slab rates are as follows:-

	<u>Existing</u> Rs.	<u>Proposed (Min. & Max.)</u> Rs.
Lecturers	300	150-450
Readers	400	300-600
Professors	500	600

2. I have obtained a comparative statement from our Health Finance Division giving the details of the present and revised pay and non-practising allowance for the Medical Teachers in the Central Health Service and also the proposed consolidated scales of pay of the Medical teachers of All India Institutes of Medical Sciences. From this comparative statement and also from the letter dated 21.12.1974 of the Ministry of Health and Family Planning notifying the rates of non-practising allowance for Central Health Service officers, it is observed that pay scales and rates of non-practising allowance are not identical to those of the Medical teachers of the Central Universities. However, we have to identify the corresponding levels of pay scales and determine what would be the reasonable non-practising allowance which would be admissible to the teaching staff of the Medical Colleges of the Central Universities.

3. For the Lecturers (University) in the existing scale of Rs.400-950 we find that a comparable scale of Rs.350-900 for the General Duties Officer Grade II in the Central Health Service against which a revised scale of Rs.700-1300 for the latter has been accepted by the Government as per the Third Pay Commission's recommendations. There are other medical posts which are not included in the Central Health Service such as those in the existing

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scale of Rs.400-950 and Rs.750-1050 and for them the same revised scale of pay of Rs.700-1300 has been recommended by the Third Pay Commission. As such we can reasonably adopt the non-practising allowance admissible to these officers in the Central Health Service to the Lecturers in the Medical Colleges of the Central Universities. It may be pointed out that the present scale of Lecturers in the Central Health Service is Rs.600-1200. As such non-practising allowance admissible to them cannot be applied to the Medical Lecturers of the Central Universities whose pre-revised scale is only Rs.400-950.

4. For the Readers in the Central Universities in the existing scale of Rs.700-1250 we find a comparable scale of Rs.600-1300 for the Readers in the Central Health Service whose scale has been revised to Rs.1100-1800 as against Rs.1200-1900 in the Central Universities side.

5. I have prepared the following table from which we can suggest reasonable rates of non-practising allowance to the University Grants Commission:-

	Old rates of pay	N.P.A. (Min. & Max.)	Totality	Revised pay scales approved by Govt.	N.P.A.	Totality	Difference
	1.	2.	3.	4.	5.	6.	7.
Jr. Class I Scale (C.H.S.)	350-900	33-1/3% subject to a maximum of Rs.150/- p.m. i.e. Rs.150-300.	500-1200	700-1300	150-250	850-1550	350
Lecturers (Central Universities)	400-950	300	700-1250	700-1600	150-450 (proposed)	850-2050	150
Readers (C.H.S.)	600-1300	50% of pay subject to a maximum of Rs.600/-	900-1900	1100-1800	300-500	1400-2300	50
Readers (Central Universities)	700-1250	400	1100-1650	1200-1900	300-600	1500-2500	4

From the above table it is evident that the non-practising allowance proposed by the University Grants

Commission is very high. Third Pay Commission's recommendations on the non-practising allowance at slab rates to the Medical Officers in the Central Government are on the following basic principle:-

"In fact even at the existing percentage rates there would be unconscionable increase in the total emoluments of doctors in view of the substantial increase in the pay scales of medical officers being suggested by us. We, therefore, think that it would be equitable if the medical officers are assured of more or less the same order of increase in their total emoluments including non-practising allowance as would become available to officers of the corresponding grades in other services. For this purpose, we find it necessary to adopt the slab system on non-practising allowance."

6. As the revised scales of the teachers in the colleges and universities are very liberal and are more than the corresponding replacement scales as per the Third Pay Commission we cannot allow the revised non-practising allowance rates to such an extent as it would further enhance their total emoluments out of proportions. In fact, they having got away with unreasonable high revised pay scales cannot claim further benefit in the shape of non-practising allowance based on such liberal pay scales.

7. Moreover, it is observed that the present slab rates approved by the Government have, in fact, reduced the existing non-practising allowance particularly the maximum available to the different categories of Medical Officers in the Central Government. Thus for the Junior Class I Officers (GDO Grade II), as would be evident from the table on page 2/ante, the maximum non-practising allowance at the rate of 33 1/3% in the prerevised rates was Rs.300/- (col.2) has been brought down to Rs.250/- per month (col.5). Similarly for the Readers who are entitled to 50% of pay as non-practising allowance subject to a maximum of Rs.600/- is now entitled to a maximum of Rs.500/- only. But in the proposed rates of non-practising allowance in the University side it is observed that the maximum non-practising allowance for the Lecturers has been increased to Rs.450/- per month from Rs.300/- per month. Similarly for the Readers it is Rs.600/- per month as against the existing rate of Rs.400/- per month.

8. It is also observed that for the Lecturers University Grants Commission has adopted and combined

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the two sets of slab rates of non-practising allowance available to the Junior Class I and Senior Class I Medical Officers in the Central Government presumably on the basis that as against the two revised scales of Rs.700-1300 and Rs.1100-1600 for these two categories of Medical Officers, the Universities have now got a running scale of Rs.700-1600 for their Lecturers. But it may be pointed out that the revised scale of Rs.1100-1600 which is available to the Senior Class I Medical Officers is in replacement of a segment of the existing scale of Rs.450-1250. Against this present scale of University Lecturers is only Rs.450-900. We cannot thus adopt the non-practising allowance available to the Senior Class I Medical Officers in the Central Government in the pay range of Rs.1100-1600 for the Lecturer in the Universities.

9. We can only suggest that the slab rates as available now to the officers in the Central Health Service may be adopted in such a way so that the maximum would be limited to the present existing uniform rate of Rs.300, 400 and 500/-. The rates of revised non-practising allowance should at least bear some relevance to the present total emoluments. As such I may suggest the following slab rates:-

<u>Lecturers:</u>	<u>Readers:</u>
Rs.150	Rs.250
Rs.200	Rs.300
Rs.250	Rs.350
Rs.300	Rs.400

10. For the Professors it has been recommended that Rs.600/- per month would be the non-practising allowance as against Rs.500/- per month; applying the same principle we can recommend a uniform rate of Rs.500/- which is the existing rate.

11. Whatever would be the decision of the Commission it has to be forwarded to the Government for approval. It will be possible for us to consult our Health Finance Division also at that time.

Sd/-
(S. Biswas)
Deputy Financial Adviser
11.4.1975

Confidential

UNIVERSITY GRANTS COMMISSION

Meeting: 12th Aug. 1972

Dated 14th 1972

Item No. 10 : To consider a proposal of the Aligarh Muslim University for continuation of the scheme of "Personal Promotions" of teachers in the Central Universities. (90)

.....

The Commission at its meeting held on 5th May, 1971 (Item No. 17(i)) considered certain proposals from the Banaras Hindu University for upgrading/conversion of certain teaching posts and desired that the general question of conversion/upgrading of posts in the Central Universities ("involving" personal promotions) may be referred to the Committee of Vice-Chancellors of Central Universities. Accordingly, the matter was placed before the said Committee at its meeting held on 11th January, 1972. The Committee in this connection noted the following resolution adopted by the Commission:-

"The Commission regretted its inability to accept the proposal, in its present form of the Banaras Hindu University for upgrading the post of a Reader in Chemistry to that of a Professor. In this connection the Commission felt that it may not be desirable for a Selection Committee to recommend creation of additional posts of Professors (with names of persons to fill them) at a meeting convened to select persons for appointment against posts already advertised."

The Committee generally agreed to recommend as follows:

- (a) The Central Universities may suggest to the Commission in cases of outstanding merit a limited number, depending upon the needs of the Department (and not individuals) once a year (say by the end of February) for upgrading posts of Lecturers to Readers and Readers to Professors.
- (b) The number of cases which may be recommended would not generally exceed in a year 5% of the total staff (non-plan) in each category.
- (c) The additional expenditure involved in the upgrading of the posts would be provided by the universities within its normal revenue budget and no additional grant would be payable.

Contd.

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The recommendations made by the Committee of Vice-Chancellors of Central Universities were placed before the Commission at its meeting held on 2nd February, 1972 (Item No.71), and the Commission resolved as under:

- " (a) The Central Universities may provide for "personal promotions" for teachers (University/college) of outstanding merit. The number of such cases would not exceed 5% in a year of the total staff (non-plan) in each category: category of lecturers for promotion to Readerships and category of Readers for promotion to Professorships. The additional expenditure involved in the upgrading of posts would be provided by the Universities within their normal revenue budget and no additional grant would be available from the UGC. It was noted that the selection Committees as provided by the relevant Statutes, would be involved in making the selections for "personal promotions".

It was agreed that a committee be appointed to frame guidelines for the scheme of "personal promotions" in the Central Universities.

The Commission further desired that the scheme of "personal promotions" for University and college teachers may be recommended to the State Governments/State Universities. "

The above decision of the Commission was conveyed to the Central Universities for necessary action adding that the Commission had appointed a Committee to frame guidelines for the scheme of "personal promotions" and that the guidelines accepted by the Commission would be communicated to them.

In pursuance of the above decision of the Commission at its meeting held on 2nd February, 1972 a Committee was appointed to frame guidelines for the scheme of personal promotions in the Central Universities.

The recommendations made by the Committee were placed before the Commission at its meeting held on 5th July, 1972. Considering the above recommendations, the Commission agreed to the following guidelines:

- 1) The Scheme will apply only to teachers of "outstanding merit" in the university departments and colleges.

Contd.

- 2) The usual Selection Committees will draw a panel of eligible teachers but would not indicate the order of preference.
- 3) The placement of teachers in the next higher grade from amongst those included in the panels will be determined by the Executive Council.
- 4) The number of teachers placed in a higher grade in a year under the scheme will not exceed 5% of the total sanctioned strength (non-plan) of teachers in the grade (from which promotions to the next higher grade are made). For this purpose university departments may be suitably pooled together, if so desired by the University. In the case of a college it shall count as a unit to fix the 5% ceiling for each grade of teachers in the college.
- 5) The higher post created under the Scheme will be personal to the incumbent in lieu of the lower post held in abeyance. On the existing incumbent vacating the higher post, it will be abolished and the lower post held in abeyance will be revived.

The Scheme will be effective w.e.f. 1.4.1972.

In this connection the Commission noted that generally the standard for personal promotions should be higher than for regular appointments."

The above guidelines were communicated to the Central Universities.

The Commission while considering certain aspects relating to the above scheme at its meeting held on 6th August, 1973 (Item No.21) agreed that the original guidelines with regard to personal promotions may be revised as follows:-

"That the usual selection committees will draw up panel of eligible teachers indicating their order of preference."

The Commission desired that this change in the guidelines may be brought to the notice of the Universities immediately so that they would keep this in view while making personal promotions for 1972.

The Commission further agreed that in view of the recommendations of the "Sen Committee" which were under consideration, the personal promotions scheme may be

operated upon only for the year 1972 and the universities should implement this programme by the end of September, 1972.

The above decision of the Commission was communicated to the Central Universities accordingly.

At its meeting held on 10th September, 1973, the Commission inter alia agreed (Item No.1) that it may be brought to the notice of the universities again that the procedure was not to be continued for 1972 and no University could do the joint selection for 1972 and 1973. This decision was conveyed to the Central Universities accordingly.

In this connection it may be mentioned that the Delhi University, Jawaharlal Nehru University, Visva Bharati and the Aligarh Muslim University have implemented the personal promotion scheme for one year only viz. 1972. In so far as the Banaras Hindu University is concerned, it had decided to make personal promotions for two years at a time that is for the year 1972 and 1973. But it was indicated to the university that it was not in line with the guidelines prescribed by the UGC for personal promotions. The University was intimated that the personal promotions made for the year 1973 along with those for 1972 would not be acceptable to the Commission. The attention of the university was invited to our communication in which the university had been inter-alia informed (in accordance with the Commission's decision in the meeting held on 6th August, 1973 - Item no.21) that in view of the recommendations of the 'Scn Committee' which were then under consideration, personal promotions scheme may be operative only for the year 1972. It was reiterated that the 5% personal promotions had been sanctioned by the Commission only in respect of one year namely the year 1972 and that the question of operating the scheme for the year 1973-74 did not arise.

In the meantime, the Commission having agreed at its meeting held on 10th September, 1973 (Item No.1) that it may be brought to the notice of the Universities again that the programme (of personal promotions) was not to be continued for 1973 and that no university could do the joint selection for 1972 and 1973, the Banaras Hindu University along with other Central Universities, was informed accordingly.

The Banaras Hindu University again explained the case further and reiterated that it would not be possible for the university to give up the personal promotions scheme for the first two years viz. 1972-73 and 1973-74 nor would it be desirable for the Commission to give up the scheme from the year 1974-75 onwards, at least in

Contd.

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its application to that university. In reply the University was informed that it had been noted with regret that the university had made personal promotions for the years 1972 and 1973 jointly whereas according to the guidelines this should have been done separately for each year. It was suggested that the university should only take up pending cases for 1972 and not for 1973, as the Commission had already decided that the scheme will not be in operation after the selection for 1972 had been made by the Central Universities. The University further informed that it was not proceeding with the selections for 1974-75 but desired the reconsideration for the earlier year. The Banaras Hindu University was intimated that no other Central University had made selections under the above scheme simultaneously for two years, and that the Commission will have to follow the same procedure in respect of all the Central Universities. It was also mentioned to the University that it may be difficult for the Commission to accept the proposal of the university to implement the scheme for two years viz. 1972 and 1973 and that the implementation thereof could be agreed to only for 1972.

It, however, seems that the Vice-Chancellor, Banaras Hindu University, had discussed the above matter with the Chairman, U.G.C. and had also written to him in December, 1973. The original letter dated 5/7th December, 1973 of the Vice-Chancellor is not available in the Commission's office and the University has informed that no reply had been received by it. In this letter, the Vice-Chancellor stated inter-alia that the scheme having already been implemented for two years in most of the faculties, there was no scope to cancel the decision taken or to hold back its implementation in the remaining faculties of the university. He felt that the Commission should not object to the scheme being implemented for two years in the other Central Universities also. (A copy of the Vice-Chancellor's letter is enclosed) Annexure-I.

The Aligarh Muslim University has proposed that the above scheme of personal promotions of teachers may be continued for a year or two more. In this connection, the University has stated that:-

- (i) about a hundred selection committees for the teaching posts in all the Departments of studies had to be constituted and a number of selection committees were already constituted, but in the meanwhile, the Aligarh Muslim University (Amendment) Act, 1972 came into force basically changing the Constitution of the selection committees including the method of

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of appointment of experts on these committees. The appointments of experts made earlier on various selection committees could not be acted upon and therefore steps were initiated to appoint experts afresh on the various selection committees in the manner prescribed in the new statute. It was a time consuming tedious process which the University managed to complete as early as possible.

- (ii) The Selection Committees for personal promotion scheme could meet only from July, 1973 and during the process of making promotions, the university was advised to implement the scheme for the first year before 10.8.1973. The university went ahead with the implementation of the promotion scheme for the first year.
- iii) By the time the university was about to complete the personal promotion - appointments under the scheme for the first year, the university was given to understand that the scheme was for one year only. The restriction limiting the scheme to one year has left quite a considerable number of qualified, experienced and deserving Lecturers and Readers from being promoted.
- iv) The promotional avenues for the Lecturers and Readers being almost negligible, a number of qualified, senior and deserving teachers are stuck up for a considerable time. The personal promotion scheme was primarily aimed at removing discontentment on these counts.
- v) The revision of scales of pay of teachers from 1.1.1973 has also not given much relief to the senior teachers.
- vi) The Executive Council of the University at its meeting held in March, 1975 felt that there was a strong case for implementation of the scheme for another year or two.
- vii) The Executive Council again considered the matter at its meeting held in May, 1975 and urged that the proposal for personal promotion immediately of 9 Readers to Professorship and 19 Lecturers to Readership may be taken up with the Commission vigorously.

A copy of the letter dated 27th May, 1975 received from the Aligarh Muslim University in the above regard is attached (Annexure-II).

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The proposal of the Aligarh Muslim University for permitting it to implement the schem of personal promotion of teachers for a year or two more is placed before the Commission for consideration. It is also for consideration if the decision to be taken in the case of Aligarh Muslim University would be made applicable in other central universities and may also be recommended to the State / Universities.

/Governments

As(D5c)/DS(D5)

Annexure-I to item No. 10

D.O. No. AA/VI-F/3524

December 5/7, 1973

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My dear Dr. Jacob,

Please refer to your D.O. letter No. F.1-7/72(CU.I) dated November 19, 1973 regarding scheme of promotion of teachers in the Banaras Hindu University.

I hope you will not misunderstand if it is pointed out that the conclusion drawn in this letter is untenable. It is immaterial whether other Central Universities have or have not made selections even for one year. The Banaras Hindu University has followed the U.G.C. guidelines most rigidly both in letter and spirit. Now that the scheme has already been implemented for two years in most of the Faculties, there is no scope to cancel the decision taken or to hold back its implementation in the remaining Faculties of this University. The U.G.C., we feel, should not object to the Scheme being implemented for two years in the other Central Universities also. Indeed, they tentatively decided only in August, 1973 that the Scheme may not be proceeded with thereafter; therefore, they should not insist on retrospective effect to this decision.

I have already informed you in my last letter that we are not proceeding with these selections for the third year, because we do not wish to create any embarrassment to the U.G.C. I discussed the matter personally with you and you seemed to have appreciated our position.

With kind regards,

Yours sincerely
Sd/- K.L. Sirimali

Dr. George Jacob
Chairman
University Grants Commission,
Bahadur Shah Zafar Marg,
New Delhi-1.

Copy of the letter No.42/Reg/G dated 27th May, 1975 received from the
Director, Aligarh Muslim University.

Subject: U.G.C. Scheme of 5% Personal Promotion of University Teachers.

.....

The University Grants Commission, vide its letter No. F.1-9/72(CU-I) dated 18th February, 1972, conveyed to the University its acceptance of a scheme of personal promotion for University/college teachers to the extent of 5% in a year of the total staff (Non-Plan), and also the guidelines for the implementation of the scheme vide its letter No.F.1-7/72(CU-I) dated 10.8.1972.

2. On receipt of the aforesaid two letters, the University earnestly took up the matter. The question as to how the scheme be implemented was considered very carefully and the procedure to implement the Scheme was evolved.

3. The Commission vide its letter No.F.1-9/72(CU-I) dated 18th February, 1972, had, inter-alia, stated, "it was noted that the Selection Committee, as provided in the Statutes, would be involved in making the Selections for personal promotions." Accordingly, about a hundred Selection Committees for the teaching posts in all the Departments of Studies had to be constituted. There were a number of Selection Committees already constituted. But in the meanwhile the Aligarh Muslim University (Amendment) Act, 1972, came into force basically changing the constitution of the Selection Committees including the method of appointment of experts on these committees. The appointments of experts made earlier on various Selection Committees, could not be acted upon, and, therefore, steps were initiated to appoint experts afresh on the various Selection Committees in the manner prescribed in the new Statute. It was a time consuming tedious process which the University managed to complete as quickly as possible.

4. In the circumstances stated above, Selection Committees for 5% Personal Promotion Scheme could meet only from July, 1973. The process of making promotions of teachers under the scheme was under-way when the University received Commission's letter No.F.1-7/72(CU-I) dated 12th June, accordingly, the University went ahead with the implementation of the promotion scheme for the first year.

5. On the basis of the posts of lecturers and Readers (Non-Plan) available as on 1.4.1972, eight Readers and twenty Lecturers were promoted as Professors and Readers respectively. By the time the University was about to complete the promotion-appointments under the scheme for the first year, the University was given to understand that the scheme was for one year only. The restriction limiting the personal promotion to one year has left quite a considerable number of qualified, experienced and deserving lecturers and Readers from being promoted. The cases

1973, advising the university to implement the scheme for the first year before 10.8.1973.

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of these teachers have consistently been occupying the minds of the University authorities. The promotional avenues for the Lecturers and Readers being almost negligible, a number of qualified, senior and deserving teachers are stuck up for a considerable time. The personal Promotion Scheme was primarily aimed at removing discontentment on these counts. Some of the Readers and Lecturers have got relief by implementing the Scheme for one year, but the cases of other qualified and deserving members of the teaching staff are still pending. The revision of scales of pay of teachers from 1.1.1973, has also not given much relief to the senior teachers.

6. The Executive Council, at its meeting held in March, considered the whole matter carefully at length, and felt that there was a strong case for implementation of the Scheme for another year or two. The Council then passed the following resolution:

Pending implementation of the Promotion Scheme as contemplated in Sen Committee Report, the Vice-Chancellor be requested to persuade the University Grants Commission to permit the University to continue the 5% Personal Promotion Scheme for another year or two so that some hard and pressing cases of well-deserving teachers may be settled accordingly."

The Council again considered the matter in its May meeting and urged that the proposal for personal promotion immediately of nine Readers to Professorship and nineteen Lecturers to Readership may be taken up with the Commission vigorously. The decision of the Council in this regard is generally welcomed and if the Commission kindly agrees to the proposal, it will remove discontentment among the teachers and will promote better understanding and overall improvement in the academic work. Compared to the advantage the University may derive, the financial implications in this respect may not be much.

7. In view of the facts stated above, it is requested that the Commission may kindly consider the above proposal of the University sympathetically and permit the University to implement the Scheme of 5% Personal Promotion for a year or two more. This may please be treated as urgent, as any delay in implementing it would cause great frustration among senior teachers of the University.

An early reply is requested.

University Grants Commission

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Meeting:

Dated: 11-12th August, 1975.

Item No. 11 : To consider the programme of academic collaboration from the Universities of Poona (Department of Chemistry and Physics) and Panjab under Indo-British Universities Collaboration.

.....

Under the Indo-British University collaboration Programme which has been approved by the Govt. of India, there is provision for development of upto 15 academic links in pursuit of identified research programmes between selected universities in India and those in U.K. The programme has provision for exchange of exploratory visits by senior faculty members of the participating universities for drawing programmes of collaboration mutually acceptable to each other. The financial implications as already agreed to by the U.G.C. (India) and the India Committee (British Council Division) are that the sending side will meet both ways International air fare in respect of its nominees and the receiving side will provide the maintenance etc. for duration of stay in the host country under the Programme. The Commission is exploring the possibilities of procuring equipment which is essential in the pursuit of agreed joint research programmes under I.B.U.C. (and which is not available indigenously) through the Colombo Plan assistance.

On the basis of the exploratory visits between Senior Faculty members of the participating universities the Departments of Physics and Chemistry, Poona University and the Department of Chemistry, Panjab University, Chandigarh have submitted joint programmes of research as agreed to between the two participating universities. The details of the joint programmes are given below:-

1. Department of Physics, Poona University:

The programme as submitted by Prof. M.R. Bhiday (Annexure-I) involves collaboration with the two British Universities in the fields as indicated below:-

<u>University/ Dept. in India</u>	<u>University/Institution in U.K.</u>	<u>Field of collaboration</u>
Deptt. of Physics, Poona University.	1. University of York	1. Low Energy electron spectrometry for Surface Physics.
	2. University College, London.	2. Collisions of electrons and positons with stoms and molecules. Computer organisation and computer software.

The areas of research have been identified as of common interest which would benefit both.

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So far as the first programme i.e., Low energy Electron, Spectrometry for Surface Physics is concerned, both the departments of Physics, Poona University and the University of York have been doing pioneering work with the availability of electronic facilities necessary to fabricate certain items of equipment required for Surface Physics techniques. The modern sophisticated facilities developed at York University would be of great benefit and use to the Deptt. of Physics, Poona University in overcoming some of the difficulties experienced by it in this field of specialisation. To achieve that end, the two participating universities have agreed to strengthen and accelerate the research work in Surface Physics during the period 1975-80. The programme of collaboration involves:-

(1) Exchange of visits as indicated below:-

From York University to Poona University,	From Poona University to York University,
--	--

During the initial period of three years 1975-78

- | | |
|-----------------------|------------------------|
| 1. Dr. Martin Frutton | 1. Dr. S.K. David |
| 2. Prof. C.S. Heavens | 2. Dr. M.G. Takwale |
| 3. Dr. T.E. Gallon | 3. Dr. A.S. Nigavekar. |

The time and period (about 3-4 months) are to be determined by mutual consent of the two sides.

(2) Developing suitable equipment for augmenting the available facilities such as, fabrication of an ultra high vacuum chamber and a precision crystal manipulator and fabrication of other suitable items not usually available in India with the help of expertise and facilities and support available in the York University.

(3) To design and to make some of the rare and difficult items of equipment for which funds under Colombo Plan may have to be provided.

(4) Procurement of equipment and spare parts essential in pursuit of the agreed research project under Colombo Plan.

With regard to the second Research Project "Collisions of electrons and positrons with atoms and molecules. Computer organisation and computer software". The Atomic Physics group at the University College, London is one of the leading groups in the world and some of the theoretical and experimental studies in Atomic Physics particularly in areas such as electron-atom scattering, and inner shell ionisation effects have been done successfully there. These areas have been agreed to be pursued as common research project between the Poona University and the University College, London. With the acquisition of a powerful computing system by the Poona University (very similar to the configuration

University Grants Commission

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Meeting:

Dated: 11-12th August, 1975.

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Dept. of Physics, Poona University.	1. University of York	1. Low Energy electron spectrometry for Surface Physics.
	2. University College, London.	2. Collisions of electrons and positrons with atoms and molecules. Computer organisation and computer software.

The areas of research have been indentified as of common interest which would benefit both.

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So far as the first programme i.e., Low energy Electron, Spectrometry for Surface Physics is concerned, both the departments of Physics, Poona University and the University of York have been doing pioneering work with the availability of electronic facilities necessary to fabricate certain items of equipment required for Surface Physics techniques. The modern sophisticated facilities developed at York University would be of great benefit and use to the Deptt. of Physics, Poona University in overcoming some of the difficulties experienced by it in this field of specialisation. To achieve that end, the two participating universities have agreed to strengthen and accelerate the research work in Surface Physics during the period 1975-80. The programme of collaboration involves:-

(1) Exchange of visits as indicated below:-

<u>From York University to</u> <u>Poona University,</u>	<u>From Poona University to</u> <u>York University,</u>
--	--

During the initial period of three years 1975-78

- | | |
|-----------------------|-----------------------|
| 1. Dr. Martin Frutton | 1. Dr. S.K. David |
| 2. Prof. O.S.Heavens | 2. Dr. M.G.Takwale |
| 3. Dr. T.E.Gallon | 3. Dr. A.S.Nigavekar, |

The time and period (about 3-4 months) are to be determined by Mutual consent of the two sides.

(2) Developing suitable equipment for augmenting the available facilities such as, fabrication of an ultra high vacuum chamber and a precision crystal manipulator and fabrication of other suitable items not usually available in India with the help of expertise and facilities and support available in the York University.

(3) To design and to make some of the rare and difficult items of equipment for which funds under Colombo Plan may have to be provided.

(4) Procurement of equipment and spare parts essential in pursuit of the agreed research project under Colombo Plan.

With regard to the second Research Project "Collisions of electrons and positrons with atoms and molecules, Computer organisation and computer software". The Atomic Physics group at the University College, London is one of the leading groups in the world and some of the theoretical and experimental studies in Atomic Physics particularly in areas such as electronatom scattering, and inner shell ionisation effects have been done successfully there. These areas have been agreed to be pursue as common research project between the Poona University and the University College, London. With the acquisition of a powerful computing system by the Poona University (very similar to the configuration

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at the University College, London), the joint theoretical and experimental studies in Atomic Physics would be of great benefit to both the participating universities.

In the first phase of three years (1975-78), the joint programme between the Poona University and the University College, London pertains to the exchange of visits by specialists for periods 3-4 months each (time and duration to be decided mutually).

The exchange of visits is indicated below:-

From University College London to Poona University.	From Poona University to University College, London.
1. Mr. David Sturt	1. Prof. R.G. Takwale
2. Dr. A. Collin Day	2. Prof. K. Sathianandan
3. Prof. M.J. Seaton	3. Dr. F.S. Damle.

The progress of work under this programme would be reviewed in 1978 when Professor M.R. Bhiday would visit UK to discuss with Professor O.S. Heavens and Professor E.H.S. Burhop and Professor Heymann to decide the future plan of collaboration.

The purpose of exchange of visits by the faculty members of the participating universities for period 3-4 months is essentially for the cross fertilisation of ideas and personal contact between fellow scientists working in the same area of the two countries.

2. Department of Chemistry, Poona University:

The programme involves collaboration between the Deptt. of Chemistry, Poona University and its counter-part in the University of Manchester, U.K. in the following two research Projects:-

- i) Radiolysis in the Inorganic Solids.
- ii) Recoil Chemistry of neutron irradiated oxycompounds with dopants.

The Pulse radiolysis work will be carried out at Manchester University since there is no similar machine at Poona University. The work at Poona will involve the production and study of the stable species formed by the decay of the transient species. Adequate facilities exist in Poona for this work. With regard to the second Project, facilities of a nuclear reactor, nano-second pulse radiolysis

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and solid State fast counters for gammas and short lived transients available in the Chemistry Department of the Manchester University would be used for work in Recoil Chemistry. While reactor irradiations and analysis of short lived transients will be done in Manchester, low flux irradiations and analysis of relatively longer lived isotopes will be done in Poona. It is also proposed to use substances doped with suitable foreign ions as targets.

The two research Projects would involve the following exchange of visits by faculty members from both sides.

a) From Manchester to Poona:

- 1) Dr. G.W.A. Newton, Chemistry Department, University of Manchester for about 8 weeks, 1975-76.
- 2) Dr. V.J. Robinson, Chemistry Department, University of Manchester for about 8 weeks, 1976-1977.

b) From Poona to Manchester:

- 1) Dr. S.F. Patil, Deptt. of Chemistry, University of Poona, for about 2 years (January 1976 to December, 1977).
- 2) Prof. H.J. Arnikar, Deptt. of Chemistry, University of Poona, for about 4 weeks (February, 1977).

The plan of research collaboration between the two universities is attached (Annexure-II).

3. Department of Chemistry (Panjab University)

The programme involves collaboration between the Department of Chemistry, Panjab University, Chandigarh and its counter part in Nottingham University, U.K. The collaboration would involve joint research on non-aqueous solvents with sophisticated techniques such as laser Raman and Δ Spectroscopy, Nuclear Magnetic Resonance, X-ray Crystallography etc. Other joint research programme may also be undertaken on some new topics in Inorganic Chemistry with mutual consent viz tin chemistry sulphur-nitrogen, silicon-nitrogen, nitrogen chemistry and Coordination Chemistry. The Exchange programme will involve the movement of two to three persons from each side annually and the duration of their stay in the host country will range from two to six months. The first exchange of visits will be as follows:-

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- a) From Nottingham to Panjab University, Chandigarh - Dr.M.Logan.
- b) From Panjab University, Chandigarh to Nottingham University, U.K. - Dr. Gurdev Singh.

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The subsequent exchanges will be decided by the two universities later. The whole programme is envisaged for a period of five years but it will be reviewed after three years for any modification in the light of experience gained. A copy of the plan of action received from Prof. R.C. Paul, Vice-Chancellor, Chandigarh is attached. (Annexure-III)

The matter is placed before the Commission for consideration.

J.S.(II)/E.O.(CE)

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Annexure I to Item No.11

DEPARTMENT OF PHYSICS
UNIVERSITY OF POONA
POONA -411007

INDO-BRITISH UNIVERSITIES COLLABORATION PROGRAMME

<u>In India</u>	<u>In U.K.</u>	<u>Field of common interest</u>
Department of Physics, University of Poona	1. Department of Physics, York University, York.	1. Low energy electron spectrometry for Surface Physics.
	2. University College London.	2. Collisions of electrons and positrons with atoms and molecules. Computer organisation and computer software. Curriculum development.

1. INTRODUCTION :

The collaboration between the Department of Physics, University of Poona and the University College London was discussed way back in March 1972 when Professor E.H.S. Burhop of University College London visited Poona. Professor Burhop appreciated the work in teaching and research that was being done in the physics Department at Poona and offered to give such assistance as he could from the University College, London. He further suggested that in the field of surface physics the Poona University Physics Department could also have a link with the Department of Physics at York. Subsequently the Poona University physics Department was chosen by the UGC as one of the departments participating under IBUC. Professor Bhiday visited England in October-November 1972, as a guest of the British Council. During this visit he discussed this collaboration with Professor Sir H.S.W. Massey, FRS, of the University College London, and Professor O.S. Heavens of the York University. The areas of research mentioned on page 1 were identified as of common interest, and where the research work would benefit from mutual help. It must be emphasized that these modern areas of work are not in progress anywhere in India and British collaboration is essential.

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The details about the exchange programme were finalized during the second visit to London of Professor Bhiday in January, 1974 on his way back from Canada. The British Council had arranged a meeting of Professor Bhiday with the representatives of ODA, IUC and the British Council.

Professor S.M.Vaidya visited the University College London and Dr.A.S.Nigavekar visited the York University during October 1974 to February 1975. The reports of these exploratory visits by Professor Vaidya and Dr.Nigavekar are enclosed herewith.

2. The importance of the fields chosen for collaboration:

1) With physics Department in York:

Low energy electron spectrometry is the technique of destructive surface chemical analysis of the solids. The most basic achievement of the Auger Spectroscopy in Surface physics has been in showing that many surfaces, thought to be clean, were in fact strongly contaminated. This alone will ensure that in the next decade this technique will be used at least as an auxiliary monitor in conjunction with other techniques for epitaxial growth, photoemission in metals etc. In Poona University we have a group, first of its kind in India, working in the field of surface physics. The surface physics group in York has done pioneering work in this field. In addition, they have got sophisticated technical facilities necessary to fabricate certain items of equipment necessary for surface physics techniques. The initial efforts done at Poona in the setting of the surface physics group were to be successful, it is essential to take help of the modern sophisticated facilities at York to overcome some of the difficulties faced by us.

ii) With University College London:

a) The Atomic Physics group at the University College London is one of the most leading groups in the world, in this field and we can carry out some theoretical and experimental studies in atomic physics, particularly in areas such as electron-atom scattering, positron scattering and inner shell ionisation effects.

b) We have been making considerable efforts to acquire a powerful computing system for the Poona University. The configuration which is likely to be available to us is very similar to the configuration with which University College London started a few years ago. It is in this context very useful to spend a considerable amount of time with the University College London Computer Centre persons and to study the organisation of a Computer Centre.

c) The Physics Department of the Poona University has just begun a five year project for the improvement of the undergraduate education in physics with a grant from the Indian UGC under the "College Science Improvement Programme University Leadership Project". Visits to the University College will help in carrying out the above programme, since this institution is one of the leading educational and research institutions in the world.

3. Future Programme of activities under IBUC for the period 1975-80:

1) With the Department of Physics, York University:

During this period efforts will be continued to strengthen and accelerate the already started research work in surface physics. This will be done:

- 1) by exchange of the faculty members in both directions.

The following persons from York are expected to visit Poona during the first phase of three years 1975-78.

- 1) Dr. Martin Prutton.
- 2) Prof. O.S. Heavens.
- 3) Dr. T.E. Gallon.

From Poona the following persons will be visiting York.

- 1) Dr. S.K. David.
- 2) Dr. M.G. Takwale.
- 3) Dr. A.S. Nigavekar.

2) by developing suitable equipment for augmenting the available facilities. The concrete example of fabrication of an ultra high vacuum chamber and a precision crystal manipulator are given in appendix 1. The point to emphasize is that this equipment if purchased commercially would cost atleast £4,500; the cost of fabrication works out to be £ 1600 only. The benefit of such an endeavour cannot be over emphasized. It is planned in future to take up the fabrication of other suitable items not usually available in India. It is also necessary to maintain a flexible, approach and decide on the details of fabrication in due course.

2) With the University College London :

The following persons are expected to visit Poona during the period 1975-78.

- 1) Mr. David Sturt.
- 2) Dr. A. Collin Day.
- 3) Prof. M.J. Seaton.

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From poona the following persons will be visiting London in the first phase of programme.

- 1) Prof. R.G.Takwale.
- 2) Prof.K.sathianandan.
- 3) Dr.F.S.Damle.

At the end of the third year it is essential to assess the progress done and to decide upon the programme to be followed in the last two years of collaboration. In view of this, Professor M.R.bhiday would visit U.K. in March 1978 to discuss with professor O.S.Heavens and professor E.H.S.Burhop and Professor Franz Heymann (new Head of the Department from October 75) to decide the future plan of action.

4) Relevance and Benefits of the Programme:

(1) The purpose of visits by faculty members for periods of three to four months is essentially the cross fertilization of ideas and personal contacts between fellow scientists working in the same areas in the two countries.

(2) It would be seen from the report of Dr.A.S.Nigamvekar that he has been able to build parts of equipment which was rather difficult to construct with our technology. Professor Heavens of York has agreed to complete these items in their own workshop. However, there still remain the question of bringing these parts fabricated by the University Department of Physics at York to India. It is therefore, suggested that one of the ways of collaboration would be to receive British support for fabrication at York and London. One such instance is mentioned in the appendix.1. There could be several such items fabricated at these two Universities by visitors from the University of Poona. They also could then design and make some of the rare and difficult items of equipment for which funds under the Colombo Plan could be provided. With such a broad-based collaboration both under the IBUC for visits of academic personnel, and under Colombo Plan for transfer of equipment and spare parts, a very useful and productive research can be developed in India during the next five years in order to attain a front line position for this University in the field for Materials Science.

(3) As can be seen from the report by Professor Vaidya he was able to acquaint himself with the work in atomic physics at the UCL. He has brought back several computer programmes for calculations in atomic physics and would help considerably in furthering this field of study at Poona. He also benefitted from discussions with computer personnel and would help us in organising our computer centre (to be funded by UGC) so as to ensure its smooth working.

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His visit to the Science Education Centre will go a long way in context of our CCSIR-ULP programme in Physics. As Professor Vaidya has rightly mentioned in his report, an exchange under IBUC should also be linked with a programme in Science Education besides research alone. This is essential as it would provide for better training of younger people in India leading to the necessary logistic support for the proper development and sustainance of front line research in India during the years to come.

Request for a financial assistance for the fabrication of equipment for the Department of Physics, Poona University (India) by the Department of Physics, York University (UK).

The Department of Physics, Poona University has established a research collaboration with the Department of Physics in York (U.K.) under the Indo-British Universities collaboration programme. Under this collaboration programme, apart from the exchange of faculty members; it is decided that Department of Physics in York would make available the sophisticated technical facilities at York to help to establish the Poona research group in Surface Physics.

Dr. Arun S. Nigavekar of the Poona group was recently in York for four months under this I-BU² programme. During his stay in York Dr. Nigavekar has finalised the design of an ultra high vacuum chamber and a precision crystal manipulator. Both these items of equipment are absolutely essential for accelerating the Auger electron spectrometry work already started in Poona. It requires a sophisticated technical machinery to fabricate these items. The Department of Physics in York has agreed to make these for Poona. The Poona University has the expertise to design the electronics system associated with this project. Dr. S.K. David of the Physics Department would go to York sometime in 1975 to study the electronics involved. The fabrication cost of these items of equipment in York is given below:

1. An UHV Chamber

i. Material cost	£ 725
ii. Labour charges	£ 250
Total	<u>£ 975</u>

2. A precision crystal manipulator.

i. Material cost	£ 335
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Report on the visit of Dr. A.S. Nigavekar to the
Department of Physics, York University, U.K. under the
Indo-British Universities Collaboration Programme.

I visited the Department of Physics in York from October 1974 to January 1975. The aims of my visit were:

- 1) To get familiar with the research work that is being carried out in the field of Surface Physics.
- 2) To find out in what way the sophisticated technical facilities at York could be used to accelerate the research work of the established group in poona.
- 3) To finalise tentatively the programme for the visit of the faculty members in York to poona.

I give below the progress made in achieving each of these aims:

- 1) In the first phase of the visit I worked on the retarding Field Auger Spectrometer and got familiar with the working of this instrument. Afterwards I was associated with the project on fabrication of a Scanning Auger Electron Microscope. The electron optics for the cylindrical hemispherical analyser and was set to detect the electrons in the energy range 25 to 1000 ev.
- 2) Along with these research activities I was discussing and planning with York group, the detailed programme for the collaboration in next few years. It was felt that if the initial efforts done at poona in setting of the Auger electron spectrometry (AES) technique, were to be successful it was essential to take, help of the modern sophisticated facilities at York to overcome some of the difficulties faced by us.

The York group readily agreed to help us in this. Hence during my stay I finalised the designs for an ultra high vacuum chamber and a precision crystal manipulator. Both these items of equipment are absolutely essential for AES work and, are designed by taking into consideration the type of research work we will be doing in the near future. The physics department in York has agreed to make these items of equipment for us. This equipment taking into consideration the material, labour and transportation charges will cost us about 1600 pounds. At present we are concentrating on the retarding field analysing system. In five years it is expected that we would be well equipped in Surface study techniques

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This, in addition to its research potentials, has got a great importance from the M.Sc. teaching point of view. Our boys will get trained, both from theoretical and experimental aspect, in these modern techniques in materials analysis.

3) The faculty members in York have shown a great interest in exchange visits. About five members will visit Poona in the next few years. Dr. Martin Prutton will work as a co-ordinator at York. The timings and the durations of the visits will be decided by Dr. Prutton in consultation with the British Council, the faculty members concerned and Poona University. The names of the faculty members who are willing to visit Poona are given below.

1. Dr. Martin Prutton.
2. Dr. J.A. Mathew.
3. Dr. T.E. Gallon.
4. Dr. A. Chambers.

Dr. S.K. David from Poona will be visiting York in September 1975.

This visit has been very beneficial to me and has helped for a accelerated progress of our activities at Poona. I would like to thank all those who made this fruitful visit possible viz. the Poona University, York University, the Indian U.G.C. and the British Council. I would like to express my sincere thanks to Prof. G.S. Heavens and Dr. Martin Prutton for their hospitality at the Department of Physics in York. I thank Mr. Fyfield and Mr. Willimott of the British Council London and Dr. Schweitzer of British Council, Bombay for all help in connection with my visit.

Research Collaboration between the Departments of Chemistry of the Universities of Manchester (U.K.) and Poona (India).

Introduction

An initial proposal for collaboration between the two departments in the areas of radiation and radio-chemistry has already been accepted in principle by the U.G.C. of India and the British Council. The purpose of the present document is to request financial support to initiate the collaboration, particularly to allow one of the staff at Poona (Dr. S.F. Patil) to spend up to 1-2 years in Manchester. Given below is an outline of the background to the project on which we expect Dr. Patil to be engaged. This is followed by suggestions as to the way in which the work would be divided between Poona and Manchester.

Radiolysis in Inorganic Solids

When ionising radiation passes through a crystalline solid, it may give rise to electronic and lattice defects. These electronic defects (usually called "colour centres", because many of them absorb light in the visible region) have been studied over many years, and are particularly well characterised in alkali halide crystals. There are two broad categories - electron and hole centres - but there are many different species in each category. Much of the effort in colour centre research has been in working out the structures and inter-relations of the various species, using a variety of physical and chemical techniques (e.g. optical measurements, thermal treatment, electron magnetic resonance, etc. etc.)

An interesting development in recent years has been the realisation that the stable (or meta-stable) species studied by the above techniques are often not produced directly by the radiation, but are formed by the decay of transient precursors. The way in which these transients are formed and decay is best studied by the technique of pulse radiolysis, in which the changes in optical properties are recorded immediately following a short burst of radiation (lasting 10^{-8} - 10^{-7} seconds). A group at Manchester (consisting presently of Drs. M.A.J. Rodgers, G.W.A. Newton and V.J. Robinson and Mr. M.R. Chandratillake) has been working in this area for over a year, using the pulsed electron accelerator at the Christie Hospital, Manchester. The results already obtained, (see attached appendix) have convinced us that this is a fertile area for further, more detailed, investigations to which we hope Dr. Patil will be able to contribute, and which should lead to a

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a significant increase in understanding of electronic defects and their reactions.

Plan of Research

The pulse radiolysis work will be carried out at Manchester, since there is no similar machine at Poona. The work at Poona will involve the production and study of the stable species formed by decay of the transient species. Adequate facilities exist in Poona for this work. We have already found such studies to be essential in understanding the reactions of the transients.

Project II

While the project I (Radiolysis in Inorganic Solids) will be carried out mainly in the Chemistry Department of the University of Manchester, a second project is hereby proposed on Recoil Chemistry which would be worked out partly in Poona and partly in Manchester. Though recoil reactions following the capture of thermal neutrons have been studied in a large number of substances, it cannot be said that a

satisfactory model has emerged which can predict initial retention values or the mechanism of annealing reactions.

The Chemistry Department of the Poona University has facilities for irradiations by both slow and fast neutrons besides a 2 kilo-curie cobalt-60 source for steady gamma irradiation, besides equipment for counting betas and gammas.

Work on recoil chemistry has been in progress in Poona for over 10 years now, mainly on chlorates, bromates, iodates and recently on arsenates and antimonates. Chemical analysis of aqueous solutions of irradiated solids has been the main technique in all this work. This does not tell with certainty the nature of the initially formed species following neutron capture. A stage is now reached that work in recoil chemistry of this type has to be followed by other techniques of in situ analysis. It is proposed to use the facilities of a nuclear reactor, nanosecond pulse radiolysis and solid state fast counters for gammas and short lived transients available in the Chemistry Department of the Manchester University for work in recoil chemistry in collaboration with the University of Poona. While reactor irradiations and analysis of

short lived transients will be done in Manchester, low flux irradiations and analysis of relatively longer lived isotopes will be done in poona. It is also proposed to use substances doped with suitable foreign ions as targets. Some work on bromates and arsenates doped with nitrites has been in progress in Poona. To start with, it is proposed to investigate the recoil reactions in bromates doped with MnO_4 ions.

APPENDIX

Summary of Results Obtained in pulse Radiolysis of Alkali Halides (Jan. 1975)

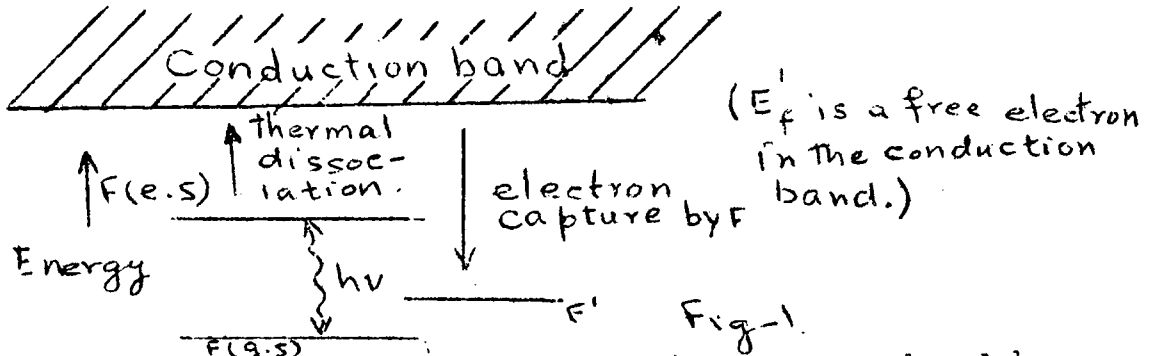
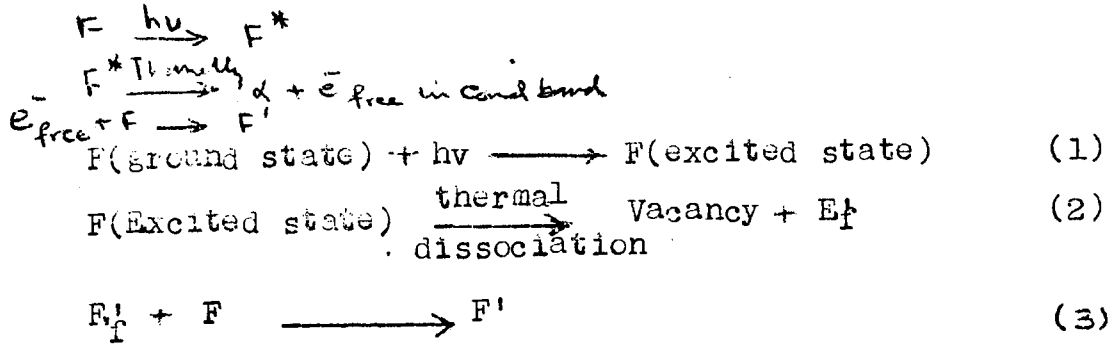
M.A.J. Rodgers, G.W.A. Newton, V.J. Robinson, M.R. Chaudratillake.

Most of the work has concentrated on potassium chloride up to now, but we are just starting to look at potassium bromide and sodium chloride. There are significant differences in the nature and rates of reactions in different alkali halides. Most of the results discussed below are for KCl. The experimental technique which is used, is to measure the optical density of a single crystal at a particular wavelength as a function of time after the radiation burst. By analysing the extent and decay of the absorption it is possible to draw conclusions about the rate (and by inference the nature) of the reactions occurring.

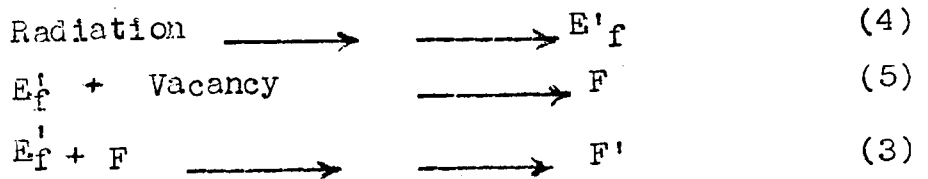
Electron Centres The major electron centre produced by the radiation is an F centre, which consists of an electron bound to an anion vacancy. The vacancy may pre-exist in the crystal, or may be produced by the radiation. The centre absorbs light in the red region 550 nm in KCl. At room temperature, the F centre appears to be produced during the electron pulse (5ns) and only a small fraction of this centre decays following the pulse.

Another electron centre which is produced is the F' centre. This is unstable at room temperature, although it is known at low temperatures, and we have made a detailed study of this centre. The centre is known to consist of two electrons bound in a single anion vacancy. It has a very broad absorption band, extending far into the infra-red. At low temperatures, the F' centre is metastable, and can be made by irradiating F centres with light corresponding to their absorption maximum. The overall process may be summarised:-

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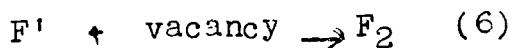


In our system, the F' centres are produced by the radiation pulse, and the mechanism of formation is rather different:-



Steps (5) and (3) indicate competition occurring between vacancies and F centres for the electrons produced by the pulse. Consistent with this idea is the fact that very few F' centres are produced in a fresh crystal (since there are no F centres present). After a few pulses, the F concentration builds up, and (3) becomes important. Repeated pulsing leads to a saturation effect in which the F' concentration produced by a pulse is constant, i.e. virtually all available electrons react by (3) rather than (5).

Detailed analysis of the F' decay indicates there are two components. The longer lived component decays exponentially with a half life of $130 \pm 10 \mu\text{s}$ at room temperature. It seems likely that this decay is a reaction with a vacancy to give the F_2 centre.



(The F_2 centre consists of the adjacent anion vacancies, with a bound electron pair).

The vacancy concentration is much greater than F' concentration but the rate appears to be controlled by diffusion of the vacancies towards the F' centre. Such a reaction is thought to occur at temperatures as low as 150°K, so it is not unreasonable to obtain a half life of 130µS at room temperature. The fast component does not decay exponentially. It does, however, appear to be the same species as the 130µS component since the ratio of initial absorbances of the two species is a constant, independent of wavelength. This ratio indicates that about 1/3 of the F' centres are rapidly removed (in about 20µS) while the rest decay more slowly. The most likely explanation at the present moment is that the fast component is a reaction with correlated vacancies, which are drawn towards the F' centre by coulomb interaction. We are about to study the temperature dependence of these reactions, which should put our speculations on a firmer footing.

The F' centre in KBr shows rather different kinetic behaviour. In the first place the rate of decay is about a hundred times faster. Also, other workers have suggested that the mode of decay is different in KBr, i.e.

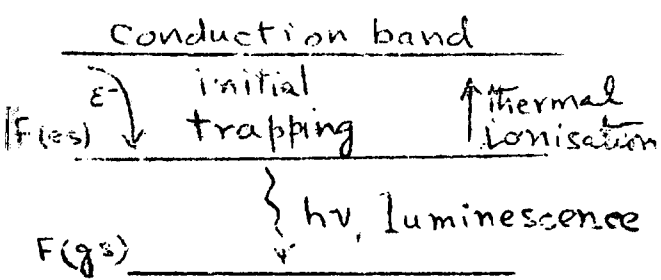


i.e. the process is an electronic one in which thermal ionisation of the F' centre is followed by capture of the electron of an empty vacancy. However, we have not observed any growth of F centres on the same time scale as the decay of F', so we cannot at present confirm this suggestion.

F centre Luminescence

We have observed a luminescence centred at 1200 nm which decays exponentially with a half life of 2×10^{-8} seconds at room temperature. The spectrum indicates clearly that the luminescence arises when an electron is trapped in the excited state which then decays to the ground state.

However, the half life is unexpectedly long. The reactions involved are shown in Fig.2.



At low temperatures, thermal ionisation is unimportant, and the excited F state decays with a half life of 8×10^{-7} seconds. As the temperature increases, the thermal ionisation path becomes more important, and both the lifetime and

Fig 2.

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the total luminescence intensity decrease. According to Swank and Brown, the life time is already down to 5×10^{-8} seconds at 150°K , so the value of 2×10^{-8} seconds at room temperature indicates that the temperature dependence is "non-Arrhenius." We are carrying out further work at different temperatures to elucidate this.

Hole Centres: We have not so far studied these in as much detail as the electron centres. There is a transient absorption peak centred at 340 nm which decays with a short ($1-2 \times 10^{-6}$ sec) and a long (10^{-4} seconds) component. This result is similar to that found some years ago by Ueta, but his interpretation that this hole centre is reacting with an F or F' centre is inconsistent with our data. Clearly, there is much more work to be done here.

INDO-BRITISH UNIVERSITIES' COLLABORATION IN RESEARCH ONLY

between

The Department of Chemistry, University of Poona
(India)

and

The Department of Chemistry, University of Manchester.
(U.K.)

Titles of Research Projects :

- (i) Pulse radiolysis of Inorganic Solids
- (ii) Recoil Chemistry of neutron irradiated oxyc compounds with dopants

Duration : About 3 years (1975 -1977)

Report prepared by :

- (i) professor H.J. Arnikar,
University of Poona.
- (ii) Dr. G.W.A. Newton and
Dr. V.J. Robinson,
University of Manchester.

Date : January-March, 1975.

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INDO-BRITISH UNIVERSITIES' COLLABORATION IN RESEARCH

1. Background for Poona-Manchester Collaboration:

The Chemistry Departments of Universities of Poona and Manchester had been in close contact in the development of research in radiation chemistry for the past ten years through a series of two-way visits between the two Universities as listed below:

- (i) Prof. Arnikar's visit to University of Manchester for about one week in July 1964.
- (ii) Dr. A.V. Khedekar's visit to University of Manchester for six months (January-June 1966).
- (iii) Dr. G.W.A. Newton's visit to Poona University for six weeks (February-March 1967).
- (iv) Dr. D.K.Sharma's visit to University of Manchester for about two years in 1968-70.
- (v) Prof. Arnikar's visit to Manchester for about one week in September 1969.
- (vi) Prof. Arnikar's visit to University of Manchester for six weeks in November 1974 - January 1975.

A part of the research work in radiation chemistry (recoil reactions in bromates following (a) thermal neutron irradiation and (b) isomeric transition in bromates labelled with ^{80m}Br) under progress in this Department during the past ten years has been the result of joint planning between the two Universities.

On the strength of the above background of close contact and cooperation between the Universities of Manchester and Poona, following proposals are drawn up for collaboration in research on two specific projects, vi

- (i) pulse radiolysis of inorganic solids, and
- (ii) Recoil Chemistry of neutron irradiated oxy-compounds with dopants.

These were provisionally agreed upon between Dr. G.W.A. Newton and his group in Manchester and Prof. H.J. Arnikar during the latter's exploratory visit to Manchester in November 1974 - January 1975 under phase I of the IBUC.

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2. Research facilities at Manchester and Poona :

The Chemistry Department of the Manchester and Poona Universities are well equipped and have experienced staff to carry out the above work in collaboration. Major items of equipment available at the two places are listed below:

<u>At Manchester</u>	<u>At Poona</u>
(i) 10 MeV nano-second pulse electron accelerator (Christie Hospital)	(i) 2 KCl Co-60 gamma cell
(ii) Spectrophotometric and fast Oscillographic accessories coupled to (i)	(ii) Variety of neutron sources Sb-124 + Be Pu-238 + Be Pu-239 + Be Am-241 + Be
(iii) Ge-Li solid state fast counter	(iii) Liquid scintillation counter.
(iv) Tandem van de Graff heavy ion accelerator	(iv) Low background beta counter
(v) University Research Nuclear Reactor (Bisa)	(v) 100-channel PH Analyser.
(vi) Computer centre	(vi) Regular supply of radioisotopes from B.A.R.C., Bombay

3. Research Project 1 : pulse radiolysis of inorganic solids.

Introduction : Earlier work

When ionising radiation passes through a crystalline solid, it may give rise to electronic and lattice defects. These electronic defects (usually called 'colour centres', because many of them absorb in the visible region) have been studied over many years, and are particularly well characterised in alkali halide crystals. There are two broad categories - electron and hole centres - but there are many different species in each category. Much of the effort in colour centre research has been in working out the structures and inter-relations of the various species, using a variety of physical and chemical techniques (e.g. optical measurements, thermal treatment, electromagnetic resonance, etc.).

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An interesting development in recent years has been the realisation that the stable (or meta-stable) species studies by the above techniques are often not produced directly by the radiation, but are formed by the decay of transient precursors. The way in which these transients are formed and decay is best studied by the technique of pulse radiolysis, in which the changes in optical properties are recorded immediately following a short burst of radiation (lasting 10^{-8} - 10^{-7} seconds). A group at Manchester (consisting presently of Drs. M.A.J. Rodgers, G.W.A. Newton and V.J. Robinson and Mr. M.R. Chandratillake) has been working in this area for over a year, using the pulsed electron accelerator at the Christie Hospital, Manchester.

The results already obtained, have convinced us that this is a fertile area for further, more detailed, investigations to which we hope Dr. Patil from Poona will be able to contribute, and which should lead to a significant increase in the understanding of electronic defects and their reactions.

Plan of research :

The pulse radiolysis work will be carried out at Manchester, since there is no similar machine at Poona. The work at Poona will involve the production and study of the stable species formed by decay of the transient species. Adequate facilities exist in Poona for this work. We have already found such studies to be essential in understanding the reactions of the transients.

4. Research Project II : Recoil chemistry of neutron irradiated oxycompounds with dopants:

Introduction : Earlier work

Though recoil reactions following the capture of thermal neutrons have been studied in a large number of substances, it cannot be said that a satisfactory model has emerged which can predict initial retention values or the mechanism of annealing reactions.

Work on recoil chemistry has been in progress in Poona for over 10 years now, mainly on chlorates, bromates, iodates and recently on arsenates and antimonates. Some work on bromates and arsenates doped with nitrites has been in progress in Poona. Chemical analysis of aqueous solutions of irradiated solids has been the main technique in all this work. This does not tell with certainty the nature of the initially formed

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species following neutron capture. A stage is now reached when work in recoil chemistry of this type has to be followed by other techniques of in situ analysis.

Plan of research :

It is proposed to use the facilities of a nuclear reactor, nano-second pulse radiolysis and solid state fast counters for gammas and short lived transients available in the Chemistry Department of the Manchester University for work in recoil chemistry in collaboration with the University of Poona. While reactor irradiations and analysis of short lived transients will be done in Manchester, low flux irradiations and analysis of relatively longer lived isotopes will be done in Poona. It is also proposed to use substances doped with suitable foreign ions as targets.

5. IBUC Exchange Visits involved from Manchester to Poona and back :

(1) Invitee : Dr. G.W.A. Newton, Department of Chemistry, University of Manchester.

Duration: About 8 weeks (September-October 1977)

Purpose : (a) To organize work on (n, Y) reactions in oxycompounds with dopants (Project II).

(b) To organize a seminar on theory and application of pulse radiolysis for M.Sc. and research students of Physics and Chemistry.

(c) To plan and advise on essential equipment to be procured as gift under the Colombo Plan.

Approximate costs involved:

(a) For the British Council

(b) For the U.G.C. India

(i) Airfare from Manchester to Poona and back

(i) Maintenance allowance for about 8 weeks to Dr. Newton

(ii) Contingency and other expenses

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(2) Invitee : Dr. V.J. Robinson, Department of Chemistry,
University of Manchester.

Duration: About 8 weeks (September-October 1976).

Purpose : (a) To organize work on the analysis of
relatively longer lived species of
steady gamma radiolysis (Project I).

(b) To organize a seminar on the applica-
tion of radiation and radioisotopes in
Biology and Industry.

Approximate costs involved :

- | | |
|--|---|
| (a) <u>For the British Council</u> | (b) <u>For the U.G.C. India</u> |
| (i) Airfare from Manchester
to Poona and back | (i) Maintenance allowance
for about 8 weeks to
Dr. Robinson |
| | (ii) Contingency and other
expenses. |

From Poona to Manchester and back:

(1) Invitee: Dr. S.F. Patil, Department of Chemistry,
University of Poona.

Duration: About 2 years (January 1976 -December 1977)

Purpose : To work on pulse radiolysis of inorganic
solids with the group in Manchester.

Approximate costs involved:

- | | |
|--|---|
| (a) <u>For the British Council</u> | (b) <u>For the U.G.C. Ind</u> |
| (i) Maintenance allowance for
about 2 years to Dr.Patil | (i) Airfare from Poona
to Manchester and
back |
| (ii) Other contingency expenses | |

(2) Invitee : Prof. H.J. Arnikaar, Department of Chemistry
University of Poona.

Duration: About 4 weeks (February 1977). This visit
will be common to the other IBUC project
on Chemical Education.

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- Purpose :
- (a) To evaluate the results of researches on Projects I and II.
 - (b) To evaluate the results of I.B.U. Collaboration in Chemical Education.
 - (c) To prepare final reports of the IBUC - Research and Chemical Education.
 - (d) To plan for future work of IBUC.

Approximate costs involved :

- | | |
|---|---|
| <p>(a) <u>For the British Council</u></p> <ul style="list-style-type: none"> (i) Maintenance allowance for about 4 weeks to Prof. Arnikar (ii) Contingency and other expenses | <p>(b) <u>For the U.G.C. India</u></p> <ul style="list-style-type: none"> (i) Air fare from Poona to Manchester and back |
|---|---|

6. Equipment to be obtained as gift under the Colombo plan:

It would be necessary to obtain the following equipment as gifts under the Colombo plan for advanced work in radiation and nuclear chemistry as a continuing activity :

- (i) Californium-252 fission neutron source.
- (ii) Ge-Li solid state fast gamma counter with accessories.
- (iii) Any other equipment found necessary during the progress of Projects I and II.

7. Value of the Research Projects to other Departments:

- (i) Possible development of a general model for the formation and decay of radiation induced defects in crystals;
- ii) a better understanding of recoil reactions in crystals;
- iii) training of students of different disciplines (Chemistry, Physics, Biology and people of industry) in the applications of radio-active isotopes during the seminars by Drs. Newton and Robinson,

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- (iv) Establishment of long range collaboration in Science Education and research between Great Britain and India.

7. Evaluation :

A periodic stage to stage critical evaluation of the progress of the work is built into the over-all IBUC Project, during the series of exchange visits. The over-all progress of the collaboration in the two research projects may be assessed in part by the results obtained and by the subsequent publications.

9. Clearances needed from the U.G.C. (India) and the British Council:

- i) Approval of the two research projects;
- ii) Clearance of the following personnel for the exchange visits under IBUC -
 - (a) From Manchester to Poona :
 - (1) Dr. G.W.A. Newton, Chemistry Department, University of Manchester for about 8 weeks, 1975-76.
 - (2) Dr. V.J. Robinson, Chemistry Department, University of Manchester for about 8 weeks, 1976-77.
 - (b) From Poona to Manchester :
 - (1) Dr. S.F. Patil, Department of Chemistry, University of Poona, for about 2 years (January 1976 to December 1977).
 - (2) Prof. H.J. Arnikar, Department of Chemistry, University of Poona, for about 4 weeks (February 1977)
- iii) Clearance for equipment under the Colombo plan (to be specified).

10. Summary :

Two research projects in Radiation Chemistry are presented, to be carried out jointly by the Departments of Chemistry of the Universities of Poona and Manchester. (1) The background of the collaboration, (2) research facilities available in the two universities, (3,4) the plans of research on the two projects, (a) Pulse

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radiolysis of inorganic solids and (b) Recoil Chemistry of neutron irradiated oxycompounds with dopants, (5) the IBUC exchange visits involved, (6) equipment sought as gift under the Colombo plan, (7) the value of the projects to other Departments, (8) a mode of final evaluation of the projects and (9) clearances needed from the U.G.C. (India) and the British Council are presented for favourable consideration.

Sd/-
(H.J. Arnikar)

Department of Chemistry,
University of Poona,
Poona-411 007

3rd April, 1975

Sd/-
V.J. Robinson
Department of Chemistry
University of Manchester
Dated: 15.1.1975

For the attention of:

The India Committee in Britain
The British Council (London Office)
The University Grants Commission, India
(Delhi Office)

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Proposals for a Scheme of Collaboration between Chemistry Departments in the University of Nottingham (England) and Panjab University, Chandigarh.

(under the Indo-British University Collaboration Scheme)

1. These proposals are submitted as an agreed document by Professor R.C. Paul (Chandigarh) and Professor C.C. Addison (Nottingham). They represent recommendations decided upon during a visit by Professor Addison to Chandigarh in November 1974, and a subsequent visit by Professor R.C. Paul to Nottingham in May-June 1975. A preliminary report, written by Professor Addison on his return from India, was a declaration of intent, and the proposals therein were accepted by the India Committee on 12 December, 1974.

2. The proposals are based on our mutual interests in (a) research and (b) teaching methods in inorganic chemistry. Research. For some years, each department has been active in the field of inorganic chemistry in general, and non-aqueous solvents in particular, and important contributions to the subject have already been made by each Department. Altogether, over 400 scientific papers in the subject have been published by the two centres. This area of research involves the study of new reactions which are possible using liquids other than water, and the new compounds produced by these reactions. As there are many such liquids available for study, the contribution which can be made to chemistry, and to industry, is considerable, and the subject is very suitable as a basis for collaboration. The liquids themselves, or the products which can be obtained therefrom, are often of industrial importance. For example, liquid hydrogen fluoride is valuable in the preparation of fluorides used in nuclear reactors; the liquid nitrogen oxides are used as propellants, and the metal nitrates obtained from them give information about fixation of nitrogen in the soil.

Teaching. Each department has strong interests in teaching methods at undergraduate level, particularly in inorganic chemistry, and consultations at this level will be an important part of our collaboration. At

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Nottingham, we are at present concerned with development of new course units designed to relate our courses more closely with industry and the environment, and our practical courses include some new applications of physical techniques. The Chemical Society in Britain also runs meetings on curriculum development. We believe that a period spent at Nottingham would provide valuable experience for staff members from Chandigarh.

Panjab University has made extensive contributions to the College Science Improvement Project (COSIP) in chemistry. The syllabuses and the material produced by them has also been adopted by the neighbouring universities in the region. The relevant blow-up texts, teachers' guides and books of examination questions are of considerable interest to the teaching staff at Nottingham, and exchange visitors to Chandigarh from Nottingham could be of help in up-dating this literature.

3. Form of collaboration. We propose that this should involve visits of staff members in each direction, as detailed below. They will collaborate on aspects of research and teaching in inorganic chemistry which are of mutual interest. In particular, there are several aspects of research at Chandigarh which show promise for further development, but their full potential cannot at present be realised due to the lack of highly expensive and sophisticated techniques such as Laser Raman and Mossbauer spectroscopy, nuclear magnetic resonance, X-ray crystallography etc. The department at Nottingham possesses these facilities, and they should now become available to Chandigarh under our present proposals.

As well as taking part in research, staff visitors from Nottingham to Chandigarh would consult with staff at Chandigarh on the content of degree courses, particularly the scope of inorganic chemistry, and the relative emphasis to be placed on practical and theoretical work. They would hold seminars with students, and give courses of lectures on their specialist topics.

4. To achieve this collaboration, exchange visits from both sides should be arranged. Professor Addison has already visited Chandigarh in November 1974 for one month, and Professor Paul has visited Nottingham also for one month, during May-June 1975. Each now has an overall picture of the work being carried out in both Departments, and they are convinced that collaboration between the two departments would be very fruitful. To develop collaboration it is essential that other

staff members should also exchange visits. The duration of these visits however have to depend upon the position and the responsibility of the person in his Department, and the time which is available to him. This implies essentially that Professors would be able to make shorter visits of about one month, whereas more junior staff would be able to benefit from a longer visit. Most people will find it necessary to restrict their visit to a period of 2 to 6 months.

The programme of visits should be so arranged as to enable two persons from each Department to visit the other Department in each year. Professor Paul advises that visits from Nottingham to Chandigarh should preferably be arranged during the period October to March, for reasons of climate. The whole programme is envisaged as covering a total period of five years. After a period of about 3 years, it will be essential to review the progress made in the collaboration, so that any modifications in the programme can be made. For this purpose, we propose that Professor Addison and Professor Paul should again exchange visits for periods of about one month each after 3 years.

The persons to be involved in exchange visits, and the precise time and duration of the visits, will be determined by the two Professors by mutual consultation.

5. The following is a list of the present permanent staff members in Inorganic Chemistry at Nottingham, together with their special research interest:-

- Dr. M.G. Barker Reactions of metals and metal oxides with the liquid alkali metals. Solid state reactions of alkali metal oxocompounds with transition metal oxides at high temperatures. Structural studies on ternary oxide and ternary nitride systems. Phase analysis and indexing by computer methods.

- Dr. G. Davidson Vibrational (infra-red and Raman) spectroscopic studies of structure and bonding in organoderivatives of main-group and transition metals. Investigations of vibrational force fields of inorganic and organometalli molecules, including the development and refinement of computer programmes for this purpose.

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- Dr. M.F.A. Dove Reactions of inorganic fluorides in liquid anhydrous hydrogen fluoride. Solution studies by nuclear magnetic resonance (^1H and ^{19}F), infrared, Raman and uv-visible spectroscopy. Fluorination studies, especially halogen exchange reactions as carried out in liquid hydrogen fluoride.
- Dr. P.G. Harrison Synthetic, spectroscopic and structural studies of inorganic and organometallic derivatives of the Main Group metals. The use of such compounds as synthetic intermediates. The toxicology of organotin compounds. Chemisorption and catalysis on tin oxide surfaces using transmission infra-red. Tin-119 Mossbauer and n.m.r. spectroscopy.
- Dr. P. Hubberstey Investigation of binary and ternary liquid metal solutions containing non-metallic solutes using thermal analysis, electrical resistivity and related techniques. Solid state chemistry of metals and intermetallic compounds. Thermodynamics of liquid metal solutions.
- Dr. N. Logan Nitrogen oxides, oxide halides and nitric acid as non-aqueous solvents and reactants. Nitrogen oxo-cations and oxo-anions. Metal nitrate and carboxylate complexes. ^{14}N and ^{15}N . n.m.r. studies of inorganic compounds.
- Dr. R.J. Pulham Surface reactions of liquid alkali metals with gaseous elements and compounds. Solubility of salts and metals in alkali metals and their effect on freezing point and electrical resistivity.
- Dr. D.B. Sowerby Substitution reactions of linear and cyclic phosphazene halides. Synthetic and structural studies of organo-arsenic and -antimony compounds.

There are also other people in the Department, such as Research Assistants and Teaching Fellows, who might also with advantage be involved in exchange visits.

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6. The following is an alphabetical list of the present staff members in Inorganic Chemistry at Chandigarh together with their special research interests:-

- Dr. S.L. Chadha Non aqueous solvents (DMSO etc.)
Donor-acceptor complexes, coordination chemistry of metal alkoxides. Spectroscopic methods for the study of the structure of coordination complexes. Organometallic compounds of tin.
- Dr. Gurdev Singh Non-aqueous solvents. Coordination chemistry. Structural studies using spectra and magnetic methods. X-ray crystallography. Has been actively engaged in developing curricular material in Chemistry at school and college level and during the last three years has been a member of the COSIP study group.
- Dr. K.L Jaura
(Professor) Chemistry of Tin. Insertion reactions in tin complexes. He has been a member of the COSIP study group and is interested in improvement of teaching in Chemistry.
- Dr. V.P. Kapila Non-aqueous solvents. Strongly acidic solvents, especially those derived from sulphuric acid, disulphuric acid, methane sulphuric acid etc. Phosphoric acid esters as solvents. Structure and nature of solvates or complexes formed by them.
- Dr. R. Kapoor Non-aqueous solvents - formic acid and formates. Imidobis-sulphuryl chloride and related compounds. Dimethyl formamide and metal derivatives.
- Dr. S.P. Narula Non-aqueous solvents. Physical Chemistry including conductance, solvation and transport phenomenon. Thermochemical studies in non-aqueous single and mixed solvents. Main work has been in amide solvents. Silicon-nitrogen and tin-nitrogen compounds.

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- Dr. Ram Parkash Analytical Chemistry. Development of Redox reagents.
- Mr. S.K. Rehani (On leave in Cambridge for Doctoral Research)
- Dr. A.K. Sharma (On leave as Professor of Chemical Education) Much interest in teaching and development of curriculum material at school and college levels. Interest in the chemistry of vanadium.
- Dr. S.K. Vashist (On leave for post Doctoral Research at Munich).
- Dr. R.D. Verma Non aqueous solvents. Chemistry of fluorine. Imidobis-sulphuryl chloride and related compounds, and sulphur-nitrogen compounds.

Dr. Sharma has joined as Professor of Chemical Education in the Regional college of Education NCERT at Mysore.

Dr. Narula, Mr. Rehani and Dr. Vashist, being on study leave or on extraordinary leave abroad, will not be available in the near future to visit Nottingham.

7. The Chemistry Department at Nottingham has excellent instrumentation facilities in the availability of:

- (a) N.M.R. with fluorine and phosphorus resonance along with proton.
- (b) Laser Raman
- (c) Mossbauer spectroscopy for the study of the structure of tin and iron compounds.
- (d) X-ray crystal structure facility-coupled with computer so that the results are available in a short period.

as well as the normal facilities available in chemical laboratories.

The department at Chandigarh has excellent facilities for thermogravimetric work and derivatographic work. It has also normal facilities for i.r. spectroscopy and magnetic work.

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The two departments could therefore easily collaborate on various fields in inorganic chemistry such as non aqueous solvents in the chemistry of fluorine, tin chemistry, sulphur-nitrogen, silicon-nitrogen and tin nitrogen chemistry and coordination chemistry and related fields.

Concerning the teaching of chemistry, the department at Chandigarh is one of the foremost in India and has made valuable contributions both at school and college level. The staff at Nottingham is also interested in this work and the collaboration of the two groups will help in updating the material especially that of the COSIP which at present is going through a follow-up programme.

8. The department of Chemistry at Chandigarh has been having some difficulties in obtaining foreign exchange from the Government of India in order to import a few inexpensive pieces of equipment to help the department in its effort to improve teaching and research in Chemistry. We estimate that the equipment which we would regard as essential for this purpose would cost about £ 10,000 and a grant of this sum would help the department out of these difficulties.

The request for funds to supply about £10,000 of equipment for Chandigarh was first made by Professor Addison at a meeting of the India Committee on 29 January 1975, when it was explained that this should be used for the purchase of specific pieces of equipment which would be of value both to teaching and research. At a meeting of the India Committee on 21 May 1975 we were notified that the provision of these funds had been approved in principle.

As part of this scheme of collaboration, we therefore propose to implement the recommended procedure. Professor Paul will submit detailed application papers, on Form A1, through the University Grants Commission, in Delhi. We understand that these papers would then be processed through the Department of Economic Affairs, Delhi, and the Overseas Development Ministry, London.

9. The present proposals are based on collaboration in inorganic chemistry. Perhaps at a later date (3-5 years) collaboration between other sections of the chemistry departments (organic and physical) could also be explored.

Sd/-
R.C. Paul

Sd/-
C.C. Addison

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There was a meeting of the sub-committee of the India Committee (U.K.) with Professor Paul and Professor Addison on 18th June while Professor Paul was in London. The enclosed papers were discussed. In order to explain certain points raised during the discussion an appendix is being enclosed.

This appendix gives in general lines the background thinking to the proposal.

(a) The country needs well trained chemists for Research, Industry and teaching.

(b) This link, it is hoped, will benefit the country by providing well trained teachers and research workers in Inorganic Chemistry. We wish to emphasise that we do not want to completely separate Research from teaching. Good teachers should be actively engaged in research and the reverse is also true.

(c) We do not believe that it is of benefit to this collaborative programme or any academic department, to attempt to define any one industrial topic on which we are concentrating our research. On the other hand, we have indicated under section 2 some of the ways in which our research in Inorganic Chemistry is of potential industrial value. The particular areas being investigated in the laboratory at any particular time must necessarily depend to some extent on the individuals taking part in exchange at that time.

(d) Some of the areas of Inorganic Chemistry in which research (collaborative) will be conducted, have been given near the bottom of page 6. Non-aqueous solvents is going to be the major area of research. As will be seen from the staff list of the two departments majority of the staff members both at Nottingham and Chandigarh are working in this field. By pooling up our resources in equipment and men the research potential of both the departments will improve enormously.

(e) Other fields of research which have been mentioned have, all put together, not as many workers as in non-aqueous solvents and related fields. Collaborative work will also be undertaken in the fields wherever possible. Research, perhaps in some new topics in Inorganic Chemistry, may also be started in the two departments if the two groups feel like doing so.

(f) The exchange programme under this will envisage the movement of two persons from each side and the duration of their stay in the host country as has been made clear, will be from 2 - 6 months. This will mean, in terms of finances, that the British Council will have to pay two return air fares for the staff members of Nottingham University and U.G.C. will pay for the stay and travel in India of two members of the Chemistry staff, each one of whom will stay in India for a period extending from 2- 6 months.

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Similarly two staff members will move from Chandigarh to Nottingham every year. This in financial terms means that University Grants Commission will have to provide for two return air tickets for their travel. The British Council will have to meet their expenses in Britain on internal travel and per diem expenses.

We have consulted each other and have decided that Dr. N. Logan will be the first person to move from Nottingham while Dr. Gurdev Singh will be the first person to move from Chandigarh. The name of the 2nd person from each department will be given in due course of time.

(g) A list of equipment to be obtained for the Chemistry Department at Chandigarh will be submitted to the University Grants Commission (India) for being processed (on form A), through normal channels.

(h) To sum up the financial commitment of the British Council (U.K.) and U.G.C. (India) for the first two year (1975-76 and 1976-77) will be as follows:

U.G.C.
1975-76

- i) Return air fare for two persons from Chandigarh to U.K.
- ii) Travel within India and per diem expenses of two persons from Nottingham for three months each.

U.G.C.
1976-77

- i) Return air fare for two persons from Chandigarh to U.K.
- ii) Travel within India and per diem expenses of two persons from Nottingham for three months each.

British Council
1975-76

- i) Return air fare from Nottingham to India for two persons.
- ii) Internal travel and per diem expenses for two persons from Chandigarh for a period of six months each.

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- 1976-77
- i) Return air fare from Nottingham to India for two persons.
 - ii) Internal travel and per diem expenses for two persons from Chandigarh for a period of six months each.
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CONFIDENTIAL

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UNIVERSITY GRANTS COMMISSION

Meeting :

Dated: 11th & 12th August, '75

Item No. 12: To consider further the question of providing financial assistance to full-time Research Scholars/Junior Research Fellows working in universities and colleges for visits abroad either in connection with the research work or for attending international conferences.

The University Grants Commission at its meeting held on 14-15th July, 1975 considered the question of providing financial assistance to full-time Research Scholars/Junior Research Fellows working in universities and colleges for visits abroad either in connection with the research work or for attending international conferences. The Commission desired that a detailed note giving the present practices of providing assistance to teachers/research fellows to attend international conferences and for visits abroad for collecting materials may be placed before the Commission.

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In the case of teachers working in universities for attending international conferences, symposia etc. where research papers are presented the Commission sanctions assistance towards travel grants at the rate of 50% of the travel expenses International Air fare by Economy Class and 50% of the maintenance and the registration expenses provided the other 50% of the travel expenses as also 50% of the maintenance/registration expenses of the teachers are met by the university/State Government from its own fund/resources. The teachers participating in such conferences, seminars, symposia etc. are required to travel by Air India on the sectors where it operates. Even in Sectors it does not operate, air passage should be booked through the Air India. The assistance for this is made available by the university from the unassigned grants allocated to them by the Commission every year to the extent of 50% of UGC's contribution, the remaining 50% being met by the university/State Government from its own resources. The University's contribution will also include expenditure of maintenance and registration.

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The Commission is also receiving requests from teachers of affiliated colleges for assistance for attending International conferences, courses abroad duly recommended by the authorities concerned. Such requests are entertained by the Commission separately if an assurance that 50% of the international travel cost will be met by the college/State Government/university concerned but not by the teacher himself nor some other private organisation or individual on behalf of the teacher before the Commission's share of 50% of the travel cost is released. The Commission normally appoints two experts to assess the papers to be presented by the teachers in international conferences to ensure that they are of the required standard. On the basis of comments by the Experts, the Commission provides 50% of the international travel cost of such teachers deputed abroad. In the case of eminent and widely known teachers, reference to experts is usually done away with. The request for such

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travel grants from the Commission are required to be received normally in the Commission's office 45 days before the actual date of conference or courses.

In the case of full time research scholars/junior research fellows working in universities and colleges for visits abroad either in connection with the research work or for attending International Conferences, similar assistance used to be given till 1972-73. In view of financial stringency, the scheme for providing financial assistance to full time research scholars and junior research fellows for this purpose was not implemented from September 1973 onwards.

The question of giving financial assistance to full-time research scholars and junior research fellows was reconsidered by the Commission subsequently and it was decided that this scheme may not be implemented in the year 1974-75 for the same reason.

It is for consideration whether the above mentioned programme be revived during 1975-76. The University Grants Commission has

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since created the category of Research Associate-
ships also besides junior and senior research
fellowships. There is no category of research
scholarships at present at post M.A./M.Sc. level.

The matter is placed before the Commission
for its consideration.

E.O.(CP)/Addl.Secy. . .

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 11th & 12th August, '75

Item No. 14: To consider the question of raising the value of fellowships awarded to students in computer science and instrumentation from Rs. 250 to 400 p.m. per fellow.

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Under its programmes of fellowships and scholarships, the University Grants Commission is also awarding fellowships/scholarships to students in Post-M.Sc./B.E. courses, the value of which being Rs.250/- per month per fellow/scholar.

In the case of postgraduate scholarships in Engineering and Technology, the Commission has already agreed to increase its value from Rs.250/- to Rs.400/- per month with effect from 1.7.1974 and these Postgraduate scholarships in Engineering and Technology are available to students at university departments admitted to these courses against approved intake. 1279 such scholarships are available to universities for these courses and the candidates to be admitted are required to have atleast 55% marks at the qualifying examination i.e. a degree in engineering for example B.E. and the duration for these scholarships is 24 months or completion of the course whichever is earlier. These scholarships in engineering and technology include courses in Pharmacy also.

The Commission has also sanctioned fellowships to students who have joined Post-M.Sc./B.E. Postgraduate courses, in computer sciences, instrumentation courses, television and engineering, instrumentation and workshop technology, and Space Sciences. These fellowships value of which is 250/- per month per fellow have been sanctioned to institutions like i) Birla Institute of Technology and Sciences - 24 Fellowships/in Instrumentation and Computer Sciences, (ii) Aligarh Muslim University - 10 Fellowships in Computer Sciences, (iii) Koorkee University - 7 Fellowships in Computer Sciences and 10 fellowships in Television Technology, (iv) Andhra University - 6 Fellowships in Instrumentation and Workshop Technology, (v) Gujarat University - 5 Fellowships in Space Sciences and (vi) Kerala University - 7 in Space Sciences.

The fellowships in these courses are sanctioned to those who have passed with a first class in M.Sc., for T.V. Technology or 55% marks at the M.Sc. or M.E. examinations,

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for Computer Sciences, 55% marks in M.Sc. or B.Sc. (Engineering) for Space Sciences - all for a duration of one year.

In view of the fact that values of most of the scholarships or fellowships sanctioned by the Commission to courses for which the minimum eligibility qualifications are a good Postgraduate degree in the Science subjects or a B.E. or B.Sc. degree in Engineering have already been enhanced from Rs.250/- to Rs.400/- per month, it is for consideration whether similar fellowships awarded by the Commission in other subjects for which similar minimum qualifications have been prescribed but the value of scholarships/fellowships in such cases is Rs.250/- per month be also raised to Rs.400/- per month as already done in similar other cases.

The matter is placed before the Commission for its consideration.

E.O.(CP)/Addl.Secy.

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Meeting :

Dated : 11th & 12 August, 75

Item No.16: To consider the recommendations of the committee appointed by the Commission to examine the proposal of the university of Bombay for the development of Computer facilities.

.....

The University of Bombay submitted a proposal for the establishment of a university department of computer sciences. It was decided that an Expert Committee may visit Bombay University to examine the proposal and submit its recommendation to the Commission. An Expert Committee consisting of following members visited Bombay University on 5th February, 1975:-

1. Prof. R. Narasimhan, Tata Institute of Fundamental Research, Bombay.
2. Dr. P.V.S. Rao, Tata Institute of Fundamental Research, Bombay
3. Col. A. Balasubraminian, Department of Electronics, New Delhi.
4. Dr. D. Shankar Narayan, Addl. Secretary, U.G.C.

The Committee had detailed discussions with the Vice-Chancellor and other faculty members. The university was requested to submit a revised proposal on the basis of discussions. The Bombay university appointed a committee to prepare a detailed scheme for the establishment of university department of computer sciences. The report of this committee was considered by the Executive Council of the Bombay University. A copy of the letter received from the Registrar of the University in this regard is attached as Annexure.

The proposal of the university of Bombay was referred to expert members for comments. All the members have generally accepted the proposal of the Bombay University and have suggested that a computer of the level of TDC-316 which is being manufactured by ECIL Hyderabad would meet the requirements of Bombay University for the present. The exact configuration for this computer could be worked out in consultation with the members of this committee. The Commission may accepted in principle the recommendations of the committee and agree to provide TDC-316 level of computer of Bombay university. This will involve an expenditure of about Rs.25 to Rs.30 lakhs depending upon the configuration to be worked out and an additional grant of Rs.2 lakhs would be involved for installation. The other requirements of the Bombay university for maintenance of the computer centre and starting the department of computer sciences could be

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examined later by the University Grants Commission Standing Committee on computer development. The matter is placed before the Commission for consideration.

E.O. (SR)/Addl. Secy.

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Annexure to Item No. 16.

Copy of the letter No. APD/10726 of 1975 dated 20th May, 1975 received from the Registrar, Bombay University addressed to Dr. D. Shankar Narayan, Additional Secretary, University Grants Commission, New Delhi.

.....

Please refer to your D.O. letter No. F. 17-12/74(SR), dated 20th March, 1975 addressed to the Vice-Chancellor of this University.

The Executive Council of this University at its meeting held on 10th May, 1975, considered the report of the committee appointed to prepare a detailed scheme for the establishment of a University Department of Computer Science, with particular reference to the recurring and non-recurring expenditure involved in the scheme, in the light of the discussion which took place between the visiting committee of the University Grants Commission and the representatives of the University on 5th February, 1975. The Executive Council has directed me to approach the University Grants Commission for financial assistance for implementing the scheme, outside the allocation of Rs. 250 lakhs likely to be made available by the Commission for development programmes of the University in Humanities and Social Sciences and Sciences for the Fifth Plan period.

The University is of the opinion that although some facilities for instruction in computer science exist in institutions like the Bhabha Atomic Research Centre, Tata Institute of Fundamental Research and the Indian Institute of Technology, Pawai, the requirement of experts with adequate training in computer science, specially at the Master's degree level, is likely to be far greater than the number of qualified persons coming out of these institutions or other institutions in the country. The need for augmenting the instructional facilities in computer science and technology from the point of view of meeting the national manpower requirement in this area in the immediate future has been emphasised also by other national committees set up specifically to look into the problem. There is, therefore, an urgent need to take up a programme of teaching in computer science by the University.

The committee has recommended a scheme for the establishment of a Department of Computer science for undertaking teaching and research programme in Computer Science. The scheme will be placed before the Academic Council at its next meeting.

A computer Centre will have to be created as a part of the Department of Computer Science to help in the training of students. The department may be situated at

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the Vidyanagari Campus of the University.

The Department will need to have a permanent faculty consisting of eminent and competent academicians. It can, in the meantime, draw upon the Scientists at the Tata Institute of Fundamental Research, Bhabha Atomic Research Centre and the Indian Institute of Technology, Powai, as guest faculty to supplement academic activities of the department in the initial period of two or three years. Some permanent faculty (about 4 persons) will however have to be appointed to set the department going immediately.

The immediate objectives of the University are:-

- 1) To set up a Department of Computer Science at the earliest
- 2) To start curricular activities preferably by June, 1976.
- 3) To implement a two-year full-time course in computer Science on the basis of the Syllabus prepared by an expert committee appointed by the University as early as 1970-71.

In the light of the above, the priorities were fixed in the following manner:-

- 1) Appointment of the core staff necessary for the setting up of an operation of the Department of computer Science.
- 2) Meeting needs of instructional and curricular requirements.
- 3) Meeting the computational needs of the research activities of the various departments - It is necessary to use the existing large computing facilities at TIFR, IIT and BARC for which adequate funds should be made available to the University Departments.
- 4) Setting up of adequate computational facilities to meet the requirement on number 2 above on a priority basis.
- 5) Taking into account the growth potential and the computational requirements of the various departments and also to meet needs of the administrative group of the University, the prepare a phased programme in the phase 2 of which a large computer configuration can be included.

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In the light of the above priorities, a two-phased programme has been prepared for the acquisition of additional computer to meet the immediate requirements of the Department of Computer Science and also supplement this with a larger computer configuration to meet all the in-house computational needs of research activities and the administrative requirements in the course of next few years. The following phased programme is therefore being submitted for consideration of the University Grants Commission.

PHASE I

It is considered imperative to recruit at the earlier, the necessary staff required to man the Department of Computer Science and the following staff is recommended. Out of this, the appointment of the Professor and Head of Department is considered as crucial and most necessary for the overall growth of the department in the present context.

1. Salaries -Department of computer Science faculty including administrative staff	<u>Rs. in lakhs</u> R N.R. 1.99 -
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Academic Staff

Professor	30,000 p.a.	1
Reader	40,000 p.a.	2
Lecturer	25,000	2
Research Associate	17,000	2
Research Assistant	17,000	2

Administrative Staff

Superintendent	12,000 p.a.	1
Storekeeper	10,000	1
Stenographer	12,000	2
Accountant	10,000	1
Telephone Operator	9,000	1
Typist	9,000	1
Peon	8,000	2

2. Furniture & Fixtures		0.10	2.00
3. Books & Periodicals		0.10	0.50
4. <u>Laboratory Equipment</u>	<u>NR</u>		
Digital electronics	0.50	0.30	1.00
Test equipment	0.50		
5. Stationary & Consumables		2.00	-

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<u>6. Buildings</u>		<u>NR</u>	
i)	300 sq.ft. airconditioned are @ Rs.100 per sq.ft.	0.80	
ii)	Two 5 ton packaged airconditioners	1.25	0.10 3.15
iii)	Office space(for library typist etc.) 400 sq.ft.	0.40	
iv)	Punching room 500 sq.ft. Rs.100 per sq.ft.	0.30	0.40
v)	Seminar room 400 sq.ft. @ Rs.100 per sq.ft.		
<u>7. Computer System</u>			
	<u>Description</u>	<u>Essential</u>	<u>Desirable</u>
11.	Computer(with a minimum of 16 bits/word) with an average instruction time of the order of 2 microsecs.	Memory 48 kilobytes (8 bit-byta)	128 K byta core memory
2.	Card Reader	300 cards/min.	500/600 cards/min.
3.	Line Printer	400 lines/min.	800/900lines/min.
4.	High speed paper tape Reader and Punch	1500 lines/Sec.	1500 lines/sec.
5.	Console teletype (heavy duty)	ASR 35	Equivalent or better
6.	Dist drive with decountable disk-picks with a capacity in excess of 4 maga-bytes.	4.0 mega bytas or higher	7.5 mega bytes or higher.
7.	Two tape drives(industry compatible, 9 track)	43 to 64 byta/sec transfer rate	800/1600 BPI 60 K bytes/sec. transfer rate
<u>8. Unit Record Equipment</u>			
1.	Key punch	2 key punches printing type	0.29 - A-22
2.	ASR 33 teletype for off-line paper tape punching.		

Note: 1. Regarding the maintenance of the computer system it is felt that it is best done by the suppliers of the equipment. As such no maintenance staff has been provided. Operation of the computer can be carried out by research assistants, research associates and students since the system is basically for instructional purposes.



2. The administrative data processing requirements of the University in the Phase-I would be carried out on the currently available BM 1620 computer.

ESTIMATES OF EXPENDITURE (SUMMARY)

	<u>Recurring</u> (Rs. in Lakhs)	<u>Non-recurring</u> (Rs. in Lakhs)
1. Salaries of computer faculty including administrative staff.	1.99	-
2. Furniture & Fixtures	0.10	2.00
3. Books & Periodicals	0.10	0.50
4. Laboratory equipment	0.30	1.00
5. Stationary & consumables	2.00	-
6. Buildings	1.10	3.15
7. Computer consumables	1.00	-
	<u>5.59</u>	<u>6.65</u>
8. Main Computer System	-	25.00 - 30.00
	<u>5.59</u>	<u>31.65 - 36.65</u>

PHASE II (A few years after the Phase-I)

It is expected that two computational needs of the University will grow over the next few years. The Department of Computer Science will get strengthened with additional staff which would be about 20 to 30 in the course of next 4 to 5 years. The students requirements, the research requirements and the administrative requirements will all grow to a point where a large in-house computer would be necessary. It is envisioned that an investment of about Rupees 1 crore in capital equipment and laboratory facilities may be necessary at that time. A tentative proposal given below is subject to modification in the light of the then grown Department of Computer Science. The details are subject to modifications also depending on the needs of the other Departments of the University at that time. However it is felt that this Phase-II proposal would be a guidelines for purposes of planning for finances.

<u>Description</u>	<u>Essential</u>	<u>Desirable</u>
1. Computer with atleast 32 bits/word and an average instruction time of nearly 1 micro-second.	Memorary of 256 K bytes	512K bytas/ 1 Mega byts.

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- 2. Card readers (2) 600 cards/min. 1000/1200 cards/min
- 3. Line printers 1100/1200 lines/min. 1100/1200 lines/min.
- 4. Tape-drives - 3 or 4 tape drives (industry compatible, 9 track) 800/1600 BPI 64 K bytes/sec. transfer rate
- 5. 3 or 4 disk-pack drives accepting decountable disk-packs Tbtal rotating memory in excess of 50/100 Mega bytes. 200 Mega bytes memory.
- 6. 6 online terminals for job entry
- 7. Plotter (with one inter preter punch)
- 8. 4 Key punches
- 9. 1 card punch
- 10. 1 liner
- 11. 1 Reproducer
- 12. 1 Sorter

Buildings

Working area and office room for staff approx. 3000 to 5000 sq.ft. Seminar rooms, Lecture rooms etc. approx. 2000 sq.ft.

Staff

20 to 25 academic staff with corresponding additional administrative staff including watchman, vehicle etc.

ESTIMATES OF EXPENDITURE

Total capital investment expected Rs.1 crore.

Recurring expenditure in terms of stationary, computer consumables laboratory consumables etc. and including staff salary about Rs.12 to Rs.15 lakhs per year.

I shall thank you if you kindly acknowledge receipt of this letter.

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Meeting:

Dated : 11th & 12th August, 75.

Item No. 18: To consider the report of the Visiting Committee to Jamia Millia Islamia.

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The Commission appointed a Committee to assess the 5th five-year plan development proposals of the Jamia Millia Islamia. The Committee consisted of the following:

1. Prof. Abdul Aleem Chairman
Tariqui-Urdu-Board
Government of India
New Delhi. Convenor
2. Prof. Zillor Rehman Khan
Department of Physics
Aligarh Muslim University
Aligarh Member
3. Prof. P.K. Roy
Dean Academic
National Council of Educational
Research & Training, New Delhi. "
4. Prof. Bimal Prasad
School of International Studies
Jawaharlal Nehru University
New Delhi. "
5. Prof. Nurul Hasan Hashmi
Urdu Department
Lucknow University
Lucknow. "
6. Dr. K.A. Gangrade
Delhi School of Social Work
Delhi. "
7. Dr. M.L. Mehta
Deputy Secretary
University Grants Commission
New Delhi. "

2. The Committee visited Jamia Millia Islamia on 19th & 20th February, 1975. The report of the Committee is attached (Annexure)

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3. The report has the approval of all members. However, the following suggestions have been made by two members of the Committee:

- (1) Prof. Zillor Rehman Khan has suggested the opening of pre-medical classes in Jamia.
- (2) Prof. Bimal Prasad has suggested that in view of the existence of a number of universities and other institutions of higher learning in Delhi, it may be desirable to set up some co-ordinating body at the apex.

4. 4th Plan Developments:

i) The Jamia has introduced honours courses in Hindi, English, Persian, Arabic, Geography, History, Economics, Political Science, Physics, Chemistry and Mathematics during 4th five-year plan period as approved by the UGC.

ii) Except for one Professorship in Urdu and one Reader in Persian, remaining posts sanctioned during 4th plan (Readers 14, Lecturers 17, Others 8) were filled up.

iii) Funds sanctioned for books, journals and equipment were utilised.

iv) Construction work on (1) library building (2) extension to teacher's college and (3) teachers' hostel was completed. Construction work on the science block is nearing completion. Construction work on Vice-Chancellor's residence, boys hostel and staff quarters could not be undertaken.

5. IMPORTANT RECOMMENDATIONS

(1) The Jamia should develop as an institution of higher learning and should plan its developments in such a way that while it may have a strong and broad academic base, it also continues to work for the pursuit of excellence in the areas which it has already developed.

(2) The Jamia has at present two faculties, namely the Faculty of Education and the Faculty of Humanities and Sciences. The Committee feels that it would be better to restructure the Faculties in Jamia.

(A) Consolidation of existing Departments:

The Jamia may strengthen its programmes of teaching

and research in postgraduate Departments of History, Urdu and Education. It should also consolidate its present programme on Social Work and Social Welfare.

(B) Opening of new Departments:

The Jamia may introduce postgraduate teaching in the subjects of Hindi, English, Persian, Arabic, Political Science, Economics, Physics, Chemistry, Geography, Mathematics, Social Work and in Islamic Studies in a phased manner. It may also develop honours programme at the B.A. level in Sociology and Psychology.

- (i) 1975-76 : Islamic Studies and Social Work
- (ii) 1976-77 : Political Science, Economics, Chemistry, Physics, Mathematics, Geography, Arabic (Diploma course)
- (iii) 1977-78 : Persian, Arabic, English, Hindi

(C) Proposals not recommended by the Visiting Committee:

(i) The Committee has not recommended the 2nd & 3rd priority proposals of Jamia.

(ii) The Committee has suggested that proposal of Jamia to start correspondence courses through the medium of Urdu be considered by the UGC in accordance with its policy.

6. The Committee has given lower priority to the installation of fans etc. in the existing building of the library due to other urgent needs of Jamia and paucity of funds.

7. Financial implications of the Recommendations:

The financial implications of recommendation involve an outlay of Rs. 74.18 lakhs:

Ist Priority	Rs. 29.68 lakhs
2nd Priority	Rs. 12.80 lakhs
3rd Priority	Rs. 14.47 lakhs
Spill-over and commitments already made	Rs. <u>17.23</u> lakhs
Total:	Rs. <u>74.18</u> lakhs

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S.No.	Item	Ist Priority	2nd Priority	3rd Priority	Total
(Rupees in lakhs)					
1.	Staff	13.41	-	-	13.41
2.	Technical and other Staff	1.15	0.60	-	1.75
3.	Books	3.50	2.50	3.00	9.00
4.	Equipment	4.00	3.50	4.00	11.50
5.	Furniture	1.00	1.00	1.50	3.50
6.	Building	4.20	4.20	5.97	14.37
7.	Misc.	2.41	1.00	-	3.41
		<u>29.68</u>	<u>12.80</u>	<u>14.47</u>	<u>56.95</u>
	Spill over commitments	16.23		56.95 17.23	
				<u>74.18</u>	

The matter is placed before the Commission for consideration.

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REPORT OF THE FIFTH PLAN VISITING COMMITTEE
TO THE JAMIA MILLIA ISLAMIA, NEW DELHI

P A R T - I

Appointment of
the Committee:

The Jamia Millia Islamia submitted its Fifth Five Year Plan development proposals to the University Grants Commission for assistance. The matter was considered by the Commission and it was desired that a Committee may be appointed to examine the proposals and to make recommendations to the Commission. Accordingly, a Committee consisting of the following was constituted:-

1. Professor Abdul Aleem,
Chairman,
Tarique Urdu Board,
Government of India,
New Delhi.
2. Professor Zillor Rehman Khan,
Department of Physics,
Aligarh Muslim University,
Aligarh.
3. Professor P.K. Roy,
Dean Academic,
National Council of Educational
Research and Training,
New Delhi.
4. Professor Bimal Prasad,
School of International Studies,
Jawaharlal Nehru University,
New Delhi.
5. Professor Nurul Hasan Hashmi,
Urdu Department,
Lucknow University,
Lucknow.
6. Dr. K.A. Gangrade,
Delhi School of Social Work,
Delhi.
7. Dr. M.L. Mehta,
Deputy Secretary,
University Grants Commission,
New Delhi.

Visit of Jamia:

The Committee visited the Jamia Millia Islamia on 19th and 20th February, 1975 and held discussions with the Vice-Chancellor, Deans of the Faculties, Principals of the Colleges, Head of the Departments, other staff members and students. It also visited the Central Library and went round the various departments and campus of the Jamia. It also saw the buildings under construction and the students hostels.

PART-II - Basic Facts:

Background of Jamia:

The Jamia Millia Islamia was founded at Aligarh in 1920 as an integral part of the policy animating the national struggle for freedom. It was an educational and cultural venture, although it came into existence as a result of political ferment. In 1928, the staff members of the Jamia Millia under the leadership of Dr. Zakir Hussain, formed themselves into a Society for National Education. Eleven years later, the Society registered itself as the Jamia Millia Islamia Society and drafted a constitution which still operates. Around 1936, the Jamia started shifting its departments to Okhla. The Jamia now imparts an integrated education from the Nursery stage to the Postgraduate level.

Jamia deemed to be University:

The Government of India by a notification dated 19.6.1962 declared the Jamia Millia Islamia to be deemed a University under Section 3 of U.G.C. Act 1956.

Aims and objects:

The Jamia Millia Islamia is an autonomous educational society which aims to promote and provide for the religious and secular education of Indians and particularly of Muslims in conformity with sound principles of education and in consonance with the view of national integration.

Schools:

The Jamia has three schools - viz., Nursery School, Primary School and the Jamia Higher Secondary School.

Colleges and the courses:

The Jamia provides facilities for high education in the subjects of Humanities, Natural Sciences and Social Sciences and Teacher Education in its colleges, namely, (i) Jamia Colleges; (ii) Jamia School of Social Work; (iii) Teachers College.

Jamia College:

The Jamia College was established in 1920 as a part of the national struggle for freedom, with the main object of exploring the methods by which education could be made truly national. It provides courses leading to the degree of (i) Doctor of Philosophy in History and (Urdu); (ii) M.A. (Indian History and Culture); M.A.(Urdu); (iii) B.A. (Hons.) in Economics, Political Science, Hindi, History, Arabic, Persian, English and Geography; (iv) B.A.(Pass) Course in the above subjects; and (v) B.Sc. (Hons.) in Mathematics, Physics and Chemistry. The maximum number of students to be admitted to each course are as under:-

M.A. (Indian History and Culture) 1st year)	Not more than 20 students.
M.A. (Urdu) 1st Year.)	
B.A. (Pass), 1st Year		Not more than 60 students.
B.Sc. (Pass), 1st Year		Not more than 40 students.
B.A.(Hons.), 1st Year)	Not more than 15
B.Sc.(Hons.), 1st Year)	students in each of the Hons. subjects.
In each optional subject of B.A. (Pass) Course.		Not more than 40 students.
Preparatory Course.		Not more than 40 students.

Seats are reserved for the dependents of the Defence Forces Personnel and for Scheduled Castes and Scheduled Tribe students. The medium of instruction in all the courses is Urdu, except in the School of Social Work and certain courses in Training College. The Jamia also permits English and Hindi for the purpose of examination.

Jamia School of Social Work:

The Jamia School of Social Work Offers a three-year undergraduate course in Social Work. The graduates of the course are awarded the degree of B.A.(Hons.) in Social Work which is a semi-professional course. The medium of instruction and examination in the School is English.

Teachers College:

The Teachers College was established in 1938 by the late Dr. Zakir Hussain for the purpose of training teachers in accordance with the scheme of basic national education. Since then it has been steadily enlarging its scope of work. At present it is conducting courses leading to M.Ed., B.Ed., Diploma of Basic Training, B.A. (Art) and Diploma in Teaching of Art and Craft. The College also provides facilities leading to Ph.D. degree.

Students:

The student enrolment during the years 1971-75 is as under:-

<u>Faculty of Human- tics and Social Sciences:</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
<u>A. Humanities:</u>				
1. Ph.D.(History/ Urdu).	1	-	1	
2. M.A. (History)	25	24	20	
3. M.A. (Urdu)	12	15	14	
<u>B.A.(Honours):</u>				
1. Hindi	25	31	27	
2. English	8	11	11	
3. Persian	-	-	1	
4. Arabic	4	6	5	
5. History	8	9	6	
6. Geography	10	20	25	
7. Political Science	36	37	32	
8. Economics	29	30	25	
9. B.A. (Pass)	202	217	190	
10. Preparatory	32	40	33	
<u>B. Jamia School of Social Work:</u>				
1. B.A.(Hons.) in Social Work.	67	61	77	
<u>C. Science:</u>				
<u>B.Sc. (Hons.) in</u>				
1. Physics	8	13	21	
2. Chemistry	9	19	25	
3. Mathematics	4	7	9	
4. B.Sc. (Pass)	128	87	74	
Total:(A)	603	627	596	

Faculty of Education:

	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
<u>A. Education:</u>				
1. Ph.D.	5	-	-	10
2. M.Ed. (Full-time).	19	13	9	11
3. M.Ed. (Part-time).	22	15	13	16
4. B.Ed.	103	103	106	107
5. Diploma of Basic Training	100	103	101	101
<u>B. Department of Art and Craft:</u>				
1. B.Ed.(Art)	4	6	6	4
2. Diploma in Teaching of Art and Craft.	59	60	59	60
Total: (B)	312	300	294	309
Grand Total A & B:	920	927	890	868

The year-wise figures given above indicate the total student enrolment for all the years of the course.

Teachers:

The staff strength of the Jamia Millia Islamia during 1974-75 consisted of 128 teachers which includes 2 Deans, 3 Principals, 9 Junior Lecturers, 84 Lecturers, 17 Readers, 3 Professors and 12 others. The faculty-wise and subject-wise position is given below:-

A. Faculty of Humanities and Sciences:

	<u>Dean/</u>	<u>Principal</u>	<u>Lect.</u>	<u>Reader</u>	<u>Prof.</u>	<u>Others</u>	<u>Total</u>
<u>Faculty of Humanities & Sciences:</u>	1	-	-	-	-	-	1
<u>A. Humanities:</u>							
1. English	-	7	1	-	-	-	8

	<u>Dean/ Principal</u>	<u>Lect.</u>	<u>Reader</u>	<u>Prof.</u>	<u>Others</u>	<u>Total</u>
2. Hindi	-	3	1	-	-	4
3. Urdu	-	6	1	1	-	8
4. Arabic	-	2	1	-	-	3
5. Persian	-	2	1	-	-	3
6. Islamic Studies/ Islamiat	-	2	-	-	-	2
7. Hindu Religious Studies.	-	-	-	-	1	1
8. History	-	7	2	1	-	10
9. Geography	-	3	1	-	-	4
10. Economics	-	4	1	-	-	5
11. Political Science	-	4	1	-	-	5
12. General Education.	-	-	-	-	3	3

Sub-Total: (A) 1 40 10 2 4 57

<u>B. Science</u>	<u>Lecturer</u>	<u>Reader</u>	<u>Total</u>
1. Physics	7	1	8
2. Chemistry	7	1	8
3. Mathematics	5	1	6
Total:	19	3	22

C. Jamia School of Social Work:

	<u>Principal</u>	<u>Lecturer</u>	<u>Others</u>	<u>Total</u>
<u>B.A. (Hons.) in Social Work:</u>	1	6	2	9

D. Faculty of Education:

	<u>Dean/ Principal</u>	<u>Prof.</u>	<u>Reader</u>	<u>Lect.</u>	<u>Jr.Lect.</u>	<u>Others</u>	<u>Total</u>
1. Education	1	1	3	14	2	-	21
2. Department of Art & Craft:	-	-	1	5	6	7	19
Total: (D)	1	1	4	19	8	7	40
Grand Total:	3	3	17	84	8	13	128

Hostels:

There are two hostels in Jamia - one for girls and the other for boys. 39 girls and 35 boys live in these hostels.

THE JAMIA LIBRARY

The collection of books in the library is 90,000. In addition there are 2,000 manuscripts and a hundred files of private papers. The library also has 32 microfilms. The collection falls into two broad categories of general and special collection. The special collection comprising manuscripts, rare books and private papers has attracted scholars from India and abroad. The library has a rich collection of Urdu language books and periodicals. Awadh punch, al-Hilal, al-Balagh, Tahzibul Akhlag, Zamana, Makhzan, Paisa Akhbar and Koh-i-Noor, the first Urdu language newspapers from the Punjab, are some notable titles of the Urdu language periodical collection. Publications of the Maktaba-i-Shahanshahi (Lucknow), Fort William College, Dilli College (Old), Naval Kishore Press are available in the library. The library has a valuable collection of books on the history of the freedom movement.

The library is getting most of the Urdu language newspapers and magazines published in the country and abroad. The general collection is meant to meet the routine requirements of the students.

PART - III

FOURTH PLAN DEVELOPMENT SCHEMES

To start the new Courses and to strengthen the

existing set-up, the University Grants Commission sanctioned additional posts for the different departments of Jamia during the Fourth Five Year Plan. The position in regard to the posts sanctioned by the University Grants Commission and the posts operated by the Jamia in the Fourth Plan is as follows:-

<u>Designation and Post</u>	<u>Number of posts sanctioned by UGC</u>	<u>Number of posts operated by Jamia</u>
<u>Faculty of Humanities and Sciences:</u>		
1. Professors	1	1
2. Readers	12	11
3. Lecturers	15	15
4. Other Posts	7	7
<u>Faculty of Education</u>		
1. Professors	-	-
2. Readers	2	2
3. Lecturers	2	2
4. Other Posts	1	1

The Commission also keeping in view the requirements of the Jamia in regard to these proposals allocated an amount of Rs.16,12,400/- for the construction of buildings (library, science block, Vice-Chancellor's residence, Teachers Hostel, extension to Teachers' College and Boys Hostel etc.) and Rs.4,42,600/- for the purchase of Science Equipment, Furniture, Books etc. The total allocation made by the Commission for all these development schemes of the Jamia was Rs.47,71,000

The Jamia implemented the above schemes and started Honours Courses in all disciplines. At the end of the Fourth Plan three batches of students had completed the above courses and two batches of students have been registered for the Ph.D. The posts approved for these courses were filled during the Fourth Plan except that of Reader in Persian. This post was duly advertised but no suitable candidate was available for appointment.

The construction work on (1) Library building, (2) Extension of Teachers' College were completed in time. The construction work on the Science Block is also near completion. But on account of some land problems and non-availability of building material during the last two years of the Plan period the construction work on Vice-Chancellor's residence and Boys Hostel could not be taken up in time and was later on postponed in view of the directive of the University Grants Commission.

In the fourth year of the Fourth Plan, the University Grants Commission conveyed their decision to finance the schemes of the Jamia relating to the development of Teachers' Education over and above the allocations made in the Fourth Plan. The Jamia Millia could not get an opportunity to utilise the amount allocated earlier for the schemes of Teachers' Education (Rs.3,71,000/-) on other requirements that were left during the Fourth Plan Period.

The Jamia, therefore, submitted the following new proposals to the University Grants Commission in January, 1973:-

- (1) The creation of 26 posts of lecturers for the consolidation and strengthening of the existing courses:-
- (2) Establishment of Physics Workshop.
- (3) Purchase of equipment for Physics Laboratory.
- (4) Purchase of books for the Library.
- (5) Construction of Staff Quarters.

The Commission approved all these proposals except that of the creation of new posts. The decision in this regard was conveyed to the Jamia in July, 1973 leaving only nine months at the disposal of the Jamia to complete these projects. The work on them was started immediately and the progress is quite satisfactory.

The grants made by the University Grants Commission to the Jamia, therefore, helped the Jamia to improve its faculty, library and laboratory facilities.

PART - IV

FIFTH PLAN PROPOSALS

The Fifth Plan Development proposals of the Jamia

Millia require a financial outlay of Rs.1.75 crores (U.G.C. share Rs.1.30 crores approximately, Ministry of Education's share Rs.44.85 lakhs). The proposals have been formulated under three priorities:-

<u>Priorities:</u>	<u>Total Allocation</u>	<u>UGC Share</u>	<u>Ministry's Share</u>
Ist Priority:	1,27,12,866	94,33,026	32,79,840
2nd Priority:	42,67,840	31,86,895	10,90,945
3rd Priority:	5,01,064	3,76,494	1,24,570
Total:	1,74,81,770	1,29,96,415	44,85,355

The first priority proposals include spill-over of the Fourth Plan schemes carried over to the Fifth Plan, starting of Postgraduate courses in 11 subjects in which the instructions are at present imparted upto honours level and in Islamic Studies, consolidation of the existing honours and pass courses, starting of new undergraduate courses, starting of B.A. (Pass) Correspondence Course with Urdu medium. The proposals include appointment of additional staff, provision for buildings, academic as well as non-academic and provision for equipments, books and journals etc.

The second priority proposals include (i) starting of Professional courses such as Diploma in Modern Arabic, Diploma in Modern Persian, Diploma in Urdu Journalism and Diploma in Cartography and (ii) strengthening of the Dr. Zakir Hussain Library as well as the development of play fields and sports.

The third priority proposals include the starting of undergraduate course in Law and the development of the office.

The salient features of the postgraduate courses to be introduced during the Fifth Five Year Plan period are as follows:-

1. Department of English:- The proposed postgraduate department will offer a course of comparative literature with a view to explore the impact of English literature on our national literature especially on Hindi and Urdu literatures.

2. Department of Hindi:- The importance that should be given to Hindi language, in an Urdu medium institution like the Jamia need not be emphasised and also the role that Jamia can play in bringing the two languages closer, necessary for the national integration cannot be ignored.
3. Department of Persian:- Most of the Indian Universities having M.A. Course in Persian, generally impart instruction in Classical Persian Literature. Modern Persian Literature forms only one-fourth of their curriculum. This gives no current idea of the development of the language. The main purpose in introducing this course is to acquaint the students with the development of Modern Persian Language, Literature, and give them an insight into the changes in Persian language and Indo-Persian Literature.
4. Department of Arabic:- The proposed postgraduate course will be for the study of Arabic Language and literature, both classical as well modern. It is expected that the Modern Arabic courses will be of value in developing our political and cultural relations with the Middle East.
5. Department of Economics:- The postgraduate course will emphasise the applied side of Economics. More emphasis will be given to the courses in the developmental economics and area studies. The Jamia is situated in a rural area and at the same time there are industrial complexes very close to it. Courses relating to rural economics and industrial economics particularly small scale and medium size industries shall be introduced.
6. Department of Political Science: The department plans to introduce postgraduate courses with a total departure from the traditional patterns and based more on inter-disciplinary approach.
7. Department of Geography:- The postgraduate department will provide studies in land use and applied geography.
8. Department of Islamic Studies:- It had been an ardent desire of the late Dr. Zakir Hussain to develop the Jamia Millia as a seat of Islamic learning also. The Zakir Hussain Institute of Islamic Studies recently established in the Jamia, is a modest beginning for the realisation of Zakir Sahib's un-fulfilled desire. The Jamia College has already courses in Islamic Studies at the undergraduate level and offers the following courses:-

1. A three-year B.A.(Pass) Course in Islamic Studies as an elective subject.
2. A one-year course in Islamiyat for Preparatory class.
3. A one-year course in Islamic Civilisation for Preparatory class.
4. A one-year course in Islamiyat (Islamic Theology) as an alternate subject among the compulsory and qualifying subjects at the undergraduate level.

Dr. Zakir Hussain Institute of Islamic Studies is essentially a research institute having no permanent staff for the purpose. But only research would not be meaningful if it is not properly and fruitfully backed by effective teaching. This can be achieved only if a department of Islamic studies has postgraduate course also where teaching at a higher plane would facilitate the discovery of researchable areas especially pertaining to Indian Muslims and Islam. It, therefore, seems desirable to introduce postgraduate courses in Islamic Studies.

9. Department of Physics:- The department proposes to start postgraduate courses in Physics. This will include teaching of certain special courses, relevant to the industry which are not taught in other institutions at present.

10. Department of Chemistry:- In M.Sc. previous instruction will be given in Physical, Organic, Inorganic and Analytical Chemistry. However, in M.Sc. final the students will specialise in either Physical, Organic or Inorganic Chemistry. Emphasis will be given to those topics which have their applications both in fundamental and applied fields.

11. School of Social Work:- The semi-professional training in Social Work at the postgraduate level needs to be linked up with social work and education at the postgraduate level. This is with a view to integrate the postgraduate education in social work with the postgraduate professional training. The two courses would be complementary to each other. The proposed postgraduate course is intended to be so designed as to enable the students to work efficiently in the fields of Child and Youth Welfare.

12. Department of Education:- The conceptual framework of the Fifth Plan proposals of the Teachers' College is that of a comprehensive college of education. The Teachers' College already has the character of the nucleus of such an institution. It runs courses for both primary and secondary school teachers. It also has special courses for teachers of art and craft. It has three demonstration schools - one nursery, one middle and one higher secondary attached to it. It has had an M.Ed. programme for more than 10 years by now and the research programme was started in 1970.

The first priority proposals of the Teachers' College include (1) starting of new courses/research programmes such as B.A. (Hons.) in Arts and Education, B.Ed. (Early Childhood) course, specialised course in the teaching of Urdu for training of Urdu teachers, research programmes for West Asian and African Studies in Education, upgrading the methodology programmes in Natural Sciences, Social Sciences and Languages (2) consolidation of existing courses. This would need staff and other physical facilities. The second priority proposals relate to the starting of new courses such as (i) starting a two-year course for teachers (for the work-experience programme in middle schools); (ii) specialised courses for teachers of Physical education; (iii) introduction of Bengali and Tamil as teaching subjects in B.Ed., and consolidation of existing courses. The third priority proposal include starting of new courses such as three-year course of training for teachers of elementary vocations in high schools and provision for additional physical facilities.

PART - V

the The Vice-Chancellor, Deans of the Faculties,
Chancellor Principals of the Colleges, Heads of the Departments,
2:- Faculty Members, Students and non-teaching staff of the Jamia during their discussions with the Committee inter-alia made the following observations:-

1. The ideals of Secularism and national integration have always been upper most in the minds of the founding fathers of the Jamia Millia. With a view to furthering these values, the Jamia organised its activities accordingly.

2. With the assistance from the Ministry of Education and the University Grants Commission, the Jamia has

developed an infrastructure which can now facilitate the achievement of its objectives and its aspirations and contribute towards national re-construction and national development.

3. The Jamia as a deemed university with a tradition of its own should develop as an institution of higher education, training and learning of the highest quality fully participating in the mainstream of the Indian National and academic life as an equal even as it makes its own special contribution to it. During the Fifth Plan period, the Jamia should grow into a student body of about 3000 with a strong residential core, a substantial postgraduate and research studentships. Student facilities such as reading places in the Library, an auditorium, adequate common room and canteen facilities for the day scholars, strong sports and games are essential

The Fourth Plan of the Jamia Millia emphasized to strengthen the existing courses and to introduce the honours courses in some subjects. It is now proposed that postgraduate courses in the subjects in which the present arrangement is upto the honours level be introduced during the Fifth Plan.

4. Jamia Millia Islamia has certain unique responsibilities towards developing a liberal nationalistic thought in India and strengthening an integrated outlook on education while promoting the values of composite Indian Culture. Jamia Millia Islamia as a minority institution of national importance, truly deserves to be strengthened and supported in its specified programmes of excellence. This way the Jamia Millia Islamia will not only be able to make its existence more meaningful, but will also be contributing its true share in the educational life of free India.

5. Teacher's Training Programme had been very important component in the development schemes of the Jamia for achieving its objectives and for extending its expertise gained through its various experiments in primary and secondary education. The Teachers' College which now prepares teachers for various levels of school education, is expected to play a bigger role in this respect.

6. The Jamia College has been able to extend its activities during the last ten years and now it is conducting courses leading to various degrees in Arts and Science. It also conducts postgraduate courses in History and Urdu. There is a need to develop postgraduate course in Islamic studies for which the Jamia Library

has a great number of books and manuscripts and which may go a long way to achieve its objective of interpreting Islamic History and Culture with a view to achieve national integration. The establishment of such a course might also help to strengthen the newly established research unit known as the Zakir Husain Institute of Islamic Studies.

7. There is a need to consolidate the two postgraduate courses - one in History and Culture and the other in Urdu. It is through these subjects that the Jamia might achieve its objective of integrating Indian Culture internally and also with the culture of the West. The development of these programmes would also help the long cherished goal of the Jamia to achieve national integration and mutual appreciation of the contribution made by different communities in the development of Urdu and Indian Culture.

8. For its objective pertaining to the national integration and mutual appreciation of contribution made by different communities towards the development of Indian Culture, the Jamia needs to strengthen the Social Sciences courses with a strong base of Natural Sciences so that objectivity and rational thinking may be developed among its students. There is, therefore, a need to consolidate its Social and Natural Sciences courses and move towards the development of postgraduate courses and research projects on these lines.

9. The Jamia Millia always took a keen interest in organising programmes to provide educational and Welfare services to the community at large and specially to the neighbouring communities. It was against this background that the Jamia started an undergraduate programme leading to B.A. (Hons.) in Social Work in 1967. The Jamia is keen to maintain its tradition of community service and of participation in national reconstruction and welfare extension. There is a need to develop the Jamia School of Social Work as a comprehensive institution in which Social Workers for all levels might be trained.

10. There is a need to start B.A. (Pass) Correspondence Courses with Urdu medium. It would meet the need of all those who are scattered all over India and who do not find a place in a system of higher education at any stage. The Jamia Millia being an institution of higher learning with Urdu medium, is in a fortunate position to institute correspondence courses in Humanities and Social Sciences and fulfil the great demand of informal education.

11. The Delhi University Colleges are already bursting because of the pressure of numbers at the undergraduate level. The problem has been partially met by the opening of South Delhi Campus of Delhi University at the postgraduate level. The Jawaharlal Nehru University has its own specific integrated inter-disciplinary programmes. In view of this, the Jamia can play a very important complementary role in the educational set up of Delhi. The Jamia has a good base at the undergraduate level in a number of subjects. These can be consolidated and further strengthened with more physical and academic facilities. In this way Jamia can play an important role in bearing the pressure of numbers at the undergraduate level of the metropolitan city of Delhi.

12. The students passing out at the undergraduate level feel lot of difficulties in getting admissions elsewhere for their postgraduate studies because of the fact that generally other institutions prefer their own students for admission at the postgraduate level. The Jamia is one of the rising institutions of the country in the field of higher education and the introduction of postgraduate studies will attract more students to the various courses.

13. The development of Jamia has been rather lopsided there are no arrangements for the teaching of disciplines like Botany, Zoology, Psychology, Sociology, Comparative Religion and Commerce etc. The limited choice of optional subjects in the Jamia has affected the number of students seeking admission to the courses offered by it.

14. The Ministry of Education covers the net deficit of the Jamia Millia Islamia in respect of its maintenance. The Ministry as well as the University Grants Commission contributes towards its development projects. The maintenance grant provided by the Government of India during 1968-75 had not been adequate because of the price rise as well as due to the introduction of new courses in a number of subjects and establishment of several new departments. As a result of paucity of funds, the Jamia had been experiencing great difficulties in conducting its activities.

15. The Jamia Millia Islamia receives grants from two sources namely the Ministry of Education and the University Grants Commission. This has resulted in many difficulties. The dual control over the development schemes of the Jamia results in an inordinate delay in implementing the schemes. The process of obtaining instalments from the two grants giving agencies separately remains a continuous one and this results in creating financial difficulties for the Jamia. The dual control should be brought to an end and all grants be given by

one agency, say the University Grants Commission.

16. Some of the other deemed universities have their reserve funds out of which they can meet their emergent expenses on approved schemes in anticipation of the grants to be received from different sources. The Jamia has no reserve funds and all its expenditure is met from the grant received from the University Grants Commission and the Ministry of Education. Late receipt of grants sometimes creates financial difficulties in the Jamia. It is, therefore, essential that a procedure is evolved under which the Jamia receives grant without any delay.

17. The development in the academic sphere cannot be sustained if corresponding support is not provided by the administrative machinery which should be strong and efficient enough to shoulder the burden and facilities for the smooth running of academic programmes.

18. With the introduction of new courses, the creation of new departments, merger of the Jamia Rural Institute with the Jamia and the coming into force of the new rules and regulations alongwith the establishment of various new bodies, the quantum of work of the Registrar's office has increased considerably but there has been no corresponding increase in the staff provided. The office also lacks in furniture and office equipment including modern time saving machines. Additional staff and provision for office equipment and furniture is an urgent need for the Jamia Millia Islamia.

19. Facilities for Law Education existing in South Delhi are comparatively very limited. Starting of a graduate course in Law will go a long way to fulfil the professional needs of this part of the Metropolis. It is proposed to run the course with the co-operation of the legal talents, available in such an abundance in Delhi. Part-time teachers on honorarium basis will be drawn from this circle.

PART - VI

OBSERVATION AND SUGGESTION OF THE COMMITTEE

The Committee makes the following observations and suggestions:-

1. The Jamia Millia Islamia is one of the Institutions in the Union Territory of Delhi in addition to the Universities of Delhi and Jawaharlal Nehru, which imparts

higher education to the students. The Committee feels that though the Jamia may not duplicate the type of work being done at these two universities and may develop only such studies which have not received or are not likely to receive sufficient attention at Delhi and Jawaharlal Nehru Universities, yet, the Committee is of the view that the Jamia Millia Islamia for its proper development should have a sufficiently broad base of normal academic activities, otherwise academic innovations and inter-disciplinary programmes will have very little chance of success.

2. The Heads of Departments, the Deans, the Teachers and Students' representatives were unanimously of the opinion that the Jamia Millia should develop as a modern university. The teachers representatives specially pointed that the main reason for the slow growth of Jamia during the last few years was due to the fact that Jamia did not have a sufficiently broad academic base. The Committee shares the view of the Faculty and feels that while Jamia may lay stress on areas where it has developed excellence, yet at the same time it must strengthen its base.

3. At the end of the Third Five Year Plan, the teaching in Jamia Millia was confined to the undergraduate level in most of the subjects of humanities except in History and Education which were running postgraduate courses. With a view to plan the development of the departments of Jamia vertically and to start postgraduate courses in all subjects it was felt by the Jamia that a firm base for such courses should be provided. The Jamia, therefore, proposed to start honours courses in all those subjects of Humanities in which instruction was being restricted to the standard of pass courses. However, the University Grants Commission, on the recommendation of its Visiting Committee approved the Honours Courses in Hindi, English, Persian, Arabic, Geography, History, Economics, Political Science, Physics, Chemistry and Mathematics and Social Work only. The Committee suggests the introduction of postgraduate courses in all these subjects so as to attract better and more students to the Jamia and create an atmosphere so essential for the pursuit of excellence.

4. The student enrolment in many subjects appeared to be comparatively low. One of the main reasons, in the opinion of the Committee, is that in the absence of postgraduate courses many students prefer to join other institutions where they can hope to secure

admission to postgraduate courses after finishing their Honours Studies. This, deprives the Jamia of the brilliant students and the Jamia gets only fewer and perhaps weaker students. The Committee is, therefore, strongly of the view that priority should be given to the opening of the postgraduate courses in all the subjects where honours classes have already opened.

5. There is an acute shortage of Physical facilities in the Jamia which also is one of the reasons for the poor growth of the Jamia during the last several years. In the Jamia College, at present, the classes are held in the Faculty of Arts building which does not meet the requirements of the College. Even at the present stage, the Jamia is using the hostel premises for this purpose. Similarly, the School of Social Work is at present housed in Asbestos Hutments constructed for the hostel requirements of the Jamia Rural Institute. The building of the Science Block under construction will hardly meet the requirements of the Jamia for its growing Departments of Science. With the introduction of postgraduate courses in Physics and Chemistry and Mathematics, this space will be too inadequate. The Commission had approved the establishment of a workshop in the Physics Department during the Fourth Five Year Plan and also made grants for the purchase of equipments. There is no room to house this workshop.

6. The position with regard to the residential buildings is also rather gloomy. There are only 25 staff quarters in the Jamia against its strength of 450 employees. This acute shortage has created a number of problems for the authorities of the Jamia and has become a source of dissatisfaction amongst its staff. The University Grants Commission provided an allocation of Rs.3.50 lakhs for this purpose on the occasion of its Golden Jubilee and Rs.1.50 lakhs under the revised proposals of the Fourth Plan. The construction work out of the allocation of Rs.3.50 lakhs has already been undertaken and the Jamia will be able to provide residential accommodation to a very small number of its employees shortly. The work on the quarters against the grant of Rs.1.50 lakhs could not be undertaken during the Fourth Plan due to some technical difficulties. The Jamia has now overcome these difficulties and the work is expected to be started soon. But, even then with the additional buildings coming up as stated above the problem will remain more or less the same as it is. The Committee, therefore, feels that a few staff quarters may be provided to the Jamia in the Fifth Plan. This will also attract talented teachers to the Jamia.

7. The paucity of funds has not only resulted in the shortage of staff and buildings but it made its impact on other physical facilities so essential for the day to day academic work. In the Jamia College, the class-room furniture is only for about 600 students and if new courses are introduced it is hoped that the number of students will go up to 1000. The Jamia, therefore, has to provide furniture for various classes. Similarly furniture for teachers in the tutorial rooms and for class rooms to cover the present shortage and also to meet the future requirements is also to be provided.

8. There are a few playgrounds in Jamia but they are not properly developed and maintained. The indoor sports facilities are also meagre.

9. Though funds made available in the Fourth Plan have been utilised for the purchase of equipment yet the laboratories have to be further equipped so as to provide the necessary facilities for the practical classes.

10. Since 1963 the academic aspect of the Jamia has expanded considerably. Different departments of studies have been established and new courses of graduate and postgraduate level in many subjects have been started. Not only this but about 100 new academic and technical positions were also created and appointments on them were made. But, there has not been corresponding increase in the administration side of the Jamia and this aspect remained completely neglected during the period of the previous two plans. As a result of this problem, the administration in the Jamia could not carry the development work efficiently. The Committee, therefore, feels that suitable additional administrative staff is essential.

11. The health services provided to the students of the Jamia are very poor and enough attention does not appear to have been paid to the health of the students. In the opinion of the Committee, the health service needs to be improved.

12. The Jamia has at present two Faculties, namely, the Faculty of Education and the Faculty of Humanities and Sciences. The Faculty of Humanities and Sciences includes the Jamia College and the School of Social Work. There are two postgraduate departments at present, namely, the Departments of History and Urdu in this

Faculty. The Principal of the Jamia College is also the Dean. The number of Postgraduate Departments will increase during the Fifth Plan if postgraduate studies are introduced in all the subjects in which teaching facilities upto the honours level have been provided. The Committee feels that it would be proper to restructure the Faculties in the Jamia. This would also be essential for the maintenance of standards of teaching and research. The Committee suggests that the Jamia may look into it.

13. The Jamia has submitted a proposal for the introduction of correspondence courses through the medium of Urdu. In the opinion of the Committee such courses are very desirable. The Committee is of the view that the Jamia would certainly be in a position to provide such courses better than perhaps any other institution in the country because of its potentialities in Urdu. The Committee suggests that the proposal of the Jamia may be examined separately by the Commission and considered in accordance with its policy.

14. The Committee observed that the Jamia is located in an area very near to the industrial complex at Okhla. It would be of great help if Jamia could formulate a proposal relating to vocational courses depending upon the facilities available in the industries in the Okhla complex. The Committee suggests that a proposal may be formulated by the Jamia and submitted to the Commission. The Committee hopes that it would be possible for the Commission to consider this proposal outside the plan allocation of the Jamia. The Committee is convinced that the Jamia will be in a position to play a very important role in the development of such courses because of its location.

PART - VII

RECOMMENDATIONS OF THE COMMITTEE:

The Committee makes the following recommendations:-

1. The Jamia Millia Islamia should develop as an institution of higher learning and should plan its developments in such a way that while it may have a strong and broad academic base it also continues to work for the pursuit of excellence in the areas which it has already developed.

2. The Jamia may strengthen its programme of teaching and research in the postgraduate departments of History and Urdu. It may also introduce postgraduate teaching in the subjects of Hindi, English, Persian, Arabic, Political Science, Economics, Physics, Chemistry, Geography, Mathematics, Social Work and in Islamic Studies. The Committee suggests that assistance may be provided to the Jamia for the opening of postgraduate courses in these subjects so as to enable the Jamia to appoint more staff and provide physical facilities such as buildings, equipment, library books and journals etc.

3. With regard to the School of Social Work, the Committee is of the view that because of its past background as well as of strong interest that the institution continues to maintain in social welfare and reconstruction, the Jamia should be helped to consolidate and strengthen its present programme of social work education and social welfare. The School may be assisted to develop as a Jamia School of Social Work and Applied Social Sciences, and to establish a postgraduate course in Social Work and to develop honours programme at the B.A. level in Sociology and Psychology. The establishment of a postgraduate department will bring about a consolidation and furtherance of the work done and experience gained by the existing school since its inception in 1967. Moreover, the Delhi School of Social Work is conducting a postgraduate course without having special emphasis on such fields as Family and Child Welfare, Youth Welfare, Women Welfare and Adult Education. The proposed postgraduate course at Jamia would, therefore, not be a duplication of the programme carried out at the Delhi University and would meet the needs of the social welfare of the region. Concerning the Sociology and Psychology Honours courses it is felt that the introduction of these courses will help the School to attract a large number of students and thus indirectly help its postgraduate Social Work programme by providing more choice of potential applicants. It will also provide opportunities for a better integrated programme of research in the School and will promote an interdisciplinary approach in Social Sciences. The Committee hopes that it would not be difficult for the Jamia Millia to provide field work experience to the students of the postgraduate classes in Social Work.

The Committee noted that the post of Principal carries a grade of Rs.600-900 while the grade of Lecturer is Rs.400-900. The Committee suggests that

the Principalship of the College at this stage may be in the Reader's grade and may later in the 6th plan be upgraded to the grade of Professor.

Teachers
College

The Committee observed that at present the Teachers' College offers the following courses:-

1. Two-year Diploma Course for primary teachers.
2. B.Ed. for secondary teachers.
3. Two-year Diploma Course for Art teachers.
4. M.Ed. course.

In addition to the above, a Ph.D. programme has also been introduced in the Faculty of Education. The Committee is of the view that first priority should be given to convert two-years diploma course in Arts Education to an honours course. This has job potentialities also. The Committee also recommends that facilities for training Urdu teachers should be provided. The college submitted a proposal for strengthening the existing B.Ed. programme by including Commerce and Chemistry as subjects for school teaching. The Committee noted that the Science course was split up into Biological Sciences and Physical Sciences. The Committee recommends that suitable assistance may be provided for this programme also. The Committee also suggests that a course in the teaching of Commerce be also introduced.

Regarding research programme for West-Asian and African Studies in Education, the Committee suggests that a separate proposal may be submitted by the Jamia to the University Grants Commission for their consideration. The Committee suggests that for teaching Urdu, instead of running a separate course in Urdu teaching, the B.Ed. programme should include this in its training. The Committee also feels that there need not be a separate course in Early Childhood. The B.Ed. programme should be diversified to accommodate the needs of the primary and secondary schools.

The University Grants Commission has made an allocation of Rs.75 lakhs for the Jamia Millia Islamia during the 5th Five Year Plan period. This is inclusive of the spill over of the schemes of the 4th Plan to be carried over to the 5th Plan as also the

commitments already made. The Committee noted that the total commitments i.e. spill over and commitments already made require an outlay of approximately Rs.17 lakhs (Annexure I a, b, c, d. This leaves a balance of about Rs.58 lakhs. The first priority proposals amounting to 50% of the allocation would require a sum of Rs.37.5 lakhs including the commitments already made. The second priority proposals will require about Rs.18.75 lakhs. It has already been stated that the first priority proposals involving 50% of the allocation of the 5th Five Year Plan require a sum of Rs.37.50 lakhs of which commitments of about Rs.17 lakhs have already been made. The balance, therefore, left is about Rs.20.5 lakhs. Due to paucity of funds, the Committee is not in a position to make recommendation for the 2nd and 3rd priority proposals made by the Jamia. It recommends only the proposals made under 1st priority in three priorities viz. 1st, 2nd and 3rd.

The proposed programme of the Jamia, keeping in view its background, are such that the Committee finds it extremely difficult to make recommendations within an allocation of Rs.20.5 lakhs under 1st priority for the 5th plan period. The Committee, therefore, recommends proposals involving an outlay of about Rs.29.68 lakhs in the first priority, excluding the commitments already made. This will initially enable the Jamia to consolidate the existing Departments of History, Urdu, Social Work and Education and to introduce postgraduate teaching in Islamic Studies and Diploma in Arabic and later on, introduce postgraduate teaching in other subjects of Humanities, Social Sciences and Sciences in a phased manner. The details of the programmes of the departments of Urdu and History are given in Annexure-4.

The committee recommends the following provision under Priority I for the appointment of staff purchase of books, equipment, furniture and building etc. The figures represent University Grants Commission share only:

Staff including Library staff	Rs.13.41 lakhs(<u>Annexure-2</u>)
Books -	Rs.3.50 lakhs
Equipment	Rs.4.00 lakhs
Furniture	Rs.1.00 lakh

Building (Jamia College)	Rs. 4.20 lakhs
Technical Staff (Annexure-5)	Rs. 1.15 lakhs
Reprographic equipment and preservation of manuscripts.	Rs. 1.00 lakhs
Nurse	Rs. 0.15 lakh
Junior Research Fellowships (4)	Rs. 0.85 lakh
Stenos (2)	Rs. 0.42 lakh
	<hr/> <u>Rs. 29.68 lakhs</u> <hr/>

The staff positions are to be created in a phased manner as given in the Annexure-2. A grant of Rs. 3.50 lakhs has been suggested in the first priority for books excluding the basic grant of Rs. 1.50 lakhs already made. An equipment grant of Rs. 4 lakhs has been recommended excluding the basic grant of Rs. 2 lakhs. This may be allocated amongst the Departments of Physics, Chemistry, Mathematics, Geography, Education and Workshop Rs. 3.00 lakhs for Physics, Chemistry, Workshop and Rs. 1.00 lakh for Mathematics, Geography and Education Departments. The Committee also recommends provision for the preservation of manuscripts and some reprographic facilities in the library. Posts of four Junior Research Fellowships and two stenographers (Junior) are also recommended.

Under Priority II, the committee recommends assistance amounting to Rs. 12.80 lakhs to cover the following items:

Books and Journals	Rs. 2.50 lakhs
Equipment	Rs. 3.50 lakhs
Building (Jamia College)	Rs. 4.20 lakhs
Furniture	Rs. 1.00 lakh
Library (Preservation of Manuscripts and completion of building).	Rs. 1.00 lakh
Development Officer	Rs. 0.60 lakh
	<hr/> <u>Rs. 12.80 lakhs</u> <hr/>

Under Priority III, the Committee recommends provision for books, equipment and buildings for workshop, Science Block, staff quarters and equipment, furniture for library. The following provisions are recommended:-

Equipment	Rs.4.00 lakhs
Books	Rs.3.00 lakhs
Workshop building	Rs.0.97 lakh
Science Block	Rs.2.25 lakhs
Staff quarters	Rs.2.00 lakhs
Social Work block	Rs.0.75 lakh
Equipment-furniture for the library	Rs.1.50 lakhs
Total:	<u>Rs.14.47 lakhs</u>

The total recommendations made by the Committee under first, second and third priorities involve a provision of Rs.56.95 lakhs as the U.G.C. share.

Spill over	Rs. 4.38 lakhs (<u>Annexure-I(a)</u>)
Basic grants(Books and Equipment)	Rs. 3.50 lakhs
Posts already sanctioned during the 5th plan.	Rs. 9.35 lakhs (<u>Annexure-1(b, c,d)</u>)
Total:	<u>Rs.17.23 lakhs</u>
First Priority:	Rs.29.68 lakhs
Second Priority:	Rs.12.80 lakhs
Third Priority:	Rs.14.47 lakhs
Spill-over and commitments:	Rs.17.23 lakhs
Total:	<u>Rs.74.18 lakhs</u>

The proposal of the Jamia for having a canteen in the College of Education may be treated separately under students' amenities programme. The Jamia has also requested assistance for providing facilities for sports and play-grounds. The Committee understands that separate assistance is provided to the universities by the Commission. The proposal of the Jamia may be considered separately.

The category-wise recommendation of the Commission under different priorities is given in the Annexure-3.

Knowledge: The Committee puts on records its thanks to the Vice-Chancellor Professor Masud Hussain, the Faculty, students and other authorities of the Jamia for facilitating the visits of the Commission.

1. Professor Abdul Aloom
2. Prof. Zillor Rehman Khan
3. Professor P.K. Roy
4. Professor Bimal Prasad
5. Prof. Nurul Hasan Hashmi
6. Dr. K.A. Gangrade

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Annexure-1(a)

SPILL-OVER STATEMENT OF JAMIA MILLIA ISLAMIA

Name of the Scheme	Total allocation for the period ending 1973-74	Grants released or likely to be released upto 31.3.74	Balance Payable in the 5th Plan Period.	Remarks
2	3	4	5	6
Construction of				
i) Science Block	2,93,400			
ii) Furniture	<u>33,400</u>			
	3,26,800	1,86,000	1,70,800	
Construction of				
Library building	3,33,334	3,40,000		
Purchase of Furniture	<u>58,000</u>	45,000		
	3,91,334	<u>3,000</u>		
		3,88,000	3,334	
Construction of Teacher's College & Purchase of Furniture.	1,35,300	89,903.02	46,301.98	
Preservation of Papers of Mohd. Ali & Dr. Ansari	6,600	5,000	1,000	
Construction of faculty				
building - III Plan	1,41,433	1,25,000.00		
scheme				
Furniture	<u>14,143</u>	<u>14,048.00</u>		
	1,56,581	1,39,048.00	16,533.00	
Repairs of NSS	10,000	9,000.00	1,000.00	
Improvement of hostel facilities.	10,000	9,500.00	500.00	
Construction of teachers hostel	93,530	60,000.00	33,530.00	
Construction of students' hostel	1,11,000	50,000.00	61,000.00	

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1	2	3	4	5	6
10.	Vice-Chancellor's residence	1,04,700	-	4,04,700	
				<u>4,38,298.98</u>	

Basic grants already made:

Equipment	Rs. 2.00 lakhs
Books	<u>Rs. 1.50 lakhs</u>
	<u>Rs. 3.50 lakhs</u>

ANNEXURE-I(B)

Statement showing the expenditure to be incurred on the salaries of the staff (teaching) approved vide UGC letter No.F.9-1(4)/68(CD/CP) dated 16th November, 1974 and to be appointed w.e.f. July, 1975. The expenditure has been calculated on the basis of the existing unrevised scales.

.....

Name of the post	No. of posts	1975-76	1976-77	1977-78	1978-79	Total
Lecturer in						
Urdu	1)					
History	1)					
Political Science	1)	37,800	80,500	85,400	91,000	2,94,700
Physics	2)					
Mathematics	2)					
	7	37,800	80,500	85,400	91,000	2,94,700

One Professorship in Urdu sanctioned in 4th plan, was filled up in the 5th Plan.

Annexure-1(c)

Statement showing the annual expenditure on the salaries of non-social work staff transferred from Jamia School of Social Work to Jamia College vide UGC letter No.F.9-1(4)/68(CD/P) dated 30.3.1974. The expenditure has been calculated on the basis of existing scales and allowances.

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Name of the post	No. of Posts	1974-75	1975-76	1976-77	1977-78	1978-79	Total
Lecturer in English	2)						
Hindi	1)						
Political Science	1)	1,17,800	1,20,700	1,35,200	1,29,700	1,34,100	6,27,500
Economics	1)						
Ydu	1)						
History	1)						
	8	1,17,800	1,20,700	1,35,200	1,29,700	1,34,100	6,27,500

Statement showing the expenditure to be incurred on the salaries of the staff approved for the Library vide UGC letter No.F.3-9/74(D-5a) dated 13.1.1975 calculated on the basis of un-revised scale.

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Name of the Post	No.of Posts	1975-76	1976-77	1977-78	1978-79	Total
Attendant(200-250)	1	1,750	3,800	3,900	4,000	
Cleaner (196-232)	1	1,600	3,700	3,800	3,900	
Janitor (196-232)	2	3,300	7,400	7,600	7,800	
Accounts Clerk (330-560)	1	2,750	6,200	6,400	6,600	
Steno (425-640)	1	3,300	7,500	12,300	13,000	
Total	6	12,700	28,600	33,900	35,300	1,10,500

STAFF RECOMMENDED

(A)	<u>1975-76 annual</u>	<u>Reader</u>	<u>Lecturer</u>
	Islamic Studies	1	1
	History	1	-
	Urdu	1	2
	Social Work	3	4
	Education	1	6
		<u>7</u>	<u>13</u>
		7	13
(B)	<u>Other staff: (Nurse(1) 1976-77 onward</u>		
	Political Science	1	1
	Economics	1	1
	Chemistry	1	3
	Physics	1	3
	Mathematics	1	2
	Geography	1	2
	Arabic(Diploma Course)	-	1
		<u>6</u>	<u>13</u>
		6	13
(C)	<u>1977-78 onward</u>		
	Persian	1	1
	Arabic	1	1
	English	1	-
	Hindi	1	-
		<u>4</u>	<u>2</u>
		4	2
(D)	<u>Library Staff</u>		
	Professional		
	Junior 3		
		1 to be appointed in 1975-76	
		1 to be appointed in 1976-77	
		1 to be appointed in 1977-78	

Professional
Assistant 3 1 to be appointed in 1975-76
1 to be appointed in 1976-77
1 to be appointed in 1977-78

Supporting
Staff 2 1 to be appointed in 1975-76
1 to be appointed in 1976-77

CATEGORY-WISE RECOMMENDATION OF THE COMMITTEE
UNDER DIFFERENT PRIORITIES

Order of Priority	Staff	Technical and other staff	Books	Equip-ment	Furniture	Building	Misc.	Total
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(Rupees in Lakhs)

PRIORITY I	13.41	1.15	3.50	4.00	1.00	4.20	2.42 *	29.58
PRIORITY II	-	0.60	2.50	3.50	1.00	4.20	1.00	12.80
PRIORITY III	-	-	3.00	4.00	1.50	5.97	-	14.47
Total	13.41	1.75	9.00	11.50	3.50	14.37	2.00	36.95

Spill-over
Commitments 16.23

*Misc. (Reprographic Equip. & preservation of manuscript) : 1.00
Nurse : 0.15
Junior Research Fellowship: 0.85
Stenos : 0.42
Total: 2.42

DEPARTMENT OF URDU

The Department of Urdu occupied a central position in Jamia Millia Islamia. The development of Urdu has always been the cherished desire of the founders of Jamia Millia Islamia, and it constitutes one of its main areas of excellence. Jamia Millia Islamia is the only institution of its kind in the country where Urdu is the medium of instruction right from the Primary to the Degree level. This places heavy and unique responsibilities on the Department of Urdu.

With the joining of a Professor last year the department is now at the threshold of assuming new responsibilities both in teaching and scholarship. It has already attracted 18 Ph.D. students within the short span of a few months. The present Vice-Chancellor of Jamia Millia Islamia himself being an eminent Professor of Urdu and a leading scholar of Urdu Linguistics is a great contributory factor towards giving the Department a distinguished scholarly base and a sense of direction. The Department now has a potential of developing into one of the finest centres of Urdu teaching and research in this country.

Presently the following courses being pursued in the Department:

1. Post-graduate research work for the degree of Ph.D.
2. Post-graduate course (M.A. Two-Year Course).
3. Urdu Literature (Three-Year Course in B.A. Pass)
4. Urdu Literature (One-Year Compulsory Course in the Preparatory Class)
5. Urdu Language (One-Year Compulsory Course for all Jamia students of B.A. Hons. B.Sc. and B.Sc. Hons.)
6. Urdu Elementary (One-Year Compulsory Course for all Jamia students of the Preparatory Class).

The present staff position is Professor 1, Reader 1, Lecturers 5, which is for short of the required strength to cope with the teaching load of the above courses, as well as for guiding 18 Ph.D. scholars. During 5th Plan the Jamia propose to strengthen the teaching and research programme of the department.

DEPARTMENT OF INDIAN HISTORY AND CULTURE, JAMIA MILIA ISLAMIA

1. TEACHING PROGRESS

The Department of Indian History and Culture was constituted in 1963 and had one Professor, One reader and three lecturers. After 1968 one Reader and three lecturers were added. The present position of the teaching staff of the Department is as follows:-

- | | |
|--------------|---|
| a) Professor | 1 |
| b) Readers | 2 |
| c) Lecturers | 6 |

The following courses are being pursued:-

- a) B.A. (Pass)
- b) B.A. (Hons.)
- c) M.A.
- d) Ph.D.

II. DIRECTION AND EXPANSION

The direction of study in future would be on the following lines:-

- a) An emphasis on the study of mediaeval Indian History.
- b) Stress on the research-orientation courses on the post-graduate level, with an object of preparing the students to undertake research in his field of study.
- c) New courses to be pursued, which would be in tune with this objective. Thus syllabus being revised.
- d) An emphasis on intensive research on Ph.D. level on the cultural aspects of 17th and 18th centuries with special reference to Muslims and part of the Muslims in cultural integration.

The Department during the coming plan period wishes to concentrate on the research oriented post-graduate courses and strengthen its research wing.

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III. DIFFERENCE IN SPECIALISATION FROM JNU AND DELHI

In the local setting of Delhi there is great need of developing a centre for higher studies in Mediaeval Indian History, specially when Jawaharlal Nehru, University and Delhi University are concentrating on Ancient and Modern Indian Histories. With its cultural background and

facilities available in forms of books and manuscripts in the Jamia Library, the Department can develop such a centre

With an intensive teaching of Mediaeval Indian History and emphasis on research on the cultural aspects of 17th and 18th centuries, the Department can play its constructive role in the field of History in Delhi.

TECHNICAL STAFF

<u>Priority I</u>	<u>1975-76</u>	
	<u>Science Workshop</u>	
	Precision Mechanic	One
	Electrician	One
	Carpenter	One
	Helper to Carpenter	One
	<u>1966-67</u>	
	<u>Chemistry</u>	
	Technical Assistant	One
	Glass blower	One
	Junior Laboratory Assistant	Two
	<u>Physics</u>	
	Junior Laboratory Assistant	Two
	Store-keeper	One
<u>Priority II</u>	Development Officer	One

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 11th & 12th August, 1975.

Item No.19: To consider the reports of the Visiting Committee which assessed the developmental needs of the Universities in Assam (Dibrugarh University and Gauhati University)

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The University Grants Commission constituted a visiting committee with Professor UN Singh, Pro-Vice-Chancellor, Delhi University (formerly Head of the Department of Mathematics) as Convenor for assessing the developmental needs of the universities in Assam. The Committee visited the Universities of Dibrugarh (19th to 21st December 1974) and Gauhati (22nd to 24th December 1974). The main observations and recommendations of the Committee are summarised below:-

1. There was considerable potential available amongst the faculty for a purposeful academic development but a number of departments suffered from absence of academic leadership and sense of direction.

2. Difficulties existed in attracting good academics to a remote developing university but capable persons could be invited to professional posts through a more personal approach rather than by relying on the usual process of advertisement only.

3. New developing universities should organise well-knit academic programmes rather than self-contained departments on traditional lines. The modern socio-technology requirements can perhaps be fruitfully met in new universities which are free from the shackles of traditional inheritance.

4. Opportunities for inter-disciplinary and inter-active processes were not being fruitfully utilised. The real exercise in this direction should aim at synthesizing the ideas, concepts and programmes of allied disciplines with a view to applying benefits of knowledge in the vast recesses of inter-disciplinary gaps where extremely important aspects of human activity are observed. The role of Mathematics and Statistics can be identified as most crucial in this context as the need of present times is to present social, political, economic phenomenon in quantified terms. The concept of quantitative formulation and analysis is essential to the requirements of an increasingly complex

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social structure and the committee would like to recommend most strongly that these two departments should be organised to fulfil this task instead of teaching straight jacket courses to students of other disciplines. Exercises of this nature will keep afresh the great excitement of the learning and teaching processes so vital for the healthy growth of an academic institute. Similarly, an imaginative treatment of the study of Economics, Sociology and Political Science can add new dimensions to the study of History whilst the latter can give a fresh meaning to the developmental processes in relation to the others. There is hardly any interaction or cooperative teaching, research or laboratory work between the Departments of Botany, Agricultural Botany and Zoology. This has resulted in the unfortunate situation where three out of four special papers offered in M.Sc. (final) Botany are the same as those offered for M.Sc. in Agricultural Botany without any effort being made for co-operative teaching by the departments. Even the journals received by one department do not appear to be made use of by the sister departments until perhaps they are transferred to the main library. These departments should design joint teaching and research programmes with a view to optimally utilising their scientific resources and expertise and fostering inter-disciplinary efforts. Disciplines like Genetics, Plant Bio-chemistry and Ecology could constitute profitable avenues of interaction and collaboration amongst the departments.

5. The Universities should provide the necessary catalyst for continued endeavour towards academic excellence and adventure of ideas through well equipped laboratory, library and student's amenities by consolidating the existing facilities to ensure effective utilisation. The lead in this matter could be appropriately taken by the Academic Council of the Universities by declaring a commitment to this principle and advising the constituent departments to explore all avenues of inter-disciplinary activity which could be jointly shared and contributed. The recommendations made by the Committee are conceived within this framework. The universities, it is hoped, will actively encourage such activities and ensure the fullest utilisation of existing resources and facilities as well as to/made those available in the Fifth Five Year Plan through appropriate supervisory groups or committees.

6. The Committee felt the absence of a Department of Life Sciences which constitutes important gap in the overall system of a creative enterprise. Several existing disciplines, such as Chemistry, Geology, Anthropology could develop purposeful fields of enquiries in conjunction with a properly organised Department of Life Sciences. Further,

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such a department will hopefully generate the necessary R & D in the fields of Forestry, Tea Technology, Ecology and the Environment all of which have obvious significance to the State's socio-economic scene.

7. Many sanctioned posts, particularly, at the senior level have remained vacant for a long time. The Committee noted this with concern and would like to make it clear that senior appointments must be made at the earliest opportunity because all development programmes of a department will centre round the senior faculty members. The Committee, therefore, felt that additional grants for specific purposes may be made available to the universities only on condition that the Professors/senior staff appointments remaining vacant, are filled up. The Committee felt that filling up of posts of Professors by promotion is not a healthy practice. All posts should be advertised and the selection made on the basis of merit by open competition to encourage research and leadership. This will not prevent eligible persons from within to compete with others.

8. A small central workshop attached to the Department of Physics provides facilities for glass-blowing, carpentry etc. This workshop should be turned to a central facility to be made available not only for proper maintenance and optimal use of the available equipment but also for the repair, design and fabrication of equipment for all the user departments of the university. A committee may be constituted with representatives from all the user departments for the proper administration and running of the central workshop with the appointment of a Mechanical Engineer in the Reader's grade to co-ordinate the work of the committee and the central workshop. The central workshop should also obtain the services of a competent Electronic Engineer in the Reader's scale. The central workshop would enable utilisation of very costly equipments which are lying idle in various departments because there was none to care for even minor repairs.

9. The Committee had the benefit of the advice of a representative from the Assam Government in assessing the developmental needs of the two universities under the Fifth Five Year Plan. The Assam Government is of the view that:

- (a) The UGC may like to consult the State Government at the time of sanctioning any scheme involving matching contribution by

the University as the liability of the university ultimately devolved on the State Government.

- b) The recurring liability on maintenance of staff and buildings sanctioned out of UGC's grants, shall after the Fifth Five Year Plan is over, be taken into account by the Seventh Finance Commission in allocating non-Plan grants to the State Governments.

10. A provisional allocation of Rs.150 lakhs and Rs.200 lakhs have been proposed by the Commission to meet the developmental needs of the Universities of Dibrugarh and Gauhati during the Fifth Five Year Plan under three priorities - Priority I (50%), Priority II (25%) and Priority III (25%). The spill-over from the Fourth Plan as well as the schemes approved after 31st March, 1974 (prior to committee's visit) are to be the first charge on the First priority of the Fifth Plan allocation. The Committee tried to accommodate the developmental needs within the financial constraints but in view of the fact that the universities are relatively young particularly, Dibrugarh University, the committee could not but help recommending allocation under different priorities on a higher scale with the hope that the Commission will give special consideration for the remote Eastern region of the country.

11. The Committee has also recommended provision of Junior research fellowships to the two university to enable the different departments which have not had the benefit of any fellowships so far, to encourage scholarship and learning. The university concerned should constitute committees with representatives from the Departments for a fair distribution of these fellowships to all the departments not necessarily in a uniform pattern.

12. The total amounts recommended under the three priorities for the two universities, itemwise are indicated below:

i) Dibrugarh University

	<u>Priority I</u>		<u>Priority II</u>		<u>Priority III</u>	
	(excluding spill-over)					
	(figures in lakhs of rupees)					
	<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>
<u>Non-Recurring Building</u>	34.50	44.0%	7.40	21.8%	3.20	19.5%

Equipment	8.50	10.9%	6.25	18.4%	4.75	28.9%
Books and Journals	16.75	21.2%	11.25	33.3%	8.50	51.6%

Recurring

<u>Staff plus</u> 20 JRF at any given time	18.73 4P, 14R, 1L 10thor	23.9%	8.96 2P, 7R, 4L, 10thor	26.5%	-	-
	78.48	100%	33.86	100%	16.45	100%

Spill over from Fourth Plan plus schemes approved during the Fifth Plan prior to Committee's visit

21.21

99.69 lakhs

Grant total for the three priorities-150.00 lakhs

ii) Gauhati University

Non-Recurring

Building	28.07	34.7%	15.60	18.9%	1.50	3.4%
Equipment	15.00	18.5%	13.25	24.8%	7.25	16.6%
Books & Journals	17.10	21.2%	16.20	30.3%	13.05	30.0%

Recurring

<u>Staff plus</u> 30 JRF at any given time.	20.74 (4 P 11R, 2L)	25.6%	8.59 (3P, 8R)	16.0%	21.76 2P, 18R, 7L	50.0%
Total NR+R	80.91	100%	53.64	100%	43.56	100%

Spill over from Fourth Plan plus schemes approved during the Fifth Plan (prior to Committee's visit)

35.76

116.67 lakhs

164

Grand total for the three priorities = 213.99 lakhs*

* In view of the spill-over of Rs.35.76 lakhs, the total allocation under Fifth Plan (Rs.200 lakhs) has exceeded by Rs.13.99 lakhs.

The reports of Dibrugarh and Gauhati Universities as approved by the convenor of the Committee are given at Annexure I & II

The matter is placed before the Commission for consideration.

JS(II)

University Grants Commission

Report of the Visiting Committee which assessed the developmental needs of the Dibrugarh University during the Fifth Five Year Plan (19-21 December 1974)

The University Grants Commission constituted a Visiting Committee consisting of the following members for examination and assessment of the development needs of the Universities of Dibrugarh and Gauhati:

- i) Professor UN Singh ... Convenor
Pro-Vice-Chancellor
Delhi University
(formerly Head of the
Department of Mathematics).
- ii) Professor V.K. Gaur ... Member
Professor of Geophysics
Roorkee University
Roorkee.
- iii) Professor S.K. Joshi ... Member
Head of the Department of
Physics
Roorkee University,
Roorkee.
- iv) Professor A.B. Lal ... Member
Head of the Department
of Chemistry
Bhagalpur University
Bhagalpur.
- v) Professor M.S. Kanungo ... Member
Head of the Department
of Zoology
Banaras Hindu University
Varanasi.
- vi) Professor S.B. Rangnekar ... Member
Head of the Department
of Economics
Panjab University
Chandigarh.

and the problems of the teaching community were discussed with the teacher representatives.

The University was started in 1965 with the following objectives:

- (a) to give a bias of science & technology;
- (b) to give the departments some base on which these can go and develop rapidly; and
- (c) to create and maintain an atmosphere suitable for pursuing higher studies and research in the University Campus.

The University had in all seven departments in science and technology, and eight departments in humanities and social sciences:

Science & Technology

1. Physics
2. Chemistry
3. Mathematics
4. Statistics
5. Anthropology
6. Applied Geology
7. Petroleum Technology

Humanities & Social Sciences

1. Assamese
2. English
3. Economics
4. Sociology
5. History
6. Political Science
7. Law
8. B.T.

The Visiting Committee of the University Grants Commission recommended the following staff for development of teaching and research in the University during the Fourth Five Year Plan:

Science Departments

<u>Subject</u>	<u>Professor</u>	<u>Reader</u>	<u>Lecturer</u>
Physics	1	-	3
Chemistry	1	1	3
Mathematics	1	1	1
Statistics	1	-	2
Anthropology	1	-	2
Total: Science depts.	5	2	11

Arts Departments

Assamese	1	-	3
English	1	-	3
Economics	1	-	2
Sociology	1	-	2
History	-	1	2
Political Science	1	-	2
Law	-	1	2
Total: Arts depts.	5	2	16
Total: Science & Arts Departments	10	4	27

The present staff position in the various departments of the University, their qualification, date of joining and field of specialisation are indicated in Annexure I.

During the later part of the Fourth Plan period, the University Grants Commission further sanctioned one Professor and four Lecturers in Applied Geology. All the posts sanctioned during the Fourth Plan, have been filled up except for the post of Professor of Chemistry. The position regarding posts approved during the Fourth Plan period and the posts existing as on 1.4.1974 is indicated in Annexure II. Some of the teachers left the university and these vacancies are being filled u

The posts sanctioned by the UGC during the Fourth Plan period, are being continued by the University/the State Government/ in the University Budget for 1974-75. The other physical facilities provided by the Commission during the Fourth Five Year Plan period are indicated as below:

Name of the scheme	Total approved cost	UGC Share	Amount paid upto 31.3.1974	Spill-over to the V Plan	Grants paid after 31.3.1974	Proposals accepted after 31.3.1974
Bldgs.	56,48,563	29,00,000	17,20,000	11,80,000	4,29,000	Rs.30,000 (UGC share limited to Rs.22,500)
Equipment	4,20,000	4,20,000	4,20,000	-	-	Rs.5,00,000 (Basic equipment grant)
Books	6,40,000	6,40,000	5,85,000	**	45,000	3,00,000 (Basic library grant)
Staff	20,32,829	20,32,829	19,70,000		62,829	62,829 -
Misc.	1,04,000	1,04,000	48,500		55,500	-
Total	88,45,392	60,96,829	47,43,500	12,98,329	5,36,829	8,22,500

Commitment made under V Plan -

1. Spill-over	=	12.98 lakhs
2. New proposals already accepted	=	8.23 lakhs
		<u>Rs. 21.21 lakhs</u>

** The balance amount lapsed with the end of the Fourth Plan.

From the table, it would appear that the spill-over from Fourth Plan amounted to Rs.12.98 lakhs and new proposals already approved by the Commission after 31.3.1974 to Rs. 8.23 lakhs. Thus, a total of Rs.21.21 lakhs constituted as the first charge of the Fifth Plan allocation to the Dibrugarh University. A provisional allocation of Rs.1.50 crores has been proposed for the Dibrugarh University for the Fifth Five Year Plan with the request that the university may phase its programme for development of teaching and research under three priorities i.e. Priority I within 50 per cent of the allocation, Priority II within 25 per cent of the allocation and Priority III with the remaining 25 per cent of the allocation. Under Priority I, a total amount of Rs.75 lakhs has been proposed provisionally out of which an amount of Rs. 21.21 lakhs shall have to be accounted for as first charge under first priority of the Fifth allocation making available a total sum of Rs. 53.79 lakhs. A statement indicating the funds allocated to the Dibrugarh University during the period 1966-67 to 1973-74 various programmes approved for implementation under Fourth Plan and the expenditure actually incurred is given in Annexure III. Besides the Fourth Plan allocation of Rs.66 lakhs, the Commission has also provided funds outside the Fourth Plan allocation for such schemes as, Unassigned Grant (Rs.1.30 lakhs), Support for Research (0.50 lakh), Fellowships, junior and senior (Rs.1.92

Library Books and Journals (Rs.3.50 lakhs), Indoor Stadium-Gymnasium (Rs.1.87 lakhs), Summer Institutes, Seminars, Refresher Course etc. (Rs.3.50 lakhs) for the duration of the Fourth Five Year Plan. These are major items of expenditure met out of the funds provided by the Commission outside the Fourth Plan allocation.

The University has been admitting a restricted number of students in each department according to the actual facilities available. The eligibility conditions for admissions require that a student may be admitted to a Post-graduate class only if he had obtained more than 40 per cent marks in the honours subjects or more than 45 per cent marks in the Pass course subjects. Even with this eligibility condition, the admissions have been restricted in various postgraduate studies. Ten per cent of the seats for admission into any postgraduate department are reserved for Scheduled Caste and Scheduled Tribe candidates and a weightage of 5 per cent marks is given to any sportsman of high calibre. Adequate consideration is also given to candidates coming from the NEFA, Nagaland, Manipur, Tripura and other tribal areas. The subject-wise enrolments of students in various post-graduate courses as on 1.4.1974 are as below:

Science & Technology

<u>Subject</u>	<u>Enrolment</u>
Physics	29
Chemistry	24
Mathematics	35
Statistics	31

Anthropology	29
Applied Geology	18
Petroleum Technology	6

Humanities & Social Sciences

Assamese	71
English	48
Sociology	60
Economics	69
History	65
Political Science	71
B.T.	60
Law	244

Research Enrolment 15

Grand Total 874

The number of books and journals available for various subjects are as below:

<u>Subject</u>	<u>Books</u>	<u>Journals</u>
Physics	2368	29
Chemistry	1566	25
Mathematics	1959	20
Statistics	1342	43
Anthropology	1628	20
Applied Geology	888	35
Petroleum Technology	235	8
Assamese	8242	5
English	4557	18
Sociology	2012	21
Economics	3340	37
History	2604	18
Political Science	3579	53
Education	3845	21
Law	3113	11
General	3901	34
Total:	45179	398

The annual recurring expenditure on books and journals for the Central Library has been on an average of Rs. 2.50 lakhs. The Central Library provides reading seats for 122 and the working hours are from 9 a.m. to 8 p.m. The average number of books issued per week to

students and teachers is about 275.

The University has provided hostel accommodation for male students (in 3 blocks) and female students (in one block) for 300 students.

The University has provided residential accommodation to 11 per cent of its Professors, 71 per cent to its Readers and 22 per cent of its Lecturers.

EXISTING PROGRAMMES OF STUDENTS
SERVICES AND WELFARE

Each student of the University is required to contribute Re. 1/- per month along with his tuition fee towards the Students' Aid Fund. The University Grants Commission has been providing an annual grant equivalent to the amount of the total contribution made by the students for the year. Financial assistance to the needy students and loans (recoverable) are given to the students out of this on the recommendation of a committee specially constituted for the purpose. The Committee includes five students elected by the students themselves for one year.

(a) Hostel facilities have been provided on a monthly payment of nominal rent with facilities of free services of cooks and menials provided by the university. The Prefects of the hostels are exempted from payment of seat rent. Each student is given furniture as per UGC norms which includes a bedstead, a table, a chair and a book-case. Besides the hostel accommodation in the campus, the university has made arrangements by renting buildings outside the campus in the town to provide

hostel facilities to students. The University has also provided bus service for outside campus student boarders at a nominal charge.

(b) Facilities have also been provided for extra-curricula activities such as seminars, symposia, conferences etc. and also for organising annual games and sports and for participation in Inter-College and Inter-University Tournaments.

(c) Financial assistance @ Rs.2000/- to each of the University Teaching Departments is provided for educational excursions of students annually.

(d) Students' Unions are provided with office rooms, telephone and furniture. Financial assistance is also given for the publication of annual issues of magazines by the Unions.

Canteens

There are two canteens in the University run by private parties on one-year lease with provision of supervision by a committee constituted for the purpose with student representatives as well.

Library facilities

Facilities for library are being provided to the students with the usual services like, lending, reading, reader's assistance, inter-library loan, microfilm reading etc. The students may avail the services of the Library by payment of a refundable amount of Rs.10/- as caution deposit for a session.

Student Centre

With the assistance of Rs.30,000 by UGC in 1971 for purchase of books and furniture, a student centre has been established in the Central Library for the benefit

of the students in using textbooks.

The building for the students' home is under construction and books worth Rs.42,000/- have been purchased. The collection of these books has been kept separately in the reading room of the library to be used by students in the Students' Home (not to be taken out).

The University has a programme for building up a Book Bank with multiple copies of textbooks for the benefit of students. This programme has not been implemented for lack of funds and adequate library space.

Services of a dispensary have been provided under the Contributory Health Service Scheme of the University. The students have to pay Re.1/- per head per month towards the Scheme and are entitled to free medical treatment. Ordinary cases are treated in the University Health Centre and special cases including cases of surgical emergencies are referred to the Assam Medical College Hospital, Dibrugarh. The cost of admissible medicines, not provided by the University, is reimbursed. For emergency requirements, the University provides conveyance for shifting patients to the Assam Medical College Hospital for expert services.

The State Government has provided such a unit and it is functioning in a building provided in the University campus under an Assistant Employment Officer. The Bureau has been helping students by providing information on job-opportunities and counselling on career

openings.

PROGRAMMES OF TEACHER WELFARE

Contributory
Health
Service
Scheme

The teachers are covered by the Contributory Health Service Scheme by contributing Rs.3/- per head per month.

Residential
accommo-
dation

The University has provided residential accommodation to a sizable proportion of its teaching community. The University has provided an Indoor Stadium and also good foot-ball and volley-ball grounds.

C A M P U S

The total campus area of the University is about 500 Acres.

Built-up Area: Total built-up area of buildings at the Dibrugarh University as on 1.8.1974 is as below:

<u>Name of the Building</u>	<u>Nos.</u>	<u>Total Area sq.ft.</u>
Instructional building	2	27,340
Physics Laboradoty Bldg.	1 (Ground Floor)	14,000
Lecturers Quarters (Assam Type)	20	25,560
Professors Quarters (Assam Type)	3 (4 storeyed)	5,715
-do- (RCC Type)	5	9,450
Lecturers Quarters (RCC type)	2	2,556
3rd grade staff quarters (Assam type)	5	5,360
4th grade staff quarters (Assam type)	8	2,960
Boys' Hostel	1 (4 storeyed)	50,899

Girls' Hostel	1 (3 storeyed)	25,692
Students' Home	1	6,100
Indoor Stadium	1	12,176

The total income and expenditure of the Dibrugarh University from 1.4.1966 to 31.3.1974 are indicated below:

<u>Income:</u>	Maintenance grant from the State Government	Rs.188.00 lakhs
	Income from Fees etc.	Rs. 76.57 lakhs
4th Plan -		
	Development grant from -	
	i) U.G.C.	Rs. 55.51 lakhs
	ii) State Govt.	Rs. 66.00 lakhs
	Other Misc. receipts	Rs. 73.80 lakhs
	Total:	<u>Rs.459.80 lakhs</u>

Expenditure:

1. Salaries of teaching & non-teaching staff allocated to the teaching departments	Rs. 50.29 lakhs
2. Administrative	Rs. 45.77 lakhs
3. Library Books & Journals	Rs. 20.97 lakhs
4. Lab. equipments	Rs. 18.95 lakhs
5. Buildings :-	
i) Academic	Rs. 16.40 lakhs
ii) Others	Rs. 46.20 lakhs
6. Fellowships & Scholarships	Rs. 19.69 lakhs
7. Other items	Rs.216.30 lakhs
Total:	<u>Rs.434.63 lakhs</u>

Policy for
Recruitment
of Teachers

The University has laid down the eligibility conditions for appointment as a teacher for the postgraduate departments which require that he must be a citizen of India, medically fit and in possession of good health and character and antecedents. In addition, he must possess the minimum academic qualifications and research and teaching experience appropriate for the particular cadre. For the post of Professor, a uniformly good academic record with a doctorate degree, combined with continuous research work of merit and ten years' teaching experience at postgraduate level is required. For the post of Reader, a uniformly good academic record with a doctorate degree or equivalent published work combined with five years' teaching experience at postgraduate level is required. For the post of Lecturer, a uniformly good academic record with a first class or high second class Master's degree alongwith one year's teaching experience at honours level is prescribed. The recruitment may be either direct, through a selection committee, or by deputation or by contract. Besides these general qualifications, the University also insists upon specialisation.

The appointment of teachers in the affiliated colleges is done through a selection committee formed by the State Government.

Review of
Courses

The University possesses a built-in mechanism for continuous review of the courses through its Board of Studies in each subject. With the help of Boarders,

revision of the postgraduate as well as undergraduate courses in the subject is made to keep the syllabi up-to-date.

A large number of summer institutes have been held in various disciplines of the university and the departments also have been organising seminars from time to time. In addition, the university teachers have been delivering lectures in the affiliated colleges for the benefit of undergraduate students and to bring about an improvement in the teaching techniques/methods in the affiliated colleges.

Ad@quate provision of tutorial classes exist in the daily programme of the departments to take care of backward students. Besides, they are encouraged to contact the teachers in the department for consultation at any time of the day.

The library is kept open from 9 a.m. to 8 p.m. everyday (except holidays) and the students are encouraged to make the best use of the stock of books and journals available in the library. Lack of proper accommodation has prevented the students from taking the maximum advantage of the library facilities.

Some of the members of the teaching faculty of the University are reviewers of many international journals and are connected with the activities of some of the universities in India in one way or another.

Productivity
Oriented
Course

The University opened the Departments of Petroleum Technology and Applied Geology with a view to fulfil the needs of the Oil industry in the State out of its own resources.

PROPOSALS OF THE UNIVERSITY FOR
DEVELOPMENT OF TEACHING & RESEARCH
DURING THE FIFTH FIVE YEAR PLAN

The Commission has made a provisional allocation of Rs.150 lakhs during the Fifth Plan in three priorities e.g., 1st priority with 50 per cent (Rs.75 lakhs), 2nd priority within 25 per cent (Rs.37.5 lakhs) and the 3rd priority within the next 25 per cent (Rs.37.5 lakhs). The University was established in 1965 and received a total amount of Rs.66 lakhs for the period of 8 years from 1966 to 1974 as indicated below:

1. Salary of teaching staff	Rs. 31.30 lakhs
2. Library books and journals	2.50 lakhs
3. Buildings	
a) Men's hostel	9.00 lakhs
b) Women's hostel	4.75 lakhs
c) Teachers' Hostel	3.00 lakhs
d) Staff quarters	4.25 lakhs
e) Physics Building	5.00 lakhs
f) Mathematics & Statistics bldg.	2.00 lakhs
Total:	Rs. <u>66.00 lakhs</u>

During the same period, the State Government released a total grant of Rs.66 lakhs for the development of schemes mentioned below:

1. Development of site, Water-supply		Rs. 11.50 lakhs
2. Buildings:		
a) Boys' Hostel	9.00	l
b) Women's hostel	5.50	l
c) Laboratory bldg.	5.00	l
d) Staff quarters	13.00	l
e) Instructional building	8.00	l
		Rs. 40.50 lakhs
3. Students' Welfare Project		Rs. 2.90 lakhs
4. Facility for Research		Rs. 2.25 lakhs
5. Library		Rs. 1.77 lakhs
6. Specialised Course		Rs. 1.50 lakhs
7. Transport Facilities		Rs. 0.75 lakh
8. Extra Curricular Activities		Rs. 0.50 lakh
9. Laboratory equipment		Rs. 4.33 lakhs
	Total:	<u>Rs. 66.00 lakhs</u>

The University has indicated its three priorities for implementation of programmes for development of teaching and research during the Fifth Five Year Plan within the allocation of Rs.150 lakhs as indicated in Annexure IV.

According to the priorities indicated by the University, the University's requirements amount to Rs.287.01 lakhs for development of teaching and research during the Fifth Five Year Plan as indicated below:

First Priority Schemes	..	Rs. 176.17 lakhs
Second Priority Schemes	..	Rs. 104.34 lakhs
Third Priority Schemes	..	Rs. 6.50 lakhs
	Total:	<u>Rs. 287.01 lakhs</u>

FIFTH PLAN VISITING COMMITTEE'S RECOMMENDATIONS

The Committee visited the various departments and held discussions with the respective Heads of the Departments and other staff members regarding their present academic activities and the problems as well as their future plans and needs. One of the dominant impression gained by the Committee was that while there was considerable potential available amongst the faculty for a purposeful academic development, most departments with a few exceptions suffered from absence of academic leadership and sense of direction. Of the 13 posts of Professors made available to the University, 8 were still lying vacant. The Committee realised the difficulty of attracting good academics to a remote developing university but should like to urge that capable persons be invited to professional posts through a more personal approach rather than by relying on the usual process of advertisement.

The Committee also felt rather strongly that a new developing University like Dibrugarh should organise well knit academic programmes rather than self-contained departments on traditional lines. The modern socio-technological requirements to develop and impart knowledge against the backdrop of total perspective rather than out-dated segregated compartments can be fruitfully met only in new universities like Dibrugarh since new universities are free from the shackles of traditional inheritance. The Committee wishes to emphasise this p

eminent role of the Dibrugarh University in directing an integrated growth of various departments through the good efforts of its Academic Council.

The Committee observed that the opportunities for inter-disciplinary and inter-active processes were not fruitfully utilised and it appeared at a joint meeting that there was a mistaken impression amongst the faculty that the inter-disciplinary exercise merely consisted in combining related disciplines in some way. The real exercise should aim at synthesizing the ideas, concepts and programmes of allied disciplines, with a view to applying benefits of knowledge in the vast recesses of inter-disciplinary gap where extremely important aspects of human activity are observed.

The role of Mathematics & Statistics Department can be clearly identified as most crucial in this context as the need of present times is to represent social, political, economic phenomenon in quantified terms. The concept of quantitative formulation and analysis is essential to the requirements of an increasingly complex social structure and the committee would like to recommend most strongly that these two departments should be organised to fulfil this task instead of teaching straight jacket courses to students of other disciplines but by jointly designing new perspectives. Exercises of this nature will keep afresh the great excitement of the learning and teaching processes so vital for

the healthy growth of an academic institute.

Similarly, an imaginative treatment of the study of Economics, Sociology and Political Science can add a new dimension to the study of History whilst the latter can give a fresh meaning to the developmental processes in relation to the others. The committee noted that some collaborative exercises were being undertaken jointly by the Departments of Chemistry and Geology and by the Statistics and Economics. It was however felt that this inter-disciplinary approach was only in the formative stage which should be pursued as one of the over-riding goals of the university.

In this context, the committee felt the absence of a Department of Life Sciences which constitutes an important gap in the overall system of a creative enterprise. Several existing disciplines, such as Chemistry, Geology, Anthropology, could develop purposeful fields of enquiries in conjunction with a properly organised Department of Life Sciences. Further, such a department will hopefully generate the necessary R&D in the fields of Forestry, Tea Technology, Ecology and the Environment, all of which have obvious significance to the State's socio-economic scene.

The Committee was unanimous in voicing the concern for consolidating the existing facilities that the University has acquired with a view to developing a concern for and an excitement in the learning and teaching process by the utilisation of optimum human and material resources, by providing the necessary

catalyst for continued endeavour towards academic excellence and adventure of ideas through well equipped laboratory, library and students' amenities. The Committee also recognised the need for a Day Scholars' Centre in the city in view of the fact that over 50 per cent of the students live in the city which is over 5 kms. away from the campus. The recommendations pertaining to development of teaching and research in specific disciplines have been recorded in the subsequent paras. But one general observation the committee would like to make is that the senior appointments must be made at the earliest opportunity because all development programmes of a department will centre round the senior faculty members. The Committee therefore feels that additional grants for specific purposes may be made available to the university only on condition that the Professors/senior staff appointments have been made. The Committee recommends that Petroleum Technology may be combined with the Department of Applied Geology to ensure a more fruitful utilisation of their combined resources and help developing an integrated approach to problems of petroleum exploration and exploitation by exploiting the vast common ground shared by them.

RECOMMENDATIONS FOR CONSOLIDATION AND
STRENGTHENING OF EXISTING DEPARTMENTS

Department
of Physics

The Department of Physics was established in 1967. Twelve students have been admitted to the postgraduate course in Physics during the academic session 1974-75.

Two research students are working in the Department. The major areas of research in the Department consists of Thin Film Physics and Theoretical Nuclear Physics and research is being carried on in Experimental Solid State Physics, Spectroscopy and Theoretical Nuclear Physics. The M.Sc. Courses are reasonably good with emphasis on Nuclear Physics. The students laboratories need to be developed specially the Solid State Physics Laboratory. The tradition of research is yet to be developed. This is purely due to lack of facilities and funds and partly due to lack of leadership. The position regarding staff sanctioned and the staff in position is as below:

<u>Staff Sanctioned</u>			<u>Staff in Position</u>		
Prof.	Reader	Lect.	Prof.	Reader	Lect.
1	1	7	-	1	7

It is strongly felt that the growth and progress of the discipline has been suffering due to the absence of the Professor in the Department. Any amount of input not transform the Department unless the University can acquire an active, energetic and established Physicist preferably Solid State Physicist as Professor.

It would be worthwhile to utilise the major portion of the development grant only after the appointment of Professor. Four students have obtained their Ph.D. in Physics working in the Department and the fifth has completed his research work and his thesis is under

preparation. One candidate has submitted his Ph.D. thesis on Electrical Properties of Thin Films in June 1974. Besides this, two candidates are working for their Ph.D. in Theoretical Nuclear Physics with junior research fellowships - one from UGC and the other from the Atomic Energy. Thirteen papers have been published so far by the Department, twelve in Theoretical Physics and one in Experimental Physics. The departmental library consists of 2000 volumes and 24 journals. One electronic mechanic was available for the workshop of the Department which did not have instrumentation/glass blowing or other facilities. The Department had one High Vacuum Plant as the only major research equipment. For lack of workshop facilities, the department has not been able to contribute anything towards fabrication of equipment. The workshop, therefore, needs to be brought to working condition. The first step should be the appointment of a qualified Sr. Lab. Technician. The recommendations for the Department under the Fifth Five Year Plan under Priorities I, II and III are as below:

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(Figures in lakhs of rupees)		
<u>Non-Recurring</u>	UGC Share.		
1. Building	-	-	-
2. Equipment	2.00	1.00	0.50
	(including Rs.0.50 lakh for workshop)		
3. Books & Journals	1.50	1.00	0.50

Recurring

2 Readers	1.40	-	-
1 Sr. Laboratory Technician	0.35	-	-
Running Exp. of the Workshop	0.05	-	-

The two Readers recommended should be appointed after the appointment of the Professor. The equipment grant of Rs.2 lakhs out of which Rs.1 lakh may be used to meet the immediate needs of the Department and the remaining be utilised after the Professor has been appointed. Major portion of the laboratory grant may be utilised after the appointment of the Professor.

Department of Chemistry

The postgraduate Department of Chemistry was established in 1969. The major areas of research cover Complex Chemistry, Kinetics, Natural Products, Differential Thermal Analysis. The department has 23 publications to its credit. Two research scholars have been working in the Department - one with UGC Fellowship and the other with Dibrugarh University Fellowship. The departmental library consists of about 10,000 volumes of publications and 24 journals. There is a workshop attached to the Department but the Department has been providing Glass Blowing facilities. The major research equipment acquired so far consist of Micro Analyser, u-v Spectrophotometer. The research and teaching staff of the department has been using research facilities in Micro Elemental Analysis of CDRI Lucknow and the IR Spectropho-

meter services of the IIT, Madras. The position regarding the posts sanctioned during the Fourth Plan period and the staff in position as indicated below:

<u>Staff Sanctioned</u>			<u>Staff in Position</u>		
Professor	Reader	Lecturer	Professor	Reader	Lecturer
1	1	3	-	1	3

The department has received an allocation of Rs.5,000/- out of the UGC grant for Support for Research during the Fourth Plan period. The department has been housed in a small Assam type building. There is too much of congestion and lack of space is apparent. The Physical Laboratory could have been organised and arranged in a better way. Their work appears to be an immediate need for better maintenance and upkeep of the existing instruments and equipment.

Teachers and teaching work

There are nine teachers of whom two are on study leave abroad. The department is headed by a Reader. Besides him, there are two more teachers with Ph.D. Other teachers do not have any research degree.

It is absolutely essential that the Department should have a good man as Professor and Head, so that leadership is provided both for research and teaching. Improvement of teaching is possible only if more of the staff qualify themselves with research in different fields.

Research Projects, etc.

There is not much of research activity in the

department probably due to lack of space and may be of funds. There is no research project of any kind sponsored either by UGC or CSIR or others. The department could make an effort to get funds for good research programme.

Equipment

The department has a u-v Spectrophotometer manufactured by Electronics Corporation of India, Hyderabad, semi-micro balance and Carbon Hydrogen estimating apparatus. The department could have achieved better results in research, had there been a proper leadership. It would be advisable to set-up a semi micro balance and carbon hydrogen estimation apparatus in a secluded room rather than putting them along with other gadgets and equipment of the department.

Books & Journals

The Department has been contributing a number of good journals. Back volumes of chemical abstracts have also been purchased. The number of books also available in the department appear to be good. The major portion of books and journals is available in the Central Library and it would be better that some should be housed in a department library when a building for the department is constructed.

The department's proposal for development of research and investigation in the areas of Catalysts and Coordination Compounds, Natural Products, Soil Analysis, Kinetics and Mechanism of Organic and Inorganic Chemistry, Photochemistry and Differential Thermal Analysis could be undertaken with the creation of a proper and congenial atmosphere for

research, with the appointment of senior staff positions.

Recommendations for the provision of
physical facilities during the Fifth
Plan period under the three Priorities.

	<u>Priority-I</u>	<u>Priority-II</u>	<u>Priority III</u>
	(Figures in lakhs of rupees)		
<u>Non-Recurring</u>	UGC Share.		
Building (12,000 sft. - RCC type	7.20	-	-
Equipment	1.00	1.00	-
Books & Journals	1.00	0.50	-
<u>Recurring</u>			
1 Professor	0.88	-	-
1 Reader	0.70	-	-
1 Reader (Professor & Reader should have separate specialisations)	-	0.70	-

Research oriented teaching is the primary aim of university education and it is hoped that the members of teaching staff would maintain this tradition of teaching and research as an integral part of their activities.

Department of
Mathematics:

The Department of Mathematics came into existence in 1967. It is concerned with the teaching of M.A/M.Sc. in mathematics and research leading to Ph.D. Research in Applied Mathematics, specially in non-Newtonian Fluids, Visco Elastic Fluids, Bingham Plastic materials, Magneto-Hydro-dynamics, and stability of Fluid Flows constitute the major

area of research. The Department has 17 research publications to its credit between 1969 and 1973 and 11 books for pre-Degree/B.A./B.Sc.(Hons.) have been written by the members of the staff some of them in the regional languages Assamese. Two students are working in the Department for their Ph.D. The existing staff position is indicated below:-

<u>Professor</u>	<u>Reader</u>	<u>Lecturer</u>
1	1	6

Excepting four lecturers, all the staff members possess doctorate degree.

The courses taught at present in M.A./M.Sc. classes include Abstract Algebra, Real and Complex Analysis, Differential Integral Equations, Mechanics, Tensor, Differential Geometry, Topology, Functional Analysis, Special Functions, Numerical Analysis, Higher Techniques, Elasticity and relativity. The Department has programmes for introducing, measures and integration, theory of functions, elasticity and magnetism, Astrophysics and Magneto-Hydrodynamics in the syllabus. The Department contains about 4,000 books and back volumes of journals and 19 journals are being subscribed out of which 13 are from abroad. The Department organised an all-India Symposia on Non-Newtonian Fluids in August, 1967, besides, five summer institutes/ refresher courses were organised during 1968-74.

The research carried on by the teachers in the Department pertains entirely on topics in Fluid Mechanics and the

journals contributed relate mostly to Applied Mathematics. Although the Department is imparting instruction in the usual topics prescribed for M.A./M.Sc. of the Indian Universities, topics in Pure Mathematics such as Abstract Algebra, Topology and Functional Analysis cannot be effectively taught by the present staff. It is amazing that topics like Theory of Measures and Lebesgue Integration do not find a place in the current courses of study. The research journals currently being subscribed by the Department are inadequate both in quality and in quantity. It is highly desirable that the Department gives due importance to the teaching of important topics in Pure Mathematics and creates conditions for pursuing higher studies and research in these topics.

Some of the teachers have been doing research in topics like non-Newtonian Fluids, Visco-Elastic Fluids and so on. But even researches in these topics cannot be expected to be of high quality unless those who are doing such work have adequate background in Pure-Mathematics. Some of the junior teachers who are not doing research, should be encouraged to study higher Pure-Mathematics and start doing research in that field.

It is highly desirable that the Department acquires the services of the competent pure mathematicians who can give leadership to the Department in respect of teaching and research in topics of Pure Mathematics. The creation of a post of a Professor in Pure Mathematics is therefore

recommended.

Recommendations for the provision of
physical facilities during the Fifth
Plan period under the three priorities:

Priority-I Priority-II Priority-III

(Figures in lakhs of rupees)

Non-recurring:

Books & Journals (consequent upon the appointment of Professor of Pure Mathematics).	1.50	0.50	0.25
Equipment	-	0.25	-

Recurring:

1 Professor in Pure Mathematics	0.88	-	-
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Department of
Statistics:

The Faculty in the Department consists of one Reader and six Lecturers. The post of Professor is lying vacant at present. The Department offers two years M.Sc. course in Statistics covering papers on Descriptive Statistics, Index Numbers, Sampling Distributions, Measures, Integration and Probability Theory, Metrics, Analysis and Numerical Methods, Applied Statistics and Operational Research. The Department has introduced papers on Statistical Inference, Sample Surveys, Demography and Official Statistics and Multivariate Analysis and Analysis of Design and Econometrics and Mathematical Economics in the M.Sc. course for examinations of 1975 and onwards. There are number of books available in the Department and 61 journals are being subscribed.

The Department proposes to start a special paper on Data processing for which provision of the necessary physical facilities has been requested by way of staff (Two Readers, three Lecturers), Accommodation (seminars and tutorials rooms) and setting up of a data processing laboratory with necessary equipments (programme calculator, electronic calculator, card puncter, card sorter, verifier).

The Department is teaching usual courses and the staff members are engaged in doing research work also. The absence of a Professor in the Department has contributed, not to a small measure, to the failure in giving the necessary dynamic leadership for the development of Statistics. It is absolutely necessary that the Professor in Statistics is appointed as soon as possible. The Department has a satisfactory collections of books and journals. It will be desirable if the Department of Statistics interacts with certain other departments such as Mathematics, Economics, Sociology, and so on both in respect of teaching and research. The Department needs strengthening of its research activities considerably, which will certainly receive an impetus with the appointment of a qualified Professor in Statistics.

The following physical facilities are recommended under the three priorities for development of teaching and research in Statistics during the Fifth Five-Year Plan:-

Priority-I Priority-II Priority-III
(Figures in lakhs of rupees)

Recurring:

1 Reader	0.70	-	-
1 Reader	-	0.70	-

Non-Recurring:

Books & Journals	0.50	0.25	0.50
Equipment	-	-	0.25

Department of
Applied Geo-
physics:

The Department is housed in a new building approximately 5,000 sq. ft. which should be adequate for the present. It has on its faculty 7 staff members consisting of one Reader and six Lecturers. Two of the staff members e.g., the Reader and one Lecturer possess doctorate degree. The Lecturers are engaged in research work on Stratigraphy and Palaeontology; Photo-Geology; Petrology and Structural Geology; Himalyan Geology and Sedimental Geology and Petroleum Geology. Three research scholars are working in the Department for their Ph.D. with fellowship from U.G.C (2) and the Wadia Institute of Himalyan Geology (1). The Department possesses 888 volumes of books and subscribes 35 journals.

Being a new Department, attention has initially been given more for providing adequate facilities for teaching the three year Applied Geology course rather than on research. Only recently the orientation is being shifted towards research.

The Department of Applied Geology intends to take up an integrated approach covering such topics like Instrumentation and Tectonics of the NEFA, Himalaya; Biostereography of Assam, Tertiary and Quaternary studies including Flood and Erosion problems of the Brahmaputra Valley.

The Department covers reasonable spectrum of applied geology. The Department offers a three-year postgraduate course in applied geology and trains about 6 students per year. The Department has substantial scope for producing technology oriented applied geologists to meet the special needs of Assam's industry as well as to generate research and consultancy capabilities to assist industries in the State. However, the scheme of design of courses leaves much to be desired and research activities need to be strengthened in a few fields relevant to the regional environment e.g. petroleum geology, mineral technology and tectonics. The Department needs to set up basic laboratories for postgraduate training which at present is limited to a few stereoscopes and microscopes.

The most urgent requirement of the Department is the appointment of an experienced and capable Professor of Applied Geology who may organise academic and research activities of the Department on purposeful lines. Another senior appointment at the Reader's level would be necessary to provide critical strength in organising this; but the appointment of Reader, however, should not be made until a Professor has been appointed first.

The Department lacks the facilities of a number of important back journals.

Physical facilities recommended for development of teaching and research in Applied Geology during the Fifth Plan under the three priorities are indicated below:-

	<u>Priority-I</u>	<u>Priority-II</u>	<u>Priority-III</u>
	(Figures in lakhs of rupees)		
<u>Recurring:</u>	<u>U.G.C. Share</u>		
1 Professor	0.88	- -	- -
1 Reader	0.70	- -	- -
<u>Non-Recurring:</u>			
Equipment	1.50	1.00	1.00
Books & Journals:	1.50	1.00	1.00

(The bulk of the equipment and books and journals provision should be committed only after the appointment of a Professor in the Department).

The Postgraduate Department of Anthropology was established in 1968. It has 1 Professor, 1 Reader (joining shortly) and 4 Lecturers. The Professor and one of the Lecturers possess doctorate degrees. The major areas of research in the Department consist of Genetics Studies of Tribal and non-tribal population; Demography; Ethnographic

Studies; Palaeanthropological Studies and Studies in Social Change. The Faculty members have been engaged in research work on topics like Study of cross-section of headhair from some Caucasoid and Mongloid population of Assam, Genetics distances in respect of ABI Blood groups among four castes of Assam. Finger prints of the Ahoms of Assam, Occupational patterns in a fishing community, rights and customs associated with the marriages of Assamese Hindus; social change among the Adis; student verses traditional joint family system etc. The Department has a good number of research publications to its credit. A number of scholars have been working for their Ph.D. with the provision of fellowship from U.G.C., C.S.I.R and Dibrugarh University and Anthropological Survey of India on topics like Impact of Community Development and Cultural Change on the Maries, Anthropometric Survey of NEFA Tribe, Attitudes of the College and University students of Assam towards traditional family marriage system. The Department has workshop and instrument facilities for doing anthropometric, dematoglyphic and blood group work. The Department has introduced quarterly progress tests and weekly seminars with the active participation of the students.

The Department is carrying out very interesting research on the distribution pattern of haemoglobin

among the people of the region, particularly, the tea planters. The Department is having useful collaboration in research with the Dibrugarh Medical College. This inter-action is healthy and should be encouraged. It would be useful if the Department of Anthropology establishes collaborative programmes with the Departments of Sociology and Political Science in both teaching and research.

The Department suffers from very acute shortage of space having neither suitable accommodation for teaching nor for research. Although the Department possesses some good equipments like spectrophotometer, centrifuge and electrophoresis which, however, need to be kept in a dust-free laboratory for the sake of efficiency.

There are good collections of museum specimen which, however, have not been housed properly due to lack of space. In spite of these handicaps, it is encouraging to find that the Department is active both in teaching and research.

The Physical facilities recommended for the development of teaching and research during the Fifth Five Year Plan period under the three priorities are indicated below :-

.....37/-

	<u>Priority-I</u>	<u>Priority-II</u>	<u>Priority-III</u>
	(Figures in lakhs of rupees)		
<u>Recurring:</u>	<u>U.G.C. Share</u>		
1 Reader	0.70	- -	- -
1 Reader	- -	0.70	- -
<u>Non-Recurring:</u>			
Building: (6,000 sq. ft. Assam Type)	3.60	- -	- -
Equipment:	0.50	0.50	0.50
Books & Journals:	1.00	0.50	0.50

Establishment
a new
Department of
Life Sciences:

The University has proposed to start Post-graduate Department of Botany and Zoology during the Fifth Plan period. The Committee, however, feels that in the present context, it may be more relevant and useful to have a Postgraduate Department of Life Sciences instead of two separate Departments of Botany and Zoology as the subject matter approach, techniques and equipments used in the various specialities of the subjects like Physiology, Ecology, Genetics, Embryology, etc are to a large extent, common.

A proper study of plants and animal requires knowledge of various basic sciences like chemistry, physics and mathematics, a knowledge of electricity, nuclear physics, physical and organic chemistry, calculus and statistics. These facilities are in

existence in the University and it should be the responsibility of these departments to provide available expertise and facilities under an active collaboration programme for the development of the postgraduate courses in Life Sciences. In most of the traditional departments of Botany and Zoology in the country emphasis is placed on the structural aspects of plants and animals. The Gauhati University has been providing the facilities for postgraduate studies in Botany and Zoology. It would, therefore, be desirable for the Dibrugarh University to give a new direction to the study of living organisms in the region which is unique in its flora and fauna, thereby avoiding duplication. The department of anthropology at the Dibrugarh University has been carrying out interesting work on certain biological aspects, unique to the region. Establishment of a new department of Life Sciences can bring about a meaningful collaboration and interaction with such studies. The new Department of Life Sciences would strengthen Forest Ecology which has a bearing with pronounced impact on the industrial development of the region. It would open new vistas of knowledge in physiology, biochemistry and genetics of the human population of the region which has been subject to much flux.

The Committee is of the opinion that properly qualified persons are essential for the establishment and development of a viable department of Life Sciences. The success of the Department would largely depend on the recruitment of a good scientist trained in Ecology/Physiology/Bio-chemistry/Genetics, as a Professor who would provide the necessary leadership and guidance. In no case the department should be started before the appointment of the Professor, only then other members of the staff should be recruited.

It would be desirable for the University to constitute a Committee with at least ~~two~~ external experts in life sciences for advising it in the selection of proper Professor and other staff to help formulating syllabus, curricula etc. and in setting up of different laboratories in life sciences with the provision of necessary equipment and facilities. The establishment of the new department of life sciences would be subject to these conditions being fulfilled.

The two years' postgraduate course in Life Sciences may enrol 8 students annually and the admission may be confined to B.Sc. with Chemistry and in two of the subjects like Botany, Zoology and Anthropology. The teachers to be recruited for

staffing the new department should have Botany or Zoology or Biology/Life Sciences at their Master's Degree and their specialisation in Ph.D. should be in Ecology/Physiology/Bio-chemistry/Genetics/Embryology. Only a few departments of life sciences are in existence in the country and it may not be possible for the university to recruit qualified staff who have had life sciences in M.Sc. It may, therefore, be necessary to recruit Botanists and Zoologists also to staff the department, care being taken that their number is balanced properly with the Life Scientists.

The University Grants Commission in collaboration with the NSF (USA) organised a Bi-national Conference in Life Sciences in 1971. The report of this Conference is an important document for development of Life Sciences. The University will be well-advised to consult these documents in setting up of a Department of Life Sciences. This would give guidelines for formulation of course curricula, development of laboratories, teaching aids and materials etc.

Considering all these factors together, the Committee would like to recommend the establishment of a new Department of Life Sciences at Dibrugarh University under second priority of the Fifth Five Year Plan.

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The recruitment of academic staff should be made in such a way that two of the above four specialities develop properly during the Fifth Plan period. Equipment should include Spectrometer (1), Coloremeters (4), p^H meters (4), High speed centrifuge (1), Laboratory centrifuges (4), Electrophoreses (2), Scintillation counter (1) etc.

The job opportunities for persons trained in Life Sciences is expected to be considerable. The Universities and its affiliated colleges could absorb a large number of Master's Degree holders in Life Sciences as Lecturers in Biology/Botany/Zoology. The University in this regard should encourage such appointments as the persons trained in Life Sciences could have a more complete knowledge of living processes than those trained only in Botany or Zoology. Forest and Tea Industry, speciality of the region, could absorb persons with Postgraduate qualifications in Life Sciences having Ecology as a special paper etc.

The Committee recommends the provisions of the following physical facilities for the establishment and development of a Postgraduate Department of Life Sciences at Dibrugarh University during the Fifth Five Year Plan.

	<u>Priority-I</u>	<u>Priority-II</u>	<u>Priority-III</u>
	(Figures in lakhs of rupees)		
<u>Recurring:</u>		<u>U.G.C. Share</u>	
1 Professor	- -	0.88	- -
1 Reader	- -	0.70	- -
2 Lecturers	- -	1.06	- -
<u>Non-Recurring:</u>			
<u>Building</u> (6,000 sq.ft. to be constructed as an extension to Anthropology building of Assam type)	- -	3.60	- -
Equipment:	- -	2.00	2.00
Books & Journals:	- -	2.00	2.00

Instrumentation
Laboratory:

The University has acquired expensive equipment, apparatus etc. with funds provided by the University Grants Commission and more equipment grants are being recommended for development of teaching and research in science subjects during the Fifth Five Year Plan. Many of the costly and sophisticated equipment are needed by a number of departments from time to time. It is neither desirably nor economical to provide each department with the same costly and sophisticated equipment needed for research and postgraduate teaching. Examples of such sophisticated equipment include Spectrophotometer, High speed centrifuges, Infrarate spectrometer, NMR, Ultracentrifuges etc.

It will be desirable to have such equipment (electronics, and optics etc.) housed in a common air-conditioned room for use of different departments on some agreed time-table schedule. For proper maintenance of these equipments with a view to put them to their optimum use, qualified Engineer should be appointed in the scale of a Reader or a Lecturer depending on his qualifications. Laboratory housing these equipment should be under his direct control and supervision. It will be his responsibility to keep the instrument in working order, repair the instruments whenever necessary and also help in fabrication of equipment from indigenous items for specific experiments required for teaching and research in different departments/disciplines. He should look after the purchase of spare parts and accessories of the equipment as and when required. The setting up of instrumentation laboratory is, therefore, strongly recommended with the hope that this will provide the common facilities of instruments needed by a number of departments, thus avoiding unnecessary duplication. The Heads of the Science Departments could constitute an Advisory Body with the Head of the Department of Physics as the Chairman to ensure proper functioning and utilisation of the equipment in the instrumentation

.....44/-

laboratory. This would also provide an opportunity to the University for training of technicians at the intermediate level in instrumentation, use and maintenance of equipments and minor repairs etc. These personnel constitute an essential component in the development of teaching and research in any branch of science needing sophisticated equipments.

The Committee, therefore, recommends the provision of the following facilities under the Fifth Five Year Plan:-

Priority I Priority II Priority III
(figures in lakhs of rupees)
U.G.C. share

Recurring

Electronics Engineer (1) (Lecturer's Grade)	-	0.53	-
Electrician-cum-Technician (1)	-	0.18	-
<u>Non-Recurring</u>			
Building (1,000 sq.ft.)	-	0.60	-
Equipment (for servicing and repair of sophisticated equipments)	-	-	0.50
Books & Journals	-	-	0.25

HUMANITIES AND SOCIAL SCIENCES

The Postgraduate Department of Assamese has a student enrolment of 36 in previous and 36 in the final year. The staff sanctioned in the department consists of 1 Professor, 1 Reader and 6 Lecturers. The post of Professor is lying vacant. The Reader and three of the Lecturers possess doctorate degrees.

The major areas of research in the Department consists of critical assessment of Assamese Literature and Cultural Aspects of the life of the people including tribes of the region. The members of the staff have been engaged in research on " The Mons Culi, Historical Novel in Assamese Literature, Incantations and Occult practices in Assam, the Tai Khantis - a socio-cultural studies, a critical study of the social and intellectual background of modern Assamese Literature, the Absurd drama, the languages and dialects spoken in Arunachal etc." Four faculty members of the department have received financial assistance from the U.G.C. for support of research during the Fourth Plan period. One research scholar has been working in the department with a U.G.C. Junior Fellowship.

The Department possesses about 7,000 books and subscribes to five journals. It has a good collection of old and rare manuscripts. The Department has asked for certain scientific equipments such as taperecorder, reprographic equipments, the spectrographic instruments etc. for its study of linguistics.

The work load of the faculty members seems to be maximised - six hours per paper. To make the teaching more effective the

number of hours per paper should be cut down to four. A kind of museum with a collection of manuscripts of cultural value has been set up in the department. A suggestion was made that modern tools of literary criticism and of linguistics might be applied to analysis and interpretation of the Assamese Literature. There is scope for the study of Dravidian linguistics which will lead to the enrichment of the regional languages. The Department has a scheme of editing rare and ancient manuscripts. The present head of the department is a post of considerable standing in modern Assamese literature and his attempts to build up a museum reflecting the culture of Assam, should be encouraged. The vacant post of the Professor should be filled up as early as possible.

The following physical facilities are recommended for the development of teaching and research in Assamese during the Fifth Five Year Plan under the three priorities:-

The construction of Humanities Block covering an area of about 12,000 sq.ft. under the first priority and another 6,000 sq.ft. each under the second and the third priority is an urgent necessity for housing all the departments of Humanities and Social Sciences which are at present located in unsafe huts and delapidated accommodation. The Committee, therefore, strongly recommends for the construction of suitable accommodation for housing these departments under three priorities of the Fifth Five Year Plan allocation as indicated below:

	<u>Priority-I</u>	<u>Priority-II</u>	<u>Priority-III</u>
	(Figures in lakhs of rupees)		
	UGC Share		
<u>Non-Recurring:</u>			
Building			
12,000 sq.ft.	7.20	-	-
6,000 sq.ft.	-	3.20	-
6,000 sq.ft.	-	-	3.20

(Contd)

	<u>Priority -I</u>	<u>Priority -II</u>	<u>Priority III</u>
Equipment:	0.50	0.50	-
Books and Journals)	1.00	0.50	0.50

The Department of English is staffed with 1 professor, 1 Reader and 4 Lecturers (one of which is lying vacant). The major areas of research in the department cover romantic aesthetics, morality tradition in early Elizabethan Drama, reaction of the British men of letters to the Indian Mutiny, the presentation of the characters from the major communities in Anglo-Indian fiction and the attitude to imperialism in the novels of Joseph Conrad. The Professor and the Reader of the Department possess doctorate degrees. Three of the members of the teaching staff have had opportunities to work on research topics like feminist influence on novels of George Elliot, T.S. Elliot's Theory of Literary Criticism, Studies on Elliot, Melville, Shakespeare etc.

Two research scholars have been working in the Department, one with a junior fellowship, for Ph.D. The Department possesses 4,430 volumes of books and subscribes to 18 journals. The Department organised three Summer Institutes for college teachers of North-East India in 1971 to 1973 under the auspices of the U.G.C. and the British Council. The University allocated an amount of Rs. 4,000/- towards support of research during the Fourth Plan funded by the U.G.C. under the UGC scheme of financial assistance to teachers for doing research, a small amount of grant was made available to the department during the Fourth Plan.

The Department is handicapped by the non-availability of back volumes of important journals and adequate bibliographical material and equipment for photocopying. The Department desires to take up a bibliography project leading to the preparation of a bibliographical of essays, papers and dissertations written by Indians working in Indian universities and colleges. It also intends to bring out a journal of English studies by the end of the year. The Department has about 26 publications to its credit during the period 1968 to 1972. The committee felt that the research was being guided in the Department in the right direction under the able guidance of Professor Barua. The Department, however, lacked in back number of journals and books which are essential not only for research but also for teaching. The Department's desire to introduce American Literature, Indo-Angolian Literature and Comparative Poetics is a fruitful exercise in inter-disciplinary approach drawing upon Sanskrit poetics. The Department's needs for extra staff, books and journals are justifiable. The Committee recommends the provision of following physical facilities for development of teaching and research in English during the Fifth Five Year Plan under the three priorities indicated below:

	<u>Priority-I</u>	<u>Priority-II</u>	<u>Priority-III</u>
	(Figures in lakhs of rupees)		
	UGC Share		
<u>Recurring:</u>			
2 Readers	1.40	-	-
1 Lecturer	-	0.53	-
<u>Non-Recurring:</u>			
Building (as indicated under the Department of Assamese)			
Books and Journals:	1.00	0.50	0.50

The Department of Sociology is staffed with 1 Professor, 1 Reader and 3 Lecturers. The Professor and Reader possess doctorate degrees. The major areas of research in the Department cover rural sociology, political sociology, industrial sociology, criminology sociology, urban planning and tribal village construction. The members of the staff are actively associated with the research and the Department has five research publications to its credit during the period 1970 to 1974. Four of the members of the staff participated in the seminar in research methodology organised at other universities/institutions during the period 1970-74. Some members of the staff of the Department received financial support from U.G.C., I.C.S.S.R., Census Organisation of India, USSFI for their research during the period 1970 to 1974, the major contribution being made by the ICSSR amounting to Rs. 52,000/- for a study of Scheduled Castes/Tribes students in the schools and colleges of Assam.

Three scholars have been working in the Department for their Ph.D. with U.G.C. junior research fellowship. The Department possesses 1948 volumes of books and subscribes 29 journals. Regular seminars are being organised on major research areas by the teaching staff and students of the department. In addition, a refresher course on methodology was organised in the Department. The syllabus has been re-oriented keeping in view the requirements of man-power needs in the State.

The committee feels that there should be scope for interaction amongst the departments of sociology, political science, and

economics. The Department admits about 32 to 35 students on an average both in M.A. previous and final. Each Department, runs its own courses and there is overlapping in some areas. The Sociology Department should in its own interest interact with the departments of economics and anthropology. It would be profitable for the Department to utilise the expertise available in the Department of Economics for running the present course of sociology of economic development along with the Department of Anthropology. By these inter-actions, the teaching and research in Sociology, the Committee feels, would flourish.

The Committee recommends provision of following physical facilities for development of teaching and research during the Fifth Five Year plan under the three priorities as indicated below:

	<u>Priority-I</u>	<u>Priority-II</u>	<u>Priority-III</u>
	(Figures in lakhs of rupees)		
	UGC share		
<u>Non-Recurring:</u>			
Building: (as indicated under the Department of Assamese).			
Books and Journals:	1.00	0.50	0.50
<u>Recurring:</u>			
1 Reader	0.70	-	-
1 Reader	-	0.70	-

Department of Political Science.

The Department of Political Science has 1 Professor, 1 Reader and 3 Lecturers. The Professor and Reader possess doctorate degrees. The major areas of research consist of Government and Politics in India, Politics relating to North-Eastern India, International Politics, Public Administration and Local Government

in India and Political Theory and work on Area Studies relating to South Asia. Dr.K.M.Deka, Reader in the Department is actively associated with the research work on Government and Politics in India and Area Studies relating to South Asia with particular reference to Nepal, Bhutan and Bangla Desh. The Department has about 15 publications to its credit on problems like Congress Politics and Political Integration in Assam, politics relating to North Eastern India; Socio-political system of the Jaintia Tribes of Assam; the underground Nagas; Mizo Unrest, Social Equality as contemplated in the Indian Constitution, students participation in decision making; theory of political development with special reference to India etc. Four scholars are working for their Ph.D. with U.G.C. Junior research fellowship.

The Committee feels that the Political Science Department should strengthen its teaching in political sociology which can be run for its own benefit as well as for the benefit of the Departments of Economics and Sociology. It ought also to develop more on the side of political institutions and Government Administration. The Department of Political Science appears to have developed to justify an Area Study Programme for the North Eastern Zone possibly in collaboration with the Department of Sociology. Proper inter-action between the sister departments of Sociology, Political Science and Economics would benefit all of them both in teaching and in research.

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The Committee has recommended the provision/the following physical facilities for the development of teaching and research in Political Science at Dibrugarh University during the fifth Five Plan Year/under the three priorities as indicated below:

Priority-I Priority-II Priority-III
(Figures in lakhs of rupees)
UGC Share

Non-Recurring:

Building: (As indicated
under department of
Assamese)

(A composite building with
common facilities for all,
such as Lecture Theatres
seminar rooms etc.)

Books and Journals;	1.00	0.50	0.50
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Recurring:

1 Reader	0.70	-	-
1 Reader	-	0.70	-

Department of
History

The Department of History has 1 Professor, 1 Reader and 4 Lecturers. The Professor, the Reader and one of the Lecturers possess Ph.D. degree. The major areas of research in the Department covers History of Assam, Modern Indian History, North-East frontier and Polish and American Relations. The members of the Staff have been actively associated with research and the Department has about 14 publications to its credit on topics like the inner lines and the North East Frontier. Genesis and ethnic identity and social tensions in North-East India; British trade policy in the North-East Frontier; Chander Kant Sinha and the fall of Ahom Kingdom etc. Four scholars have been enrolled in the Department for doing research on history of Assam. One of the teachers was assisted by the U.G.C. on his work on frontier Study with special reference to North East India. Two research scholars have been working for their doctorate degree with U.G.C. Junior fellowship.

There are about 2604 volumes of books in the Department and 18 journals are being subscribed. The Department organised three seminars/summer schools during the period 1971 to 1974 on North East Frontier and inter-departmental research. The Department received a grant of Rs. 4,000/- under U.G.C. scheme of support for research in the Fourth Plan. The Committee recommends the provision of following physical facilities for development of teaching and research during the Fifth Five Year Plan under the three priorities as indicated below:-

Priority-I Priority-II Priority-III
(Figures in Lakhs of rupees)

Non-Recurring:

Building (A consolidated building to house all the departments of Humanities and Social Sciences with common provision for Lecture theatres etc. as indicated at the Deptt. of Assamese).

Books and Journals:	1.00	0.50	0.50
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Recurring

1 Reader	0.70	-	-
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The Department of Economics is staffed with 1 Professor , and 4 Lecturers. The post of one Reader is lying vacant.

The present state of the Departments of Economics, Political Science and Sociology does not offer scope for interacting each other with the result that such department runs its courses which perhaps could have been better organised by drawing the expertise available in the sister departments. The economics requires courses

to be started in the field of growth, development and planning which together with micro and macro economics theory must need a course in Mathematics. These courses could profitably be organised with the help of expertise available in the Department of Mathematics similarly there should be a course in economic -statistics at least half of which can be taken by the Department of Statistics. Economics if it is to develop, must link itself with Mathematics and Statistics. There can be little prospect of success in running courses in development and growth, planning and econometrics without developing such links with sister departments.

The Committee recommends the provision of following physical facilities for development of teaching and research in economics under three priorities during the Fifth Five Year Plan as indicated below:-

Priority-I Priority-II Priority-III
(Figures in lakhs of rupees)
UGC share)

Non-Recurring:

Building (as indicated
in the Department of
Assamese)

Books and Journals:	1.00	0.50	0.50
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Recurring:

1 Reader	0.70	-	-
1 Reader	-	0.70	-

Department of
Commerce:

The University did not offer any facilities for postgraduate studies in Commerce. The Committee is of the view that there is an urgent need for developing a M.Com. course in the University soon

so that it can take care of the postgraduate needs of such subjects as marketing, transport and management techniques and tea and oil industry. This can be achieved only if a new department of Commerce is set up with the provision of necessary physical facilities. This department could function in the right direction in active association with the Departments of Economics which could take up about 1/3 to half of its teaching course covering the economics aspect of it such as in the fields like Principles of Economics, Money and Banking, Trade and Transport, Economics and Development of India etc.

The Committee recommends the establishment of a new postgraduate Department of Commerce at Dibrugarh University (which should function in close association and collaboration with the Department of Economics) for development of teaching and research in Commerce during the Fifth Five Year Plan under the three priorities as indicated below:

Priority-I Priority-II Priority-III
(Figures in lakhs of rupees)
UGC Share

Non-Recurring:

Building (as indicated in the Department of Assamese)

Books and Journals:	1.25	1.00	0.50
Total Non-Recurring:	<u>1.25</u>	<u>1.00</u>	<u>0.50</u>

Recurring:

1 Professor	0.88	-	-
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The Department of Law has been imparting 3-year course leading a Pass Degree since 1967 with an admission of about 60 students annually. The Department has a

whole-time Principal, one honorary lecturer (the Vice-Chancellor of the University) and eight part-time lecturers. The Committee feels that provision for some teachers in Law on a whole-time basis should be made to cope with the work-load in the department. The Committee therefore recommends the provision of the following physical facilities at the Dibrugarh University:

	<u>Priority I</u>	<u>Priority-II</u>	<u>Priority-III</u>
	(Figure in lakhs of rupees)		
	UGC Share		
<u>Recurring</u>			
1 Professor	-	0.88	-
2 Readers	1.40	-	-
<u>Non-Recurring</u>			
Books & Journals	0.50	0.50	-

Central
Library

The Central Library was established in 1967. It has acquired about 53,827 volumes of books, 500 bound journals, 452 current journals. The Central Library provides facilities for a spacious reading room for students, a separate room for teachers and research scholars, magazine section, a textbook section and a microfilm reading section. The Central Library, its stack room, reading facilities etc. have been accommodated in one of the huts existing in the campus before the establishment of the University. Neither the accommodation nor the arrangement for provision of suitable services of a Central Library are available in the existing hut.

The Central Library consists of 2 supervisory staff members, three cataloguers/classifiers, three library assistants and 15 other staff. The total expenditure incurred on the library of the Dibrugarh University during the period 1967-68 to 1974-75 has amounted to Rs. 18.87 lakhs (approximately) out of which the UGC share has been Rs.6.60 lakhs, the balance being provided by the State Government and the University. The Central Library is the nerve centre of all the activities of a university and the committee has no hesitation in recommending for the provision of a suitable building with other prerequisites for the proper functioning of the Central Library at Dibrugarh University. The following physical facilities are recommended for the Central Library during the Fifth Five Year Plan in addition to those recommended under individual postgraduate departments:-

Priority-I Priority-II Priority-III
(Figures in lakhs of rupees)
UGC share

Non-Recurring

1. Library Building (15,000 sq. ft.- RCC type)	9.00	-	-
2. Books & Journals	2.00	1.00	-
3. Equipment (dupli- cating machine, photo-copying equipment, micro- filming arrange- ment etc.)	1.00	-	-

General including
Students'
Amenities

The following physical facilities are recommended under
General and Students' Amenities Programmes (UGC share)

	<u>Priority-I</u>	<u>Priority II</u>	<u>Priority III</u>
1. Printing Press (equipment & material)	2.00	-	-
2. Guest House Building	1.50	-	-
3. Canteen(Bldg, equipment and furniture) at 66-2/3	1.50	-	-
4. Day Scholars study Centre (in the city) Assam type.	1.00	-	-
5. Health Centre (Assam type)	1.00	-	-
6. Assembly Hall for Cultural and academic activities - Assam type)	2.50	-	-
7. Allocation of Junior Research Fellowships (about 20 at any given time with the proviso that no department should be left out of this benefit).	4.48	-	-
	<u>13.48</u>	<u>-</u>	<u>-</u>

FINANCIAL IMPLICATIONS

Financial implications of the recommendations of the
Committee under the three Priorities are summarised in
Statements I, II and III attached to the Report.

The Committee recommends a total outlay of Rs.150.00
lakhs for the development of teaching and research in the
University of Dibrugarh under the Fifth Five Year Plan.

This includes the spill-over from the Fourth Plan as well as grants already approved by the Commission after 31.3.1974. The total outlay consists of Rs.99.69 lakhs under First Priority, Rs.33.86 lakhs under second priority and Rs.16.45 lakhs under the third priority. The Committee recommends a slightly higher amount under the 1st priority in view of the fact that the university is comparatively young and is in need of many physical facilities, without which, the Committee feels, it may be difficult for the University to discharge its duties effectively and efficiently.

The salary of the staff has been calculated for a period of 3½ years on the following basis:

Professor	...	Rs.0.88 lakh (@ Rs.25,000 p.a.)
Reader	...	Rs.0.70 lakh (@ Rs.20,000 p.a.)
Lecturer	...	Rs.0.53 lakh (@ Rs.15,000 p.a.)

The distribution of Non-Recurring & Recurring items under different Priorities is indicated below:

	<u>Priority I</u>		<u>Priority II</u>		<u>Priority III</u>	
	(figures in lakhs of rupees)					
	(excluding spill-over)					
	<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>
<u>Non-Recurring</u>						
Building	34.50	44.0%	7.40	21.8%	3.20	19.5%
Equipment	18.50	19.9%	6.25	18.4%	4.75	28.9%
Books & Journals	16.75	21.2%	11.25	33.3%	8.50	51.6%

Recurring

Staff	18.73	23.9%	8.96	26.5%	-	-
	(4P, 14R, 1L, 1Q) JRF 20 at any given time)		(2P, 7R, 4L, 1Q)			
Total (NR +R)	<u>78.48</u>	100%	<u>33.86</u>	100.0%	<u>16.65</u>	<u>100.0</u>

Spill-over from Fourth Plan
+ schemes approved during the
Fifth Plan prior to Committees
visit

Rs. 21.21 lakhs

Grand Total for the three priorities = Rs.150.00 lakhs

The Committee places on record its deep sense of gratitude and appreciation to the Vice-Chancellor, the Registrar and the academic and administrative staff of the Dibrugarh University which provided all assistance in the assessment of the work of the Committee.

(U.N. Singh)

(V.K. Gaur)

(S.K. Joshi)

(A.B. Lal)

(M.S. Kanungo)

(S.B. Rangnekar)

(E. Vishwanatham)

(J. Chakravarty)

December 21, 1974

(S.K. Dasgupta)

DIBRUGARH UNIVERSITY

Statement I

Summary of financial implications of the recommendations of the visiting committee alongwith the previous commitments for development of higher education during the Fifth Five Year Plan.

1.	Continuing Schemes from the Fourth Plan and others accepted during the Fifth Plan	Spill-over	Rs. 12.98 lakhs
		Schemes approved after 31.3.1974	Rs. 8.23 lakhs
			Rs. 21.21 lakhs (both NR + R)
2.	Recommendations of the Fifth Plan Visiting Committee under First Priority.		

FIRST PRIORITY SCHEMES (UGC Share)

A. For development of higher education and research in Sciences

(Figures in lakhs of rupees)

Name of the Department	Non-Recurring			Recurring	
	Building	Equipment	Books & Journals	Staff	Amount
1.	2.	3.	4.	5.	6.
1. Physics	-	2.00 (including Rs. 0.50 lakhs for workshop)	1.50	2 Readers 1 Sr. Lab. Technician	1.40 0.35
				Running expenditure of the workshop	0.05
2. Chemistry	7.20	1.00	1.00	1 Professor 1 Reader (Professor & Reader should have separate specialisations)	0.88 0.70

1.	2.	3.	4.	5.	6.
3. Mathematics	-	-	1.50	1 Professor (in Pure- Mathematics)	0.80
4. Statistics	-	-	0.50	1 Reader	0.70
5. Applied Geophysics	-	1.50	1.50	1 Professor 1 Reader	0.8 0.70
6. Anthropology	3.60	0.50	1.00	1 Reader	0.70
7. Life Sciences (new)	-	-	-	-	-
	10.80	5.00	7.00		7.24
B. For development of higher education and research in Humanities including Social Sciences.					A = 30.04
1. Assamese (Arts Block)	7.20	0.50	1.00	-	-
		(Xerox Machine)			
2. English	-	-	1.00	2 Readers	1.40
3. Sociology	-	-	1.00	1 Reader	0.70
4. Pol. Science	-	-	1.00	1 Reader	0.70
5. History	-	-	1.00	1 Reader	0.70
6. Economics	-	-	1.00	1 Reader	0.70
7. Law	-	-	0.50	2 Readers	1.40
	7.20	0.50	7.75		7.01
					B = 22.46
C. Central Library	9.00	1.00	2.00	-	-
					C = 12.00

D. General Schemes

<u>Scheme</u>	<u>UGC Share</u>
1. Printing Press (equipment & material)	2.00
2. Canteen (building, equipment and furniture) at 66.2/3 basis	1.50
3. Guest House Building	1.50
4. Day Scholars' study centre(in the city-Assam type).	1.00

Scheme

- 3 -

	<u>UGC Share</u>
5. Health Centre (Assam type)	1.00
6. Assembly Hall for Cultural and academic activities - Assam type)	2.50
7. Allocation of Junior Research Fellowships (about 20)	4.48
	<hr/>
	13.

GRAND TOTAL -	Continuing schemes from the Fourth Plan and others accepted during the Fifth plan.(both recurring and non-recurring)	Rs. 21.21 lakhs
	Total of A	30.04 lakhs
	Total of B	22.42 lakhs
	Total of C	12.00 lakhs
	Total of D	13.98 lakhs
		Rs. <u>99.69 lakhs</u>

Statement II

Recommendations of the Fifth Plan
Visiting Committee under Second
Priority.

SECOND PRIORITY SCHEMES

1. For development of higher
education and research in
sciences.

Figures in lakhs of rupees)

Name of the Department	Non-Recurring			Recurring	
	Building	Equipment	Books & Journals	Staff	Amount
1.	2.	3.	4.	5.	6.
1. Physics	-	1.00	1.00	-	-
2. Chemistry	-	1.00	0.50	1 Reader	0.70
3. Mathematics	-	0.25	0.50	-	-
4. Statistics	-	-	0.25	1 Reader	0.70
5. Applied Geophysics	-	1.00	1.00	-	-
6. Anthropology	-	0.50	0.50	1 Reader	0.70
7. Life Sciences (New)	3.60	2.00	2.00	1 Professor 1 Reader 2 Lecturers	0.88 0.70 1.06
8. Instrumentation ILab.	0.60	-	-	1 Electronics Engineer (Lecturer Grade) 1 Electrician cum-Techni- cian	0.53 0.18
	4.20	5.75	5.75		5.45

± 22.15 (A)

	1.	2.	3.	4.	5.	6.
B. For development of higher education and research in Humanities including Social Sciences						
1. Assamese	3.20	0.50	0.50			
2. English	-	-	0.50		1 Lecturer	0.53
3. Sociology	-	-	0.50		1 Reader	0.70
4. Pol.Science	-	-	0.50		1 Reader	0.70
5. History	-	-	0.50		-	-
6. Economics	-	-	0.50		1 Reader	0.70
7. Commerco.	-	-	1.00		-	-
8. Law	-	-	0.50		1 Professor	0.88
	3.20	0.50	4.50			3.51
					=	11.71 (B)
C. Central Library	-	-	1.00		-	-
				Grand Total	33.86	1.00 (C)

Statement III

Recommendations of the Fifth Plan Visiting
Committee under Third Priority.

THIRD PRIORITY SCHEMES

A. For development of higher education and research in Sciences.

Figures in lakhs of rupees

Name of the Department	Non- Recurring			Recurring	
	Building	Equipment	Books & Journals	Staff	Grant
1.	2.	3.	4.	5.	6.
1. Physics	-	0.50	0.50	-	-
2. Chemistry	-	-	-	-	-
3. Mathematics	-	-	0.25	-	-
4. Statistics	-	0.25	0.50	-	-
5. Applied Geophysics	-	1.00	1.00	-	-
6. Anthropology	-	0.50	0.50	-	-
7. Life Sciences (New)	-	2.00	2.00	-	-
8. Instrumentation Laboratory	-	0.50	0.25	-	-
	-	4.75	5.00	-	-
					= 9.75 (A)

B. For development of higher education and research in Humanities including Social Sciences.

1. Assamese	3.20	-	0.50	-	-
2. English	-	-	0.50	-	-
3. Sociology	-	-	0.50	-	-
4. Pol. Science	-	-	0.50	-	-
5. History	-	-	0.50	-	-
6. Economics	-	-	0.50	-	-
7. Commerce	-	-	0.50	-	-
8. Law	-	-	-	-	-
	3.20	-	3.50	-	-
					= 6.70 (B)

Grand Total = (A+B) = 16.45

Dibrugarh University.

Statement indicating the staff position of various departments, /qualifications, their date of joining and field of specialisation.

Sl. No.	Names of the Teachers.	Present Post held in the University.	Qualification.	Date of joining the University in the present post.	Department	Field of specialisation.
1.	2.	3.	4.	5.	6.	7.
1.	Dr. D.K. Baruah.	Professor	M.A(BHU) M.A.(Leeds) Ph.D (Sheffield)	12.9.72	English	"19th Century Literature"
2.	Dr. K.N. Phukan	Reader	M.A. Ph.D.(Leeds)	18.6.74	-do-	"T.S. Eliot's theory of Literary Criticism.
3.	Shri U . Mishra	Lecturer	M.A. L.L.B.	7.5.68	-do-	-
4.	Mrs. A. Dutt Mahanta	-do-	M.A.	10.11.69	-do-	-
5.	Mrs. T.S. Mishra	-do-	M.A.	15.7.71	-do-	-
6.	Shri A.C. Goswami	-do-	M.A.B.T., Dip. T.E. F.L. (Hyderabad) T.E.S.L. (Wales) Cert. of Phonetics (Wales) M.A. in Ling.& E.L.T. (Leeds).		-do-	-
7.	Dr. M.N. Bora	Reader	M.A.(Eng)	17.9.73	Assamese	M.A.-English D.Phil - Fundaments of Assamese Metre with special reference to its history from the beginning to 20th Century.

1.	2.	3.	4.	5.	6.	7.
8.	Dr. K.D. Goswami	Lecturer	M.A., Ph.D.	15.11.67	Assamese	Ph.D. - Cultural History of Assam. M.A. - Language Group.
9.	Dr. S.N. Goswami	-do-	M.A. (C.U). Ph.D. (C.U)	15.11.67	-do-	M.A. - Linguistics Ph.D. - Historical grammar in Assamese. Post Doctoral Research in the fields of Linguistics, tribal languages & Floklöre.
10.	Dr. S. Bharali	Lecturer	M.A. (Eng.) D.Phil.	20.11.69	Assamese	M.A. - English D. Phil. - Assamese Drama.
11.	Shri Lila Gogoi	-do-	M.A.	5.6.68	-do-	History of Assamese culture and literature.
12.	Shri N.N. Saikia	-do-	M.A.	15.2.72	-do-	M.A. - Literature group.
13.	Miss Lilabati Saikia	-do-	M.A.	25.11.74	-do-	-
14.	Dr. P.C. Chowdhury	Professor	M.A. (BHU) Ph.D. (London)	4.2.74	History	Ph.D. - History of Freedom Movement in Assam and who's who of Freedom Fighters.
15.	Dr. (Mrs.) S.L. Baruah	Reader	M.A. Ph.D.	12.4.72	-do-	Ph.D. - History of Assam.
16.	Shri M.L. Bose	Lecturer	M.A.	23.1.67	-do-	-
17.	Dr. S.K. Basu	-do-	M.A. Ph.D.	18.9.68	-do-	Ph.D. - Polish U.S. Relations.
18.	Shri S.D. Goswami	-do-	M.A.	15.11.69	-do-	-
19.	Miss M. Sharma	-do-	M.A.	6.9.73	-do-	-
20.	Dr. R. Mehrotra	Professor	M.A. (G.U) Ph.D. (Poona).	27.8.73	Economics	Ph.D. - National & Regional Social Accounting.
21.	Shri B.C. Baruah	Lecturer	M.A.	10.11.67	-do-	-

1.	2.	3.	4.	5.	6.	7.
22.	Shri H. Goswami	Lecturer	M.A.	1.3.68	Economics	-
23.	Shri K.C. Saikia	-do-	M.A.	7.5.69	-do-	-
24.	Shri B.C. Chutia	-do-	M.A.	10.11.69	-do-	-
25.	Dr. T.C. Bose	Professor	M.A. Ph.D.	2.1.74	Pol. Science	-
26.	Dr. K.M. Deka	Reader	M.A. Ph.D.	12.9.72	-do-	Ph.D. - Development of Municipal self Govt. in Gauhati.
27.	Shri M.N. Das	Lecturer	M.A.	10.11.69	-do-	-
28.	Shri A.K. Baruah	Lecturer	M.A.	2.11.70	Pol. Science	-
29.	Miss N.L. Borah	-do-	M.A.	1.9.73	-do-	-
30.	Dr. P.P. Gukulnathan	Reader	M.A. Ph.D., B.T.	18.6.74	Education	Ph.D.- Study of achievement related motivation and Educational achievement among secondary schools pupils.
31.	Mrs. G.L. Baruah	Lecturer	M.A. (Geography)	21.2.68	Education	-
32.	Miss C. Miri	-do-	M.A. (History) B.T.	16.8.68	-do-	-
33.	Shri L.N. Konwar	-do-	M.A. (Education)	26.7.74	-do-	-
34.	Dr. S.M. Dubey	Professor	M.A.Ph.D.	1.12.72	Sociology	Ph.D. - Social Mobility among the Professions in a city in Transition.
35.	Dr. S.K. Chouhan	Reader	M.A., Ph.D.	19.10.74	-do-	Ph.D. - Status, power, Insti- tutions in Rural Communities in Assam.

1.	2.	3.	4.	5.	6.	7.
36.	Shri D. Doley	Lecturer	M.A. (Economics) B.A. in special study of Sociology. (Leeds).	8.8.67	-do-	
37.	Shri P.K. Bordoloi,	-do-	M.A.	8.12.69	-do-	-
38.	Shri B. Borah	-do-	M.A.	18.1.74	-do-	-
39.	Dr. B.M. Das	Professor	M.A., Ph.D., D.Sc.	5.2.73	Anthropology	Ph.D. - Somatic variation in so population of South Goalpara, Assam. D.Sc., - Studies on (i) Somatic variation in the Khasi population, (ii) Anthropometric and A.B.O. blood group of the Tribal populations of N.E. India (iii) Microscopic study of head hairs of some caucasoid and Mongloid population.
40.	Dr. S.N. Rao	Lecturer	M.A., Ph.D.	19.8.67	Anthropology	Ph.D. - The Neolite Culture of Sarutaru, Assam.
41.	Shri K.C. Mahanta	-do-	M.Sc.	21.11.68	-do-	-
42.	Mrs. F. Ahmed Das	-do-	M.Sc.	8.1.69	-do-	-
43.	Shri R.K. Kar	-do-	M.A.	6.12.69	-do-	-
44.	Dr. H.R. Singh	Reader	M.Sc., Ph.D.	1.12.72	Statistics	Ph.D.
45.	Shri S. Kakati	Lecturer	M.Sc. I.	19.2.68	-do-	-
46.	Shri N.R. Mazumdar	-do-	M.Sc.(Maths) M.Sc.(Stat)	8.8.68	-do-	-
47.	Shri C.K. Chetia	-do-	M.Sc.	10.11.69	-do-	-
48.	Shri K. Dutta	-do-	M.Sc.	1.2.73	-do-	-

1.	2.	3.	4.	5.	6.	7.
49.	Shri G.L. Srivastava	Lecturer	M.Sc.	28.2.73	Statistics	-
50.	Shri Abdul Mannan	-do-	M.Sc.	15.5.74	-do-	-
51.	Dr. A.C. Srivastava	Professor	M.Sc., Ph.D. D.Sc.	1.5.67	Mathematics	-
52.	Dr. G.C. Saruah	Reader	M.Sc., Ph.D.	6.10.72	-do-	Ph.D. - Incomprehensible second order fluids.
53.	Dr. Dr. M.S. Saroa	Lecturer	M.Sc., Ph.D.	10.11.67	-do-	Ph.D. - Flow Problems in Non-Newtonian Fluids.
54.	Dr. R.C. Bhattacharjee	-do-	M.Sc., Ph.D.	10.11.67	-do-	Ph.D. -
55.	Shri A.K. Borkakoty	-do-	M.Sc.	1.3.68	-do-	-
56.	Shri S.K. Bhowmik	-do-	M.Sc.	1.3.68	-do-	(Now on study leave).
57.	Shri B. Banerjee	-do-	M.Sc.	6.12.69	-do-	-
58.	Shri R. Kamakar	-do-	M.Sc.	11.2.72	-do-	-
59.	Dr. K.C. Baruah	Reader	M.Sc., Ph.D.	12.9.72	Physics	Ph.D. - "Some Structural studies on Chalcogenides and Inter Metallic compounds by Electron Diffraction"
60.	Shri B.N. Saikia	Lecturer	M.Sc.,	9.10.68	-do-	-
61.	Dr. P. Mahanta	-do-	M.Sc., Ph.D. (Lon) D.I.C. (Lon.)	15.11.68	-do-	Ph.D.- Theoretical Physics. D.I.C. -
62.	Shri N.C. Samah	-do-	M.Sc.	13.12.69	-do-	-
63.	Shri A. Rajput	-do-	M.Sc.	23.12.69	-do-	-
64.	Dr. R.P. Dewri	-do-	M.Sc. Ph.D. (Lon.)	19.8.70	-do-	Ph.D. - Excitation of H. ₂ ¹ S by two quanta.

1.	2.	3.	4.	5.	6.	7.
65.	Dr. A.N. Phookan	Lecturer	M.Sc., Ph.D.	22.12.73	Physics	-
66.	Dr. G.D. Baruah	-do-	M.Sc., Ph.D.	11.9.73	-do-	-
67.	Dr. I. Hoque	Reader	M.Sc., Ph.D. D.I.C. (Lon)	9.2.72	Chemistry	Ph.D. - Physical
68.	Shri T. Bora	Lecturer	M.Sc.	24.9.68	-do-	
69.	Dr. K.K. Das	-do-	M.Sc., Ph.D.	8.8.69	-do-	
70.	Dr. N.N. Dass	-do-	M.Sc., Ph.D.	10.11.69	-do-	(On leave)
71.	Dr. M.M. Singh	-do-	M.Sc., Ph.D.	22.1.70	-do-	Ph.D. - The Research of the Carbonyl and Nitrosyl Complexes of Rhodium.
72.	Shri B. Borah	-do-	M.Sc.	3.9.70	-do-	(On leave).
73.	Shri S.R. Sen	-do-	M.Sc.	3.11.70	-do-	
74.	Miss A. Dutta	-do-	M.Sc.	7.1.74	-do-	(Appointed against leave vacancy).
75.	Dr. S.K. Basumallic	Reader	M.Sc., Ph.D.	19.10.74	Applied Geology	Ph.D. - Recent Sedimentation.
76.	Dr. S.K. Dutta	Lecturer	M.Sc., Ph.D.	12.8.70	-do-	Ph.D. - The Stratigraphy and Palynology of the Sedimentary Formations of the South Shillong Plateau, Assam.
77.	Shri T. Kotoky	Lecturer	M.Sc., M.S.	16.2.72	Applied Geology	(On deputation from Assam Govt.).
78.	Shri S.C. Goswami	-do-	M.Sc.	5.3.73	-do-	-do- .
79.	Shri K.D. Gogoi	-do-	M.Tech.	21.6.74	-do-	
80.	Shri A.K. Biswas	-do-	M. Tech.	18.2.74	-do-	
81.	Shri B.K. Bharali	-do-	M.Sc.	11.1.74	-do-	

1.	2.	3.	4.	5.	6.	7.
82.	Shri R.S. Ladia	Lecturer	B.E.(Mech) Dip. in Petroleum Technology.	4.12.70 ¹	Petroleum Technology	Lecturer-in Charge of the Deptt.).
83.	Shri S.R. Jaisy	-do-	B.Sc.(Chem. Engg.) Dip. In Petro. Tech.	3.4.72	-do-	
84.	Shri M.K. Chowdhury	-do-	B.Sc.(Che. Engg.) Dip. in Petro. Tech.	1.12.73	-do-	
85.	Shri B.D. Patgiri	-do-	Dip. In Petro. Tech.	18.6.74	-do-	
<u>Law College, Dibrugarh University.</u>						
86.	Shri B.K. Borgohain	Principal	M.A., B.L.	20.12.73	Law College	
87.	Shri K.C. Gogoi	Part-time Lecturer	B.L.	16.1.67	-do-	
88.	Shri I. Sarmah	-do-	B.L.	16.1.67	-do-	
89.	Shri H.N. Gohain	-do-	B.L.	12.2.69	-do-	
90.	Shri B.N. Goswami	-do-	B.L.	26.9.67	-do-	
91.	Shri N.Z. Ahmed	-do-	M.A. L.L.M.	5.10.70	-do-	
92.	Shri B.C. Baruah	-do-	B.L.	22.2.69	-do-	
93.	Shri N.C. Bagchi	-do-	M.A. LL.B	24.2.71	-do-	
94.	Shri D.N. Baruah	-do-	B.L.	27.1.71	-do-	

ANNEXURE- II

DIBRUGARH UNIVERSITY

The statement relates to posts sanctioned by the UGC during IV Plan

Departments and categories of posts.	No. of posts as on 1.4.66	Post sanctioned by UGC after 31.3.66	No. of posts filled up after 31.3.66	No. of teachers in position as on 1.4.1974	Remarks
	1.	2.	3.	4.	5.

A. SCIENCE DEPARTMENTS

1. Physics

Professor	-	1	1	-	
Reader	-	-	-	1@	Reader against post of Professor.
Lecturer	-	3	3	3	
Other technical staff	-	-	-	-	
Non-Teaching staff	-	-	-	-	

2. Chemistry

Professor	-	1	-	-
Reader	-	1	1	1
Lecturer	-	3	3	3
Technical staff	-	-	-	-
Non-teaching staff	-	-	-	-

3. Mathematics

Professor	-	1	1	1
Reader	-	1	1	1
Lecturer	-	1	1	1
Technical staff	-	-	-	-
Non-teaching staff	-	-	-	-

4. Statistics

Professor	-	1	1	-	
Reader	-	-	-	1* @	See note at end.
Lecturer	-	2	2	2	
Technical staff	-	-	-	-	
Non-teaching staff	-	-	-	-	

1.	2.	3.	4.	5.	6.
5. <u>Anthropology</u>					
Professor	-	1	1	1	@See note at end
Reader	-	-	-	-	
Lecturer	-	2	2	2	
Technical staff	-	-	-	-	
Non-teaching staff	-	-	-	-	
6. <u>Applied Geology</u>					
Professor	-	1	1	1	
Reader	-	-	-	-	
Lecturer	-	4	4	4	
Technical Staff	-	-	-	-	
Non-teaching staff	-	-	-	-	
7. <u>Petroleum Technology</u>					
Professor	-	-	-	-	
Reader	-	-	-	-	
Lecturer	-	-	-	-	
Technical staff	-	-	-	-	
Non-Teaching staff	-	-	-	-	
B. <u>HUMANITIES DEPARTMENTS</u>					
1. <u>Assamese</u>					
Professor	-	1	1	-	
Reader	-	-	-	1@	
Lecturer	-	3	3	3	
Technical Staff	-	-	-	-	
Non-teaching staff	-	-	-	-	
2. <u>English</u>					
Professor	-	1	1	1	
Reader	-	-	-	-	
Lecturer	-	3	3	3	
Technical staff	-	-	-	-	
Non-teaching staff	-	-	-	-	
3. <u>Sociology</u>					
Professor	-	1	1	1	@See note at t
Reader	-	-	-	-	end.
Lecturer	-	2	2	2	
Technical staff	-	-	-	-	
Non-Teaching staff	-	-	-	-	

	1.	2.	3.	4.	5.	6.
4. <u>Economics</u>						
Professor	-	1	1	1		
Reader	-	-	-	-		
Lecturer	-	2	2	2		
Technical staff	-	-	-	-		
Non-teaching staff	-	-	-	-		
5. <u>History</u>						
Professor	-	-	-	-		
Reader	-	1	1	1		
Lecturer	-	2	2	2		
Technical staff	-	-	-	-		
Non-teaching staff	-	-	-	-		
6. <u>Political Science</u>						
Professor	-	1	1	-		
Reader	-	-	-	-	1@	
Lecturer	-	2	2	2		
Technical staff	-	-	-	-		
Non-teaching staff	-	-	-	-		
7. <u>Education (B.T.)</u>						
Professor	-	-	-	-		
Reader	-	-	-	-		
Lecturer	-	-	-	-		
Technical staff	-	-	-	-		
Non-teaching staff	-	-	-	-		
8. <u>Law</u>						
Professor	-	1	1	1		Principal aga-
Reader	-	-	-	-		inst post of
						Professor
Lecturer	-	2	2	2		
Technical staff	-	-	-	-		
Non-teaching staff	-	-	-	-		

Note: @ These posts of Professors were filled up. After periods of 2-4 years of service, the incumbents resigned the posts. The posts were advertised, but suitable candidates were not available. Therefore, Readers were appointed against the posts of Professors with approval of the UCI vide its letters No.F.24-2/87(Sc.1) dt. 19.12.73 and No.F.2-24/66(H-1) dt. 10.1.74.

Factual position (as on 1.4. 1974)

A. Names of Faculties

B. Names of Departments:

Science:

1. Physics
2. Chemistry
3. Mathematics
4. Statistics
5. Anthropology
6. Applied Geology
7. Petroleum Technology

Humanities:

1. Assamese
2. English
3. Sociology
4. Economics
5. History
6. Political Science
7. B.T.(Education)
8. Law

C. Staff (departmentwise)

Science:

	<u>Prof.</u>	<u>Reader</u>	<u>Lecturer</u>	<u>Others</u>	<u>Remarks</u>
1. Physics	-	1	7	7	
2. Chemistry	-	1	7	5	
3. Mathematics	1	1	5	2	
4. Statistics	-	1	5	2	
5. Anthropology	1	-	4	4	
6. App. Geology	-	-	5	4	
7. Pet. Techno- logy.	-	-	2	1	

Humanities:

1. Assamese	-	1	4	2	
2. English	1	-	4	2	
3. Sociology	1	-	4	2	
4. History	1	1	4	2	
5. Economics	1	-	4	2	
6. Pol. Science	-	1	4	2	
7. B.T.	-	-	5	2	
8. Law	1	-	8	2	

Dibrugarh University

Statement indicating funds allocated to the University by the UGC during the period 1966-67 to 1973-74 for various programmes and expenditure actually incurred.

Name of the Programme 1.	Total funds allocated during the period. 2.	Expenditure actually incurred. 3.	Remarks. 4.
<u>WITHIN IV PLAN ALLOCATION OF RS.66.00 LAKHS</u>			
1. Higher Education & Research teaching posts			
Salaries of teaching staff :	31,30,000	48,83,105 *	Item marked with * indicate the short falls. Therefore more money is essential for the following. 1. Lab. equipment 2. Library books and journals. 3. Salaries of teaching staff. 4. Construction of buildings. 5. Development of Research. 6. Students Welfare Projects.
2. Library books & Journals	2,50,000	16,99,266*	
3. Laboratory Equipment	4,20,000	18,95,191 *	
4. Physics Building	5,00,000	6,10,493	
5. Math. & Statistics building	2,00,000	6,56,774 *	
6. Teaching staff quarters	4,25,000	14,67,881 *	
7. Teachers' Hostel	3,00,000	2,58,645	
8. Bys' Hostel (Ist phase)	9,00,000	15,28,715	
9. Womens' Hostel (Ist phase)	4,75,000	8,67,497 *	
	<u>Rs.66,00,000</u>		

Annexure-IV

Revised 5th Five-Year Plan for Development Grants from
University Grants Commission

Dibrugarh University

I

FIRST PRIORITY SCHEMES

1. Construction Schemes:		In lakhs			
Sl.No.	Name of Schemes description	No.	Total cost of the Schemes.	UGC's share of the schemes	Remarks.
1.	2.	3.	4.	5.	6.
1.	Library building	1	40.00	26.67	The balance amount has. been shown in the State Govt. schemes a copy of which is attached.
2.	Arts building	1	40.00	20.00	
3.	Chemistry Laboratory building	1	20.00	20.00	
4.	Teaching staff quarters	20) 40)	24.00	12.00	
	Prof/Reader				
	Lecturers				
5.	Spill over from 4th Plan Physics building	1	10.00	10.00	
Total :			134.00	88.67	

2. Academic Department

A. Expansion of existing Academic Department:

i) Salaries of Teaching staff.

In lakhs

Sl. No.	Name of the Deptt.	Name of the Post			Total cost of maintenance.	UGC share	Remarks.
1.	2.	3.	4.	5.	6.	7.	8.
a)	Physics department	-	2	1	2.20	2.20	
b)	Chemistry "	1	2	-	2.90	2.90	
c)	Mathematics "	-	2	2	2.73	2.73	
d)	Statistics "	-	2	2	2.73	2.73	
e)	Anthropology "	-	3	3	4.14	4.14	
f)	Applied Geology "	-	3	5	5.24	5.24	
g)	Petroleum Technology "	1	1	4	4.30	4.30	
h)	Assamese Department	-	2	2	2.73	2.73	
i)	English "	-	3	2	3.60	3.60	
j)	History "	1	2	2	4.00	4.00	
k)	Economics "	-	3	2	3.60	3.60	
l)	Sociology "	-	3	2	3.60	3.60	
m)	Pol. Science "	-	2	2	2.73	2.73	
Total		3	30	29	44.50	44.50	

ii) Laboratory equipment

In lakhs

Sl. No.	Name of the Deptt.	Total requirement for Vth Plan.	UGC's share	First in priority schemes	Remarks.
1.	2.	3.	4.	5.	6.
1.	Physics	20.00	10.00	5.00	The balance of the UGC's share is shown in the 2nd priority schemes.
2.	Chemistry	24.00	12.00	6.00	
3.	Anthropology	2.50	1.25	.75	
4.	Applied Geology	17.00	8.50	4.25	
5.	Petroleum Technology	2.50	1.25	1.25	
6.	Mathematics	1.00	.50	.50	
7.	Statistics	.50	.25	.25	
Total :		67.50	33.75	18.00	
iii a) Books & Journals		20.00	20.00	20.00	
b) Back volumes of journals.		10.00	10.00	5.00	
		30.00	30.00	25.00	
Grand Total First Priority:		276.00	196.92	176.17	

II

Second Priority Schemes:1. Construction Schemes:

Sl. No.	Name of Schemes description	No.	In lakhs.		Remarks
			Total cost of the schemes.	UGC's share of the scheme	
1.	2.	3.	4.	5.	6.
1.	Boys' Hostel	1	45.00	22.50	
2.	Girls' Hostel	1	12.00	9.00	
3.	Guest House	1	4.00	1.00	
4.	Botany & Zoology Lab.	1	18.00	18.00	
5.	Geography building with Lab.	1	8.00	4.00	
			87.00	53.50	

University Grants Commission

Report of the Visiting Committee which assessed the developmental needs of the Gauhati University during the Fifth Five Year Plan.

O. The University Grants Commission constituted a Visiting Committee consisting of the following members to examine and assess the development needs of the Universities of Gauhati and Dibrugarh.

- i) Professor UN Singh ... Convenor
Pro-Vice-Chancellor
Delhi University
(formerly Head of the
Department of Mathematics).
- ii) Professor V.K. Gaur ... Member
Professor of Geophysics
Roorkee University
Roorkee.
- iii) Professor S.K. Joshi ... Member
Head of the Department
of Physics
Roorkee University
Roorkee.
- iv) Professor A.B. Lal ... Member
Head of the Department
of Chemistry
Bhagalpur University
Bhagalpur.
- v) *Head of the* Professor M.S. Kanungo, ... member
Department of Zoology
Banaras Hindu University
Varanasi.
- vi) Professor S.B. Rangnekar ... Member
Head of the Department
of Economics
Panjab University
Chandigarh.

- vii) Professor K. Vishwanatham ... Member
Head of the Department
of English
Andhra University
Waltair.
- viii) Mr. J. Chakravarty, ACS ... Representative
Deputy Secretary to the
Government of Assam
Dispur
Gauhati.

Officer of the Commission

- ix) Dr. S.K. Dasgupta
Joint Secretary
University Grants Commission
New Delhi.

0.1 The Committee visited the Gauhati University from 22nd to 24th December 1974. At the very outset, the members had a preliminary discussion with the Vice-Chancellor and the Registrar of the University concerning new proposals for development of teaching and research in the University during the Fifth Five Year Plan as well as the problems that the university had been facing in the implementation of programmes approved during the Fourth Plan period.

0.2 The Committee met the Faculty members jointly and later visited each department to gain the first-hand information regarding the available physical facilities, research pursuits of teachers and research scholars, additional requirements of the Departments for consolidation and improvement of the existing facilities, and their new proposals for further development during the

Fifth Five Year Plan. The Committee also met students and teachers representatives to appraise matters concerning their respective bodies.

Historical Background

1. The Gauhati University was established in 1947 by an Act of State Legislature to constitute a teaching, residential and affiliating university. It is the principal institution of learning in North-eastern India and comprises the Faculties of Arts, Science, Commerce and Law. The composition of the Faculties is as follows:

i) Arts Faculty

The Faculty of Arts has facilities for teaching and research in Assamese, Arabic, Bengali, Education, English, Economics, History, Hindi, Modern Indian Language, Philosophy, Political Science, Sanskrit, Linguistics and Folklore and also offers a course for B.T.

Additionally, facilities for diploma/certificate courses in Teachers Training in Method of Teaching English, Journalism, Library Science, Russian Language, and French Language are also available.

ii) Science Faculty

The Science Faculty is composed of the departments of Agricultural Botany, Botany, Anthropology, Chemistry, Geography, Geology, Mathematics, Physics, Statistics and Zoology. Facilities for teaching and research are offered by all these departments.

iii) Commerce Faculty

The Commerce Faculty offers facilities for teaching and research in Commerce.

iv) Law Faculty

The Law Faculty offers facilities for Law education.

Student
Enrolment

2. The student population of the University, departmentwise as on 1.4.1974, is given below:

Arts Faculty

Assamese	172
Arabic	18
Bengali	126
Education	40
B.T.	242
English	166
Economics	196
History	149
Hindi	50
Modern Indian Language	-
Philosophy	104
Political Science	311
Sanskrit	66
Linguistics	7
Folklore	-
Teachers' Training in Method of Teaching English	25
Journalism	25
Library Science	37
Russian Language	12
French Language	23

Science Faculty

Agricultural Botany	44
Anthropology	35
Botany	60
Chemistry	61
Geography	61
Geology	44
Mathematics	114
Physics	60
Statistics & Diploma in Statistics	56
Zoology	39

Commerce Faculty

Commerce	239
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Law Faculty

University Law College	889
Research (Major Areas)	32
Total:	<u>3,503</u>

3. The faculty position and other supporting staff of the University, as on 1.4.1974, are as follows:

Professors	:	27	(including one Principal for the University Law College)
Readers	:	61	
Lecturers	:	143	
Lecturer (P/T)	:	10	
Other Tech. Staff	:	90	
Other Non-Tech. staff	:	53	
Total:		<u>392</u>	

4. The Central Library possesses 1,37,693 volumes of books and 361 journals. The distribution of books and journals departmentwise is given below:

<u>Science subjects</u>	<u>Books</u>	<u>Journals</u>
Mathematics	6,300	66
Statistics	1,350	23
Physics	6,200	66
Chemistry	6,350	26
Anthropology	6,900	33
Geology	3,550	25
Botany	3,625	25
Agricultural Botany	1,700	35
Zoology	3,100	33
Geography	3,400	16
General	900	41
Total:	<u>43,875</u>	<u>389</u>

Humanities

Philosophy	4,400	28
Religion	3,450	-
Sociology	2,500	-
Political Science	4,200	42

Economics	8,340	61
Commerce	6,250	
Law	5,121	20
Education	3,450	45
Linguistics	2,400	5
English	15,150	49
Assamese	9,200	7
Bengali	6,850	6
Hindi	6,120	-
Sanskrit	6,987	8
History	5,100	12
Library Science	500	36
Journalism	500	-
Russian Language	200	-
Statistics (Certificate Course)	200	-
Arabic	500	-
General	2,400	153
Total:	<u>93,818</u>	<u>472</u>

Grand Total = 1,37,693

The University library has provision of 400 reading seats and has been spending a sum of Rs.2 lakhs annually on books and journals. The working hours of the Central Library are from 10 a.m. to 8 p.m. on week days and from 10.30 a.m. to 4.30 p.m. on Sundays and holidays. The average number of books issued per week to students and teachers is about 1100.

Students'
Hostels

5. There are 16 students hostels, 11 for male and 5 for female students, accommodating in all about 1400 students including postgraduate and research i.e. about 40% of the total student population of 3,500.

Staff
Residences

6. The University provides 57 senior type teachers' residences for Professors and Readers, 72 junior type and 24 units of teachers' flats, 8 of which are current

From the above table, it would appear that the spill-over from Fourth Plan amounted to Rs.23.26 lakhs and the new proposals already approved by the Commission after 31.3.1974 involved an expenditure of Rs.12.50 lakhs. The spill-over and the financial commitment already agreed to amounted to Rs.35.76 lakhs (approximately) which would constitute the first charge of the Fifth Plan allocation to the Gauhati University. A provisional allocation of Rs.2 crores has been proposed for the Gauhati University for the Fifth Five Year Plan with the request that the University may phase its programmes for development of teaching and research under three priorities - Priority I within 50 per cent of the allocation, Priority II within 25 per cent of the allocation and Priority III within the remaining 25 per cent of the allocation. Under Priority I, a total amount of Rs.1 crore has been proposed, out of which a grant of Rs.35.76 lakhs shall have to be accounted for as first charge making available a total of Rs.64.24 lakhs.

Admission
Policy &
University
Administra-
tion

9. Admission to post-graduate ^{study} is strictly on merit for which minimum standards have been prescribed. The administration of the University is conducted through its Court, Executive Council, Academic Council, the Faculties, the Standing Finance Committee, the Construction Committee and the Selection Committees.

EXISTING PROGRAMMES OF STUDENT SERVICES AND WELFARE

Students' Amenities

10. The students' services approved by the University consist of the following:

Health Service through the University Hospital;
Study Centre for the benefit of poor and needy students;
Day Home facilities;
Transport service to and from the campus at concessional rates;
Canteen service;
Visiting Students' programmes;
Mountaineering and hiking;
Film Club;
Dramatic Club;
sports and games;
Inter college sports festival;
Inter college youth festival;
Social Service camps;
Academic and General excursions;
Information and guidance bureau;
Residential facilities for 1400 students.

The administrative organisation in the hostels is democratic and run by the students themselves under the supervision of the Wardens providing a corporate life among the students. For specific programmes organised by the students, the University provides additional funds to supplement the Union fees realised from them.

Policy for recruitment of teachers

11. The eligibility conditions for appointment of teachers to postgraduate departments have been laid down as follows:

11.1 Lecturer - Good academic record with a first or high second class Master's degree in the subject pre-

preferably with Honours in the subject in the degree stage. Evidence of published work or advanced studies or experience of teaching degree Honours classes for not less than three years is essential qualification for Second class Master's Degree holders and/or preferential qualification of First Class Master's degree holders.

11.2 Reader - Good academic record with a first or high second class Master's degree in the subject or in an allied subject to be specified by the concerned Departmental Advisory Committee preferably with Honours in the subject in the Degree stage with Doctor's Degree or equivalent published work. Research papers of merit published in well established journals or eight years' honours teaching experience essential.

11.3 Professor - A recognised scholar in the subject with Doctor's Degree or equivalent published work. Continuous research work of merit as evidenced by published papers in standard journals or published works of merit and ten years' postgraduate teaching experience or 15 years' honours teaching experience plus experience in guiding and promoting research.

11.4 Staff for affiliated colleges

For affiliated colleges in the state which numbers 105, the Government of Assam has constituted a Selection Board to recommend a panel of names in order of merit in each subject and the colleges are required

to appoint teachers from the panel. The number of posts filled up during the Fourth Plan period and the number of teachers promoted to higher posts in the University are given below:

Posts filled up by open recruitment

Professor	6
Reader	43
Lecturer	32

Posts created by promotion

Professor	5
Reader	40

Promotions were made on the recommendation of the statutory selection committees. There is no formal training of junior teachers in the university or colleges, as such, apart from occasional Summer Institutes, Seminars etc. organised by the different departments in which their staff as well as those of affiliated colleges participate. Teachers of the University and the affiliated colleges attend all India Seminars and Conferences and also avail themselves of short training courses for which the University provides financial assistance. With the adoption of the regional language as the medium of instruction at the undergraduate level, a series of seminars and demonstration lectures have been organised in various subjects in the affiliated colleges under the auspices of the University.

2. Review
of
Courses

12.1 Class lectures at the University are supplemented by tutorials and seminars. To effect a qualitative improvement in research activities, a Research Council has been instituted which has laid down guidelines for improvement of research.

12.2 The courses of studies and syllabi have been revised and modernised keeping in view the new development in different fields of studies. Evaluation of students' performance has also been reoriented by introducing scientific techniques such as randomisation of scripts and scaling of marks.

12.3 The University has not introduced correspondence courses, but facilities have been created to impart part-time courses in Law, Library Science, Journalism, Statistics, Linguistics, Russian and French languages to employed persons who wish to receive professional and higher education. Besides the statutory bodies like committees of courses and studies, departmental advisory committees have been constituted ^{to} ~~for~~ continually review and update the respective courses and also to render necessary advice to the statutory bodies..

12.4 The University instituted the following ^{new} departments, courses, special subjects, electives and other facilities during the Fourth Plan period:

(i) Three different branches with specialisation in Physiology, Pathology and genetics relating to

productivity in Agriculture in the postgraduate course in Agricultural Botany. An agricultural farm has also been started during this period.

(ii) Two new special papers: Operational Research and Advanced Distribution Theory in Statistics.

(iii) A new special paper on Solid State Physics in addition to the existing ones on X-ray Crystallography, electronics, spectroscopy, and nuclear physics.

(iv) A post M.Sc. Diploma Course in Applied Geology, yet to be implemented.

(v) A Diploma Course in Statistics for the orientation of teachers in Economics. Also, Statistical Methods for Economic Analysis has been introduced as a compulsory paper in Economic.

(vi) A B.Lib. course in Library Science.

(vii) A diploma course in Journalism.

(viii) Certificate Courses for proficiency in Russian and French Languages.

(ix) A Post-Graduate diploma course in General Linguistics.

(x) Post-Graduate Departments of Arabic and Hindi.

(xi) A special group on Sociology in the Post-graduate course in Political Science.

(xii) A special paper in Applied Anthropology in the post-graduate course in Anthropology.

(xiii) Five special groups in Accountancy, Business Management, Banking, Taxation and Secretarial Practice in the Postgraduate Course in Commerce.

(xiv) The University has also developed a Press to facilitate publication of text-books and research works in addition to carrying out routine tasks.

(xv) Departmental Libraries were established in several postgraduate departments with U.G.C. and State Government assistance. It provided better facilities of Text-book library to the students of the University. A Law College Library was organised in the Arts and Law College building with a view to fostering among students a habit for intensive study.

12.5 The University made steady progress in Post-graduate teaching and research. 128 students received Research Degrees during the Fourth Plan as against 24 during the Third. The strength of the teaching staff also rose from 143 at the beginning of the Fourth Plan to 212.

12.6 As the demand for admission to various courses specially in Science has greatly exceeded, the facilities available in the university departments, the Cotton College, and the Arya Vidyapeeth College, both at Gauhati, were permitted to start post-graduate courses in Physics and Mathematics respectively. This has

provided welcome facilities to many students unable to gain admission to university departments because of limited accommodation.

13. PROPOSALS OF THE UNIVERSITY FOR DEVELOPMENT OF TEACHING AND RESEARCH DURING THE FIFTH FIVE YEAR PLAN

13.1 The Committee ^{has} made a provisional allocation of Rs.200 lakhs for the Gauhati University during the Fifth Plan to be phased in three orders of priorities: 1st priority within Rs.100 lakhs, 2nd priority within Rs.50 lakhs and the 3rd priority within the remaining Rs.50 lakhs. The University has a spill-over of Rs.35.76 lakhs which includes basic equipment and book grants under Fifth Plan amounting to Rs.12.50 lakhs. This amount would be the first charge on the Fifth Plan allocation of Rs.100 lakhs (first priority).

13.2 The proposals of the University for further grants ^{lay} stress on consolidation and strengthening and proper orientation of the existing departments. These include better salary scales of teachers, laboratory facilities, space for lectures rooms, tutorials, seminars, etc., modern library facilities and residential accommodation for students and teachers within the campus. Besides, the University has proposed students welfare schemes, a health centre, a university press, staff residences, expansion and development of existing departments, and opening of new departments and courses of studies under

its Fifth Plan development programmes. The proposals of the University for development of teaching and research in various faculties during the Fifth Plan are summarised below:

(in lakhs of rupees)

Name of the Scheme	Total cost involved	1st Priority	2nd Priority	3rd Priority
1. Spill over schemes	28,235	28,235	-	-
2. Expansion & development of Academic Departments				
i) Development of Existing Departments:				
a) Arts Faculty	15,684	8,594	4,672	2,418
b) Commerce Faculty	1,486	0.400	0.804	2.418
c) Science Faculty	57,914	30,918	15,466	11,530
d) Law Faculty	2,086	1,586	0.400	0.100
Total - (i)	77,170	41,498	21,342	14,330
ii) Opening of New Departments:				
a) Master's Degree in Business Admn.	1,486	0.836	0.330	0.320
b) LL.M. Course	1,686	0.886	0.450	0.350
c) Applied Mathematics	0,924	-	0.624	0,300
d) Psychology	1,004	0.050	0.604	0,350
e) Social Works	0.862	-	-	0,862
Total - (ii)	5,962	1,772	2,008	2,182.
iii) Improvement of present one year Diploma/Certificate Courses	3.034	1.832	0.540	0.662
iv) Computer Centre	-	-	-	- Spec: scher
v) Central Library	20.000	10.000	6.000	4,000 Outs plan

	2	3	4	5
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vi) Academic Buildings:

a) For Statistics, Mathematics & Applied Mathematics & allied subjects	16.000	16.000	-	-
b) Law College Bldg.	12,000	12.000	-	-
Total - (vi)	28.000	28.000	-	-

Total Academic Departments	123.166	83.102	29.890	21.174
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3. Youth Welfare Schemes:

a) Womens' Hostel (100 seated) - 1 No.	4.50	-	-	4.50
b) Law College Hostel (100 seated)	3.00	3.00	-	-
c) Students' Day Home (No. II) - 1 No.	1.00	-	-	1.00
d) Canteen Building - 1 No.	1.50	1.50	-	-
e) Gymnasium Building	2.00	2.00	-	-
f) Swimming Pool	2.50	-	2.50	-
g) Development of Play ground, Pavilion & Galleries	1.50	0.75	0.25	0.50
Total: Youth Welfare Schemes	16.00	7.25	2.75	6.00
4. Health Centre	1.00	1.00	-	-
5. University Press	.40	1.500	.900	-
6. Staff Quarters	8.50	2.000	6.000	0.5000

7. Miscellaneous Schemes:

a) Guest House for Affiliated College Teachers	1.50	-	-	1.50
b) Staff Club	1.50	-	-	1.50
c) Examination Research Unit	5.00	5.00	-	-

d) Doctoral Thesis	1.00	1.00	-	-
e) Study Centre	1.00	1.00	-	-
f) Development of Teachers Education & Research	.70	.70	-	-
g) Development Officer	.40	-	.40	-
Total Miscellaneous	11.100	7.700	0.400	3.000
Grand Total:	200.401	129.787	39.940	30.674

13.3 The University has also proposed a few miscellaneous schemes, important amongst which are : i) an examination reform unit costing Rs.5 lakhs as the first priority and ii) a guest house for teachers of affiliate colleges and research personnel who come to attend symposia, seminars etc. held under the auspices of the university. Finally, a computer centre has been requested outside the Plan allocation.

14. FIFTH PLAN VISITING COMMITTEE'S RECOMMENDATIONS

The Committee should, at the very outset, like to observe that a culture of inter-disciplinary efforts and maximum utilization of intellectual, technical and physical resources by appropriate sharing should be carefully and deliberately fostered with a view to vitalizing and enriching the academic endeavours made by the University. The lead in this matter could be appropriately taken by the Academic Council of the University by declaring a commitment to this principle and advising the constituent departments to explore

all avenues of inter-disciplinary activity which could be jointly shared and contributed. The recommendations made by the Committee are conceived within this framework ~~which it hoped, will shortly emerge.~~ The University, it is also hoped, will actively encourage such activities and ensure the fullest utilization of existing resources and facilities as well as those available in the Fifth Plan through appropriate supervisory groups or committees.

Department
of Agricultural
Botany

14.1 The Department of Agricultural Botany was established in 1956, with an intake of 6 students which has since increased to 20. The students are appreciably employed in research, administration, extension and in teaching. In 1972, the old syllabus was thoroughly revised and the course was split into three specialised branches in tune with demand. These are: i) Plant Physiology, ii) Cytogenetics and Plant Breeding, and iii) Plant Pathology and Microbiology, which also constitute the major areas of research. The Department has one Professor, two Readers and six Lecturers. Four research students are working for their Ph.D. degree. The introduction of Plant Pathology and Microbiology is a welcome development which may serve as a nucleus for further growth of teaching and research in plant diseases and allied fields. Investigations of plant diseases, other than rusts, are being conducted in the department, Crown-rot - a new disease of coconuts

has been reported on the basis of results obtained in the department. The plant hormone research, both fundamental and applied has been receiving special attention for many years. The Department undertook Pineapple improvement research scheme of ICAR from 1957 to 1967. Other investigations in progress include, ecology of weed flora on statistical lines, nutrition and nodulation pattern of certain varieties of legumes, and production of seedless fruits by application of auxins.

The department is cramped for space but will have adequate space when the new building is completed. The department has developed a farm where some useful applied work like the effects of radiation is being studied. If the farm is efficiently managed, it could earn enough money to promote the growth and progress of the department. Further, it is imperative that the department should undertake extension work to carry their knowledge and expertise to nearby farmers.

During the period 1966-74, staff members of the department contributed a large number of research papers in various scientific journals.

The academic programme of the department needs a fresh restructuring. For example, the graduate students are presently being offered specialisation right from the beginning in three different disciplines. Instead, it would be highly desirable to expose them to Physiology

Biochemistry, Genetics, Ecology, Pathology, etc. in M.Sc. previous. They should then go on to specialise in any of the three branches in their M.Sc. final class. It is also recommended that the present intake of students should not be increased.

Keeping in view the facilities and expertise available, the Committee recommends provision of the following physical facilities under the Fifth Five Year Plan.

Priority I Priority II Priority III

(figures in lakhs of rupees)
U.G.C. Share

Non-Recurring

Building	-	-	-
Equipment	1.50	0.50	0.50
	(Rs.1.25 for equipment including the cost of a Jeep for extension work plus Rs.0.25 lakh for field work).		
Books & Journals	0.25	0.50	0.50

Recurring

1 Reader (in Genetics)	0.70	-	-
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Department of Botany

14.2 The academic staff of the department consists of 3 Readers (1 ad-hoc) and 7 Lecturers. The post of Professor is lying vacant. All the three Readers and five of the Lecturers possess a Ph.D. degree. The annual enrolment in the postgraduate course is limited to 30 students. The department offers special papers in

Mycology and Plant Pathology; Plant Physiology; Microbiology, Cytology, Genetics and Plant Breeding. The department has three laboratories, one lecture theatre, one research laboratory and six teachers' sitting-cum-research cubicles covering a total area of 6000 sq. ft. Laboratory equipment include D.U. Spectrophotometer (Beckman), High Speed centrifuge (20,000 rpm), Horizontal Electrophoresis Apparatus, Beckman pH Meter, Photo Electric Colorimeter, Chromatographic oven, Cooling incubator, Warburg Apparatus, Research Microtomes and Compound Microscopes etc. The department's proposals include the development of a Botanical Garden, additional space for class-room, laboratories and research, and specialized equipment like Ultra centrifuge, rotary microtome, Olympus microphotographic camera, research microscope with higher magnification, micro film projector etc. The department has also sought funds for students' excursion and field work which constitute a part of their training in Botany. About 29 journals are being subscribed to by the department.

The department is not well equipped including the section of plant physiology which is an experimental subject. The laboratories are not well maintained and the Beckman spectrophotometer has been found idle. The glass house is empty. The botanical garden is new and needs proper care and development. The department has

been offering four special papers in M.Sc. (final) and another in Taxonomy is proposed to be offered from July 1975. However, it may not be desirable to offer this as only one of the teachers is a specialist in the subject. Rather, it would be prudent to strengthen the existing special papers. The department would do well to introduce subjects like genetics, plant biochemistry and ecology as compulsory papers in M.Sc.(previous). It is unfortunate that three out of the four special papers offered in M.Sc.(final) Botany are the same as those offered for the Agricultural Botany course and yet there is hardly any interaction or cooperative teaching, research or laboratory work between them. Even the journals received by one department do not appear to be made use of by the sister department until perhaps they are transferred to the main library. In particular they should together design joint teaching and research programmes with a view to optimally utilising their scientific resources and fostering interdisciplinary efforts. The two departments alongwith Geology should think of organizing a common library and instrumentation wing, containing, say electronics and optical instruments etc. which could be shared by all members of the staff and research scholars of the three departments by following a time-table schedule. The money thus saved could be best utilised for obtaining more equipment, journals and books.

The department of botany is headed by a Reader and until the vacant post of Professor is filled up, the necessary leadership or thrust towards the future development would remain unrealised. The department would do well to introduce genetics, plant biochemistry and ecology in its postgraduate course with infusion of qualified staff rather than depending too much on inbreeding. The annual intake in the department should be restricted to 30 and the proposal to include taxonomy as a special paper from July 1975 session may be deferred.

The departments of agricultural botany and zoology are being shifted to a separate building now under construction. The Committee feels that this will release enough space for the botany department. The Committee strongly feels that the three departments, ag. agricultural botany, botany and zoology should cultivate purposeful interaction amongst themselves both in teaching and research and share physical facilities such as sophisticated equipment, books and journals.

Keeping all these factors in view, the committee recommends provision of the following physical facilities for development of teaching and research in botany during the Fifth Five Year Plan:

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
	UGC Share		
<u>Non-Recurring</u>			
Building	-	-	-
Equipment	1.50	1.00	0.50
	(including Rs.0.25 lakhs for field work)		

....25/-

Books & Journals	1.00	0.50	0.50
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Recurring

1 Professor	-	0.88	-
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1 Reader	1.40	-	-
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14.3 The postgraduate department of zoology offers a 2-year course with an annual intake of about 20. The syllabus for M.Sc. (previous and final) in zoology has been revised with a view to modernising theoretical and practical papers covering the entire course on zoology. The final year is devoted entirely for special papers. The major areas of research in the department include, animal ecology, cytomorphology, insect physiology. About 13 scholars/teachers from colleges have been pursuing research in the department and have published about 35 papers. The department subscribes to 48 journals. The department has 1 Professor, 2 Readers and 6 Lecturer.

The growth of the department is however unbalanced. It should emphasize more modern subjects both in theory and in practice and qualified teachers should be inducted to help provide the much needed thrust in curriculum development as well as in teaching the various special courses. A serious shortcoming is the lack of an animal house. The provision of an appropriately equipped animal house is essential for teaching and research in any branch of biological sciences for carrying

out experiments on living animals and is, therefore, an urgent necessity for the proper growth of the discipline. This facility, if provided, should be shared by other departments dealing with life sciences like biochemistry, physiology and genetics, the biochemistry section in chemistry. The three departments, namely, botany, agricultural botany and zoology have much in common both in teaching and research and there can be much fruitful interaction amongst them. They should organise common facilities, such as, equipment, books and journals to be located in a mutually agreed department for use by all the others. There is much overlapping in the courses of studies also for lack of proper communication amongst the departments. The expertise available in a particular department should be fully utilised by other departments for the benefit of students and towards fostering an interdisciplinary attitude. The Committee recommends that provision of a common seminar room should be made to accommodate all the journals procured by the three departments for use by students and staff of all the three departments. A coordinating committee should be set-up by the university with representatives from the three departments to advise on the procurement of equipments, journals and books etc. needed by them.

As regards the sophisticated equipment needed for research, the committee is of the view that all the

electronic or optical equipment needed for research should be profitably housed at one centre where adequate space is available and these be freely available, with suitable time table constraints, to students and staff who are working in related fields. The services of a Senior Technician/an Electronic Engineer may be provided for the proper use and maintenance of instruments at this centre.

The building under construction for housing the department of zoology would be sufficient to meet its present requirements. The Committee recommends the provision of the following physical facilities for development of teaching and research in Zoology during the Fifth Five Year Plan period:

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
	U.G.C. Share		
<u>Non-Recurring</u>			
Building	-	-	-
Equipment (including specimens and fittings for the Museum)	3.00	1.00	0.50
Books and Journals	0.50	1.00	0.50
<u>Recurring</u>			
2 Reader (1 in Physiology/Biochemistry and the other in Ecology)	1.40	-	-
Excursion	0.20	-	-

In addition the Committee recommends the following provision for the Animal House:

Non-Recurring

Building (2000 sq.ft.) Animal House at 100%	1.00	-	-
Equipment (fittings, cages, air conditioner etc.)	0.20	-	-

Recurring

1. Animal Caretaker	0.20	-	-
Animal feed (Rs.5,000 p.a.)	0.18	-	-

Department of Chemistry 14.4. The annual enrolment in the Department is limited

to about 30 for the postgraduate studies in Chemistry. The total sanctioned strength of the teaching staff of the department is 15, of which 13 are in position (1P + 4R + 8L). Nine members of the teaching staff have doctorate degrees to their credit. The work-load for the existing members of the staff is not unduly heavy and with the filling of the two vacant posts, it will be further rationalised.

The department is housed in a two-storeyed building, covering 23,786 sq. ft. The space is adequate but a better reorganisation of the laboratories is required. There are four full-time and five part-time research scholars working for their Ph.D. The latter are all lecturers from affiliated colleges. The research activity in the department is confined to organic chemistry

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only, the other branches being completely neglected. The department has produced 7 Ph.Ds in organic chemistry with a biochemical bias. During the period 1966-73, 21 research papers were published. A few more journals may be necessary to enrich the department.

The department has identified the emerging needs for development and expansion to meet the varied requirements of industry in Assam in the fields of agriculture, medicine, and life sciences. The Committee feels that it would be advisable to open a biochemistry section in the department. Towards this end, the two existing vacancies of lecturers should be filled by personnel qualified in biochemistry. Additionally, posts of one Professor and one Reader in biochemistry have to be created in the department. The existing space in the department will be sufficient to house the biochemistry section. The department has some very good and sophisticated equipments, such as, the U.V. DK-2A, IR-Model UR-10, UV-Hilger Gas Chromatography, Micro analytical set for Carbon, Hydrogen determination, Mettler microbalance, etc. But the department is not able to make proper and full use of all these instruments as some of these are lying idle and others are out of order.

The Committee recommends provision of the following physical facilities for development of teaching and research in the various branches of chemistry during the

Fifth Five Year Plan:

Priority I Priority II Priority III
 (Figures in lakhs of rupees)
 U.G.C. Share

Non-Recurring

Building	-	-	-
Equipment	2.00	1.00	0.50
	(Rs.1.50 lakhs for biochemistry)		
Books & Journals	1.00	1.00	0.50

Recurring

1 Professor (Biochemistry)	0.88	-	-
1 Reader (biochemistry)	-	0.70	-
1 Reader	-	-	0.70

Department of Physics

14.5 The department of Physics admits about 30 students annually. Mathematics physics, mechanics & relativity theory; electricity-magnetism, electromagnetic theory, electronics and plasma physics; atomic and molecular spectroscopy, elements of quantum mechanics and other nuclear physics are covered in the M.Sc. (previous). In the final year, subjects like quantum mechanics, nuclear physics and cosmic radiations; statistical physics and solid state physics; x-rays and crystal structure, radio physics, cosmic physics are covered. The teaching staff in the department consists of 2 Professors, 7 Readers and 7 Lecturers. Both the Professors, all the Readers and 6 out of 7 lecturers have doctorate degrees to their credit.

The specialisation of the members of the staff are in the field of solid state physics, x-ray crystallography, cosmic rays, nuclear physics, nuclear astro physics, dielectrics in microwave frequency, crystal structure analysis, thin films and crystallography, solid earth geophysics, microwave electronics etc. The present research activity of the Faculty pertains to preparation and properties of thin metallic films; instrumentation and fabrication; x-ray diffraction, radio pulses; fision in neutron stars; ionospheric studies etc. Members of the faculty have published a large number of scientific papers in journals in their different fields of specialisation. The first phase in the construction of the accommodation for the department is over and the first floor of the extension part is nearing completion which will then give ~~the department a reasonable~~ accommodation. The central workshop attached to the physics department, comprises one machine shop, one carpentry shop and one glass blowing section. The syllabi for M.Sc. classes are reasonable but should be reorganised and improved, e.g., a full paper in quantum mechanics should be introduced in the final year preceded by an introductory course in quantum mechanics via a study of modern physics (spectroscopy ~~and nuclear physics~~) in the previous year. With the good workshop facilities that are available to the department, it would also be desirable to emphasize ~~upon~~ project oriented work. There are about 55 students in M.Sc. class

with an intake of about 30 per year.

The research interests of the teachers lie in quite diverse and different fields. Except in a few cases, there is no collaborative group research activity in the department. It would be desirable ^{if} that the department makes a determined effort to explore the possibilities of forming about 2-3 viable research groups. In future recruitments, it should be kept in mind that the department should have theoretical physicists who could interact with experimentalists. The department has a lot of costly research equipment such as x-ray generators, cameras, diffractometers, liquid nitrogen plant etc. but the research output is not commensurate with the facilities available. The reason partly is that there are only four full-time research students and partly because the maintenance and repair of the imported sophisticated equipment involve delays. Publication from the department gives the impression that the progress of research activity is rather slow and is along routine and conventional lines.

The department has a potential for fabrication and assembling sophisticated equipment. These activities should be intensified and should be supported in all possible ways. The funding of these type of activities should be augmented through Scientific Research Council of the UGC and other agencies, if the department submits concrete, well thought-out and time-bound proposal to the agencies. The department has projects on electron

diffraction unit and NMR in hand and these are at the initial stages. The department subscribes to about 46 research journals at a cost of Rs.51,000/-.

The Committee recommends the following physical facilities for development of teaching and research in Physics during the Fifth Five Year Plan period:-

Priority I Priority II Priority III

(figures in lakhs of rupees)
U.G.C. Share

Non-Recurring

Building	-	-	-
Equipment	2.00	1.50	0.50
Books & Journals	1.00	1.00	0.75

Workshop & Central Instrumentation Unit At present there is a central workshop attached to the department of physics equipped with facilities for glass blowing and carpentry. The workshop is being used mostly for research and teaching purposes by the physics department. The workshop should be turned into a central facility to be made available to all user science departments of the university. This would be possible by transforming it into a central facility not only for the proper maintenance and optimal use of the available equipment but also for the repair, design and fabrication of equipment of all the departments of the university.

The central workshop shall not belong to any one particular department and should be so organised that

it could be properly and fully used by all the departments. A committee may be constituted with representatives from all the user departments for the proper administration and running of the central workshop, with the appointment of a Mechanical Engineer in the Reader's grade to coordinate the work of the committee and the central workshop.

Many items of very costly equipment are lying idle in various departments because there is none to care for even minor repairs. It is therefore recommended that the central workshop should obtain the services of a competent Electronics Engineer also in the Reader's grade who should hold charge of a well equipped electronics workshop. The two engineers in the central workshop and instrumentation unit should have the same promotion opportunities and salary scales as available to the university faculty members.

A diploma course in Instrumentation may be introduced for M.Sc. and Ph.D. students.

The Committee, therefore, recommends the provision of the following physical facilities for the establishment of a central workshop with instrumentation unit during the Fifth Five Year Plan:

Priority I Priority II Priority III
(figures in lakhs of rupees)
UGC Share

Non-Recurring

Building	-	-	-
Equipment*	1.00	0.50	0.50
Books & Journals	0.25	0.50	0.50

.....35/-

Recurring

1 Reader (Mechanical Engineering/
Electronics Engineer) 0.70 - -

1 Reader -do- - 0.70 -

14.6 The present postgraduate courses in Mathematics consist of two groups of studies - pure and applied mathematics. Both the groups have five papers in common, four for previous and one for final year along with two special papers to be chosen from at least three special papers taught in the final year. At present about 60 students are admitted to the previous year class. The major areas pertain to fluid mechanics, magneto hydro dynamics (MHD), algebra, and functional analysis. About four students are working in the department for their Ph.D. The sanctioned staff of the department consists of 1 Professor, 4 Readers and 7 Lecturers and a few part-time lecturers. The staff in position consists at present of 4 Readers and seven lecturers. The post of professor is lying vacant. Though the sanctioned intake of students is 60 annually, the present enrolment in M.A./M.Sc. (Previous) was limited to 40 students and to 30 in the final year.

The present syllabus for M.A./M.Sc. in mathematics appears a disharmonious admixture of pure and applied mathematics. It would be desirable to emphasize the pure content a little more in the core courses. The areas in which research interest of the faculty lies are fluid mechanics, magneto hydro dynamics and group theory.

Research work is presently proceeding at a very slow pace. There are only one full-time and two part-time research students in the department. The department's desire to bifurcate it into two, one of pure mathematics and the other of applied mathematics, may not be appropriate at present.

The Committee feels the necessity of providing suitable accommodation for housing the departments of mathematics and statistics and therefore recommends the construction of a composite building of 20,000 sq.ft. to house both the departments of mathematics and of statistics so that interaction and sharing of resources between the two departments can be ensured.

It would be desirable to strengthen and improve the existing department of mathematics through active research, improvement in courses and curricula and interdisciplinary cooperation in teaching and research with physics, statistics and economics departments. The library facilities appear to be adequate. The department subscribes to 62 research journals.

Taking all these factors into consideration, the Committee recommends the following facilities for the development of teaching and research in mathematics during the Fifth Five Year Plan period:

Priority I Priority II Priority III
(figures in lakhs of rupees)
U.G.C. Share

Non-Recurring

Building (20,000 sq.ft. - both for mathematics & statistics)	6.00 (10,000 sq.ft.)	6.00 (10,000 sq.ft.)	-
Equipment	-	0.50	0.25
Books & Journals	0.75	0.75	0.25

Recurring

1 Professor	-	0.88	-
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Department of
Statistics

14.7 The annual enrolment in the postgraduate department of Statistics is limited to 20 and 12 students are admitted annually for a diploma in statistics. The special papers offered at present at the M.A./M.Sc. level include advanced distribution theory, operations research and econometrics, any one of which has to be taken by a postgraduate student. Three students have already obtained their Ph.D. from the university under the guidance of Dr. J.Modhi, Head of the Department of Statistics and at present 4 candidates are working for their Ph.D. The major areas of research by the members of the department cover theoretical statistics (distribution theory, statistical inference and time series analysis); applied statistics (demography and educational statistics) and operations research (queuing theory, applied stochastic processes and mathematical programming). Members of the

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faculty consist of 1 professor, 2 readers and 5 lecturers and 1 part-time lecturer.

The department was entrusted with the task of a major survey project from the Ministry of Railways, Government of India, e.g., "The Transport needs of Lower Brahmaputra valley with special reference to ^{the} South Bank" during the period 1968-71. The department organised advanced level lectures by visiting specialists on topics like search theory; linear estimation; applied aspects of operations research and technique; Variat Tests and Computer Programming and the members of the staff of the department have been participating in all-India seminars, symposia and summer institutes for equipping themselves with modern methodologies on different branches of the subject. The department encourages tutorial assignments and class-room seminars for the students in order to improve their quality and performance in examinations. The staff members have a large number of publications to their credit. A large number of journals of Statistics are being subscribed to by the department (about 50).

The courses of study are well organised and special papers reflect the research interest of the department in Distribution Theory, Queueing Theory and Applied Stochastic Processes. The Department has active research programmes and is making good contributions. The services

of the members of the faculty are available for teaching the students of Economics. The committee was happy to note this collaborative research programme and feels that it should, in future, intensify to encourage more of inter-departmental interaction through collaborative teaching and research. The present accommodation in the building is not sufficient for its proper functioning and the committee feels that a composite building covering an area of 20,000 sq.ft. should be made available to house the departments of Mathematics and of Statistics.

The Committee recommends the provision of the following physical facilities for development of teaching and research in Statistics during the Fifth Five Year Plan period:

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
	U.G.C. Share		
<u>Non-Recurring</u>			
Building (see under Mathematics)	-	-	-
Equipment	0.50	1.00	0.25
Books & Journals	0.75	0.50	0.25
<u>Recurring</u>			
1 Reader	-	0.70	-
1 Reader	-	-	0.70

.....40/-

Department
of Geology

14.8 The department offers a two year postgraduate course in Geology, M.Sc.(Previous) and M.Sc.(Final) with an average annual admission of 20. Field training of about two months is compulsory as part of the curriculum. During the period 1969-73, 62 students obtained their M.Sc. degrees. The number of post-M.Sc. students during this period has been 21.9 students have already obtained their Ph.D. from the department and 5 are working for their Ph.D. degree. The department is having 1 Professor, 6 Readers and 6 Lecturers all of whom except two lecturers have doctorate degree to their credit with teaching and research experience varying from 3 to 24 years. Members of the staff have a large number of research publications to their credit in the fields of Igneous Petrology, Metamorphic Petrology, Sedimentary Petrology, Structural Geology, Coal Petrology, Precambrian Geology, Economic Geology and Metallic Minerals. Stratigraphy & Palaeontology, Geochemistry, etc. The department offers special papers on Coal, Sedimentary Petrology, Igneous Petrology, Metamorphic Petrology, Metallic Minerals Advanced Palaeontology, Geology of Assam and proposes to introduce a special one year post-M.Sc.diploma course in Applied Geology and Agricultural Geology. The department at present is housed in Science Block III of the university alongwith Physics and Anthropology. With the construction of Science Block IV sanctioned during the third Plan which is nearing completion, the department will be shifted there to have sufficient accommodation for teaching and research.

~~The Science Block IV has been sanctioned by the Commission~~
during the Third Plan to provide accommodation for the
Department of Geology, Geography and Anthropology, each
having an area of about 16,000 sq.ft.

The department is a reasonably well established one.
The UGC Committee recommended 15,000 sq.ft. in the Third
Plan period but the department appears to be allocated
only 10,000 sq.ft. The committee recommends that the space
already recommended for the department during the earlier Plan
period should be allocated for its proper functioning
and the university may be requested to provide space as
recommended by the earlier UGC Committee in the newly
constructed Science Block IV.

The staff of the department is well qualified and
some of them have been stagnating in their present positions
for a number of years and the university would do well to
retain this qualified staff by giving proper incentives by
way of personal promotions etc. as may be permissible under
its rules. Even with the shifting of the department
to its newly constructed Science Block IV, it may be difficult
for it to have sufficient space for development of all the
different branches. The Committee therefore, feels that
an additional accommodation of about 5,000 sq.ft. may be
necessary for its proper functioning.

Taking all these factors into consideration, the
committee recommends the following physical facilities

for development of teaching and research in Geology during the Fifth Five Year Plan period:-

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
	UGC Share		
<u>Non-Recurring</u>			
Building (5,000 sq.ft.)	-	3.00	-
Equipment	1.50	1.50	0.25
Books & Journals	0.75	1.00	0.25

Department
of Geo-
graphy

14.9 The Postgraduate Department of Geography in Gauhati University was started in 1958 with five students on the roll. The teaching staff consisted then of 1 Reader and 3 Lecturers. Since then the department has been growing rapidly and during the last 15 years, four candidates have obtained their Ph.Ds and 300 obtained their M.A./M.Sc. degree in Geography from the department. Six scholars are pursuing their research for Ph.D. in the department. The Department has been admitting about 30 students annually. The branches of studies in Geography at the postgraduate level cover physical human, economic, regional and mathematical geography, under general topics; cartography, cultural landscape, regional planning as special topics. The teaching staff in the department

consists of one Professor, two Readers and six lecturers, besides, the non-teaching staff of about seven (Laboratory Assistant, Cartographer, Field man, Laboratory Attendant etc.). The present accommodation for the Department covers an area of about 6000 sq.ft., with five class rooms, two laboratories, one museum, one map room, one dark room, and two staff rooms besides accommodation for store and office. The Department possesses about 2500 books. The department is subscribing ^{to} 23 foreign and 7 Indian journals. The Professor, two Readers and 6 Lecturer have Ph.D. degrees to their credit. The research activity of the department pertains to regional mapping, resource endowment mapping, delineation of backward regions of Assam for purposes of economic planning and economic impact of immigration in the Brahmaputra valley. The department has been providing facilities for annual field studies by the students ~~under the guidance of teachers and they are required to submit field study report in part fulfilment of their practical work.~~ The department provides research guidance and academic assistance in different aspects of human, economic and regional geography by way of Ph.D. research facilities. The Gauhati University is the only one to provide facilities for ~~postgraduate studies in geography in the whole state of Assam~~ and the demand from students for admission ^{to} ~~in~~ postgraduate courses in geography has been on the increase. Besides, the department has also to meet the needs for admission of students from Meghalaya, Mizoram, Manipur and the areas

under the jurisdiction of Dibrugarh University.

During the Fifth Five Year Plan, the department has proposed to open two new special topics (1) Population Geography and (2) Geomorphology.

The employment opportunities to Geography graduates are stated to be satisfactory. The introduction of geography as an elective subject in the Higher Secondary Schools in Assam has opened up new avenues of employment in the teaching profession. A large proportion of the students are also absorbed in the undergraduate colleges affiliated to the university which offers Pass and Honours courses at the undergraduate level. The Census Department, the Planning Department, the Town and Country Planning Organisation and business agencies of the State are other avenues of employment for trained Geographers. The Committee, however, strongly feels that no increase in-take should be undertaken at this stage, particularly, in view of the urgent need at present for consolidation of the existing facilities for undertaking imaginative design of courses to which the department must devote itself in the next few years. The Committee feels that creation of the post of a Reader in mathematical geography would help in the development of this branch of specialisation. The department appears to be cramped for lack of accommodation but this will be rectified by the shifting of the Department of Anthropology from its present occupation and thus the space vacated would be available to the Department of Geography to meet its present needs. In the interest of teaching and research in geography, the committee feels that the University should provide a senior

technical assistant in Photography to the Department.

The Committee recommends the provision of the following physical facilities for development of teaching and research in Geography during the Fifth Five Year Plan period: -

Priority I Priority II Priority III
(Figures in lakhs of rupees)
U.G.C. Share

Non-Recurring

Building	-	-	-
Equipment	0.50	1.00	0.50
Books & Journals	1.00	0.50	0.25

14.10 Anthropology is taught in the department and includes several major and minor disciplines with the common goal of the study of man in its totality. There are social cultural anthropology which is the forerunner of Sociology, Applied Anthropology, Human Biology, Prehistoric Archaeology and Palaeoanthropology, Ethnolinguistics, Ethnology and Folklore. The department since its inception has kept in view its developing into a centre of human science for North East India with many socio-cultural diversities and contradictions. The department has reached the stage of consolidation in the course of the last 27 years. The annual intake in the postgraduate course is about 20. The staff consists of 1 Professor, 3 Readers and 7 Lecturers.

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Four research scholars have been working in the department for their Ph.D. on different topics in Anthropology under the guidance of the staff members with fellowship from the UGC/ICSSR and Gauhati University. The major areas of research in the department consists of tribal ethnography including economic and political anthropology and the minor areas comprise prehistoric and proto-historic archaeology. The number of publications from the department on various research topics is quite large. During the Fourth Plan period, the department has been able to enlarge the scope of activity by providing facilities for specialised studies in prehistoric archaeology and applied anthropology in addition to enlarging the scope of activities of the existing branches of specialisation e.g. social anthropology and human biology specially in North Eastern Region of India which is considered as the most potential area for anthropological investigations.

The department has proposed to introduce ethnolinguistics as a branch of new specialisation in its postgraduate curricula. One of the major emphases of the department lies in the collection of ethnographic materials before they vanish due to rapid urban and industrial growth. The field of specialisation of the teaching members of the department include social cultural anthropology of North East India; somatic

variations in human genetics; prehistoric archaeology of North East India, social and economic change in tribal population, tribal religion and ethnography; ~~growth~~ ^{growth} studies in human genetics; human diversity etc. The postgraduate course in anthropology offers special papers in social cultural anthropology, physical anthropology, pre-historic archaeology, applied anthropology. The department has proposed to introduce linguistic anthropology or ethno linguistics ~~in view of the fact that North East India is a fertile field for conducting linguistic studies.~~ The department has inter-disciplinary projects ~~with geology, geography and political science.~~ The department is subscribing to about 36 journals.

The Committee is of the view that ^{the} anthropology department is one of the best in the whole university both in teaching and research. It has an extremely good museum but it is a pity that it cannot expand due to want of space, Laboratories too are quite inadequate. This is a special discipline which has a remarkable regional relevance. The department's proposal to introduce ~~linguistic anthropology (ethno linguistics),~~ the committee feels, is a move ~~in the right direction~~ keeping in view its relevance to the region. The Committee recommends the provision of ^{the} following physical facilities for development of teaching and research in

anthropology during the Fifth Five Year Plan:

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
	U.G.C. Share		

Non-Recurring

Building (5,000 sq.ft. - extension to the present building)	3.00	-	-
Equipment (Rs.1.50 lakh for equipment including the cost of jeep plus Rs.0.50 lakh for field and extension work.)	1.00	0.75	0.50
Books & Journals	1.00	0.50	0.25

Recurring

1 Reader (physical anthropology - biological)	-	0.70	-
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Research Unit
in
Environmental
Sciences.

15. Assam's economy depends mainly on agriculture. Combined influence of the meteorological parameters, among others, is an important factor in the success or failure of crops. The scientific approach to agriculture involves therefore an intimate knowledge of the changes in physical environment around. A part of Assam is in the seismic zone. In addition, rain and flood, drought conditions and earthquake also bring disaster to the people of the State. This part of the country, therefore, provides a natural laboratory for the student of physical environment. Interaction amongst the depart-

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ments of physics, chemistry, mathematics, statistics, botany, geography, agricultural botany, zoology, anthropology and geology would offer a unique opportunity for the creation of a research unit in Environmental Sciences which would serve the inter-departmental needs in matters relating to meteorological elements including their spatial and temporal variations, micrometeorology, soil temperature, weather and microseism, ionospheric variations in relation to weather and solar activities, study of physical properties, associated with rain, clouds and thunderstorms, micro-earthquake activities and earthquake predictions, etc. The Unit also would serve to give short-term courses on these lines and the scope of its activity could be widened later on the basis of experience gained. The Committee recommends that the nucleus of this unit be initially housed in the department of Physics with scope for interaction and sharing of facilities with the departments mentioned above. It should be provided with the services of one full-time system analyst to coordinate the various activities and the university should appoint an Advisory Committee to help in formulating necessary plans ^{at} the initial stages. The Committee feels that the creation of this research unit would serve a very important need of the region for its economic progress.

The Committee recommends the provision of the following facilities for the Research Unit in Environmental Sciences; during the Five Year Plan:

Priority I Priority II Priority III
(figures in lakhs of rupees)
U.G.C. Share

Non-Recurring

Building	-	-	-
Equipment	-	1.00	1.50
Books & Journals	-	0.75	0.75

Recurring

1 Reader (Systems Analyst)	-	0.70	-
Contingency	-	0.35	-

Central Library

16. The Central Library possesses 1,60,000 books and has been subscribing to 500 journals in Sciences and 300 in Humanities & Social sciences. The staff of the Central Library consists of 1 Librarian, 1 Assistant Librarian, 2 Classifiers, 3 Cataloguers and 1 Documentalist. The non-professional staff consists of 1 Head Assistant and 15 other staff. At present, in the whole of north-eastern region of the country only the Gauhati University provides facilities for Library science training at the Master's level with an annual intake capacity of 30 students. Besides, providing library facilities to the postgraduate students and research scholars and the faculty members of the university, the department of library science has been providing facilities for a first degree course in library science. A large number of colleges are affiliated to the university. These and the other university in the state would also need qualified library

personnel in increasing numbers to run their libraries efficiently. The personnel with advanced knowledge and training in librarianship and documentation are required to fill the higher posts in the university libraries as well as in the libraries of the institutions of higher learning and research. With that object in view, the department of library science has proposed to institute an M.Lib. Science course with an annual intake of about 40 students.

The Committee feels that the development of the central library and provision of facilities for introducing a Master's degree course in library science would meet an immediate requirement of not only the university but also of the region as a whole. The Committee, therefore, recommends the provision of the following facilities for the development of the central library as well as for introducing a Master's degree course in library science with an annual intake of 10 under the Fifth Five Year Plan. The physical facilities for the Central Library such as, the books and journals, equipment and gadgets etc. are meant for all the departments including preservation of manuscripts etc.

<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
(figures in lakhs of rupees)		
U.G.C. Share		

Non-Recurring

Building

-

-

-

Equipment (Xerox, duplicating, micro-filming arrangements, etc.)	1.00	0.50	0.25
Books & Journals (for all the depart- ments of the university)	4.00	2.00	1.00

Recurring

1 Reader	} in Library } Science	0.70	-	-
1 Professor		0.53	-	-

17. HUMANITIES & SOCIAL SCIENCES

Department 17.1 The Department of Assamese in Gauhati University
of Assamese was created in 1948 as a primary agency for postgraduate teaching and research in Assamese language, literature and culture. Additionally, the department also imparts instructions in various other languages and dialects spoken by the tribal and non-tribal people of the different ethnic groups inhabiting Assam and the neighbouring states. The Fourth Plan Visiting Committee noted with satisfaction the important role played by the department in fostering studies and research in the languages and dialects and other social studies in the north-eastern part of the country, whereby an atmosphere of emotional integration and harmony among the people may be established. The department has 1 Professor, 2 readers and 6 lecturers. One of the posts is vacant. The professor and the readers have doctorate degrees to their credit. The

intake capacity of the department is 80. Members of the staff of the department have published a large number of papers - books and other articles; some of the books written by the members of the faculty have earned a reputation for the university as a whole.

The department has to its credit 17 Ph.Ds. and 10 are continuing research for their doctorate degrees. The department has undertaken a number of research schemes, such as, tri-lingual dictionary project (financed by UGC); dialect survey of Coalpara district (financed by UGC); revision of the Chandrakanta Abhidhan (financed by the Gauhati University).

The department has asked for an extra reader for introducing an additional paper in textual criticism. The Committee feels that the department has been doing useful work and further encouragement should be provided by the university by allocating some fellowships out of the normal UGC quota. The facilities for Xerox, duplicating and micro-filming arrangements recommended by the committee as a central facility attached to the central library, would be utilised with great advantage by the Department of Assamese, among others. The committee also recommends that the university may give some grant out of the UGC publication grant to this department for bringing out important work of the department. The committee also feels that some sort of collaborative teaching would be of value with such sister departments

like, Sanskrit, Bengali etc.

The Committee recommends the provision of following physical facilities for development of teaching and research in Assamese during the Fifth Five Year Plan period.

Priority I Priority II Priority III

Non-Recurring

Building	-	-	-
Equipment	-	-	-
Books & Journals	0.25	0.25	0.25
<u>Recurring</u>			
1 Reader	-	-	0.70

Department of Arabic

17.2 The department of Arabic offers a 2-year post-graduate course leading to a Master's degree with 8 papers. The department has three Lecturers and it came into being towards the end of 1969. It has not been in a position to undertake any research work so far. In Assam, there are several oriental schools and colleges imparting higher education in religious sciences and many students passing out of these institutions desire to study ~~Quranic~~ ^{Quranic} exigencies and traditions under the guidance of the University towards earning a MA degree in Arabic and thereafter carry on further research work. The central library contains a limited number of books in the subject and should undertake immediate improvement. The department admits about 10 students annually. The Committee feels that the library facilities in Arabic should be augmented with the import of necessary books from abroad as the important books in Arabic are published outside India mostly in Cairo and in Beirut and some European countries

The Committee recommends the provision of the following facilities for development of Arabic during the Fifth Five Year Plan:

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
	U.G.C. Share		
<u>Non-Recurring</u>			
Building	-	-	-
Equipment	-	-	-
Books & Journals	0.30	0.20	0.25
<u>Recurring</u>			
1 Professor	-	-	0.88
1 Reader	-	-	0.70

Department
Bengali

17.3 The postgraduate department of Bengali offers a 2-year course leading to M.A. with an average annual intake of 60 students. Three research scholars are working in the department under the guidance of the Head of the department of Bengali and the members of the teaching staff are also engaged in research in their respective fields. The fields of specialization include Pali, Prakrit, Old Bengali and Vaisnava Padavali; modern Bengali literature and poetry, language and linguistics, bengali dialects, folk literature of Assam, etc. The sanctioned staff of the department include 1 Professor, 1 reader and 5 lecturers and one part-time lecturer. The post of professor is vacant at the moment and the reader is functioning as the Head of the Department. Further, the curriculum is in urgent need of review. For example, six periods a week are devoted to a paper. This is not desirable as it merely increases the work-load without any appreciable benefit to the students who suffer from

'spoon-feeding'. In the course of the last 13 years, the department has not been able to produce a single Ph.D. The Head of the Department has a number of books to his credit. The Committee recommends a provision of Rs. 10,000 (1st priority) ~~and~~ Rs. 1,000 (2nd priority), Rs. 10,000 (3rd priority) for the purchase of books & journals and one post of Reader under the Third Priority.

Department of Hindi

17.4 The average annual intake in the Department is 30. Six scholars are working on various aspects of Hindi-Assamese literature. The postgraduate course in Hindi covers 3 papers. There are 3 lecturers in the department. Eighteen books have been published by ^{the} members of the staff.

The committee feels that the university should revise its current requirement that thesis for the Ph.D degree in Hindi has to be written in English. This is quite unnecessary and burdensome and hampers the pace of research. The university should reconsider the question of permitting Hindi Ph.D. scholars to write their theses in Hindi, and the university may also allocate a few junior fellowships to this department out of the UGC quota to encourage higher studies and research in Hindi in the eastern region of the country. The university's requirements for a record player and tape-recorder for language teaching should, the committee feels, be met out of the centralised facilities with the provision of such equipment in the central library.

The Committee recommends the provision of ^{the} following physical facilities for the development of teaching

and research in Hindi during the Fifth Five Year Plan period:

Priority I Priority II Priority III
(figures in lakhs of rupees)
U.G.C. Share

Non-Recurring

Building	-	-	-
Equipment	-	-	-
Books & Journals	0.30	0.20	0.25

Recurring

1 Professor	-	0.88	-
1 Reader	0.70	-	-
1 Professor	-	-	1.58
1 Reader	-	-	-

17.5 The Department of MIL has only one member on the staff e.g. a Professor with specialisation in Drama and Early Assamese literature. He has working knowledge of Bengali, Hindi, Maithili, Oriya and Sanskrit. Ten research scholars are working under the guidance of the Professor for their Ph.D. Some of the research topics undertaken at present in the department, cover a comparative study of medieval Maithili and Assamese devotional plays and a history of major modern Indian literatures. The department has so far produced 8 Ph.Ds. in Modern Indian Languages and seven students have been working for their Ph.D. on various topics such as, a comparative study of Kritivasa and Madhav Kandali; modern Bengali drama; medieval hagiographies of Bengal and Assam; art and mind of Hiteswar Barbarua; Ananta

Kandali & his works; a textual study of Padmpurana; comedies & comic elements in Assamese drama; post Sankaradeva; post Sankaradeva devotional plays. Members of the staff have published a few books and a large number of papers and articles. The department also supervises the manuscript section containing about 5000 manuscripts. This offers special facilities to the research workers in the field of early Assamese; Bengali and Sanskrit literature. The department was started in 1967. It proposes to start a certificate course in four South Indian languages for the emotional integration and understanding; this may be an admirable attempt. The work of the department will be greatly strengthened by a language laboratory and departmental library. For the proper utilisation and maintenance of ^a huge collection of manuscripts the committee feels that the responsibility for the purpose may be shared by the department of modern Indian languages and the Central library.

The Committee feels that the department may be provided with one lecturer in one of the South Indian languages for introducing a certificate course in one of the South Indian languages depending on the availability of the lecturer and the demand for such a course in the region.

The university has created small units or one man departments, such as MIL, folk-lore, manuscript collection/preservation, general linguistics. The

committee feels that perhaps greater service could be rendered by amalgamating all these smaller units into a composite one in the department of MIL or any other suitable department so as to ensure development of each one of fields under a common umbrella which could pool their resources for optimal benefit rather than dissipating the meagre resources that they have and making little impact.

The Committee recommends the provision of the following physical facilities for the development of teaching and research in MIL during the Fifth Five Year Plan period:

Priority I Priority II Priority III
(figures in lakhs of rupees)
U.G.C. Share

Non-Recurring

Building	-	-	-
Equipment	-	-	-
Books & Journals	0.20	0.30	0.25

Recurring

1 Reader	-	-	0.70
1 Lecturer (in one of the South Indian languages).	0.53	-	-

Department of Modern European Languages 17.6 The Department of Modern European Languages offers a one-year certificate course in Russian and French. The admission capacity for each of these courses is 25. The department proposes to introduce a diploma course in German under the Fifth Five Year Plan. The department has proposal to have 2 lecturers in German and 1

more each in Russian and French so as to ensure proper teaching in the modern European languages. The Committee feels that the services of foreign language teachers may be procured by the university under different cultural exchange programmes with the foreign countries concerned and for the purpose, the university may approach the Government of India for making available the services of foreign language specialists for running the courses successfully in the department. The Committee hopes that the Commission and the Government of India would consider the request of the university for the services of foreign language teachers under appropriate cultural exchange programmes sympathetically. The department's requirements for record-players and language laboratory, etc. may be met from the centralised facilities as may be available in the sister departments like linguistics. The committee feels that these smaller units or one-way departments like English teaching, general linguistics, modern European languages and the department of English are very much hard pressed for accommodation. Proper accommodation would be necessary after the necessary amalgamation of smaller units and the committee recommends the provision of a building to house these departments and smaller units in one place with the provision of necessary physical facilities for common use by all the them on a proper time-table schedule.

The Committee recommends the provision of the following physical facilities for the development of Modern European Languages under the Fifth Five Year Plan period.

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
<u>Non-Recurring</u>	U.G.C. share		
Building	-	-	-
Equipment	0.05	-	-
Books	0.10	-	0.25
<u>Recurring</u>			
3 Reader (one each)	-	-	2.10
3 Lecturer in German, French & Russian)	-	-	1.59

Department
Folk-
lore

17.7 The Gauhati University instituted a scheme of tribal culture and folklore in 1955-56 with the assistance of the State Government and the University Grants Commission. Considerable material in the shape of tales, songs, and descriptions of customs and festivals have been collected by the folklore research unit. The Unit has published a good number of books, such as, Assamese folk songs; Islamic folk songs, folk-tales of the Garos, geology of Assam; ethnic affinity of the Rabhas; ballads and tales of Assam; Folk songs of the Bodos. It appeared that the activity of the unit came to a stand still during 1961-64 when it was again revived and inspite of financial difficulties, the unit published books on studies in Dafia social and religious life; Kaharpara - a village study; Khasi and Jaintia tales and beliefs; the epic lore of the Garos. The Fourth Plan Visiting

Committee was of the view that the Folklore Research Unit was doing a useful work in the collection of material concerning tribal culture and folklore, classification, processing, translation and publication of the material and linguistic analysis of the materials collected. The present committee concurs with the views of the earlier UGC Committee but feels that the development in this important branch concerning tribal culture and folklore should get necessary financial support from the State Government with the objective of achieving emotional integration. However, in order to be more effective, this unit should be amalgamated with other sister units and one man-departments of the university as suggested under the department of MIL.

The department is staffed by a single man, e.g., the Professor. The Folklore Research Unit has already produced a Ph.D. and three more are doing research. Folklore is a precious heritage and steps ought to be taken to preserve it and the University may place at least one junior fellowship at the disposal of the Folklore Unit out of the UGC quota. As regards the physical facilities like Electronic flash, Tape-recorder, etc., it is felt that this provision should be met out of the centralised facility to be made available to all user departments as and when required.

The Committee recommends the provision of following facilities for the Folklore Unit during the Fifth Five Year

Plan period:

Priority I Priority II Priority III
(figures in lakhs of rupees)
U.G.C. share

Non-Recurring

Building (see under Linguistics)	-	-	-
Equipment	-	-	-
Books & Journals (including cassette tape-recorder and electronic flash)	0.25	0.05	0.25

Recurring

1 Reader	-	-	0.70
2 Lecturers	-	-	1.06

Department
Sanskrit

17.8 The Department of Sanskrit was started in 1956 with one group e.g., Kavya-Group. Two special groups, e.g. Veda Group and the Darshana Group were introduced during the Fourth Plan period. The annual intake in the postgraduate department is about 30. Five scholars have obtained their Ph.D. in Sanskrit working in the department during the period 1968-74. Five students are working for their Ph.D. The faculty consists of 1 Professor, 1 Reader (vacant), 6 Lecturers and 1 part-time Lecturer. The major areas of research in the department pertain to Indology, Ancient Indian History and Culture and Sanskrit literature. The department proposes to have two additional faculty positions so that the responsibility may be entrusted to a senior teacher in the Reader's rank. The Committee feels that the vacant post of Reader may be filled by the University for the Veda Group and the post of a second Reader may be created for the Darshana Group.

The Committee recommends the provision of the following physical facilities for the development of Sanskrit during the Fifth Five Year Plan period:

Priority I Priority II Priority III
(figures in lakhs of rupees)
UGC Share

Non-recurring

Building	-	-	-
Equipment	-	-	-
Books & Journals	0.10	0.20	0.25

Recurring

1 Reader (in Darshana) 0.70 - -

Department
of Linguistics

17.9 The Department of Linguistics was established in 1972 and in January 1973 a postgraduate diploma course in General Linguistics was introduced; lectures were being delivered in the evening shifts for lack of any accommodation for the department; However in 1974, two rooms were made available to the department. The teaching staff consists of only one Reader and he was awarded Ph.D. by the London University in 1970 for his work on "A Phonetic and Phonological Study of Assamese". The Department is furnished with a Language Laboratory with facilities for three-way-training devices fabricated locally; two portable tape-recorders, one record player and a large number of language records. The departmental library consists of 113 volumes

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The Department proposes to start a M.A. course in Linguistics for which services of a Professor, two Readers and one Lecturer alongwith all linguistic hardware, would be necessary. The department also proposes to introduce a Phonetic Survey of the Languages spoken in and around Assam during the Fifth Plan period involving a total expenditure of about Rs.55,000/- besides the services of three Lecturers to be made available to the department not only for the survey work but also for running the M.A. course in Linguistics.

The modern trend is to group departments into larger and more comprehensive wholes rather than proliferating non-viable smaller units or one-man departments. The grouping of the departments like, English and Teaching of English, General Linguistics, Modern European Languages, Folklore etc. would be of immense academic advantage to all the smaller sub-sections. For that reason, the committee feels that a composite building of about 10,000 sq.ft. would meet the requirements of the departments of English, English Teaching, General Linguistics, Modern European Languages, Folklore and also help in a proper interaction amongst them to the advantage of all. Most of the physical facilities available individually could be utilised with greater advantage by all. Moreover, the smaller units with single faculty member may not be in a position to do any effective teaching or research and will not meet the needs of either. Consolidation of all the smaller units into one larger group would enable each unit to retain its speciality yet

interact with others to have the benefit of larger physical facilities by sharing. The present accommodation occupied by the Department of English, English Teaching, General Linguistics, Modern European Languages, Folklore could be utilised for housing properly the departments of Hindi, Sanskrit, Bengali, Arabic, Modern Indian Languages.

The Committee recommends the provision of the following physical facilities for the development of teaching and research in Linguistics during the Fifth Five Year Plan period:

Priority I Priority II Priority III
(Figures in lakhs of rupees)
U.G.C. Share

Non-Recurring

Building (10,000 sq.ft. for housing the departments of English, English Teaching, General Linguistics, MEL and Folklore)	6.00	-	-
Equipment (to be made available to user departments - language laboratory, tape recorders, projectors, films etc.)	0.50	0.25	0.75
Books & Journals	0.25	0.25	0.25

Recurring

1 Professor, 2 Lecturers	-	-	1.94
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Department of English

17.10 There are 80 students in MA previous and 60 in fit
The staff consists of 1 Professor, 2 Readers and 5 Lectur
The members of the staff have specialisation in Poetry,
Metaphysical Poetry, Modern Poetry, Romantic and Victorian

Poetry, 18th Century English Literature, Indo-Anglican Poetry, American Literature, Old English and Linguistics. Seven students have obtained the Ph.D. degree from the department, three others have submitted their dissertations and four are currently engaged in research. The departmental library has a collection of 2,500 titles with reading room facilities. The department needs the provision of a typist-cum-clerk to help it in teaching and research activities and the university may consider providing the facility to this department. The Head of the Department is incharge of Modern European Languages and recommendations for the provision of a composite building for housing together all the allied departments have already been made under Linguistics department. The Committee feels that the teachers who have been stagnating at the maximum of their salary scales, should be considered for personal promotion so that their valuable services may be retained by the department. The University may consider this question sympathetically. Further, in the new building for housing the Departments of English, English Teaching, Linguistics, Modern European Languages, Folklore, etc., provision should be made for seminar/tutorial rooms, departmental library etc. which could foster study and research.

The Committee recommends the provision of the following physical facilities for development and research

in English during the Fifth Five Year Plan period:

Priority I Priority II Priority III
(figures in lakhs of rupees)
UGC Share

Non-Recurring

Building (as mentioned under Linguistics)	-	-	-
Equipment(as mentioned under Linguistics).	-	-	-
Books & Journals	0.25	0.50	0.50

Recurring

1 Reader	-	-	0.70
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Department of Teachers Training in Method of Teaching English.

17.11 The objectives of the department is to impart training in the teaching of English leading to a diploma in English Teaching. It has three lecturers for this task. This is woefully inadequate. The need for strengthening this faculty for English can hardly be overemphasized in these days of raising standards in English teaching. The department has a large number of books pertaining to teaching of English Grammar, Vocabulary List in the Teaching of English, Structural project of the 12 year pattern of education, and new methods of teaching English mostly for school teachers. This could be effectively done by amalgamating the smaller units with the Department of English and other allied departments already suggested for Linguistics. For, training teachers in English teaching as an isolated activity would not accomplish much. On the other hand, by sharing the resources with the larger department of English and Linguistics etc., it can break new ground in devising more effective methodology

techniques. By pooling of resources, the physical facilities like language laboratory and other teaching aids would become available to other small units established in the Gauhati University. The emphasis of the department is on grammar and usage and research is being carried in the teaching of English and the analysis and correction of errors in English speech and writing. The facilities of language laboratory and other teaching aids when centralised, could offer opportunities to this department to function more effectively. Even after its association with the rest, the department of english would retain its individuality and yet draw upon the physical facilities from the centralised pool to the advantage of all.

Priority I Priority II Priority III
(Figures in lakhs of rupees)
U.G.C. Share

Non-Recurring

Building (as under Linguistics)	-	-	-
Equipment -do-	-	-	-
Books & Journals	0.25	0.25	0.25

Recurring

1 Professor	-	-	0.88
1 Reader	-	-	0.70
1 Reader	-	0.70	-

17.12 The department is among the earliest to be set up at the Gauhati University. It is engaged in training teachers/students for the BT and MA degrees. The enrolment for these courses is 100 and 117 respectively. The faculty consists of 1 Professor, 3 Readers including

1 Ad-hoc appointee, 6 Lecturers Additionally, 13 part-time teachers are associated in courses on teaching method. The student strength in MA is 50 (previous), 62 (final), 100 (BT) and four research scholars. The department has a publication cell for the production of textbooks in the regional language for P.U. and B.A. students. Many books are published through the Text-book Production Unit of the University.

The department appears to be well organised and capable of expanding the existing courses towards a one-year M.Ed. degree for professional teachers subsequent to B.T. The department has requested for additional provision of 3 Professorial positions and a large number of Readers for teaching Psychology, Comparative Education, Teacher Education, teaching Sociology and Continuing Education. The department can profit greatly by developing suitable interfaces with sister departments of English, Linguistics and Sociology/Psychology and also enrich other sister departments by mutual exchange of intellectual resources and physical facilities. The Committee feels that some accommodation may be provided for housing the Department of Education together with those of Law and Teaching Training. A composite building of about 15,000 sq.ft. for housing these three departments is needed.

The Committee, therefore, recommends the provision of the following physical facilities for the development of teaching and research in Education during the Fifth Five Year Plan period:-

Priority I Priority II Priority III
(figures in lakhs of rupees)
U.G.C.Share

Non-Recurring

Building (for housing the Departments of Education, Teacher Training and Law)	6.00 (10,00 sq.ft.)	3.00 (5,000 sq.ft.)	-
Equipment (together with facilities available in other departments).	0.25	0.25	-
Books & Journals	0.30	0.50	0.50

Recurring

1 Professor (<u>Educational Psychology</u>)	0.88	-	-
1 Reader (<u>Continuing Education</u>)	-	0.70	-

Department of Philosophy

17.13 Until 1966, the Department of Philosophy was functioning purely as a teaching department mainly in delivering prescribed number of class-room lectures. Since 1967-68, tutorials and seminars are also being provided. Research activity in the department started in 1967-68 with a few research scholars mostly teachers from affiliated colleges. One of the scholars obtained his Ph.D. in 1971. One research scholar has been working

for Ph.D. with a Junior Research Fellowship. The enrolment in the previous and final year of M.A. in Philosophy is 48 and 46 respectively. Besides, one regular research fellow, ten casual research students have been pursuing their research work in the department. The staff consists of 1 Professor, 1 Reader and 4 Lecturers, two of them having doctorate degrees to their credit. The departmental library contains few books and subscribes to five journals. The Professor of Education has been taking classes for the Philosophy student in Psychology. Members of the staff of the department have been engaged in active research on various topics notably, the Concept of Personality in Samkhya Yoga and the Gita Concept of matter in Shri Aurovinda's Philosophy, Socrates, the man and his Philosophy, Samkhya and Kantian Philosophy; Origin of Religion; Parental Instinct; Concept of Self, Saivism in Assam; Concept of Women in Ancient Philosophical thought, etc. A number of research papers have been published.

The Committee discussed the requirements of the department with the teachers and recommends the provision of the following physical facilities for the department during the Fifth Five Year Plan:

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(Figures in lakhs of rupees)		
	U.G.C. Share		
<u>Non-Recurring</u>			
Building	-	-	-
Equipment	-	-	-
Books & Journals	0.30	0.50	0.50
<u>Recurring</u>			
1 Reader	-	-	0.70

17.14 The number of students in the previous and final year are 75 and 65 respectively. The staff consists of 2 Professors, 1 Reader, 4 Lecturers. The field of specialisation of the teaching staff pertain to Modern Indian History, Ancient Indian History and Culture, Medieval Indian History, Archaeology. Six students have been awarded doctorate degrees since 1966. Twenty-five scholars are currently working for their Ph.D., five holding scholarships. The Department has a large number of research publications to its credit. It possesses a library of its own with about 700 volumes of text and reference books. The major research topics include, Assam in the Days of the Company; Problems of the Hill Tribes; The Gurjara-Pratiharas in Bhrgukaccha; The Administrative System of the Pratiharas; Religious Condition of India during the Early Medieval Period; The Fiscal and Judicial Administration of the Pratiharas; Social Condition of India during the Early Medieval Period; Military Organisation of the Pratiharas, etc.

Research activity in the Department has been more concentrated on various aspects of Modern and Ancient Indian History with notable accomplishment in the latter. But Medieval Indian History is practically left out for want of adequate staff qualified in the subject.

However, the department could process historical records about Assam and prepare monographs on the subject. A large field of research exploration thus lies open for study. The department is well suited to take up Area studies for the North East India under the UGC Scheme of Area Studies Program. The university may approach the latter in this regard for the provision of necessary funds outside the Plan allocation.

It will be desirable if the department could explore new fields like Economic History, International or World History with bias towards Social and Economic Development.

The Committee recommends the provision of the following physical facilities for the development of teaching and research in History during the Fifth Five Year Plan period:

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(Figures in lakhs of rupees)		
	UGC Share		
<u>Non-Recurring</u>			
Building	--	-	-
Equipment	-	-	-
Books & Journals	0.30	0.50	0.50
<u>Recurring</u>			
1 Reader (in Economic History)	0.70	-	-
1 Reader (World History with bias towards Social and Economic Development)	-	0.70	-
1 Reader	-	-	0.70

Department of
Political Sc.

17.15 There are 163 and 170 students in the previous and final MA in Political Science. Members of the teaching staff consist of 2 Readers and 5 Lecturers with one Reader as Head of the Department. Dr. V.Venkatarao, Professor Emeritus is attached to the Department and handles the paper on Political Thought for the Previous class. The fields of specialisation of the staff members include. International Politics, Public Administration, Constitutional Development, Political Institutions, Local Self Government. The departmental library contains 238 books and also subscribes to journals, the students and staff depend on the Central Library for most of their requirements. All matters pertaining to the Department are being managed by a Departmental Advisory Committee. A Departmental Association organises extra-curricular activities. Some members of the staff are writing text books in the regional language under the direction of Gauhati University Coordination Committee for the degree level. Lectures continue to be the main form of teaching. Seminars and tutorials are also held to supplement teaching with a view to fostering intellectual curiosity and discussion. Three members of the teaching staff possess doctorate degrees. Forty-two research scholars are working for Ph.D. degree. Some of the others are currently engaged in the research work for a doctoral degree. The department introduced modernised syllabus w.e.f. 1973-74. Besides 8 papers, each for the previous and final, three groups have

been introduced such as, Political Institutions, Public Administration and Sociology. All the teachers of the department meet the students for 12 periods per week with the result that research or survey schemes could not be undertaken by the Department as a whole. Some of the topics taken for the Ph.D. work include, British Administration in Burma from 1826 to 1890. The Role of the Opposition Parties in the Assam Legislative Assembly since Independence; Political Relations between Burma & Manipur in the 18th & 19th Centuries; Political Movements in Manipur since Independence; Social Evaluation in Eastern India during the latter half of the 19th Century; A study of the Communist Movement in Assam, General Election in Nagaland; Bureaucracy & Economic Development in Assam; Political Development in Bhutan; India, China and Russia in Central Asian Affairs since 1950.

The Department appears to have been well nurtured both for teaching and research. In this regard credit seems to be due to unmistakably ~~to~~ the sustained efforts of the Emeritus Professor who is even now actively associated with the Department. Even so, this department requires two types of structural adjustments -

- (1) the entire range of 23 papers over which the MA previous/final courses are spread need to be distilled into fewer courses;
- (2) links should be forged with the Departments of Economics, History, Anthropology and possibly Statistics for better interaction not only for improvement in teaching with the best available expertise but also in the pursuit of research.

It appears that the courses in teaching of Political theory and analysis of politico social behaviour are not as strong as they ought to be. This needs to be corrected in the reorganisation of the curricula.

There is an overwhelming number of students on roll, 163 in previous and 170 in final. The department could indeed serve much better with a student population ranging between 120 and 130, say 65, in each class admitted strictly in accordance with merit rather than the present practice of unrestricted admission. In view of the enormous untapped material available in the State, the department could profitably undertake Area Studies Programme covering, Politics, Economics, Sociology of the North East India. The University may like to approach the Commission for provision of funds for undertaking this joint venture with inter-departmental collaboration outside the Plan allocation.

The Committee recommends the provision of the following Physical facilities for development and research in Political Science during the Fifth Five Year Plan period:-

	<u>Priority I</u>	<u>Priority-II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
<u>Non-Recurring</u>	U.G.C. Scheme		
Building	-	-	-
Equipment	-	-	-
Books & Journals	0.40	0.50	0.50

Priority I Priority II Priority III
 (figures in lakhs of rupees)
 UGC Share

Recurring

1 Professor (Political Theory)	0.88	-	-
1 Reader (with specialisation in problems of Politics in the North East India including Indo-Bangladesh Relations).	-	0.70	-

Department of
Economics

17.16 The student strength is 112 and 110 in MA Previous and Final. The staff consists of 1 Professor, 2 Readers and 3 Lecturers; and one Part-time Lecturer. The fields of specialisation of the members of the teaching staff are Economics of Growth, International Economics/Agricultural Economics, Local Finance, Public Finance, Applied Statistics, Monetary Economics, Demography, Econometrics and Statistical Theory. The work-load is 9 periods for each. There are about 330 volumes of books in the departmental library and 11 journals are being subscribed to in the discipline. The department has undertaken/proposed to undertake some inter-disciplinary studies, such as, Transport Survey of Lower Brahmaputra Valley and International Economic Order - some aspects of foreign investment in India in collaboration with sister departments like Statistics, Commerce, Geography and Law. This is a very healthy approach for sharing the expertise of different departments to the mutual benefit of all and for the progress of higher learning with bias for economic development of the region.

The Department started as early as 1948 and had devoted its energies to the teaching of MA courses; judged by the record of employment secured by its ^{publ}people especially in recent years, the department rates fairly well but that does not imply that its courses are according to the current demands of the economics profession. Indeed, it seems as if no drastic changes have been made in the structure of the economic curricula over the last many years. This is a point of some concern.

The present MA course in Economics needs to be completely re-oriented to reflect the current trend in Economics. The teaching of Mathematics including computer-programming ought to be introduced at MA Previous as a compulsory prerequisite possibly in addition to Applied Economic Statistics.

Macro-economic theory including the economics of growth and development and planning should be a compulsory requisite at MA final. It should embody the mathematical principles illustrated with Indian experience. The teaching of Econometrics and possibly of Mathematical Economics for MA in Economics must be left to the care of the Department of Statistics. The Department of Statistics need not however run diploma courses in these subjects. It may not be unwise to close these courses. The University will do well to give a thought to this aspect.

As regards Economic History and Political Sociology, the Department of Economics would be best advised to take the

respectively on the assumption that the curricula in these fields are jointly determined by the active collaboration of all concerned.

Political Sociology may be introduced and the course content framed in consultation with the Department of Political Science and the subject-matter may be covered by the expertise available in the Department of Political Science. There is an urgent need for introducing an applied paper on Regional Economics with special reference to the tea and oil producing North East India. There is, however, no justification for a separate section on Applied Economics, much less for a degree in this subject. As a matter of fact, each paper in Economics must be a proper admixture of theoretical and applied economics. Although the department has done research on a fairly wide scale, its orientation needs to be modernised towards quantitative aspects requiring input, output, linear programming and other relevant techniques.

The Committee recommends the provision of the following physical facilities for development of teaching and research in Economics during the Fifth Five Year Plan period:-

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
	UGC Share		
<u>Non-Recurring</u>			
Building	-	-	-
Equipment	-	-	-
Books & Journals	0.40	0.40	0.50
<u>Recurring</u>			
1 Reader (in Macro Economics including Growth & Planning)	0.70	-	-
1 Professor	-	-	0.88

....81/-

Department of 17.17 The total enrolment in M.Com. is 239.
Commerce

The staff in the Department of Commerce consists of 1 Professor, 4 Readers and 7 Lecturers along with 1 Part-time Lecturer. Students with Honours, Distinction and graduates of Pass Course with 40 per cent aggregate marks are eligible for admission ⁱⁿ to this course. The Department possesses 6,250 books and jointly with the Department of Economics subscribes ^{to} 61 journals. This is the only postgraduate department of Commerce in the Eastern region, but the enrolment is rather large. It is not known what ~~is~~ the employment opportunity for Commerce graduates ^{is} in the region. The University's proposal for introducing postgraduate courses in Business Management or Industrial Administration deserves sympathetic consideration, and it is advised to approach the Commission separately for introducing these under the programme for the development of Engineering and Technological courses. With the introduction of management courses at the postgraduate level, the university may like to reconsider the question of continuation of the M.Com. Courses. For the development of the existing M.Com. course, the committee feels that it would serve a much better purpose if the expertise available in sister departments of Economics, Mathematics, Statistics, etc., are fully utilised. This would not only help in development of the postgraduate course in Commerce in the best possible way but would also ensure collaborative teaching

and research in all the disciplines together. There is ample scope for undertaking fruitful research in the industrial-cum-agricultural development of the region and the department should take active steps in that direction.

The Committee recommends the provision of the following physical facilities for the development of teaching and research in Commerce during the Fifth Five Year Plan period:

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
<u>Non-Recurring</u>			
Building	-	-	-
Equipment	-	-	-
Books & Journals	0.25	0.50	0.50
<u>Recurring</u>			
1 Reader			0.70
	0.25	0.50	

Department of
Journalism

17.18 The University has been admitting about 35 students for a diploma course in journalism. The staff consists of 3 full time and 2 part-time Lecturers, one of whom is the Editor of the Assam Tribune. The Gauhati University Times is produced entirely by the students under the direction of the teacher-in-charge with necessary financial assistance from the University. Two issues of the Gauhati University Times have already been published. The UNI, New Delhi, has agreed to instal and maintain tele-printing facilities at the University for which the University is required to pay an annual subscription of Rs.2,500/-. This facility, the committee feels, would meet the needs of the national and regional

news service. The University should be in a position to meet this small amount out of its own resources.

As regards the university's proposal for instituting a Master's degree course in Journalism, the committee is of the view that this may be examined by a specialist committee if considered fit by the Commission.

17.19 The Law College was established as a Government institution in 1914 to serve the needs of the whole of Eastern India. It continued to function as a Government college till the establishment of Gauhati University in 1948 when it was renamed as the University Law College. It is the only constituent college of the university. The teaching staff consists of 1 whole-time Principal, 2 full-time Lecturers and 12 part-time lecturers. The total enrolment in law is 889. The College offers facilities for an undergraduate course in Law leading to the LL.B. degree. About 100 law students are provided with hostel facilities. The committee whole heartedly endorses the views of the Law Commission pertaining to involvement of scholars and jurists in the academic programme for an effective training in Law covering more and more new subjects. The Committee recommends the provision of regular fulltime teaching staff for effective teaching in Law.

The Committee recommends the provision of the following physical facilities for development of teaching and research in Law during the Fifth Five Year Plan period:-

	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
	(figures in lakhs of rupees)		
	UGC Share		
<u>Non-Recurring</u>			
Building	-	-	-
Equipment	-	-	-
Books & Journals	0.50	0.50	0.75

.....84/-

Recurring

1 Professor	1	-	-	1.58
1 Reader	1			

Development of Engineering and Technological Courses

17.20 The University desired the committee to examine its proposal for instituting a Master's degree course in Business Management and some other courses in Engineering & Technology. The Committee recommends that the proposals for development of engineering and technology in the university may be examined by the Commission through appropriate committed

Development of Foreign Language Courses

17.21 The University has submitted a proposal for introducing or strengthening courses in Foreign Languages such as Russian, French, or German; the committee feels that the university should approach the Commission for utilising the services of foreign specialists under the existing Indo-Foreign Cultural Exchange Programmes.

GENERAL

Meeting with student representatives

18.1 The Committee is happy to record its appreciation in getting an opportunity to meet the representatives of the students' Union. Their keenness for the opening of new avenues of studies in subjects like Business Management, Biochemistry, Petroleum Chemistry, Analytical Chemistry, Tea Technology, Oil Technology, etc. is a need worthy of serious consideration, particularly, in view of the natural resources of the region pertaining to tea and oil. The committee feels that the Commission should sympathetically consider these proposals through appropriate committees to examine the overall development of engineering and technology courses in the country to serve the much needed requirements of

this region and also of the country as a whole. The students participation in examination reform is really a very healthy sign and the committee feels that without their involvement the progress of such a gigantic task would be rather difficult. The Gauhati University is indeed fortunate in having the active cooperation of students in this regard. The committee has noted that the Gauhati University has been selected by the Commission as one of the universities for undertaking the important task of examination reform and the committee feels that the scheme will receive all the necessary financial support from the Commission to achieve its objective.

The student representatives' suggested ~~for~~ introducing foreign language courses in the university, particularly, German, ^{it} is worth consideration; The Committee advises the university to take necessary steps to procure the services of specialists from abroad under the existing Indo-Foreign Cultural Exchange Programmes. The students' suggestion for inviting Visiting Professors from other parts of the country would, the committee feels, not only help in raising the academic standards but would also contribute ^{to} in achieving national/emotional integration. The committee is of the view that the university should make full use of the Unassigned Grant provided to it by the University Grants Commission, which among other things provides for inviting distinguished professors/scholars from other parts of the country. The student representatives

pointed out that only about 1300 students have hostel accommodation out of the total student population of 3,500 the ratio being about 1:2:7. The committee feels that additional hostel facilities should be provided. The Committee appreciated their suggestions for the provision of a day scholars' study centre, gymnasium and indoor stadium, a health centre as well as adequate canteen facilities.

As regards their demand for raising the value of research fellowships, the committee was happy to point that the Commission has already taken steps in that direction. As for the provision of loan scholarship, there was a scheme sponsored by the Central Government for the purpose and the University is advised to take up the matter with the State Government and the Central Government. As regards improvement of the existing hostels, the committee recommends that the University should take up the matter with the UGC for providing necessary assistance.

The Committee recommends the provision of the following Student Amenities under the Fifth Five Year Plan:

	<u>Total Cost</u>	<u>UGC Share</u>
1. Girls' Hostel for 120 students (to meet the needs of all the post-graduate students including the girls students of the Law College) -12,000 sq.ft.	7.20	5.40 (1st Priority) (@ 75%)
2. Boys' Hostel for 120 students.	7.20	3.60 (2nd Priority) (@ 50%)
3. Day Scholars study Centre	Books 0.20 Stacks 0.20	NR (3rd Priority)
4. Health Centre (building, equipment & furniture)	2.00	1.50 (NR) (3rd Priority)

	<u>Total Cost</u>	<u>UGC Share</u>
5. Canteen (building, equipment & furniture) Assam type building.	1.00	0.67 (1st Priority)
6. 30 Junior Research Fellowships may be made available to the university (at any given time) for award to students on the basis of merit, care being taken that these fellowships are availed of in all the major disciplines)		7.88 (1st Priority)

18.2 The Committee records its deep appreciation to the Teachers' Association for giving the committee an opportunity to talk to them on matters concerning the development of the University in all its aspects during the Fifth Five Year Plan. The Committee especially appreciates the growing interest the Association is taking towards the introduction of new courses in Foreign Languages specially in German, Business Administration, Applied Mathematics, Petroleum Technology, upgradation of the diploma course in Journalism to the degree level, Psychology, Law etc. The Committee recommends to the University to take up with the UGC matters pertaining to development of postgraduate courses in Business Administration/Management, Petroleum Technology, Tea Industry, etc. separately under its programme for development of engineering and technology during the Fifth Five Year Plan for which the committee understands separate funds are available from the Commission. As regards the introduction of foreign language courses, the committee feels that instead of incurring expenditure

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out of the Plan allocation, the university could obtain the services of specialists from abroad under the existing Indo-Foreign Cultural Exchange Programmes for which funds are available separately from the Commission.

Concerning the degree course in Journalism, the committee recommends that the Commission may consider appointing a specialists' committee to examine the proposal of the University.

The Teachers' Association also showed concern for providing suitable accommodation to the teaching departments and for the welfare needs of students and teachers which required the construction of additional hostels, a health centre, staff quarters, canteen, library building, day scholars' home, etc. The Committee has tried to accommodate as much as possible of these requirements within the available resources.

The provision of additional accommodation as recommended should relieve the congestion in departments and they should be in a better position to function more effectively. The Committee agreed with the suggestion of the Teachers' Association that increased teaching personnel would be needed with the introduction of new methods of teaching comprising lectures, seminars, tutorials and the proposed introduction of internal assessment. These matters have been uppermost in the minds of Committee members while considering proposals for individual departments for strengthening their faculty. The Committee records its great satisfaction for the keen interest the Teachers' Association has been taking in the overall improvement of

the university. The involvement of the Teachers' Association in the progress of the university is indeed commendable. The campus development and better communication through PBX system, the committee feels, is an urgent necessity and the University will take all steps to meet this urgent need from its own resources as developmental funds are not generally available for such purposes. The Committee notes with concern the stagnation of a good number of teachers in their existing cadres. The University, it is felt, would take appropriate steps to provide the necessary incentives to recruit and retain the qualified staff in the interest of teaching and research.

FINANCIAL IMPLICATIONS

19. A summary of the financial implications of the recommendations of the Committee alongwith those of the committed expenditure for the development of higher education and research in science, humanities including social sciences at the Gauhati University at a total expenditure of Rs.213.99 lakhs under three Priorities is indicated at Statements I, II and III attached to the Report.

The salary of the staff has been calculated for a period of 3½ years on the following basis:

Professor	Rs.0.88 lakhs	(@ Rs.25,000 pa.)
Reader	Rs.0.70 lakhs	(@ Rs.20,000 p.a.)
Lecturer	Rs.0.53 lakhs	(@ Rs.15,000 p.a.)

The distribution of Non-Recurring & Recurring items under different Priorities is indicated below:

	<u>Priority I</u>		<u>Priority II</u>		<u>Priority III</u>	
	(figures in lakhs of rupees)					
	(excluding spill-over)					
	<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>
<u>Non-Recurring</u>						
Building	28.07	34.7%	15.60	18.9%	1.50	3.4%
Equipment	15.00	18.5%	13.25	24.8%	7.25	16.6%
Books & Journals	17.10	21.2%	16.20	30.3%	13.05	30.0%
<u>Recurring</u>						
Staff plus 30 Junior Research Fellows	20.74	25.6%	8.59	16.0%	21.76	50.0%
<hr/>						
Total (NR+R)	80.91	100%	53.64	100%	43.56	100%
<hr/>						
Spill-over from Fourth Plan + schemes approved during the Fifth Plan prior to Committee's visit	35.76					
<hr/>						
116.67 lakhs						
<hr/>						

Grand total for the three priorities = Rs.213.99 lakhs

The Committee places on record its thanks to the Vice-Chancellor, members of the Faculty and the University staff for providing the necessary facilities

for examining and assessing the developmental needs of
the University under the Fifth Five Year Plan.

(U.N. Singh)

(V.K. Gaur)

(S.K. Joshi)

(A.B. Lal)

(M.S. Kanungo)

(S.B. Rangnekar)

(K. Vishwanatham)

(J. Chakravarty)

(S.K. Dasgupta)

December 24, 1975

'CHUGH'

₹ Total income and expenditure of the ~~University~~ University
from 1.4.33 to 31.3.74.

I N C O M E

	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
	2	3	4	5	6	7	8	9
A. i) Maintenance grant from the State Govt.	23,50,000	23,50,000	23,50,000	31,00,000	31,00,000	31,00,000	31,00,000	51,00,000
ii) Income from Fees etc.	34,40,974	28,47,946	33,87,710	35,88,132	36,90,909	36,71,553	33,93,527	39,15,552
B. <u>Development Grant from:</u>								
i) U.G.C.	13,24,710	13,81,102	7,49,048	5,36,201	2,38,957	7,64,340	17,60,000	8,24,252
ii) State Government.	8,95,500	8,00,000	0,25,000	9,56,000	5,50,000	6,50,000	10,19,000	14,52,000
iii) Other sources.	-	-	-	-	-	-	-	-
Total:	80,11,184	73,79,048	71,10,758	81,80,333	75,79,866	84,05,693	92,77,527	1,12,91,804

E X P E N D I T U R E

1. Salaries of Teaching staff/work teaching staff.	14,36,100	16,94,212	21,51,091	22,44,819	26,81,336	29,88,730	30,89,984	34,79,486
2. Administrative	9,07,000	12,08,846	11,58,936	9,58,594	10,57,705	11,36,441	11,71,611	11,99,913
3. Library Books/Journals.	1,66,932	4,76,392	4,98,714	7,10,391	3,24,909	3,45,030	2,71,662	2,37,532
4. Equipments	2,25,600	4,43,443	3,28,970	2,66,162	2,44,143	2,14,041	1,63,941	1,13,700
5. Building-Academic and others.	11,71,571	10,26,794	8,56,523	7,31,255	4,77,179	6,10,391	10,09,993	10,47,566
6. Scholarships/Fellowships	7,04,682	5,21,695	10,93,898	15,29,851	14,38,519	14,20,395	12,71,060	15,75,800

Contd....

	1	2	3	4	5	6	7	8	9
7. Any other items:									
a) Contribution Provident fund.		1,90,698	2,16,703	2,32,232	2,85,352	2,78,466	3,08,541	3,38,822	3,60,282
b) Examinations		7,75,374	8,20,178	8,97,555	12,82,213	13,81,919	16,06,550	17,86,398	17,26,517
c) University Halls		2,44,208	3,19,392	3,72,993	4,40,426	4,92,938	5,27,254	5,45,670	5,68,417
d) Maintenance and repairs to University buildings, Roads, Electric Supply etc.		1,43,317	1,20,200	1,27,188	1,54,070	1,67,073	1,22,602	1,52,292	2,47,266
e) Library		2,03,649	1,68,022	1,70,653	1,98,756	2,03,649	2,47,178	2,27,213	2,56,522
Grand Total:		61,71,151	68,16,005	78,00,753	88,02,109	87,47,836	95,27,105	1,01,10,546	1,08,52,901

	2	3	4	5	6
Modern Indian Languages	-	-	0.20	1 Lecturer (in one of the South Indian Languages).	0.53
Modern European Languages	(see under linguistics).	0.05	0.10	-	-
Folklore	-do-	-	0.05	-	-
Sanskrit	-	-	0.10	1 Reader (in Darshana)	0.70
Linguistics	6.00 (10,000 sq.ft. - for housing the Departments of English, English Teaching, General Linguistics, MEL and Folklore)	0.50	0.25	-	-
English	-	-	0.25	-	-
Teachers' Training in Method of Teaching English	-	-	0.25	-	-
Education	6.00 (10,000 sq.ft. - for housing the Departments of Education, Teachers' Training and Law).	0.25	0.30	1 Professor (in Educational Psychology)	0.88
Philosophy	-	-	0.30	-	-
History	-	-	0.30	1 Reader (in Economic History)	0.70
Pol. Science	-	-	0.40	1 Professor (Political Theory)	0.88

	2.	3.	4.	5.	6.
6. Economics	-	-	0.40	1 Reader (in Macro Economics including Growth & Planning)	0.70
7. Commerce	-	-	0.25	-	-
8. Journalism	-	-	-	-	-
9. Law	-	-	0.75	1 Professor 1 Reader	0.88 0.70
	12.00	0.80	4.85		6.67

B = Rs.24.32 lakhs

3. Central Library	-	1.00	4.00	1 Reader (in 1 Lecturer Lib. Sc.)	0.70 0.53
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C = Rs.6.23 lakhs

D. General Schemes

<u>Scheme</u>	<u>Total Cost</u>	<u>UGC Share</u>
1. Girls' Hostel for 120 students (to meet the needs of all the postgraduate students including the girl students of the Law College) - 12,000 sq.ft.	7.20	5.40 (@ 75%)
2. Canteen (building, equipment & furniture) - Assam type building.	1.00	0.67
	D = Rs.	<u>6.07</u>

.....5/

Grand Total:

Continuing schemes from the
Fourth Plan and others
accepted during the Fifth
Plan (both recurring and
non-recurring). ... Rs. 35.76 lakhs

Total of A ... Rs. 36.41 lakhs

Total of B ... Rs. 24.32 lakhs

Total of C ... Rs. 6.23 lakhs

Total of D ... Rs. 6.07 lakhs

30 J.R.F. ... Rs. 7.88 lakhs

Rs. 116.67 lakhs

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Recommendations of the Fifth Plan Visiting
Committee under second priority (Gauhati
University).

SECOND PRIORITY SCHEMES (UGC SHARE)

(figures in lakhs of rupees)

of the	Non-Recurring	Recurring	Staff	Amount
1.	2.	3.	4.	5.

for development of higher
education and Research in
sciences.

Agricultural Botany	0.50	0.50	-	-
Botany	1.00	0.50	1 Professor	0.88
Zoology Animal House	1.00	1.00	-	-
Chemistry	1.00	1.00	1 Reader (Bio-Chemistry)	0.70
Physics	1.50	1.00	-	-
Workshop & Central Instrumentation Unit	1.50	0.50	1 Reader (Mech. Engg) Electronic Engg.)	0.70
Mathematics (10,000 sq. ft.)	0.50	0.75	1 Professor	0.88
Statistics	1.00	0.50	1 Reader	0.70
Geology (5,000 sq. ft.)	1.50	1.00	-	-
Geography	1.00	0.50	-	-
Anthropology	0.75	0.50	1 Reader (Physical Anthropology - Biological)	0.70
Research Unit in Environmental Sciences	1.00	0.75	1 Reader (System Analyst)	0.70
	12.75	8.50	Contingency @ Rs. 10,000 p.a.	0.35
				5.61

A = 35.35 lakhs

1.	2.	3.	4.	5.	6.
<u>For development of higher education and research in Humanities including Social Sciences.</u>					
Assamese	-	-	0.25	-	-
Arabic	-	-	0.20	-	-
Bengali	-	-	0.10	-	-
Hindi	-	-	0.20	1 Professor	0.88
Modern Indian Languages.	-	-	0.30	-	-
Modern European Languages.	-	-	-	-	-
Folklore	-	-	0.05	-	-
Sanskrit	-	-	0.20	-	-
Linguistics	-	0.25	0.25	-	-
English	-	-	0.50	-	-
Teachers' Training in Method of Teaching English	-	-	0.25	-	-
Education	3.00 (5,000 sq.ft.)	0.25	0.50	1 Reader (Continuing Education)	0.70
Philosophy	-	-	0.50	-	-
History	-	-	0.50	1 Reader (World History with bias towards social and economic development)	0.70
5. Political Science.	-	-	0.50	1 Reader (with specialization in problems of Politics in the North East India including Indo-Bangladesh Relations).	0.70

1.	2.	3.	4.	5.	6.
Economics	-	-	0.40	-	-
Commerce	-	-	0.50	-	-
Journalism	-	-	-	-	-
Law	-	-	0.50	-	-
	3.00	0.50	5.70		2.98

B = 12.18 lakhs

Central Library

-	0.50	2.00	-
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C = 2.50 lakhs

General Schemes

Total cost

USC Share

Boys' Hostel
for 120 students

7.20

3.60
(@ 50 %)

3.60

Grand Total:

A	-	35.36 lakhs
B	-	12.18 "
C.	-	2.50 "
D.	-	3.60 "

54.64 lakhs

Statement III

Recommendations of the Fifth Plan Visiting
Committee under Third Priority (Gauhati
University).

THIRD PRIORITY SCHEMES (UGC SHARE)

Name of the Department	figures in lakhs of rupees				Amount
	Non-Recurring		Recurring		
	Bldg.	Equip.	Books & Journals	Staff	
	2	3	4	5	6
<u>For development of higher education and research in Sciences</u>					
Agricultural Botany	-	0.50	0.50	-	-
Botany	-	0.50	0.50	-	-
Zoology	-	0.50	0.50	-	-
* Animal House	-	-	-	-	-
Chemistry	-	0.50	0.50	1 Reader (biochemistry)	0.70
Physics	-	0.50	0.75	-	-
Workshop & General Instru- ment Unit	-	0.50	0.50	-	-
Mathematics	-	0.25	0.25	-	-
Statistics	-	0.25	0.25	1 Reader	0.70
Geology	-	0.25	0.25	-	-
Geography	-	0.50	0.25	-	-
Anthropology	-	0.50	0.25	-	-
Research Unit in Environ- mental Sciences	-	1.50	0.75	-	-
	-	6.25	5.25		1.40

1	2	3	4	5	6
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B. For development of higher education and research in Humanities including Social Sciences

1. Assamese	-	-	0.25	1 Reader	0.70
2. Arabic	-	-	0.25	1 Professor 1 Reader	0.88 0.70
3. Bengali	-	-	0.25	1 Reader	0.70
4. Hindi	-	-	0.25	1 Professor 1 Reader	0.88 0.70
5. Modern Indian Languages	-	-	0.25	1 Reader	0.70
6. Modern European Languages	-	-	0.25	3 Reader 3 Lecturer	2.10 1.59
(in German, French & Russian) - to be staffed by Indian personnel.					
7. Folklore	-	-	0.25	1 Reader 2 Lecturer	0.70 1.06
8. Sanskrit	-	-	0.25	-	-
9. Linguistics	-	0.75	0.25	1 Professor 2 Lecturer	0.88 1.06
10. English	-	-	0.50	1 Reader	0.70
11. Teachers' Training in Method of Teaching English	-	-	0.25	1 Professor 1 Reader	0.88 0.70
12. Education	-	-	0.50	-	-
13. Philosophy	-	-	0.50	1 Reader	0.70
14. History	-	-	0.50	1 Reader	0.70
15. Pol. Science	-	-	0.50	-	-

Statement I

summary of financial implications of the recommendations of the Fifth Plan Visiting Committee (Gauhati University) along with the previous commitments for development of higher education during the Fifth Five Year Plan period.

Continuing Schemes from the Fourth Plan and others accepted during the Fifth Plan

Spill-over	Rs. 23.26 lakhs
Schemes approved after 31.3.1974	Rs. 12.50 lakhs
Total:	Rs. 35.76 lakhs (both NR + R)

2. Recommendations of the Fifth Plan Visiting Committee under First Priority.

FIRST PRIORITY SCHEMES (UGC SHARE)

Name of the Department	Non-Recurring			Recurring	
	Building	Equipment	Books & Journals	Staff	Amount
1	2	3	4	5	6

A. For development of higher education and research in sciences

1. Agricultural Botany	-	1.50	0.25	1 Reader (in Genetics)	0.70
2. Botany	..	1.50	1.00	1 Reader (Plant Biochemistry/ Ecology)	0.70
3. Zoology	-	1.50	0.50	2 Reader (1 in Physiology/ Biochemistry & the other in Ecology).	1.40
				Excursion	0.20

1	2	3	4	5	6
Annual House	1.00	0.20	-	1 Animal Care-taker	0.20
				Animal Feed (Rs.5,000 p.a.)	0.18
4. Chemistry	-	2.00	1.00	1 Professor (Biochemistry)	0.88
5. Physics	-	2.00	1.00	-	-
6. Workshop & Central Instrumentation Unit.	-	1.00	0.25	1 Reader (Mechanical Engineering/ Electronics Engineering)	0.70
6. Mathematics	6.00 (10,000 sq.ft. - for housing the Depts. of Maths. & Statistics).	-	0.75	-	-
7. Statistics	(see under Maths.)	0.50	0.75	-	-
8. Geology	-	1.50	0.75	-	-
9. Geography	-	0.50	1.00	-	-
10. Anthropology	3.00 (5,000 sq.ft.)	1.00	1.00	-	-
	10.00	13.20	8.25	-	4.96

A = 36.41 lakhs

B. For development of higher education and research in Humanities including Social Sciences.

1. Assamese	-	-	0.25	-	-
2. Arabic	-	-	0.30	-	-
3. Bengali	-	-	0.10	-	-
4. Hindi	-	-	0.30	1 Reader	0.70

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 11-12 August, 1975.

Item No. 20: To consider proposals of the University of Hyderabad for Institution of M.Phil. & M.A. Courses, for creation of teaching posts for its schools as well as purchase of books, journals and equipment.
.....

The University of Hyderabad has approached the Commission for (i) starting of M.Phil and M.A. courses (ii) approval to the creation of posts and (iii) purchase of books, journals and equipment during 1975-76.

2. The University on the recommendations of its Planning Board, has agreed to start the following schools:

1. School of Mathematics and Computer/Information Sciences.
2. School of Environmental Geosciences.
3. School of Physics.
4. School of Chemistry.
5. School of Social Sciences.
6. School of Humanities.
7. School of Life Sciences.

3. The reports of working groups for these schools have been approved by the Planning Board except for the subjects of English, Economics and Life Sciences. The reports are enclosed (Annexure-I).

4. The university has proposed to introduce M.Phil and M.A. courses during the current academic session in collaboration with the research laboratories of the CSIR at Hyderabad as also the Administrative staff College of India and the Central Institute of English and Foreign Languages, as detailed below:

(i) One year M. Phil courses in the following subjects in the Regional Research Laboratory:

- (1) Bio-chemical Techniques.
- (2) Organic Chemistry.
- (3) X-ray crystallography.
- (4) Physical methods in structure Determination and Analysis.
- (5) Computer methods.

contd...

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(ii) One year M. Phil courses in Environmental Geosciences in the National Geophysical Research Institute.

The Regional Research Laboratory and the National Geophysical Research Institute will collaborate with the university in the teaching programmes.

(iii) M. Phil course in Economics at the Administrative staff College of India, Hyderabad.

(iv) English (M.A.) at the Central Institute of English and Foreign Languages, Hyderabad.

5. On the recommendations of the working groups, the executive council has created a number of teaching posts (Annexure-II). The university has approached the Commission for approval to the creation of these posts. A grant of Rs. 5 lakhs has been requested during the current year for these posts. It has been stated that all posts will not be filled up in the immediate future.

6. In this connection, the university has stated as under:-

(a) The staff of collaborating institutions will be paid suitable honorarium for teaching M.Phil/M.A. students. Out-station teachers will be paid T.A. & D.A. besides honorarium. A sum of Rs. 5 lakhs will be required for running these courses. The basis of payment of honorarium have not been indicated.

(b) Every student joining M.Phil courses should be paid a fellowship. The exact amount of fellowship may be fixed after the pattern followed in the Jawaharlal Nehru University and in consultation with the U.G.C.. A sum of Rs. one lakh will be needed on this account. A copy of the letter received from the university is enclosed (Annexure-III).

7. In Jawaharlal Nehru University (i) number of students who can be awarded merit-cum-means scholarship in the school of Languages is upto 75% of the enrolment in the M.A. courses. The rate of scholarship in the 1st three years of the five-year integrated programme is Rs.75/- per month for day scholars and Rs.85/- per month for those who stay in the hostels. Similarly, in the IVth and Vth year of the programme, it is Rs.100/- and Rs.110/- respectively.

(ii) In the School of Social Sciences and other schools, not more than 50% of the students enrolled in the M.A. programme, are eligible for scholarship on the basis of merit cum means. The value of the scholarship is the same as in the IVth and Vth year of the school of Languages.

P.T.O.

(iii) Students admitted for the M.Phil programme only are not eligible to receive any fellowship, but if once admitted to M.Phil (firm) and to the Ph.D. (provisionally) are eligible to receive the junior research fellowship of Rs.400/- per month subject to availability of number of fellowships.

Purchase of Books, Periodicals and Journals.

8. The university has requested for a sum of Rs. 32 lakhs for the purchase of books and journals during the current financial year. Rs.28 lakhs for equipping the libraries of the various departments with important journals, periodicals and books and Rs. 4 lakhs to meet the subscriptions for the current scientific periodicals and journals.

9. The university has also stated that "the Planning Board desired that the libraries for the various Schools should be fully equipped soon so that the teaching departments may start functioning properly from the next academic session. The university has already obtained quotations for the back volumes of important scientific journals and periodicals. Because of introduction of microfilms in foreign countries, these journals and periodicals have become available at a discount of 40% to 50% . This favourable position may not lost too long and so it would be desirable to purchase the periodicals and journals soon".

Purchase and Import of Scientific Equipment.

10. A sum of Rs. 50 lakhs has also been requested for the purchase and import of scientific apparatus and equipment.

11. The over-all financial implications of the proposals require an outlay of Rs. 93 lakhs as under:-

1.	Purchase and import of equipment.	Rs. 50 lakhs.
2.	Purchase of books, periodicals and journals.	Rs. 32 lakhs
3.	Expenditure on teaching staff.	Rs. 05 lakhs.
4.	Expenditure on 8 post-graduate courses (7 M.Phil & 1 M.A.)	Rs. 06 lakhs.
		Rs. 93 lakhs.

12. The university of Hyderabad was established by an Act of Parliament in August, 1974. The Act came into force from 2nd October, 1974. The Vice-Chancellor assumed office w.e.f. 1st November, 1974.

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13. The university has taken the possession of the land for its campus. A Committee has been constituted for the campus development. The university, will submit its proposals for campus development and buildings later.

14. In its budget estimates of 1975-76, it was stated by the university that the Planning Board of the University has decided that in the first phase the university should have the following schools:-

1. School of Mathematics and Computer/Information Sciences.
2. School of Environmental Geo-Sciences.
3. School of Physics and Chemical Sciences.
4. School of Social Sciences.

15. The Commission has made a budget provision of Rs.75 lakhs for the new universities (Hyderabad and Pondicherry) in its budget of 1975-76. Grant amounting to Rs. 5.00 lakhs has been paid so far.

16. During 1974-75 grant amounting to Rs. 10 lakhs were paid to the university for the following purposes.

1. Maintenance.
2. Construction of temporary shed to accommodate office.
3. Purchase of periodicals and back volumes.
4. Meeting of other needs such as provision of power water supply and levelling of land etc.

17. The following issues of university of Hyderabad are placed before the Commission for consideration:

1. Approval to institute M.Phil and M.A. Courses and to meet the expenditure on TA., D.A and honorarium etc.
2. Approval to the creation of teaching posts as requested by the university vide Annexure-II.
3. Sanction of funds for the purchase of books, journals and equipment.

AS/DS.(D.5)

UNIVERSITY OF HYDERABAD

Report of the working group of the School of
Mathematics and Computer/Information Sciences.

.....

The working group of the School of Mathematics and Computer/Information Sciences met on Saturday, the 21st June, 1975 at 3 P.M. in the Dilkusha Guest House, Raj Bhavan Road, Hyderabad.

Prof. M. Venkataraman and Prof. K.G. Ramanathan were present.

Prof. Gurbaksh Singh, Vice-Chancellor and Sri S.Somas-kandan Office on Special Duty were also present.

Prof. R. Narasimhan, Prof. J.Roy and Prof. E.V. Krishna-murty could not attend the meeting.

The note prepared by Prof. M. Venkataraman and Prof. E.V. Krishnamurty were considered by the Working Group. After deliberation the Working Group recommended that:-

1. The School of Mathematics and Computer/Information Sciences of the new Central University should function as a pace-setter and natural leader in mathematics and its applications. It should cater to studies in basic mathematics and over a broad spectrum of applications of mathematics including statistics, operation research and computer and information sciences.
2. As a first priority it must run good M.Sc. and Post M.Sc. courses leading to Ph.D.
3. The objective of the training is to enable the student to obtain a broad culture in mathematics and its applications. It should further serve as a needed training for prospective college teachers and for training and research in Applied Sciences, Industries and Computer oriented Technology. It is very important that computer oriented mathematics be given adequate emphasis.
4. The courses will be credit-unit based so as to allow the students to complete the course at their own pace namely in three to four years with about two years for M.Sc. and at least a year for Post M.Sc. training. A variety of courses should be available so that students can take those which suit their tastes. It would be desirable to have a Faculty Advisor to advise the students regarding the courses of study. It is essential that there be greater flexibility in the choice of courses.

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5. The organisation of the academic programmes should be fully in the hands of the Faculty and the committees appointed by it. Subject to the approval of the Vice-Chancellor and an expert body. The faculty of the school should be responsible for selection and admission of students of the various courses for planning of the courses and lectures and seminars for assessment and all other academic activities.

6. In the first few years the school should plan for an intake of about 40 students in the M.Sc courses. Admission in Post M.Sc. courses and research courses should be highly selective and should not exceed 15 to 20 a year. It is necessary that admission be restricted to really talented students and as far as possible all students should have financial support for staying in hostels. This seems very necessary if the school is to function really on an All India basis and at a high level.

7. The school should have teaching of M.Sc and Post M.Sc courses and seminars in various disciplines in mathematics and its applications. It should also offer needed courses in mathematics for other disciplines like Physics, Chemistry, Biology, Economics, Statistics etc. In order to be able to implement this it is desirable to have a faculty of about 20 members consisting of 4 Professors, 10 Readers and 6 Lecturers. There should be in addition, adequate provision for senior and Post doctoral Fellows so as to create the desired climate of scholarship and research. The first batch of founding teachers should be very carefully selected and should be Scholars of outstanding ability in their specialised field and with broad culture in mathematics and its applications.

8. Members of the faculty should have the privilege of sabbatical and other leave with full salary to enable them to stay at other centres either for research or for writing of books. They should further be supported for attending conferences and seminars. There must be provision for visiting professors to be invited for shorter or longer periods for seminars, or courses of lecturers. Adequate financial assistance should also be available for inviting Scholars for a lecture or two and for organising seminars extending over a week or 10 days and for publication of lecture notes and other reports.

9. Financial assistance should be available on an adequate scale for all the faculty and research scholars.

p.t.o.

10. A good library should be built up. It is strongly urged that the school should have a complete departmental library with facilities for xeroxing and minieographing and other accessories.

11. Each teacher should be provided with a room for himself with an area of about 150 Sq. ft. so that he can have, when needed, discussions and tutorials for small batches of students in his room. There must be 5 lecture-halls with a seating capacity of 50 or more and two or three seminar rooms with seating capacity of at least 30. One of these lecture halls should be a large one with black-boards so as to accommodate over a hundred persons. All offices of the teachers should be provided with big black-boards and the lecture halls should have at least 6 black-boards each besides facilities for use of projectors.

12. Notwithstanding anything said above the faculties should be free to change drastically, if necessary, the courses of study etc. for instance it may be necessary to go in, at a later stage for undergraduate study, in particular, for integrated 5 years M.Sc courses.

A list of books and journals as well as syllabi of courses will be sent in due course.

MINUTES OF THE MEETING OF THE WORKING GROUP FOR ENVIRONMENTAL GEOSCIENCES HELD ON 23RD APRIL, 1975 AT 10.30 A.M. IN THE NATIONAL GEOPHYSICAL RESEARCH INSTITUTE (NGRI), HYDERABAD.

The following were present:-

- 1. Dr. Hari Narain Chairman
- 2. Prof. A. Sriramdas Member
- 3. Prof. K.R. Saha -do-
- 4. Prof. V.L.S. Bhimasankaram -do-
- 5. Dr. Rama -do-
- 6. Dr. J.N. Dave -do-
- 7. Dr. S. Balakrishna Member-Secretary
- 8. Shri S. Somaskandan Officer on Special duty
- 9. Dr. A. Roy By Special invitation
- 10. Dr. J.G. Negi -do-
- 11. Dr. C.P. Gupta -do-
- 12. Dr. R.N. Singh -do-
- 13. Dr. U. Raval -do-

Shri C. Karunakaran and Prof. V.K. Gaur regretted their inability to attend the meeting.

(1) The Working Committee resolved and approved starting of M-Phil course for Environmental Geosciences of one year duration (circulated). To this course, M.Sc, Physics, Geology, Geophysics, Oceanography and Meteorology be admitted for an intake of 10 students (maximum) in the first year.

(2) Resolved and approved the M.Sc. course of two years duration as Unit Course, consisting of Units, viz. Mathematics, Geology, Geophysics, Meteorology, Hydrology and Oceanography as core subjects and several subjects as electives (as indicated in papers circulated) with emphasis on Environmental problems and Technology.

(3) The group strongly recommended with a stipend of Rs. 400/- be given to the students taking up this course to enable the course to attract good students.

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(4) The Working Group requests the members to send their suggestions regarding unit contents, and the detailed syllabus within two weeks time to Dr. Hari Narain, Chairman of the Group so that the whole material can be collected and circulated to the members.

The meeting dissolved with a vote of thanks to the Chair.

Sd/- Chairman

Sd/- Members.

Dated: 23rd April, 1975.

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The meeting of the Working Group constituted by the Planning Board of the University of Hyderabad for Physics and Chemical Sciences was held at 11 A.M. on the 21st May, 1975 in the Conference Room of the University Grants Commission, New Delhi.

The following members were present:-

1. Prof. Gurbakhsh Singh, Vice-Chancellor, Convener.
2. Prof. G.S. Sidhu
3. Prof. P. Venkateshwarlu
4. Prof. B.S. Sood
5. Prof. B.S. Biswas
6. Prof. M.V. George
7. Prof. C.C. Patel
8. Prof. H.S. Hans
9. Prof. B.R. Rao
10. Prof. C. Mande

Prof. N.V. Subba Rao and Dr. A.R. Verma could not attend the meeting.

Shri S. Somaskandan, Officer on Special Duty was also present.

The Vice-Chancellor welcomed the members and briefly stated the purpose for which the Planning Board of the University has constituted the Working Group.

He also pointed out that the planning board desired the Working Group to recommend whether there should be a single school for Physics and Chemistry or two separate schools should be constituted. In this connection the recommendation of the Executive Council in favour of two separate schools for Physics and Chemistry was also brought to the attention of the Working Group. The letter dated May 17, 1975 from Prof. N.V. Subba Rao, who could not attend the meeting, was read out to the members.

The following recommendations were made:

1. There should be two separate schools for Physics and Chemistry.

p.t.o.

2. During the first three years emphasis should be laid exclusively in developing Post Graduate courses like M.Sc., M.Phil and Ph.D. After the post graduate programme has taken roots, the University should consider starting Honours Courses at the under-graduate level with a smaller intake in the initial stages. The intake at the M.Sc level should be limited to 20-25 students in the first two years.

3. A one year M. Phil post M.Sc courses should also be started in the very beginning itself with an intake of 10-12 students. The M. Phil programme could be considered as a continuation of the M.Sc programme or as a Ph.D. prerequisite. A decision in this direction should be taken after reviewing its working for a period of two years.

4. There should be full inter-action between the two schools of Physics and Chemistry. Electives based in one department should be made compulsory for the students from the other department.

5. Each school should develop a core curriculum and an elective curriculum. It should offer a large number of electives and students should be able to exercise their choice without any compulsion. They should, however, receive guidance from staff committee constituted specially for the purpose.

6. The M.Sc courses should be based on teaching semester in the years. During the first three semesters, the student shall offer general courses, while during the last semester he shall devote himself exclusively to the specialisation of a selected discipline.

7. Both the schools should try to develop a strong theoretical base and a strong experimental sense of application and basic instrumentation.

8. Bio-Chemistry and Bio-Physics should at present be part of the schools of Chemistry and Physics respectively.

9. A study of Thermodynamics, Statistical and Quantum mechanics should form the core of the teaching in chemistry.

10. Special emphasis be laid on the teaching of mathematics for students in both the schools, The school of mathematics should organise these special courses.

11. The study of Astronomy and Astrophysics should also be provided in the School of Physics.

12. The two schools should consider offering job-oriented diploma courses only after M.Sc.

13. Both at the under graduate and post levels, both the schools should offer at least 10% of electives from technical arts (drawing, computer, electronics and glass blowing).

14. The academic staff should be given the ranks of Professor, Associate Professor and Assistant Professor. Each school should have the following staff:

- 1. Professors 5
- 2. Associate Professors 10
- 3. Assistant Professors 8

The above mentioned staff should also include two visiting fellows (Senior) and two visiting fellows (Junior). They should be appointed on a fixed salary initially for one year. The appointment could be extended for one more year.

15. The University should take steps for the establishment of a school in Life Sciences at the earliest. Interaction between Life Sciences and Physical Sciences should prove very useful.

16. The University should acquire the following instruments for use of both the schools in the first instance.

- (i) High resolution research type Mass Spectrometer.
- (ii) High resolution, fourier transform type NMR Machine.
- (iii) Recording U.V. machine.
- (iv) A high resolution IR machine
- (v) Computerised X-Ray machine
- (vi) Vacuum coating unit.
- (vii) Automatic Elemental analysis.
- (viii) Liquid Nitrogen.
- (ix) ESR
- (x) Gas Liquid Chromatography and High Pressure Liquid Chromatography.
- (xi) Thermal analysis
- (xii) Scanning electro Microscope.
- (xiii) Empty cylinders for gases.

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Six posts in the grade of Senior Technical Assistant /Junior Technical Officer should be provided for Instrument Operators who would handle the above mentioned machines.

17. It was also recommended that with a view to proper maintenance repair and fabrication of various instruments used in various science schools, the University should have centralised facilities and establish a central Workshop with the following facilities and staff.

- i) Electronics
 - Senior Research Engineer 1
 - Junior Research Engineer 1
 - Senior Technical Assistants 2
 - Junior Technical Assistants 2

- ii) Machine Shop
 - Junior Workshop Superintendent 1
 - Senior Technical Assistants 2
 - Junior Technical Assistants 2
 - Fine mechanics 2
 - Refrigeration mechanic 1
 - Carpenters 2

- iii) Technical Optics
 - Junior Technical Officer 1
 - Junior Technical Assistant 1

- iv) Glass Blowing
 - Senior Glass Blower
(Junior Technical Officer) 1
 - Senior Technical Assistant 1
 - Junior Technical Assistant 1

- v) Graphic Arts
 - Draftsman
(Senior Technical Assistant) 1
 - Photographer
(Senior Technical Assistant) 1
 - Junior Technical Assistant 1

Both the schools should also be separately provided with the following posts :

- i) Assistant Registrar 1
- ii) Senior Technical Assistant
(Electronics) 1

p.t.o.

- iii) Laboratory Supervisor
(Senior Technical Assistant) 1
- iv) Laboratory Supervisor
(Junior Technical Assistant) 1
- v) Store keeper
(Senior Technical Assistant) 1
- vi) Store Keeper
(Junior Technical Assistant) 1
- vii) Senior Laboratory Assistants 5

The University should arrange to acquire workshop machines and woodworking machines as per Appendix A in the near future.

18. Arrangements should be made for acquiring the back volumes of the periodicals mentioned in Appendix B. Important books should also be procured.

19. It was recommended that both the schools should have a floor area of 50,000 Sq. ft. each.

20. The Workshop should have a minimum floor area of 10,000 Sq.ft.

It was decided that the next meeting of the Working Group should be held at Hyderabad at 10 A.M. on 7th July, 1975.

Sd/-Gurbakhsh Singh
Convener.

Minutes of the meeting of the Working Group for Physics and Chemical Sciences held at 11 A.M. on Monday, the 7th July, 1975 at the Regional Research Laboratory, Hyderabad.

MEMBERS PRESENT

1. Prof. Gurbakhsh Singh, Vice-Chancellor, Convener.
2. Dr. G.S. Sidhu
3. Prof. M.V. George
4. Prof. C.C. Patel
5. Prof. A.B. Biswas
6. Prof. H.S. Hans

Prof. N.V. Subba Rao, Dr. A.R. Verma, Prof. P. Venkateswarulu, Prof. B.S. Sood, Prof. B.R. Rao, and Prof. C. Mande could not attend the meeting.

Sri S. Somaskandan, Officer on Special Duty was also present.

1. The minutes of the meeting of the Working Group for Physics and Chemical Sciences held on the 21st May, 1975 were confirmed.

Members suggested that some of the Journals and periodicals which have not been included in Appendix B to the report should also be purchased. It was decided that the members should send a list of all such journals and periodicals to the office.

2. It was noted that the Planning Board at its meeting held on the 23rd June, 1975.

- a) Considered and accepted the report of the Working Group.
- b) resolved that there should be two separate Schools for Physics and Chemistry and that further details should be worked out by the two Working Groups separately.

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- c) appointed Dr. A.R.Verma as Convener of the Physics Working Group with Prof. Venkateshwarula, Dr. B.R.Rao, Prof. H.S.Hans and Prof. B.S.Sood as members, the remaining members of the combined Working Group constituting the Working Group for the School of Chemistry.

All the members of the reconstituted Working Group for Chemistry, except Prof. N.V. Subba Rao and Prof. C. Mande, were present and they took part in the discussion for finalising the details of the courses. Prof. H.S. Hans also participated in the discussions.

3. After full deliberation, it was resolved that :-

- a) In the proposed curriculum for M.Sc. course the emphasis should be to train students in the basic principles of Chemistry;
- b) The M.Sc. Courses should be a four semester course extending over to two Academic years;
- c) Each semester should have four courses of three hours lectures;
- d) In addition there should be two laboratory courses in each of the first three semester;
- e) the curriculum of the proposed M.Sc. course should be as follows :-

Ist Semester

<u>Particulars of the Course</u>	<u>Contact Hours</u> (per week)
i) Inorganic Chemistry 1 (Basic Structural Inorganic Chemistry)	3 hours
ii) Organic Chemistry I	3 hours
iii) Thermodynamics	3 hours
iv) Mathematics for Chemists (1)	3 hours
Laboratory Course	
v) Inorganic Analysis 1	6 hours
vi) Organic Analysis 1	6 hours
Total :	<u>24 hours</u>

p.t.o.

2nd Semester

i)	Inorganic Chemistry II (Structural Inorganic Chemistry)	3 hours
ii)	Organic Chemistry II	3 hours
iii)	Chemical Kinetics	3 hours
iv)	Mathematics for Chemists II	3 hours
<u>Laboratory Course</u>		
v)	Inorganic preparations	8 hours
vi)	Physical Chemistry (Emphasis on Electronics for Chemists etc.)	8 hours
		8 hours
Total :		28 hours

3rd Semester

i)	Chemical Binding (Quantum chemistry)	3 hours
ii)	Physics Organic Chemistry	3 hours
iii)	Physical inorganic chemistry	3 hours
iv)	Biochemistry	3 hours
<u>Laboratory Course</u>		
v)	Organic preparations	8 hours
vi)	Physical methods (use of various spectroscopic instruments)	8 hours
		8 hours
Total :		28 hours

4th semester

The candidate will offer a total of six courses in the fourth semester as below :

- i) At least two courses for one of the three lists of electives.

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- ii) One course from any of the two other lists of electives
- iii) One course based in the school of Physics, Mathematics or Life Sciences.
- iv) Seminar and project report (will be considered equivalent to two courses).

Total Contact hours : 18 hours.

ELECTIVE COURSES

i) Inorganic

- a) Nuclear and Radiochemistry
- b) Selected topics in transition metal chemistry
- c) Bio-Inorganic chemistry.
- d) Chemistry of imperfect compounds
- e) Group Theory and its application to problems in Inorganic chemistry.

ii) Theoretical and Physical

- a) Advanced Quantum Chemistry
- b) Catalysis and Surface Chemistry
- c) Electro Chemistry
- d) Physical Chemistry of Macromolecules
- e) Physics and Chemistry of Solids.

iii) Organic

- a) Chemistry of Natural Products
- b) Organic Photo Chemistry
- c) Synthetic methods in Organic Chemistry
- d) Organometallic Chemistry
- e) Heterocyclic Chemistry

The M.Phil. courses will be determined by the specialization of the teachers selected for the school. This may vary from year to year.

4. It was noted that the University will start M.Phil courses in the following subjects in the Regional Research Laboratory during the academic session 1975-76.

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- a) Bio-Chemical Techniques
- b) Organic Chemistry
- c) Physics - X-ray Crystallography
- d) Physical Methods in Structure Determination & Analysis.

The Working Group approved of the same and resolved that the Vice-Chancellor may be requested to work out the syllabi for these courses in consultation with the staff of the Regional Research Laboratory.

The Working Group also noted that M.Phil courses in Computer Methods and Environmental Geosciences will also be started in the Regional Research Laboratory and the National Geophysical Research Institute, Hyderabad respectively from this academic session.

Sd/- Gurbaksh Singh
Convener

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The meeting of the Working Group for History constituted by the Planning Board of the University of Hyderabad was held at 5 p.m. on the 3rd June, 1975 in the Conference Room of the University Grants Commission, New Delhi. The following members were present :

1. Prof. S. Gopal, Convener
2. Prof. R.S. Sharma

Prof. Gurbaksh Singh, Vice-Chancellor and Sri S. Somaskandan, Officer on Special Duty were also present.

The Working Group noted that the centre for Regional Studies proposed to be established in the School of Social Sciences will promote the study of the literature, culture and history with special emphasis on the modern period of the people of the Deccan Area and their social and economic relations and also promote the study of Regional Arts and Architecture.

2. After deliberation the Working Group recommended that :

- i) the centre for History should have facilities for the study of Ancient, Medieval and Modern History.
- ii) It should specialise in Indian and Non-Indian History and in particular cover the ancient and medieval period.
- iii) the centre should have the following staff for the present :

Professor	1
Readers	2
Lecturers	3
- iv) Specialisation should be decided on the basis of the qualification of the persons recruited.
- v) There should be a provision of Rs. one lakh for purchase of books and back periodicals for the centre.
- vi) The centre should start with M.Phil courses of the duration of one year.

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UNIVERSITY OF HYDERABAD

MINUTES OF THE MEETING OF THE WORKING
GROUP IN PHILOSOPHY HELD IN DELHI ON
MAY 22, 1975

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Members Present

1. Prof. D.P. Chattopadhyaya
2. Prof. T.R.V. Murti
3. Prof. Daya Krishna
4. Prof. Rajendra Prasad
5. Prof. K. Satchidananda Murty, Convener.

Prof. S. Vahiduddin could not attend. The Vice-Chancellor and the Officer on Special Duty of the University were present.

The Working Group after discussion made the following recommendations :-

1. The Centre for Philosophical Studies should be within the School of Social Sciences.
2. The following three streams should be developed by the Centre in a phased way by stages :

A. First phase-Philosophy of the Social Sciences
By this is meant : Social, Political and Educational Philosophies : Philosophy of Culture, Philosophy of History : Methodologies of the Social Sciences; Philosophical Anthropology : Moral Philosophy : Philosophical Problems relating to Development; etc.

B. Second Phase -- Philosophy of Natural and Exact Sciences By this is meant : The Logic of Science : The Methodologies of Physical and Biological Sciences : Modern Cosmologies; The Weltanschauungen that are and can be based on modern science; Philosophies of Mathematics and the Sciences : symbolic Logic; etc.

C. Third phase--Classical Philosophies

In this stage analytical and historical studies of the classical philosophies, especially of India, and then of the Far East, West Asia and Europe, may also be undertaken.

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3. To begin with a one year's post--M.A. course, viz. M.Phil., may be started from 1976, and the B.A. course in 1977 at least. It was suggested by some members that if the University could find accommodation and organise courses in the semester system with internal assessment, professors and readers from other universities may be invited to come as visitors, stay for a semester, give courses, complete assessments, grade the students and then go. In each semester about three visiting teachers can come, give all the courses and then go, another team of visiting teachers taking over in the next semester and so on. This arrangement can be adopted till the university has its own staff.

4. At the M.Phil. and Ph.D. level research in areas suggested to be developed in phase one should be undertaken. The researches should be analytical and problem-oriented and relevant to the present day, and not historical and expository. Thus, e.g., topics like "The Social Philosophy of Aurobindo", "The Educational Philosophy of Gandhi" - which are expository or historical--which are being studied in many departments already--may be avoided. Subjects not given much attention hitherto and subjects which call for not mere scholarship, but for analytical ability, critical reflection and which are relevant, should be chosen.

This suggestion applies to the investigations undertaken by teachers too.

5. The M.A. course may be organised on the lines suggested by the UGC V Plan Panel on Philosophy, with innovations, and keeping in view the suggestions in 2 and 4 above so that teaching is related to research.

6. The staff pattern should be as follows :

2 Professors, 4 Readers, 2 Lecturers.

The personnel of the Centre should be persons who have reflected upon social theory and practice, including the nature of man, his values (secular as well as religious) and his destiny. Their previous experience and publications must show they are qualified to organise courses and undertake and guide research on the lines indicated by this Working Group.

K.Satchidanada Murty
Convener

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MINUTES OF THE MEETING OF THE WORKING GROUP
FOR REGIONAL STUDIES HELD ON MAY 15, 1975
AT HYDERABAD.

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Members Present

Dr. B. Gopala Reddy
Dr. V.R. Naria
Prof. S. Gopal
Prof. K.V.R. Narasimham
Prof. K. Satchidananda Murty,
Convener.

The Vice-Chancellor and the Officer on Special Duty of the Hyderabad University were also present.

The Working Group made the following recommendations:

1. A centre for Regional Studies may be established in the School of Social Sciences. Its objective should be promotion of studies and investigations in the literature, culture, art and architecture, history, sociology, religions and economics of the Deccan and other parts of Andhra Pradesh, in an interrelated way. The studies and research in this centre should be (a) interdisciplinary and (b) give special attention to the modern period (of the last 200 years).

2. The courses and research in literature (whether Telugu or Urdu) in this Centre should be oriented towards the literary-critical and not the linguistic-philological. The study of any literature must be made, in the words of F.R. Leavis, a discipline of intelligence and sensibility instead of a discipline of scholarly industry and academic method. Leavis said Anglo-Saxon and History or Language are not necessary for a real understanding of modern English. Similarly, whatever is not necessary for a real understanding of modern Telugu or modern Urdu need not be taught in this Centre. A knowledge of a particular literature from the early period to the present day must be required of those specialising in it, but it must be such that it enables them to practise judgement, critical analysis and intelligent discussion both of literature and critical theory. In this connection the draft outline of the course in Telugu literature given by Prof. K.V.R. Narasimham (see Annexure -1) may be considered and adopted with substantial modification* in the light of the above suggestions. The research in this Centre in literature should also be in tune with this approach.

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The courses and investigations in history in this Centre should be oriented towards the socio-economic and not the dynastic-political, and the emphasis should be on the modern period; and those in economics should be relevant to the region and as far as possible capable of immediate application for the development of the region. In the case of other subjects also contemporary trends (e.g. in social organisation, religion) should receive greater attention.

3. The Centre should lay greater emphasis on research rather than on teaching. In this connection the themes and topics mentioned by Dr. V.R. Narla (see Annexure 2) may be considered as priority research areas.

4. The Centre should in the first instance start a post-M.A. course of an year's duration, viz. the M.Phil., say in 1976; and later, in 1977, an M.A. course.

5. The structure of the M.A. course in this Centre should be as follows :

1-year- a common course in the history, culture, economics, sociology and literatures of the region,-- keeping in view the suggestions in 1 and 2 above.

II year-intensive special courses in one of the following: a literature of the region (Telugu, Urdu); regional history sociology of the region; regional economics; art and architecture of the region; culture and religions (modern developments) of the region; again keeping in view the suggestions in 1 and 2 above. Students specialising in any one of these fields should also take some courses in cognate fields; and students specialising in a regional literature should also take a course in another modern Indian literature. (E.G. Those specialising in Telugu shall take a course in Urdu, or Kannda, etc., and those specialising in Urdu in Telugu, or Kannda, etc.)

*e.g. deletion of Pre-Nannaya period; concentration on major literary figures avoiding the inclusion of all the lesser ones; study of how life and thought have and are influencing literature and how in turn literature has and is influencing them, and of the interaction between literature on the one hand and social, economic and political relatives on the other hand in every period and with reference to every literary figure.

6. The M.A. Degree to be awarded in this Centre shall be determined by the candidates' specialisation in the II year. Thus, for instance, a candidate who takes intensive special courses in regional history will be awarded M.A. in History and one who takes such courses in Telugu or regional sociology will be awarded M.A. in Telugu or Sociology.

7. The following may be the staff pattern :

A. Three Professors; of those two in modern (i) Telugu and (ii) Urdu literatures, and the third in any one of the following :

(iii) modern art and architecture (iv) regional sociology, (v) socio-economic history (vi) regional economics or (vii) modern social philosophy. The professors in modern Telugu and Urdu literatures should be persons qualified by their previous experience to organise studies and guide and undertake research on the lines suggested in 1 and 2 above. Similarly, the third professor in the Centre should be one who has studied his subject or conducted inquiries in it, with reference to the region in the modern period, and can organise studies and guide research on the lines suggested in 1 and 2 above.

B. Six Readers in the same seven subjects; the recruitment shall be so planned as to have a professor or a reader in every one of these subjects.

C. Nine Lecturers in the same seven subjects.

D. Provision may be made for one or two other modern Indian literatures also, if resources permit. Thus courses in Kannada literature may be started in the first instance, and later in Marathi etc.

8. The maximum intake of students in the M.A. courses should not exceed 25 in the first five years.

K. Satchidanada Murty
Convener

Minutes of the meeting of the Working Group for Human Sciences constituted by the Planning Board of the University of Hyderabad held at 9 a.m. on Sunday, the 13th July, 1975 in the Dilkusha Guest House, Raj Bhavan Road, Hyderabad.

The following members were present :

1. Prof. S. Gopal
2. Prof. S.P. Adinarayan

Prof. Gurbakhsh Singh, Vice-Chancellor and Shri S. Somaskandan, Officer on Special Duty were also present.

After deliberation the Working Group recommended that :-

1. The University should have two year MA. course in Human Sciences consisting of the following subjects :

First Year

1. Basic Psychology
2. Biology and
3. Philosophy

Second Year

1. Ecology
2. Social Economics and
3. Social Psychology

All these subjects should be compulsory. In addition there should be dissertation in any of the above subjects in the second year :

2. The degree should be M.A. in Human Sciences.
3. The Centre should have the following staff for the above courses :

One Professor for Psychology
One Reader for Economics
One Lecturer in Biology
One Lecturer in Ecology
One Lecturer in Philosophy.

Sd/-S.Gopal
Convener.

WORKSHOP MACHINES AND TOOLS ETC.

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1. Lathes
2. Milling Machine
3. Shaper (Small and Large)
4. Surface grinder: (Horizontal and Vertical)
5. Cylindrical grinder: Internal and External
6. Centreless grinder
7. Tool Grinder
8. Welding Transformer
9. Gas welding equipment including Torches.
10. Refrigeration tools.
11. Small hand tools
12. Router
13. Pipe Threading and Cutting Machine
14. Chain Mortiser with grinder
15. Surfacer and Thicknesser.
16. Sander
17. Saw-bench
18. Radial Arm Saw.
19. Band Saw
20. Glass Blowing lathes
21. Glass Grinding machines
22. Compressors and blast burners.
23. Set of glass blowing tools and accessories.
24. Electrical measuring instruments.
25. Spray painting equipment including a furnace.

'CHUGH'

CHEMISTRY

1. Beilsteins Handbuch der organischen Chemie
 2. Journal of Chemical Society, London
 3. Chemical Abstracts
 4. Journal of American Chemical Society
 5. Journal of Organic Chemistry
 6. Justus Liebig's Annalen der Chemie
 7. Tetrahedron Letters.
 8. Chemical Reviews
 9. Tetrahedron
 10. Acta Chemica Scandinavica
 11. Analyst
 12. Analytica Chimica Acta
 13. Analytical Chemistry
 14. Angewandte Chemie
 15. Analytical Abstracts
 16. Biochimica Et Biophysica Acta
 17. Biochemical Journal
 18. Canadian Journal of Chemistry
 19. Carbohydrate Research
 20. Chemical Society London Quarterly Reviews
 21. Chemical Society of Japan: Bulletin
 22. Chemische Berichte
 23. Electrochimica Acta
 24. Faraday Society London Discussion
 25. Helvetica Chimica Acta
 26. Indian Chemical Society: Journal
 27. Inorganic and Nuclear Chemistry Letters
 28. Inorganic Chemistry
 29. International Journal of Quantum Chemistry
 30. Israel Journal of Chemistry
 31. Journal fuer Praktische Chemie
 32. Journal of Biological Chemistry
 33. Journal of Catalysis
 34. Journal of Chemical Education
 35. Journal of Chemical Physics
 36. Journal of Chromatography
 37. Journal of General Chemistry of the USSR
 38. Journal of Inorganic & Nuclear Chemistry
 39. Journal of Organometallic Chemistry
 40. Journal of Molecular Spectroscopy
 41. Journal of Physical Chemistry
 42. Journal of the less common metals
 43. Talanta
 44. Zeitschrift fuer Physikalische Chemie
 45. Archives of Biochemistry and Biophysics
 46. Biochemical and Biophysical Research Communication
 47. Chemiker Zeitung
 48. Faraday Society Transactions: London
 49. Gazzetta Chimica Italiana
 50. Recueils Travaux Chimie Des-Pays-Bas
 51. Society Chimique De France Bulletin.
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PHYSICS

1. Annalen Der Physik
2. Annales de Physique
3. Annual review of nuclear science
4. Applied Optics
5. Australian journal of physics
6. Canadian journal of physics
7. Communications in mathematical physics
8. Energy conversion
9. Geophysics
10. International journal of electronics
11. Optical society of America: Journal
12. Physics letters
13. Physical society: London
14. Royal society London proceedings
15. Society Physics (J.E.T.P.)
16. Acoustical society of America Journal
17. Annals of Physics
18. Applied physics letters
19. Astrophysical Journal
20. Bell system technical journal
21. Biochemical & Biophysical research communications
22. Electronics
23. Electronic Engineering
24. I.E.E.E. Spectrum
25. I.E.E.E. Transactions on circuit theory
26. Infrared physics (An international research journal)
27. Journal of Aeronautical science
28. Journal of Applied Physics
29. Journal of Applied Mechanics
30. Journal of Astronautical science
31. Journal of Chemical Physics
32. Journal of Physical Society of Japan
33. Journal of Physics
34. Journal of Scientific Instruments.
35. Molecular Physics
36. Nature
37. Physics
38. Physics Abstracts
39. Physical Review
40. Physics today
41. Proceedings of the Physical Society
42. Review of modern physics
43. Review of scientific instruments
44. Royal aeronautical society journal
45. Royal philosophical society transactions
46. science
47. Nuclear Physics

Series A. Vol

Series B. Vol

University of Hyderabad.

List of teaching posts for the various schools created by the executive council at its meeting held on the 13th July, 1975.

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School of Mathematics and Computer/Information Sciences.

Professors	4
Associate Professors	10
Assistant Professors	6

School of Environmental Geosciences:

Professors	3
Associate Professors	6
Assistant Professors	8

School of Chemistry.

Professors	5
Associate Professors	10
Assistant Professors	8

School of Physics:

Professors	5
Associate Professors	10
Assistant Professors	8

School of Social Sciences:

History.

Professor	1
Associate Professors	2
Assistant Professors	3

(ii) Regional Studies.

Professors	3
Associate Professors	6
Assistant Professors	9

(iii) Human Sciences:

Professor	1
Associate Professor	1
Assistant Professors	3

School of Humanities:

Philosophy.

Professor	1
Associate Professor	1
Assistant Professors	3

Copy of letter No.F. nil dated 29.7.1975 received from Sri S. Somaskandan, Officer on Special Duty, University of Hyderabad, 141 (Type III) B.H.E.L. Ramachandrapuram, Hyderabad-500032 addressed to the Secretary, University Grants Commission, New Delhi.

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The University has decided to start one year M.Phil. Courses in the following subjects in the Regional Research Laboratory during the academic session 1975-76.

1. Biochemical Techniques
2. Organic Chemistry
3. X-ray crystallography
4. Physical methods in Structure Determination and Analysis
5. Computer Methods.

The University will also conduct one year M. Phil courses in the Environmental Geosciences in the National Geophysical Research Institute. The Regional Research Laboratory and the National Geophysical Research Institute have kindly agreed to collaborate with the University for the above purposes.

Post graduate courses in Economics (M.Phil) and English (M.A) are also likely to be started during the current academic year at the Administrative Staff College of India, Hyderabad and the Central Institute of English and Foreign Languages, Hyderabad respectively.

The Regional Research Laboratory has submitted an estimate of their requirements of buildings, equipments etc. for running the above mentioned courses in their laboratory. The total expenditure involved is more than Rs.3 lakhs.

They have also proposed payment of honorarium to the staff engaged for teaching the M.Phil students of the University. Similarly the National Geophysical Research Institute have also suggested payment of honorarium to the teachers engaged to teach M.Phil students of Environmental Geosciences. Professors from outstations will be requested to come to Hyderabad to participate in the teaching programme. Their T.A. and D.A. besides the honorarium will also be paid by the University. It is expected that a total sum of Rs.5 lakhs will be required to meet all the expenditure (buildings, equipment, T.A. to the teachers, laboratory expenses, contingencies etc.) for running these courses in the Regional Research Laboratory, National Geophysical Research Institute,

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Administrative Staff College of India and Central
Institute of English and Foreign Languages.

It has also been decided by the Planning Board that every student joining the M.Phil course should be given a fellowship and that the exact amount may be fixed after the pattern followed in the Jawaharlal Nehru University and in consultation with the University Grants Commission. The Commission may kindly consider this question also and sanction such amount of Fellowship as is admissible. A sum of Rs. one lakh will be needed by the University on this account also during the current financial year.

I am to request that payment of a total sum of Rs.6 lakhs may be sanctioned to the University during the current financial year for running the courses at the Institutions mentioned above.

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 11th & 12th August, 75

Item No. 21: To receive a report on the action taken by Delhi University on the recommendations of the Committee to review the working of Tutorials and Preceptorials in the Delhi Colleges.

The University Grants Commission appointed a Committee with the concurrence of the Delhi University to review the following matters in relation to the Delhi colleges:-

- (a) Teacher-pupil ratio;
- (b) Working of the **tutorials** and preceptorials;
- (c) Strength of Physical Directors and
- (d) Reorganisation of courses which do not attract sufficient number of students.

2. The Report of the Committee relating to working of Tutorials and Preceptorials Scheme was placed before the Commission at its meeting held on 9th September, 1974 and the Commission resolved as under:-

"The Commission considered the report of the Committee which was appointed with the concurrence of the Delhi University to report on the working of tutorials and preceptorials in Colleges of Delhi University. The Commission noted, on the basis of information supplied by the Colleges, that the scheme for tutorials and preceptorials had not been working satisfactorily. It was agreed that the report of the Committee may be forwarded to the Delhi University for its consideration.

The Commission was of the view that tutorials and preceptorials are an important component of teaching and it would be desirable that they are linked with internal assessment. In view of the limited resources available, the size of tutorials/discussion groups may be 10 to 15 for Honours and 20 to 30 for Pass course students.

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The Chairman mentioned that the Ordinances of the Delhi University provide that the teachers may not have more than 18 periods of 50 minutes each per week. The Commission was of the view that the Delhi University may review this so as to prescribe not only a maximum but also a minimum teaching load for each category of staff."

3. The report of the Committee was accordingly forwarded to the Delhi University. The University has sent a copy of the Executive Council Resolution No 138 dated June, 1975 approving the recommendations of the Academic Council regarding the revised scheme (Annexure)

4. The scheme proposed by the Delhi University is generally in line with the recommendations made by the Committee of the UGC.

5. The University has also decided that the implementation of the scheme in a college will be reviewed at the end of every academic year preferably by the middle of March by each department in the college and these reports after consolidation will be forwarded to the subject boards in the university. The subject boards will prepare the annual review and send the same to the university for presentation to the Academic Council.

The matter is reported to the Commission.

A.S./D.S.(D-5)

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Annexure to item No. 21

UNIVERSITY OF DELHI

Copy of draft E.C. Resolution No.138, dated the 5th June, 1975.

138 The Council considered and approved the following recommendations of the Academic Council made at its meeting held on 3rd June, 1975:-

1. In place of the existing scheme of Tutorials and Preceptorials, a system of regular assignments including class tests with assessments and follow-up discussion should be introduced for the different streams at the under-graduate level. The scheme is intended to complement the class room teaching and to promote better understanding, comprehension and expression.

2. Guidelines:

- a) Each teacher, in addition to having a number of periods per week for lectures/practicals be also allotted some periods per week for written assignments and follow-up discussion with the students.
- b) As far as possible, the teacher responsible for lecturing to a class will also be responsible for giving written assignments and follow-up discussion to the same class.
- c) An assignment may contain an essay or short-answer type questions, solving of problems, writing of papers, or any other form of task which the teacher may consider proper. Further each assignment should be such that at average student may be able to complete it in one period.
- d) The teacher may evaluate the assignments outside the class-room and return the same to the students for discussions during the period specifically provided for in the time-table. During this discussion period the mistakes of the students should be pointed out and improvements suggested.
- e) Students of B.A.(Pass), B.Com(Pass), B.Sc.(Gem.)/B.Sc.(Hons.) will have one period per subject/paper per fortnight for carrying out the written assignment and another period during the next fortnight for discussion of the assignments after they have been evaluated by the teacher.

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- g) In case of B.A. (Hons.) and B.Com(Hons.), there will be one period per week per paper for assignment work, subject to the provision that a paper carrying 100 marks would be treated as one unit while two papers carrying 50 marks each would be bracketed together to make them one unit.

NOTE 1

In case of B.Sc.(Gen./B.Sc.(Hons.) written assignments may be done during the periods allotted for practical work.

NOTE 2.

In case of B.Com(Hons.) and B.A.(Hons.) in Economics, there will be 2 periods of assignments per week.

- f) The evaluated answer books will be returned to the students for their perusal and understanding of the deficiencies indicated by the teacher.

3. Number of Assignments per academic year:

- a) B.A.(Pass), B.Com(Pass), B.Sc.(Gen./B.Sc.(Hons.)) Courses.

There should be 6 assignments to be written in the class room in each paper in each academic year.

- b) B.A.(Hons.) and B.Com.(Hons.) Courses.

There should be 24 assignments in each academic year.

4. Size of Assignment Groups

- a) For the B.A.(Pass)/B.Com.(Pass)/B.Sc.(Gen.) each assignment group may consist of about 12 students.

- b) For B.A.(Hons.)/B.Com.(Hons.)/B.Sc.(Hons.) main subject, each assignment group may consist of about 8 students.

5. Internal Assessment on the basis of Assignments:

- a) B.A.(Pass), B.Com(Pass), B.Sc.(Gen.)/B.Sc.(Hons.)

- i) Out of the assignments written by each student and assessed by the teacher concerned 4 best assignments in each subject/paper in each academic year shall be taken into account for purposes of internal assessment.
 - ii) In case a student does less than 4 assignments in a subject/paper, he will get credit for as many assignments as he does, out of the maximum credit awarded for 4 assignments.
- b) B.A. (Hons.) and B.Com. (Hons.)
- i) Out of the assignments written by each student and assessed by the teacher concerned, 16 best assignments in each year shall be taken into account for purposes of internal assessment.
 - ii) In case a student does less than 16 assignments in a year, he will get credit for as many assignments as he does, out of maximum credit awarded for 16 assignments.
6. Communication of the internal assessment marks/grade to the University:
- a) The marks/grades of the internal assessments should be communicated by the College to the University on or before 15th March every year and these marks/grades should be indicated separately as internal assessment in the marks sheet issued by the University on the basis of the examination conducted by it.
 - b) The teacher concerned will submit to the Principal a statement of the marks/grades awarded on the basis of the written assignments at the end of each term, alongwith separate statements indicating (i) attendance at lectures and (ii) attendance in assignment discussion periods.
 - c) The performance of each student should be displayed on the College Notice Board at the end of each term.
 - d) In the case of students whose performance at the assignments is not considered satisfactory, the Principal may bring this deficiency to the notice of their parents at the end of each term.

7. Setting up of University Boards for guidance:

Adequate steps be taken by the University/Department to guide and monitor the scheme in the light of what is stated above. The Committee of Courses in various subjects may set up separate boards for internal assessment. These boards may address themselves to such responsibilities as the formulation of assignment/tests and marking/grading patterns. These boards will make their recommendations and suggestions widely available to the colleges.

8. The implementation of the scheme in a college will be reviewed at the end of every academic year preferably by the middle of March by each department in the College and these reports after consolidation will be forwarded to the subject boards in the University. The subject boards will prepare the annual review and send the same to the University for presentation to the A.C.

9. Each College may have some flexibility in introducing variation in the system according to its own requirements within the broad framework of the suggested scheme.

10. Miscellaneous:

i) The proposals may be made effective from the admissionsto be made to the I year class of the pass and Honour's Courses w.e.f. the academic year 1975-76.

ii) With regard to the II and III year classes during 1975-76 and the III year class during 1976-77, the present scheme of Preceptorials/Tutorials and requirements of attendance at tutorials/preceptorials may continue to operate but the Colleges may be advised to make proper arrangements for holding of tutorials/preceptorials.

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 11th & 12th August, 75,

Item No.22 :- To consider the recommendation of the conveners of the panels in the humanities and social sciences in their meeting held on the 22nd July, 1975 on the suggestion of the Economics Panel for initiating a scheme for assistance to research scholars who are not university/college teachers towards their research work.

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The Panel on Economics at its last meeting held on the 3rd May, 1975 while considering the proposals received from the university and college teachers for financial assistance for undertaking short-term projects felt that the University Grants Commission may consider whether in view of the fact that part time research students who are not employed as teachers in the universities and colleges may be assisted towards their research work and, if possible, a separate scheme may be initiated under which they could be helped in their research work.

The matter was placed before the conveners of the panels in the humanities and social sciences in their meeting held on the 22nd July, 1975 for consideration. It was recognised by the conveners of the panels that assistance cannot be given to candidates who are full time employees outside the university system and are part-time students for Ph.D. in the universities under the existing schemes of the University Grants Commission. The conveners recommended that a special grant may be placed at the disposal of the universities to provide assistance to the part-time Ph.D. scholars working in a university or in a college.

The matter is placed before the Commission for consideration.

AS(HR)/JS(I)

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UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 11th & 12th August, 1975

Item No. 23: To consider the recommendation made by the conveners of Panels in the humanities and social sciences at their meeting held on the 22nd July, 1975 on the question of giving DA to the teachers selected for assistance for short-term research projects.

.....

The University Grants Commission at its meeting held on the 2nd June, 1975 (vide Item No. 26), considered the recommendations made by the panels in the humanities and social sciences about payment of DA for field work undertaken by the teachers selected under the scheme of financial assistance for short-term research projects. A copy of the note placed before the Commission in this regard is attached (Annexure).

The Commission decided that this may be considered in the first instance by the conveners of the panels. Accordingly the matter was placed before the conveners of the panels in the humanities and social sciences at their meeting held on the 22nd July, 1975 for consideration.

The conveners of the panels recommended that candidates selected for assistance under short-term projects may be allowed TA and DA for field work according to the rules of their universities upto a maximum limit of 20 per cent of the approved grant provided there is adequate justification for it and the panels are satisfied that the project cannot be implemented without field work.

The matter is placed before the Commission for consideration.

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Copy of note placed before the Commission
at its meeting 2nd June, 1975 (vide Item No. 26)

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The scheme of financial assistance to teachers for research/learned work was instituted by the University Grants Commission in 1963-64. The scheme provides for assistance for field work needed in connection with the approved research work. In the beginning, TA and DA was admissible to the teachers according to the university/college rules.

After the scheme had run for about two or three years, it was found that a major portion of the grant paid to some teachers was being utilised as D.A. It was, therefore, decided in 1966, that only travel expenses according to university/college rules be paid to teachers out of the sanctioned grant for field work and that DA, boarding and lodging charges or halting allowance or any similar allowance or expenditure may not be paid out of the sanctioned grant. This was done so that the teacher who undertakes the project may have a sense of participation in the work which he is doing.

The Commission has received requests from teachers for allowing them to draw D.A. as per university/college rules in addition to TA during the period they undertake travel or field work in connection with the project approved by the Commission.

The matter was placed before the Panels in the Humanities and Social Sciences for consideration. The views of the Panel are indicated below:-

1. Panels on Political Science, History & Psychology.

The teachers may be allowed to draw daily allowance upto 10 per cent of the total grant approved for the project by the University Grants Commission.

2. Panel on Social Work.

Only 50% of the D.A. admissible to a teacher under the rules of the University/College concerned may be paid to him from the project funds.

3. Panels on Economics and Law:

Teachers should be allowed to draw D.A. from the grants sanctioned for field work, provided the field work, was not in the place of residence, or in their native place.

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4. Panels on Sociology, Linguistics & Philosophy:

The present practice may continue.

The Panel on Economics has further suggested that books and documents obtained by a teacher with the help of the sanctioned grant should be returned to the library of the University/College/Department after the completion of the research project. At present, a teacher may, if he so desires, retain with him the books and journals purchased out of the sanctioned grant.

The matter is placed before the Commission for consideration.

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UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 11th & 12th Aug. 7

Item No. 24 To consider the objection raised by the Audit
on the proposal of Jawaharlal Nehru University
for construction of students hostel etc.

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The Commission in February 1971 accepted the proposal of Jawaharlal Nehru University for undertaking construction of three hostel blocks for 600 students, 12 warden's quarters and 72 quarters for the faculty staff and a Cafeteria at an estimated cost of Rs. 1,16,23,500/- for works outlay and Rs. 3,93,700/- on account of architect's fee. The plans and estimates were scrutinized by the C.P.W.D.. It was pointed out by the C.P.W.D. that the estimates included richer specifications such as marble chips in kitchen, kotah stone flooring in dining hall, kitchen and a higher percentage on account of internal services. These items were estimated to cost about Rs. 13,60,000/-. The matter was considered by the Chairman, U.G.C., and keeping in view the needs for richer specifications and internal services, the proposal of the Jawaharlal Nehru University was accepted.

2. While auditing the accounts of the UGC for the year 1973-74, the auditors raised an objection that the deviations from the specifications etc. normally allowed by the Commission, for keeping the buildings more clean has resulted in an extra expenditure of Rs. 13.16 lakhs. The building have already been constructed and occupied.

The matter is placed before the Commission to regularise the action already taken.

AS(D-5a)/DS(D-5a)

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UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 11th & 12th August, 1975

Item No. 252 To consider the suggestions of the Working Group constituted by the Commission in respect of the recommendations made by the Committee on the status of women in India.

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The Ministry of Education had forwarded summary of recommendation relating to higher education made by the Committee on the status of women in India for the comments/ views of the University Grants Commission.

A Working Group consisting of Professor M.N. Srinivas, Bangalore, Professor (Mrs.) A. Chatterjee, Calcutta, Professor S.C. Shukla, Jamia Millia Islamia and Mrs. Leela Dube, Simla was appointed by the Commission to study the recommendations referred to the Commission and make suggestions thereon.

The Working Group at its meeting held on 4.6.1975 and 9.7.1975 considered the recommendations relating to higher-education and has suggested its views for consideration of the Commission as below:

GENERAL

The Committee noted that the most important factor that was responsible for the backwardness of women's education in the country was the prevailing social attitudes towards the education of girls and women. An examination of the contents of the text books and other reading material used at present would show a neglect of the needs and problems of the life of girls and women. Social attitudes towards women's education vary as they range from acceptance of the need to one of absolute indifference. A surprisingly hostile attitude is also discernible among some people who do not want girls to go in for higher education even if they are intelligent. There is wide disparity in this field as between rural and urban areas. Even among the affluent, some are opposed to women's education for traditional reasons while others welcome it as an accomplishment and a symbol of modernisation. The need for women's education has the highest acceptance among the middle classes. For the majority of people who live below the subsistence level, poverty is the pre-dominant factor

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governing the attitude to girls education. Cities and regions with a higher proportion of Muslims and Scheduled Castes/Tribes account for very low level of educational development among women where while those with a relatively high percentage of Christians account for its rapid advancement. All these indicate the influence of a large number of sociological factors for the promotion of their education and any plan for the educational development of women has, therefore, to take into account these imbalances and variations in regional/sectional attitudes that contribute to the increase of inequalities between different sections of the population arising out of varied and differing attitudes to this question. Only then, equality of educational opportunities can be brought within the access of the majority of women in this country.

Recommendation regarding equality of sexes (42)

It was agreed that areas and projects for undertaking research on problems of attitude towards women's education would be identified by Professor Srinivas and a note embodying suggestions in this respect would be forwarded to the Commission for its consideration. The Commission agree that the deep foundations of inequalities of the sexes are built in the minds of men and women through a socialisation process which continues to be extremely powerful. In the present context, it is the educational system which will be a significant institution which can counteract the effect of this process. If education is to promote equality for women, it must make a deliberate, planned and sustained effort in bringing about a major change in the content and organisation of education so that the new value of equality of the sexes can replace the traditional value system of inequality and the present educational system has to undertake this responsibility.

Recommendation regarding integrated development of training and employment (25).

It was agreed that opportunities for vocational training and employment of women should all be open to women as they are to men.

Special Programmes for removal of inequalities: (38)

It was noted that the universities did not discriminate as between men and women in respect of access to higher education. But regional imbalances already exist resulting in wide disparity between the education of girls and boys as also men and women: Special

Programmes will, therefore, be needed to bring about equality of educational opportunities to benefit the majority of women.

Co-education (33): as a general policy at the university level is supported.

In this connection, it was noted that some universities in the country were running separate institutions/classes for women students at the undergraduate and postgraduate levels, such of the universities which follow this practice should be advised to either discontinue the practice, or permit women to join the general classes also if they so desire.

The recommendation that the opening of new colleges exclusively for women should be discouraged, was generally endorsed. The recommendation of the Committee that there should be no ban on admission of women students to men's institutions was supported.

The recommendation of the Committee that wherever separate colleges for women were already functioning, all necessary steps should be taken to maintain adequate standards of teaching is also endorsed. In this connection it was noted that in view of the recommendation that there should be no ban on admission of women students to men's institutions, there should be no need, in future to relax the normal conditions of eligibility laid down by the Commission for being eligible to receive assistance. The existing liberal pattern of assistance in respect of hostels for women's institutions may, nevertheless be continued.

As for mixed colleges, it was suggested that there should be mixed staff and that there should be separate toilet facilities, common room-cum-reading room for women's students under the supervision of a lady teacher/superintendent. Vigorous measures are required to be taken to increase the employment of women teachers so that the existing low proportion of women teachers could be substantially raised in the near future. It was also noted that the bulk of the women teachers at present employed in colleges are working in colleges which are exclusively for women. It is, therefore, necessary to evolve corrective steps so that an increasing number of women will be able to secure employment in mixed colleges. While no special reservation needs be made for women, and all appointments

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should be on merit, it is necessary to ensure that no discrimination is made on grounds of sex. The authorities at the Centre and in the states may be requested in this connection to set up suitable machineries to watch the appointment of teachers. Statistics high lighting the imbalances that exist in the present staffing pattern may also be made available so that a suitable employment policy could be evolved in this respect.

Curricula (34)

Regarding curricula, the recommendation of the Committee that the general principle for organising courses at the university stage should be based on relevance and utility for students endorsed. There should also be no differentiation in curricula merely on the basis of sex. The existing imbalances in women's education and employment have resulted from the unequal social positions accorded to the two sexes. It was further noted in this context, that in respect of organising home science course, there was need to revise and develop different courses at present contained under this head so that the specific courses there-under could meet the needs of general as well as vocational education.

Recommendation (40)

As regards the recommendation of the Committee for development of more employment opportunities particularly of a part-time nature and also to develop employment information and guidance services for women, it was agreed that vigorous steps are required to be taken in order that more and more women are enabled to take up suitable vocation and employment on a part-time basis wherever feasible. For this, it would be necessary to accept employment of women on a part-time basis wherever feasible as a policy throwing open more and more opportunities to them in the form of part-time work which can be undertaken in and outside the home. Further information and guidance services for different careers for women be developed in a more meaningful way in the colleges and universities.

Non-formal Education (41)

As regards recommendations regarding non-formal education, the guide lines on Correspondence Courses have already high-lighted the need for programming in such a way as to suit housewives and working women. The open university when set up, could also take into

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account the specific needs of women. The need for programmes of integrated development through various schemes under non-formal education was also emphasized.

The matter is placed before the Commission for its consideration.

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UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 11th & 12th August, 1975

Item No. 27 To receive the report of the Committee on Visva-Bharati appointed by the Ministry of Education & Social Welfare.

The Union Minister of Education appointed in February 1974 a Committee under the chairmanship of Justice S.A. Masud of the Calcutta High Court, to determine the lines on which Visva-Bharati be developed and to recommend the guidelines for the amendment of the Visva-Bharati Act. The Committee has since submitted its report. A copy of the report is attached (Annexure).

The Ministry of Education & Social Welfare have invited the views of the Commission on the different recommendations made by the Committee. It is for consideration if before the report is considered by the Commission, the views of the Visva-Bharati may be invited on the report and that the Commission may consider the same before communicating its comments to the Ministry of Education.

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University Grants Commission

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Meeting

Dated 11th & 12th August '75

Item No. 28 To consider a letter from the Ministry of Education and Social Welfare requesting for the views of the Commission on the scheme of the national merit examinations to be conducted by the Union Public Service Commission.

The suggestion for holding national voluntary examinations was made by an expert committee appointed by the Union Minister of education on examination reforms. The Committee recommended that "A national examination in various subjects at the bachelor's level must be conducted by a central authority, on a purely voluntary basis. This examination could be designed to test creative thinking and comprehension of subject matter, so as to serve as a national index of performance and achievement of students at large and of various institutions. The examination ought to be conducted in all the regional languages and English and it should use a modern syllabus, and the best techniques of paper setting, evaluation and processing of raw scores. A certificate carrying a grade should be issued to only those participants who achieve the higher grade. The examination should be open to everyone who wishes to take it."

The Commission appointed a committee to consider the question of holding voluntary national examinations in Physics and Chemistry. The main recommendations of this committee are attached (Annexure-I). The Commission agreed to the proposal "in principle" and desired that its implementation and allied matters may be discussed at a meeting of the University Grants Commission with the Standing Committee of the Inter-University Board of India to which meeting Professor D.S. Kothari may also be invited. (Resolution No.6 dated 10th September 1973).

It has not been possible to arrange this meeting so far, but in the meantime the Union Public Service Commission has formulated a scheme for national merit examinations. (Annexure-II). The Education Minister convened an informal meeting in February 1975 to consider the scheme of the Union Public Service Commission regarding national merit examinations in various disciplines and at various levels of education with the intention of providing a source of recruitment for services in the public and private sectors. A group with Professor Rais Ahmed, Director National Council of Educational Research and Training, as Chairman and Convenor, was appointed study this question in details. The report of the group is attached (Annexure-III).

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The group after consideration of all aspects recommended that (a) the national merit examinations may be instituted as soon as possible (b) it is crucial that the results of the national merit examinations should be used for recruitment and (c) The Union Public Service Commission is the most appropriate agency to conduct the examinations. The group recommended national merit examinations at two levels, at 'A' level which will be roughly equivalent to the bachelor's degree and 'B' level which will be roughly equivalent to the master's degree in social sciences, humanities, sciences and commerce. The idea can be extended to first level professional subjects. The examinations should be opened to everyone who wishes to take it.

A high level meeting has been convened by the Union Education Minister on August 20, 1975 to consider the report of the group referred to above. The views of the Commission have been sought on the report in general and in particular to the following two issues; - (a) Whether the Commission would be prepared to recommend to the universities that candidates who have obtained the highest grade at the 'B' level of the national merit examinations would be considered eligible for appointment as Lecturers in colleges and universities in case suitably equalified candidates with doctorates are not available. This would be conditional on such candidates obtaining doctorates in respect of university teachers and M.Phil in respect of college teachers within a period of 5 years of appointment. (b) Whether persons securing the highest grade in the 'B' level examination be considered by the UGC as eligible for junior research fellowships.

The matter is placed before the Commission for consideration.

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Summary of recommendations of the UCC
Committee on National Voluntary
examinations in Physics & Chemistry.

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(a) The Committee recommended the holding of voluntary national examinations in selected subjects with the objective of maintaining and coordinating standards and enabling individuals and institutions to promote scientific achievements and aptitudes through self-assessment.

(b) The committee recommended that to begin with, the examinations should be held at the postgraduate level in selected subjects like physics, chemistry etc.

(c) It would be desirable that the tests are conducted under the auspices of a professional body like the National Academy of Sciences, Physics Association or a society registered for the purpose. The association or society conducting the national examination should, however, have the active support of a specialized body like the University Grants Commission.

(d) The committee recommended two types of tests. The first one could be a test of the knowledge and information type on the existing pattern of university examinations. These tests would be institution based and conducted at examination centres to be established in institutions which agree to join the scheme. The second kind of test will be problem oriented and individual based, which can be taken even by students in mofussil colleges and centres.

(e) Two examinations may be held each year in July and December. Considering the difficulties of students in case they have to travel long distances for taking the tests, at least ten centres may be established for the purpose on a regional basis. The centres may be selected on the basis of the total number of students registered at a particular centre. The number of papers should be between two and four. Each paper should be of three hours duration. The syllabus for the examination should be the core M.Sc. syllabus with modern orientation.

(f) A student who has passed the B.Sc. examination should be eligible to appear at the test. The examination will be held in English and the standard of the examination will be of the postgraduate level. The candidates getting the highest grades may be required to appear for a viva-voce test and some of the best students in the written and viva-voce test may be awarded junior fellowship by the University Grants Commission on the usual terms and conditions.

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(g) The administrative arrangements for the formation of the society should be made by the University Grants Commission and financial support to the extent of about Rs. one lakh per annum should be provided for meeting the expenditure on establishment, travel, meeting, correspondence printing, contingencies etc.

(h) A society with the object of conducting the national examination to maintain high standards of performance in higher education should be set up. The members present at the meeting indicated their willingness to be members of such a society.

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Annexure-III-to-
Item No.28

Recruitment through National Merit Examination

S U M M A R Y

The Commission have evolved a scheme for holding National Merit Examinations in various disciplines at various levels of education, which should be the source of recruitment to posts available in the Government Departments and Organisations under the control of the Government including quasi-government organisations and the Public Undertakings at junior Class I and Class II levels for which fresh university graduates and post-graduates are eligible. The advantages of holding such job-oriented examinations on a national plane will be quite far reaching :

- 1) The candidates can expect to get a job immediately after their graduation in one of the employing organisations in the country by taking a single examination without spending a period of frustrating efforts while applying for similar posts in the Government and other organisations and repeatedly competing in examinations, tests and interviews.
- 2) The availability of a large number of jobs on the basis of a single examination will generate considerable interest and enthusiasm among the students and provide a sense of purpose and direction in their studies. The incentive thus provided will be so powerful as to a great extent, divert their attention from non-academic and agitational activities to scholarstic pursuits.
- 3) This scheme would also seek to achieve the long awaited desire of delinking University education from employment and dispel the hitherto prevailing idea that University degrees are the onl- passports to employment. This will have to be done by throwing open the National Merit Examinations not only to the University graduates but also to those who may have acquired knowledge through correspondence courses or even self-education. This would arrest the uncontrollable rush in Universities and help to check deterioration in standards of education and discipline.
- 4) Holding of national examinations at Higher Secondary Graduate Post-graduate levels and in different professional disciplines will help candidates to find jobs quickly. Thus, siphoning out students at various levels of education would reduce unnecessary swelling of enrolment in Universities where a considerable number of students seek admission just to mark time and create restlessness and dis-satisfaction as a result of their own frustration.

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- 5) The national examination would serve as a national index of performance and achievements in various fields of learning and set pace for raising standards of education.
6. This will reduce multiplicity of recruiting agencies and the heavy expenditure incurred on them and at the same time ensure availability of the best talents for employment.

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Recruitment through National Merit Examination

INTRODUCTION.

For some time past, the Union Public Service Commission have been giving considerable thought to the problem of growing unrest among the student communities in the country. It is true that unrest in the university campus is now a world phenomenon and may have to be accepted largely as a normal feature of the intellectual and social ferment of modern times. It cannot, however, be denied that one major cause of the present unrest among the youths of India is uncertainty about employment after their graduation and post-graduation. The problem of mounting unemployment naturally frustrates an educated young man; and to make matters worse, when this gets mixed up with other economic and political issues, there are outbursts of indiscipline and violence in which our immature and frustrated young men find themselves at the fore-front. The Commission feel that even with the limited jobs available in the country a suitable mechanism could be evolved as a result of which jobs could be made available to qualified young men immediately after they have completed their education without spending a period of frustrating efforts while applying for similar posts in the Government and other organisations and repeatedly competing in examinations, tests and interviews. In the view of the Commission, a scheme could be introduced in which a large number of posts in the various Departments and organisations under the control of the Central Government at Junior Class I and Class II levels could be grouped together discipline-wise and national merit examinations, in various disciplines, may be held by the Commission at which fresh graduates would be eligible to appear soon after their academic degree examination. This would provide opportunity to candidates to complete through a single examination and by a single application in each discipline for a wide range and category of jobs which may be available in various organisations of the Government as well as quasi-Government bodies and public sector undertakings. The universities and other autonomous organisations also may participate in the scheme for the selection of their teaching staff, if and when they desire, and later the private industrial concerns, a few of whom have already evinced interest in the proposed scheme, might be willing to participate in it to the extent the Government may permit them. The scheme for holding national merit examinations should, however, have an element of flexibility in it. Thus for purpose of recruitment to posts requiring specialised knowledge, skill and experience, provisions would have to be made for the modification of the scheme so as to suit specific requirements of the organisations concerned.

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It will be seen that the aforesaid scheme of the Commission envisages recruitment not only to Civil Services and posts under the Central Government but also to the posts in quasi-Government bodies, public sector undertakings and other organisations under the control of the Government. It may be mentioned, in this connection that the Estimates Committee and the Administrative Reforms Commission have made positive recommendations for such extension of the role and functions of the Commission to suit the present day requirements (vide Appendix I to the note). Article 321 of the Constitution also provides for the Commission undertaking additional responsibilities in this regard. The main purpose of making this suggestion is to help the Government to bring about a coordinated system of making jobs available to the educated young men in the shortest period of time and thus mitigating the hardships faced by them today. The scheme has been designed to bring the recruitment methods used in India in line with the modern trends in recruitment methods in other countries and help to meet requirements of a developing and dynamic society.

Background.

2. The Education Commission (1964-66) had recommended to the University Grants Commission the setting up of a Central Testing Organisation. The Bi-national Conference on Physics held in 1970 suggested an examination on a national scale which might serve as a pace setter to educational institutions and help them in improving their approach to the teaching of Physics. The Bi-national Conference on Biology held in 1971 also made a recommendation about an optional national examination. The Working Group of experts set up by the Ministry of Education in their report titled "Examination Reform - A Plan of Action" recommended that a national examination in various subjects at the bachelor's level should be conducted by a central authority on a voluntary basis. The examination was to be designed to test creative thinking and comprehension of subject matter so as to serve as a national index of performance and achievements by students at large. Please see Appendix II in this connection.

Although the above idea of holding a voluntary examination on a national basis is good, the voluntary character of the examination may fail to elicit wide response from suitable candidates all over the country. If this examination is linked to employment opportunities, it will evoke much wider response. The largest number of jobs which are now available in the country

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for educated young men are with the Government in the various Departments/Organisations under their control including quasi-Government bodies and public sector undertakings. If these jobs are pooled together and are offered on the basis of a national merit examination, this will provide a very powerful incentive to the students to pursue their studies more vigorously and then qualify at the said examination so as to get suitable jobs. The Commission already have necessary infrastructure available with them for holding competitive examinations all over the country in most of the States in collaboration with the respective State Public Service Commissions and the State Governments and with the facilities available they are in a position to conduct large number of examinations, each on a national basis not only with expedition but also maintaining the highest standard of efficiency. Therefore for holding national merit examinations as envisaged in the scheme, no separate additional arrangements would have to be made by the Commission. Besides, the Commission which annually hold 27 examinations, all employment oriented and handle on an average, 88,000 candidates spread over in as many as nearly 20 place all over India, have the necessary equipment and expertise for holding the national examinations. The Commission are already holding discipline-oriented examination in eight subjects (Civil, Mechanical, Electrical, Electronics and Signal Engineering, Geology, Economics and Statistics) and offer 76 papers in various disciplines for the I.A.S. examination alone. The Commission also conduct several competitive examinations at the Higher Secondary/Pre-University and graduate levels with Arts and Science subjects. Recently, a study has been undertaken by the Commission for introducing reforms in the method of their examinations with a view to adopting the most modern techniques of examination and evaluation designed to test the knowledge, mental qualities and aptitude of the candidates. By holding the national examinations on the proposed lines, the Union Public Service Commission will help to raise the standard of education and intellectual attainment in the country as a whole.

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Outline of the
scheme

3. At present, even the graduates in Engineering, Technology, Science etc., who come out of the universities with First Class qualifications have to spend 12 to 18 months in searching for jobs, applying for them and repeatedly going through the process of selections. In order to improve the situation to some extent, it could be arranged that the available jobs under the control of the Government are offered to meritorious candidates on the basis of discipline-oriented examinations. If candidates are classified according to merit by the Commission on the basis of such examinations the public sector undertakings as well as some of the well established firms in the private sector would also find it useful to draw their requirements from it. Junior Class I and Class II posts under the Central Government at present filled by recruitment through interview, as well as posts which are at present filled through the various examinations conducted by the Commission, could be filled from the National Merit List.

A beginning may be made by arranging discipline-oriented examinations in professional subjects like Engineering, Law, Agriculture and Medicine at Degree level and the ~~Maximum~~ Natural Sciences, Social and Business Sciences and Humanities at Master's level. At the next stage, the scheme may be extended to all graduate level courses and if necessary, also to higher secondary levels for restricted purposes. Even those who have not received a formal education but have acquired sufficient knowledge of the particular discipline through correspondence courses, open universities or by self-education may be allowed to compete at the national examinations.

In order to avoid the necessity of candidates having to wait for a suitable employment for a long time after their academic examinations are over, it can be arranged that the discipline-oriented examinations are held each year soon after the University examinations and the results declared

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within the shortest period of time so that the qualified candidates could get their placement within a few months after passing the University examinations. Before the results are announced, the Commission should be provided with information regarding the number of posts which may be available with (a) the Government, (b) the quasi-Government bodies and public sector undertakings, and (c) such of the autonomous organisations and the private undertakings as may wish to avail themselves of this scheme. The allocation of candidates to various departments under the Government as well as the public and private undertakings can be made on the basis of the preferences indicated by the candidates in their applications and the ranks which they have obtained in the National Merit Examinations.

If the proposal indicated above is accepted in principle by the Government, it will be possible for the Commission to revise within a short period the schemes of their existing examinations for various Services in consultation with the University Grants Commission and eminent scholars and University teachers so as to conform to the requirements of the National Merit Examinations in the various disciplines. It is proposed by the Commission to constitute Standing Committees of academic experts to formulate syllabi for various examinations, to review the performance of the candidates after examination and suggest improvements in the light of such reviews. This would be a continuous process with the object of updating the syllabi for various examinations which would, in its effect, improve the standard of education in various universities. Besides, the Commission have also under consideration proposals for appointments of experts on the modern techniques of examination and evaluation as their advisers and also establish a system of institutional consultancy by associating with their work well known organisations who may have specialised in the introduction of improved methods of education, modern techniques of examinations and evaluation etc., so that the methods adopted by the Commission for various examinations are set on the most modern lines.

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antages

4. The principal advantages of the proposed scheme will be as follows:

To the candidates

- (a) A candidate fresh from the University will take a single examination on the basis of which he can expect to get a job quickly in one of the many employing departments/organisations, rather than having to take a separate examination or to through the ordeals of selection procedures for each job.
- (b) The proposed scheme will reduce multiplicity of recruiting agencies and help the educated job-seekers in making concerted efforts in competing for a single examination conducted on a national basis.
- (c) Such an employment-oriented scheme of holding a national examination will create for the students a sense of purpose in their studies and will act as a powerful incentive to divert their attention from agitational methods and save them a lot of wasteful efforts in the pursuit of employment.

To the employers.

- (d) This will ensure ready availability of talent to the employing agencies and will save them much time and labour which they would have to spend if they had to conduct the recruitment themselves through their own selections/examination.
- (e) Departments under the control of the Government like the Research and Development Organisations and public sector undertakings are spread all over the country, each of which with its own system of recruitment has, in the course of years, multiplied the number of recruiting agencies tremendously and for the qualified young men it is not possible to apply for jobs in all these organisations. The result is that the organisations have been deprived of better talents which may have been available in other parts of the country and have become more or less regional organisations in composition. A co-ordinated recruitment on the basis of a national examination will provide the most suitable talents available in the country for these organisations and help to restore their national character.
- (f) Through the Commission the scheme would seek to establish by coordinated efforts better understanding between the employing organisations and the education system so as to help the former in getting the right type of men and the latter to react to the changing requirements of the employment market.
- (g) In the absence of any Graduate Record Examination (GRE) in India, the proposed examinations would serve the purpose of judging the quality of candidates from all over the country on the basis of a uniform standard and thus provide the necessary stimulus to the universities to improve their standard of education to keep pace with the standard set by the national merit examination.

For the education system.

(h) Holding of national examinations at various levels, i.e. at Post-graduate, graduate and, ultimately, at Higher Secondary stages would help the candidates who wish to take up jobs as early as possible rather than pursue higher education in an aimless manner. This would prevent unnecessary swelling of enrolment in universities where a considerable number of students seek admission just to mark time and take courses in which they might not be really interested and thus infect the University atmosphere with restlessness and dissatisfaction.

(i) The real purpose of education, which is to widen the horizon of knowledge, is now lost in the anxiety to acquire any-how university degrees. The proposed scheme of employment-oriented national merit examination by filtering off students, who acquire degrees only to get jobs at various stages, will achieve the long-awaited purpose of delinking University education from employment and by dispelling the hitherto prevalent idea that University degrees are the only passports to employment, would create a healthy climate for the pursuit of higher education and would act as a disincentive to enrolment in colleges and universities and thus check deterioration in the standards of education and discipline in the universities.

) For ensuring a uniform standard of recruitment all throughout the country.

(j) Even the state Public Service Commissions may draw upon from amongst the successful candidates at the national merit examinations conducted by the U.P.S.C. to the extent they consider it desirable. The participation of the state Public Service Commissions, though on a voluntary basis, would help to evolve a national policy of recruitment with uniformity in their standards which would be advantageous to the job seekers as well as to the country at large.

Extracts from the 47th Report of the Estimates Committee (Fourth Lok Sabha)
on the Ministry of Home Affairs - Union Public Service Commission.

Para 6.8. The Committee note that the Central Government and the statutory bodies/public sector undertakings under their control are today the biggest employers in the country. Out of the total jobs available in this field, only a small percentage of the Central Government employment is processed by the Commission. This is because the Commission are being consulted only in regard to appointments in the higher services and posts, principally those in the gazetted ranks. For recruitment to statutory bodies/public undertakings there is no set uniform procedure and each body/undertaking recruits its personnel in its own way. With a view to put an end to the unsatisfactory state of affairs in this regard, the Committee urge that adequate machinery and procedures should be devised and brought into operation before long under the broad supervision of the Commission to regulate recruitment for the increasing number of statutory bodies and the steadily growing public sector of our economy.

Extracts from the Report of the Administrative Reforms Commission on Personnel Administration.

- Para 24 (1) The UPSE should be associated with the selection of personnel to, and their promotion within, the quasi-Government bodies entirely or substantially financed by Government.
- (2) In the case of smaller organisations, the function of the UPSE should be to approve the regulations governing recruitment and promotion, including the constitution of Selection Boards and promotion Committees.
 - (3) In the case of bigger organisation like the CSIR, however, only broad personnel policies need be framed in consultation with the Commission, the details of selection and promotion being left to the organisation itself.
 - (4) In all cases, the UPSE should develop an adequate system of reporting and inspection to ensure that at least minimum standards are observed in selection and promotion. The Commission may recommend, at their discretion, the annulment of selections and promotions falling short of such minimum standards.
 - (5) Comments, if any, by the UPSE on the working of these arrangements should be incorporated in its annual report to be placed before Parliament.
 - (6) Powers similar to those proposed for the UPSE, should vest in the State PSCs vis a vis quasi-Government institutions which are either entirely or substantially financed by the State Governments.

Extracts from the booklet "Examination Reform - A Plan of Action"
by the U.G.C.

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NATIONAL EXAMINATION

1. In the main body of the note a distinction has been made between examinations or tests etc. which are a functional part of the teaching-learning process, and examinations which may govern entrance to service or to other branches or levels of study or which may tend to establish national norms of educational achievement. The first type is best conducted by teachers concerned and within the framework of the educational institutions. The second type can hardly serve any purpose as a corrective or improver of efficiency in the teaching-learning process, except indirectly and after considerable time lag; and it is best conducted by the agencies concerned where admission to service or special courses is involved and by some national agency where national norms of student achievement are involved. If the two functions of the examinations are compacted in one, it is the second function which comes to dominate in spirit and form and the first is poisoned to such an extent that the objectives of education are lost within the scramble to pass examinations, leading someone to say that in India we don't have a system of education but a system of examination.

2. In fact an effective institution-wise decentralization of compulsory evaluations connected with teaching must be supplemented by a voluntary national examination at a suitable level. The bachelors degree stage is perhaps the most natural level for the national examination. Furthermore, to accommodate those who have studied in diverse institutions, or those who have done only self-study, the national examination has been recommended to be open to any one who desires to take it without educational or age restrictions.

3. It may be mentioned that Report of the Education Commission (p.308) had visualised a Central Testing Organisation and had recommended to the UGC the setting up of the organisation, one of the objectives being; "to provide the necessary services to colleges and universities such as administering selection tests, supplying the test results and suggesting ways and means of utilizing the results for selection." The other objectives were developing procedures for selection at various levels for various courses, and promoting research in this area. The Bi-national Conference on Biology held in 1971, and sponsored by the UGC/NCSE also made a recommendation (p.35 of the Report) about an optional national examination. The Bi-national Conference on Physics similarly sponsored and held in 1970 made a recommendation with some elaboration and it is quoted below (p.18 of the Proceedings):

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"A common argument in favour of external examinations relates to the maintenance of national standards. The present examination system does not actually set standards effectively. There is some validity in the desirability of comparison tests. A voluntary examination may be conducted at several centres by a professional body to test as far as possible the creative thinking and comprehension in physics of students who have obtained the B.Sc. or equivalent degrees. Such an examination on a national scale may serve as a pace-setter to various institutions and it is likely to help them in improving their approach to the teaching of physics. At the same time, it will set as a talent search examination for postgraduate departments selecting candidates for admission. Candidates performing exceptionally well in this examination should be awarded scholarships at the same level as the National Talent Scholars and they should be free to join institutions of their choice."

4. At the Bi-national Conference on Physics, it was visualized that the national examination would consist of only one or two papers per subject, and that a student will have to appear in at least three subjects to get a grade. It was also visualised that the papers would be framed every year by a changing group of scholars in each subject, using up-to-date techniques. Analysis of the results would be confidentially communicated to the institutions concerned and a frequent review be made of the papers and the grading in the examination.

5. It appears that in the initial phases the best agency to set up the machinery for the national examination is the UGC, particularly in view of its responsibility in respect of maintenance and coordination of standards. But the volume of work, as also the necessity to conduct research and investigations in the field of evaluation would perhaps require that in the long run this should become a separate sub-agency under the UGC.

M E M O R A N D U M

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The Informal Committee to examine the details of the National Merit Examination and to see if it could be utilized for purposes of recruitment had its second meeting on 15th July, 1975. The following attended :

Dr. R.C. Mahrotra
Vice-Chancellor
University of Delhi
Delhi

Dr. R.C. Paul
Vice-Chancellor
Panjab University
Chandigarh

Prof. R.N. Das Gupta
Deptt. of Modern Indian Languages
University of Delhi
Delhi

Mr. K.V. Sarabhai
Vikram A. Sarabhai Community Science
Centre, Ahmedabad.

Mr. M.M. Thomas
Additional Secretary
UPSC, Dholpur House
New Delhi

Shri S.S. Bisen
Joint Secretary
(Policy Planning)
Deptt. of Personnel & Administrative
Reforms, New Delhi.

Shri T.S. Sankaran
Joint Secretary
Government of India
Ministry of Labour
New Delhi

Mr. Mohd Fazal
Chairman, Standing Conference
on Public Enterprises,
Chairman & Managing Director
Engineering Projects of India
New Delhi.

Mr. A.C. Bandopadhyaya
Secretary
Union Public Service Commission
Dholpur House, New Delhi.

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Prof. Shib K. Mitra
Joint Director
N.C.E.R.T.
New Delhi

Prof. Rais Ahmed (Chairman & Convener)
Director
N.C.E.R.T.
New Delhi

Shri A.K. Basak, Planning Commission, Prof. Andre Bateille, University of Delhi, Prof. Moonis Raza, JNU, Shri J.N. Ranjan, Prime Minister's Secretariat, Shri V. Krishnamurthy, BHEL., and Dr. Anil Sad Gopal, Hoshangabad were unable to attend the meeting

The Committee after further consideration of all aspects unanimously recommend that

- A. The National Merit Examination may be instituted as soon as possible;
- B. It is crucial that, the results of the NME should be used for recruitment; and
- C. The Union Public Service Commission is the most appropriate agency to conduct the Examination.

The basis of the above-mentioned recommendations is explained below :

A.1 The idea of the National Merit Examination has been clearly stated in the report of the Committee on Examination Reform appointed by the Ministry of Education and later fully accepted by University Grants Commission. The UGC in its document Examination Reform, A Plan of Action has widely circulated the idea and it has elicited general support from the academic community. In brief, the gist of the examination reform is that teachers should assess the performance of their own students through various types of techniques throughout the academic session, and at the end of it. Institutions, in the long run, would then issue certificates to students making a statement of their performance in various courses and activities. These steps would make the examination a more reliable and versatile measure of student performance and an integral part of the educational process. Various difficulties increasingly experienced by the present external and largely terminal examination system are likely to be minimized. However, this decentralization and diffusion of the examination in the overall teaching learning process, would necessitate a complementary national "equivalence" examination which may compare the performance of students from all over the country on a common measure. The results of the national examination would serve to keep the institutions on their toes and ready to adjust their sights. The NME is also

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likely to impart a sense of purpose to students attending university courses and thus contribute to standards and discipline. This examination should be conducted with the best of expertise both with regard to disciplines and techniques of examination, this national examination serving the purpose of raising the standards of higher education was named The National Merit Examination.

A.2 The present Committee agreed with the above mentioned purpose and recommended that it would be most useful to hold the examination at a level roughly equivalent to the Bachelor's degree (A level) and a level of competence roughly equivalent to the Master's degree (B level) in social sciences, humanities, the sciences and commerce. The idea can be extended to first level professional subjects. The examination should be open to every one who wishes to take it.

A.3 The A level examination may be held in the following disciplines in addition to engineering and other professional subjects :

Mathematics, Physics, Chemistry, Botany, Zoology, Geology, Statistics, Geography, History, Economics, Political Science, Philosophy, Psychology, Sociology and the 15 Languages in the Schedule.

A.4 The levels of the examination, the Committee felt should be defined without specific reference for the reasons (i) the coverage of degree examinations is not the same in all the universities and hence the NME could not be equated exactly to degrees (ii) the standard of the NME should not be "pace setting" in the sense being elitist or exceptional, and it could not be at the "bench mark" level since in that case it be below that of a number of good institutions, (iii) the nature of the NME could not be purely "academic" since even university examinations are trying not to lay all the emphasis on bookish performance, (iv) the NME being linked to employment may sometimes be followed by a very specific test or interview, hence its orientation would be more to assess understanding, application judgement and creative ability.

A.5 The Committee was of the opinion that the depth and coverage of the NME should be such that the Government may recognize the examinations as equivalent to university examinations at roughly corresponding levels, enabling the universities also to give credit to performance at the NME for purposes of admission to courses leading to further studies.

B.1 In the view of the Committee a National Merit Examination however well conducted by a prestigious agency, even like the UESC, will not make any impact on the educational system if it is unconnected with employment. For a purely academic

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examination for purposes of a national index of performance only students from weaker universities or weaker students from the better universities are likely to appear, thus defeating the very purpose of the examination.

B.2 If recruitment to various types of services is also based on the NME it will have three pronounced benefits. (i) the candidates who today appear in a number of similar competitive examinations in the states and in the Centre have to waste a great deal of time and money in running from one examination to the other; they will be saved the expense and the frustration; (ii) the various Government, Semi-Government, and Public or Private organizations who may draw on the list of the candidates with appropriate grades in the NME (sometimes for some additional specific testing) will obtain a more competitive and all-India resource of personnel for higher posts leaving a scope for regional considerations for lower posts or where necessary (iii) in the case of the U.S.C or the State P.S.C's a single NME will replace a number of examination, which are now conducted even in the same discipline for various services, thus rationalizing the examination system and saving on time and cost.

B.3 A view that was very largely supported by the members of the Committee was that many agencies (even Private) would take candidates from the NME but others should be compelled to do so in the interest of everyone as stated in B.2 above. *The Estimates Committee (Fourth Lok Sabha) in para 6.8 of their 47th Report on the Ministry of Home Affairs - UPSC, and the Study Team of the Administrative Reforms Commission on Personnel Administration in para 7.10 of their Report have also emphasized the importance of action in this direction and the matter requires further consideration.

C.1. There was no doubt in the minds of the members that the UPSC is the only appropriate agency to conduct such an examination from the point of view of credibility, expertise available, and its own inclination expressed in a note of Mr. Thomas.

C.2 The involvement of academics to work out details of the NME further would be natural and once the purpose and scope are established and conducting agency identified, these details would be looked into by the agency.

*Note of Mr. M.M. Thomas, Additional Secretary, UPSC