

**MINUTES OF THE 199TH MEETING OF
THE UNIVERSITY GRANTS
COMMISSION HELD ON 19TH
DECEMBER, 1977.**

UGC

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UGC

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Minutes of the 199th meeting of the University
Grants Commission held on 19th December, 1977.

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The following were present :

Professor Satish Chandra	-	Chairman
Professor B. Ramachandra Rao	-	Vice-Chairman
Shri G. Ramachandran	-	Member
Professor R.P. Bambah	-	Member
Professor S.S. Saluja	-	Member
Professor (Miss) A.J. Dastur	-	Member
Professor S.Gopal	-	Member
Professor S. Maqbool Ahmed	-	Member
Professor B.M. Udgaonkar	-	Member
Dr. Anrik Singh Cheema	-	Member
Shri R.K. Chhabra	-	Secretary

Shri P. Sabanayagam and Dr. Chandran D.S. Devanesan had expressed their inability to attend the meeting.

SECRETARIAT

Joint Secretaries

Dr. J.N. Kaul
Shri S. Viswanath

Deputy Secretaries

Dr. S.C. Goel
Dr. S.P. Gupta
Dr. M.N. Hajela
Shri Y.D. Sharma
Shri A.B. Gupta
Shri M.P. Balakrishnan
Shri L.R. Mal

Finance Officer

Shri B.S. Tyle

Item No. 1: To receive minutes of the meeting of the Commission held on 7th and 8th November, 1977.

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The minutes of the meeting of the Commission held on November 7-8, 1977 were confirmed.

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- Item No.2: (a) To approve the action taken on certain matters.
(b) To receive the items of information.
(c) To approve the statement of proposals which could not be accepted by the Commission.

.....

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

(b)(2) The Commission was of the view that there should be no difference in the scales of pay of teachers in technical and non-technical departments of the same institution. This matter should be taken up with the Government of Gujarat.

Item No.3: To approve the statement of grants released after the meeting of the Commission held on 7th and 8th November, 1977.

The Commission approved the grants released after the last meeting of the Commission held on November 7-8, 1977. Appendix.II.*

Item No.4: To receive the statement of expenditure incurred by the University Grants Commission during 1977-78 upto 30th November, 1977.

.....

This was noted.

Item No.5: To receive a statement indicating the progress of issue of utilisation certificates during the period ending 30th November, 1977.

.....

This was noted.

Item No.6: To receive the Annual Accounts of the University Grants Commission for the year 1975-76 as presented to the Parliament under Section 19(4) of the U.G.C. Act, 1956.

.....

This item had been withdrawn.

Item No.7: To consider further draft policy statement on adult education.

.....

The Commission endorsed the draft policy statement on Adult Education (Appendix III) and desired that this may be circulated to the universities. It was noted that the details of the programmes would be formulated by the standing Committee.

Adult/Continuing Education. Thereafter, the policy statement and the programmes recommended by the committee may be discussed in conferences to be organised on a regional basis.

The Commission agreed to make necessary provision for the establishment and strengthening of departments of Adult/Continuing Education in the universities. It was further noted that the Ministry of Education had agreed to provide funds for field work and functional literacy programmes that might be undertaken by the universities.

Item No.8: To consider the recommendations of the 5th Plan Visiting Committee for the development of Engineering and Technology at Bombay University.

....

The Commission generally accepted the recommendations of the visiting committee and agreed to provide grants to the University of Bombay for the development of Engineering and Technology as indicated in Appendix-IV, on the usual sharing basis. The Commission further desired that the following may be brought to the notice of the University:

- (a) Obsolete equipment being used at present should be gradually replaced;
- (b) Grants provided to the university for equipment under general development scheme should be utilised for procuring equipment which is required for mainly teaching purposes.

In this connection, the commission desired that to ensure proper development of the J.J. School of Architecture, the existing buildings may be transferred by the State Government to the Bombay University. The science laboratories of the Polytechnic located in the campus of the J.J. School of Architecture may also be shifted and the building made available to the J.J. School of Architecture.

Item No.9 :To consider the report of the Visiting Committee appointed to assess the development proposals of the Department of Pharmaceutical sciences, Sagar University, Sagar during the Vth Five Year Plan.

....

The Commission desired in the first instance that the comments of the Sagar University may be obtained on the observations made by the Visiting Committee and the report brought up again along with the comments of the University.

Item No.10 To consider the report of the Visiting Comm appointed to assess the Fifth Plan proposal Faculty of Engineering and Technology, Anna University.

The Commission desired that the comments of the University on the observations/made by the Visiting Comm be obtained. For the present, grants recommended by the Visiting Committee for construction of building, equipment books and journals and seminars may be allocated to the university to enable it to augment the Physical Facilities in the department (Appendix V).

The requirements of the staff may be considered the comments of the University on the observations of the Visiting Committee are available.

The University may be requested to consider the desirability of merging the different sections in Science subjects of Electrical and Mechanical Engineering in the Departments of Engineering & Technology.

The University may also consider the requirements for the development of the Muthiah Polytechnic and send them for the consideration of the Commission.

Item No. 11: To consider the report of the Visiting Comm appointed to examine the Fifth Plan proposal of the Faculty of Engineering & Technology, Muslim University.

The Commission generally accepted the recommendations of the visiting Committee appointed to assess the requirements of Engineering & Technology and Polytechnic of the Aligarh Muslim University. The Commission agreed to provide assistance to the University as per details given in Appendix VI.

The Commission further desired that the question of the faculties of Engineering and Technology in Aligarh Muslim University and Banaras Hindu University having separate departments in basic sciences may be examined by a committee. The question of providing additional positions in these departments at the Aligarh Muslim University may be considered only after the report of the committee is considered by the Commission.

which should finalise its report within two months.

The Commission could not agree to (a) provision of a separate hostel for the faculty of Engineering & Technology and (b) provision of one Sr. Research Assistant and one library attendant to be attached to each staff member.

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the department of Mechanical Engineering. While agreeing to provide assistance for the technical and laboratory staff, the Commission was not in favour of providing assistance for the ministerial and class IV staff as part of the general development programmes of the faculty.

Item No.12: To consider the report of the visiting Committee appointed by the university Grants Commission to examine the proposal of the Aligarh Muslim University for staff for the library.

The Commission noted that it had already agreed to the creation of one post of Deputy Librarian and three posts of Assistant Librarians in the Aligarh Muslim University. The Commission agreed to the creation of a post of Curator in the grade of Rs. 1100-1600 and two posts of Punchers. The Commission further desired that the views of the university may be invited on the different recommendations made by the Committee so as to enable it to consider the additional requirements of the library. The question of providing a separate computer Programme-cum-system analyst for the library may be referred to the Computer Committee for advice.

Item No.13: To consider a proposal of Shivaji University, Kolhapur for additional grants during Vth Plan.

.....

The Commission agreed to provide the additional grants to the Shivaji University during the Fifth Plan as given in AppendixVII.

The Commission also agreed to the starting of a postgraduate course in Marathi with the provision of the following on the usual sharing basis:

Recurring:

Professor	-	1
Reader	-	1
Lecturer	-	2

Non-Recurring

Equipment	-	Rs.10,000
Books & Journals	-	Rs.75,000

While instituting this course, the University should ensure that there is no overlapping in the areas of specialisation amongst the universities in the state.

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The Commission could not at this stage accept the additional requirements of the University for statistics, Commerce, Biochemistry and degree course in Journalism.

Item No. 14: To consider the proposal of the University of Delhi for collaboration between the North Eastern Hill University and the Delhi University.

.....
The Commission accepted in principle the proposal of the Sociology Department of Delhi University for collaborative arrangements with the Departments of Sociology and Anthropology of the North Eastern Hill University and desired that the details of the project may be discussed with the University.

Item No. 15: To consider the question of approving the completion cost of Phase I of the construction of building of Centre of Advanced study in Sociology, Delhi University.

.....
It was agreed that the grant for completion cost of Phase I of the construction of building of the Centre of Advanced Study in sociology, Delhi University may be paid on the basis of recommendations made by the Central P.W.D.

Item No. 16: To consider the proposal of the Aligarh Muslim University for removing specialisation for the post of Professor approved in the Department of Geology.

.....
The Commission accepted the proposal of the Aligarh Muslim University for treating the post of Professor in the Department of Geology as open.

Item No. 17: To consider a proposal received from Indian Institute of science, Bangalore, for the grant of Rs. 25 lakhs for Students Hostel during the Fifth Plan.

.....
The Commission accepted, as a special case, the proposal of the Institute for the construction of additional hostel accommodation for 150 men and 100 women students and agreed to provide assistance of Rs. 25 lakhs for this purpose over and above the Fifth Plan allocation of the Institute.

Item No. 18: To consider the proposal of Jawahar Bharati, Kavali for financial assistance under the University Grants Commission scheme of restructuring of courses.

.....
The Commission accepted the proposal of Jawahar Bharati
p.t.o..

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Kavali under the scheme of restructuring of courses and agreed to provide to the college assistance amounting to Rs. 1,67,700 as detailed in Appendix VIII.

The college may be advised to secure the services of teachers for the new courses on deputation from the appropriate institutions.

Item No. 19: To consider the proposal of the Government L.C.S. College, Ambagarh Chowki, M.P. (Ravi Shankar University) for the construction of Men's Hostel.

.....

The Commission accepted the proposal of the Government L.C.S. College, Ambagarh Chowki, M.P. for the construction of Men's hostel for 60 students on the usual sharing basis under Rs. 5 lakh scheme.

The Commission felt that there was inadequate staff in the college and it would be well advised to approach the Commission for support for additional staff.

Item No. 20: To consider the proposal of the Delhi School of Social work, based on the recommendations of the Seminar organised by the School on Integrated Approach to Rural Development with Social Justice.

.....

The Commission desired that the Delhi school of social work be advised to approach the Department of Social Welfare, Government of India, for assistance for implementation of the recommendations made at the seminar.

Item No. 21: To consider certain establishment matters of the University grants Commission.
Proposal regarding termination of Agreement entered into with the UGC Cycle Stand Contractor.

The Commission agreed that the contract with Shri Erishna Nand Sharma be terminated and alternative arrangements made. The Commission also agreed that the amount which cannot be realised from the contractor be written off.

Item No. 22: To consider the question of relief assistance to colleges which have suffered seriously from the Cyclone in the Southern States of Andhra Pradesh, etc.

It was agreed that this may be further discussed with the Government of India.

p.t.o.

Item No.23: To consider the report of the Review Committee the University Grants Commission.

....

Consideration of this item was postponed.

Item No.24: To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of the Department of Political Science, Osmania University, Hyderabad for participation in the University Leadership Programme.

....

The Commission agreed to invite the department of Political Science, Osmania University, for participation in the University Leadership Programme and agreed to provide assistance as indicated in Appendix IX.

In this connection it was noted that a committee is already looking into the question of supporting the university for additional staff/honorarium for University Leadership Programme. The Commission desired that the work of this committee may be expedited and in the meantime the university, having University Leadership Programmes in the Humanities and Social Sciences, may be provided with assistance for staff recommended by the Visiting Committees.

Item No.25: To consider the report of the Committee appointed by the University Grants Commission to examine proposal of the Rajasthan University, Jaipur, for participation in the University Leadership Programme.

.....

The Commission agreed to invite the Department of Political Science, Rajasthan University, for participation in the University Leadership Programme and agreed to provide assistance as indicated in Appendix X.

Item No.26: To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of the Department of Philosophy, Calcutta University, Calcutta for participation in the University Leadership Programme.

.....

The Commission agreed to invite the department of Philosophy, Calcutta University, for participation in the University Leadership Programme and agreed to provide assistance as indicated in Appendix XI.

Item No. 27: To consider some observations made by the Panel on Law at its meeting held on September 12, 1977.

....

It was agreed that the Chairman will discuss this matter with the Panel on Law.

Item No. 28: To consider the report of the visit to DEI Women's Training College, Agra and Radhaswamy Educational Institute Degree College, Agra under the scheme of Restructuring Courses.

....

The Commission accepted the proposals of Radhaswamy Educational Institute Degree College, Agra and DEI Women's Training College, Agra, under the scheme of restructuring of courses and agreed to provide grants as detailed in Appendix.XII.

In this connection, the Commission noted that no honorarium would be paid under the programme to any of the existing staff members of the Colleges concerned.

Item No.29: To consider the report of the UGC Committee on the proposal of the S.N. Bose Institute of Physical Science of Calcutta University for assistance for post M.Sc. programme being conducted at the Institute.

....

It was agreed that the recommendations made by the Committee may be further examined in the light of the observations made by the V Plan visiting Committee of the University and the matter decided by the Chairman.

Item No.30: To consider the report of the UGC Committee on introduction of LL.M. Course at Calcutta University and conversion of some posts of part-time Lecturers into posts of full-time Lecturers in Law.

.....

It was agreed that the recommendations made by the Committee may be further examined in the light of the observations made by the V Plan Visiting Committee of the University and the matter decided by the Chairman.

Item No.31: To consider the report of the Visiting Committee which examined the proposal of the Geography Department Panjab University, Chandigarh for departmental support.

....

The Commission accepted the recommendations of the

p.t.o.

committee and agreed to provide support to the Geography Department, Panjab University, as given in Appendix.XIII.

Item No. 32: To consider the report of the Visiting Committee to the department of Zoology, Panjab University, for inviting the department to participate in the programme of 'Special Assistance to Selected Department'.

....

It was desired that this may be brought up before the Commission again after the University had filled up the vacant post of Professors in the Department.

The University may be advised to fill in these posts in the specialisations of Parasitology and Cytogenetics.

Item No.33: To consider the recommendations of the Working Groups on Student Welfare Programme.

....

The Commission considered the recommendations of the Working Group on Student Welfare Programme and agreed as follows .:

1. Assistance may be provided for improvement/development of play fields in the universities and colleges irrespective of the fact whether they were assisted in IV Plan for this purpose.

2. The required minimum enrolment of students for construction of gymnasium may be lowered from 1,500 to 1,000.

3. The Universities and colleges be assisted for setting up of career advising units on the basis indicated below :

A.	Universities	Rs.10,000 p.a.	(UGC share)
		Rs. 5,000 p.a.	(State/University share)

Total	Rs.15,000 p.a.	of this, not more than
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Rs. 5,000p.a. to be utilised for working expenses and Rs.10,000 p.a. for personnel services.

p.t.o.

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B. Colleges	Rs. 4,000 p.a. (UGC share)
	Rs. 2,000 p.a. (State/College share).
Total	Rs.6,000 p.a. out of this not more than
	Rs.2,000 p.a. for working expenses and
	Rs.4,000 p.a. for personnel services.

Colleges with an enrolment of 2500 and above may be considered for assistance on the same basis as the universities.

4. The Universities and colleges be assisted to encourage cultural activities among students on the basis of financial limits laid down by the Group and on sharing basis of 75:25. The guidelines of the scheme to be implemented would be clearly spelt out before this is communicated to the universities.

5. The Commission could not accept the recommendation of the Group for providing assistance for construction of tube-well/over-head tanks.

6. The Commission was of the view that if assistance is to be provided to the Central Universities for purchase of crockery and other facilities for messes, it should be provided out of the non-plan funds, and not plan funds.

Item No.34: To consider the recommendations of the Committee appointed to suggest model courses for defence studies at undergraduate and post-graduate level.

.....

The Commission was not in favour of providing facilities for defence studies at the undergraduate level. It was agreed that before a decision is taken with regard to providing facilities for defence studies at post-graduate and research level, the matter may be discussed with the Ministry of Defence.

Item Nos. 35 to 51

Consideration of Items Nos.35 to 51 was postponed to the next meeting.

Item No.52: To consider a proposal of the Banaras Hindu University for blind persons to appear privately at all the university examinations.

.....

This was noted. It was agreed that the decision taken by the Banaras Hindu University may be brought to the notice of other universities for providing similar facilities to

p.t.o.

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blind students.

Item No.53: To consider the proposal of the Allahabad University for the establishment of the museum in the department of Ancient Indian History, Culture and Archaeology.

....

Consideration of this was postponed to the next meeting.

Item No.54: 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 on December 29, 1977 at New Delhi.

Item No.55: To consider recommendations made by the Standing Committee on Gandhian Studies.

....

The Commission accepted the recommendations made by the Standing Committee on Gandhian Studies as per Appendix XIV.

Item No.56: To consider a proposal from the Calcutta University for financial assistance towards the acquisition of land for Calcutta University on 100% basis.

Considering the fact that the West Bengal Government was providing land to the Calcutta University at a concessional rate, the Commission agreed to provide a grant of Rs.46.15 lakhs to the University on a 100 per cent basis towards acquiring 19.07 acres of land in the Salt Lake area for the use of the second campus of the Calcutta University. It was further noted that the amount would be provided out of the total allocation of Rs. 1 crore for this campus during the current plan period.

Item No.57: To consider a reference from the Government of India, Ministry of Information & Broadcasting regarding Honoris Causa' degree to be treated at par with a regular doctoral degree awarded by recognised universities.

...

Honoris Causa' degrees are awarded by Universities to honour people from different walks of life. A Ph.D. degree which entitles a person to be called a 'Doctor' on the other hand, a recognition of research/academic work. Hence, these two are different in nature, and by convention in universities persons who are given 'Honoris Causa' degrees are not addressed as 'Doctor'. The Government of India may be informed accordingly.

p.t.o.

Item Nos. 58 to 60

Consideration of Items Nos. 58 to 60 was postponed to the next meeting.

Item No. 61: To consider the recommendation of the Committee appointed to consider the question of relaxation of qualifications of teachers retrenched by private management due to various reasons i.e. discontinuation of certain courses, reduction in enrolment etc., consequent upon the revision of scales of pay

....

. . . The Commission accepted the recommendations of the Committee appointed to consider the question of relaxation of qualification of teachers retrenched by private management and agreed that the lecturers who are retrenched due to various reasons may be considered for re-appointment as lectures in other colleges/institutions provided the incumbent had been confirmed in his substantive post and had at least five years teaching experience. The revised qualifications laid down consequent upon the revision of scales of pay may not be insisted upon in case such an incumbent fulfils the qualifications prescribed by the University at the time of initial appointment to the post of lecturer.

(R. K. CHAUDHARI)
SECRETARY

(SATISH CHANDRA)
CHAIRMAN

UNIVERSITY ADULT AND CONTINUING EDUCATION

Universities cannot confine their concern to the expansion of the frontiers of knowledge and to its dissemination to fulltime post secondary students. Their activities should also include (a) organisation of educational programmes, including literacy for illiterate adults, to enable them to play a self-reliant and active role in their own development and in the development of their environment; and (b) organisation of special programmes for different groups of people at various levels.

2. For all classes of people-high and low, rich and poor the well to do and the deprived-education should become a life-long process. Besides it should also be understood that the urgent need is to prepare the vanguard for effecting social change from the centre outwards and from the top downwards. The idea is to reconstruct the vision of a new society and the universities are uniquely suited and well provided to work for this purpose. In this perspective the universities should re-examine their past experience and future responsibility in the field of adult education and should prepare a plan for action based on an assessment of their capability and the learning needs of adult men and women. Therefore, every university ought to recognise that adult education can no more remain the concern of a department or of a limited number of its teachers; it must extend to the entire faculty and, what is even more important, to the students.

3. An area with which universities are becoming increasingly familiar is extension of an continuing education. The present status of these programmes in Indian Universities with the exception of agricultural universities and some other institutions, is marginal in the system of higher education. However, extension and continuing education activities can provide a new dimension to the programmes of the universities, as well as new insights. The courses devised for formal full-time instruction can be opened up to make them easily accessible to adults:

- through correspondence methods,
- by making access conditions elastic

- by organisation of part-time and own-time activities.
- by bringing the university and community closer to each other for problem solving situations and breaking social barriers.

Besides, efficiency of the work-force (including white collar sections of the middle class) can be upgraded by organisation of well-conceived and systematic programmes, including programmes which would equip the community for the future. Organised on a wide scale, and with proper emphasis, continuing education might facilitate a far-reaching change in the university system-making it more open in regard to access, methods, curricula, certification etc.

4. Programmes of extension and continuing education, however are variable in the higher education system and are seldom able to include, within the scope of university activity, the vast mass of people who are the most disadvantaged. In the changing emphasis in educational priorities, the importance in university adult education must also shift to organisation of adult education activity aimed at extending educational facilities within the next five years to about 10 crore illiterate persons in 15-35 age-group. There are two main areas to which universities might address themselves in this connection (a) various programmes of professional development and research and (b) involvement of teachers and students in organisation of adult education programmes for the illiterate youth.

5. Programmes of professional development might include regular degree and post-graduate courses in adult education. Such courses have to be inter-disciplinary and liberal as well as related to the adult education needs of the community. Their importance lies in the fact that they would prepare the future teachers for other universities when they set up their centres or departments of adult and continuing education. Besides, universities could organise a number of courses designed on the basis of the field requirements. These could include courses in training methodologies, preparation of curricular of teaching/learning materials, animation techniques, use of mass media and problems of communication, producing literature etc. Universities also

have a responsibility in organising innovation and experimentation for developing tools for use by others on a mass scale; considering that in all mass programmes of education there is, inevitably, considerable departure from the desired norms, evaluation assumes a special significance. Universities can provide the needed evaluation techniques as well as the machinery therefor. In addition to innovation and evaluation, other research areas can also be identified. University research in adult education could vary from action-oriented projects, such as methods to survey the needs of learners in various situations, to complex research problems such as motivation for adult learning.

6. In the context of the massive programme of adult education now contemplated, it would not be desirable for universities to restrict their role to professional development, evaluation and research. Every university should commit itself to directly organising adult education programmes, with an indispensable component of literacy, for illiterate youth. In doing so each university will have to decide the most appropriate means for involvement of its teachers and students.

7. Students are a most dynamic and vital element in the university. The efforts made in the past to involve students in adult education programmes have not been sustained or systematic and, therefore, had limited success. One important reason for that has been insufficient involvement of teachers. The full involvement of students in such activities is hardly feasible without the involvement of teachers. It would be highly desirable that all teachers should be drawn into these programmes by adopting flexible methods for the purpose. Teachers associations, the Association of Indian Universities, the UGC and the leadership within the university would have to exert their influence to persuade teachers to participate in the programme with vision and enthusiasm and to ensure that teachers function with students not as supervisors and directors but as co-workers.

8. Involvement of teachers and students can be either (i) by adopting study-service method with well-defined and qualified social service becoming a part of the credit programme or (ii) by making necessary modification in the National Service Scheme so that every

student undertakes service for a certain minimum hours or (iii) by providing institutional incentives and linking of grants with institution's performance in this field could also be considered by the UGC.

9. Involvement of universities in this manner with the most significant concerns of community life holds the promise of basic structural and curricular reform in the whole system of higher education. Application of a large section of the Faculty and the student community to purposeful community service will, inevitably, affect the tone and discipline of the universities, the curriculum and methods and general relationship between the students and teachers on the one hand and the entire university community and the society on the other.

Appendix to Item No. 3

Appendix IV to Item No. 3

I. Department of Chemical Technology:

Equipment	32,85,000
Audio-visual aids	1,00,000
Space	1,00,000
Books & Journals	4,00,000
Library Equipment	<u>80,000</u>
	<u>39,65,000</u>

Recurring:

Professor	2
Reader	1
Others	3

II. Sir J.J College of Architecture:

Books and Journals	3,50,000
Equipment	<u>7,50,000</u>
	<u>11,00,000</u>

Recurring

Professor	1
Readers	2
Others	6

III. Hostel (Common) 7,50,000

Appendix IV to Item 10.

1.	<u>DEPARTMENT OF CIVIL ENGINEERING</u>		<u>UGC SHARE</u>
(i)	Additional Accommodation including furniture	Rs.	2.50 Lakhs
(ii)	Equipment		5.00 "
(iii)	Books & Journals		1.00 "
(iv)	Seminars, Symposia etc.		<u>0.10</u> "
			8.60

2.	<u>DEPARTMENT OF ELECTRICAL ENGINEERING</u>		
(i)	Additional accomodation including furniture	Rs.	2.50 Lakhs
(ii)	Equipment		15.00 "
(iii)	Seminars, Symposia etc.		<u>0.15</u> "
			17.65 Lakhs

3.	<u>DEPARTMENT OF MECHANICAL ENGINEERING</u>		
(i)	Equipment	Rs.	15.00 Lakhs
(ii)	Library Books and Journals		2.00 "
(iii)	Seminars, Symposia etc.		<u>0.15</u> "
			17.15 Lakhs

4.	<u>DEPARTMENT OF TECHNOLOGY</u>		
(i)	Additional accomodation including furniture		2.50 Lakhs
(ii)	Equipment		9.50 "
(iii)	Library Books & Journals		2.00 "
(iv)	Seminars, Symposia etc.		<u>0.15</u> "
		Rs.	<u>14.15</u> Lakhs

5.	<u>SCIENCE & HUMANITIES DEPARTMENT</u>		
(i)	Equipment	Rs.	2.00 Lakhs
(ii)	Books & Journals		<u>0.65</u> "
			2.65 "

	GRAND TOTAL	Rs.	60.20 Lakhs
			=====

Appendix VI to Item I1

Zakir Hussain College of Engineering & Technology
Aligarh Muslim University

<u>Items</u>	<u>Approved allocation</u>																		
1. Spill over programmes	Rs. 19.33 lakhs																		
II. <u>Department of Civil Engineering</u>																			
1. Books & Journals	Rs. 1.00 "																		
2. Equipment	Rs. 13.00 "																		
3. Building - Structural testing 4,000 sft	Rs. 2.00 "																		
4. <u>Additional Staff:</u>																			
	<table><thead><tr><th><u>Professors</u></th><th><u>Readers</u></th><th><u>Others.</u></th></tr></thead><tbody><tr><td>2 in Structural Engineering</td><td>2 in Structural Engineering</td><td>2 Tech. Asstts.</td></tr><tr><td>1 in Hydraulic Engineering</td><td>2 in Hydraulic Engineering</td><td>1 Survey Instrument Mechanic</td></tr><tr><td>1 in Soil Mechanics & Foundation Engineering</td><td>1 in Soil Mechanics</td><td>1 Sr. Mechanic</td></tr><tr><td></td><td>1 in Foundation Engineering</td><td></td></tr><tr><td></td><td>1 in Public Health Engineering</td><td></td></tr></tbody></table>	<u>Professors</u>	<u>Readers</u>	<u>Others.</u>	2 in Structural Engineering	2 in Structural Engineering	2 Tech. Asstts.	1 in Hydraulic Engineering	2 in Hydraulic Engineering	1 Survey Instrument Mechanic	1 in Soil Mechanics & Foundation Engineering	1 in Soil Mechanics	1 Sr. Mechanic		1 in Foundation Engineering			1 in Public Health Engineering	
<u>Professors</u>	<u>Readers</u>	<u>Others.</u>																	
2 in Structural Engineering	2 in Structural Engineering	2 Tech. Asstts.																	
1 in Hydraulic Engineering	2 in Hydraulic Engineering	1 Survey Instrument Mechanic																	
1 in Soil Mechanics & Foundation Engineering	1 in Soil Mechanics	1 Sr. Mechanic																	
	1 in Foundation Engineering																		
	1 in Public Health Engineering																		
III. <u>Department of Mechanical Engineering:</u>																			
1. Repair to old building furniture and fittings	Rs. 2.82 lakhs																		
2. Books and Journals	Rs. 2.50 lakhs																		
3. Equipment	Rs. 10.25 lakhs																		
4. Replacement of obsolete equipment	Rs. 4.00 lakhs																		
5. <u>Additional Staff:</u>																			
	<table><thead><tr><th><u>Professors</u></th><th><u>Readers</u></th></tr></thead><tbody><tr><td>2 one in Fluid Mechanics and the other in combustion Engineering.</td><td>4 in Fluid Mechanics Machinery and Combustion Engineering.</td></tr></tbody></table>	<u>Professors</u>	<u>Readers</u>	2 one in Fluid Mechanics and the other in combustion Engineering.	4 in Fluid Mechanics Machinery and Combustion Engineering.														
<u>Professors</u>	<u>Readers</u>																		
2 one in Fluid Mechanics and the other in combustion Engineering.	4 in Fluid Mechanics Machinery and Combustion Engineering.																		

IV. Department of Electrical Engineering:

<u>Items</u>	<u>Approved Allocation</u>
1. Building	Rs. 4.50 lakhs
2. Equipment	Rs. 12.10 "
3. Replacement of obsolete equipment	Rs. 2.00 "
4. Furniture	Rs. 0.25 "
5. Books & Journals	Rs. 0.75 "

Additional Staff:

<u>Professors</u>	<u>Readers</u>	<u>Others</u>
1 in Area Communication	2 One in Power Electronics & the other in Bio-Electronics	2 Sr.Tech. Asstt. 3 Instrument Mechanics

V. Department of Chemical Engineering

1. Building	Rs. 6.00 lakhs
2. Furniture	Rs. 0.60 lakhs
3. Equipment	Rs. 5.40 lakhs

Additional Staff:

<u>Professor</u>	<u>Reader</u>	<u>Lecturer</u>	<u>Others</u>
1. in Chemical Engg.Plant Design or Petroleum Refinery Eng.	3 in Mass Transfer Heat Transfer/ Fluid Mechanics Reaction Engg./ Transport Phenomena/Petroleum Technology to be specialised in atleast two of the above.	4 in Fluid Tech. Mechanical Technology/ Transport Phenomena/ Chemical Engg.Design	1.Foreman 1 Tech.Asst Mechanic/ Boiler Attendant/ Draftsman

Working Expenses Rs. 35,000

Central Facilities:

1. Library furniture and equipment	Rs. 1.80 lakhs
2. Additional staff *(1 Librarian, 6 Professional assistants and 2 Library Attendants)	Rs. 1.02 "
3. Workshop	Rs. 1.50 "
4. Additional class room	Rs. 2.40 "
5. Furniture for class rooms	Rs. 0.60 "
6. <u>University Polytechnic</u> Equipment and accommodation for job simulation centre	Rs. 14.00 "
7. Women's Polytechnic (Detailed Scheme to be prepared)	Rs. 5.00

* Rs. 700-1300

Appendix VII to Item No.13.

Books & Journals:

Science	Rs. 2 lakhs
Humanities & Social Sciences	Rs. 1 lakhs
Total	<u>Rs. 3 lakhs</u>

Equipment

Botany	Rs. 1 lakh
Physics	Rs. 3,50,000
Zoology	Rs. 1,00,000
Economics	Rs. 10,000
Total	<u>Rs. 5,60,000</u>

Building

Library Extension	Rs. 3 lakhs (UCC Share)
Museum (Museum Articles)	Rs. 65,000
Technical Staff:	
Field Assistant	1
Fieldman	1

Appendix VIII to Item no.18
of UGC meeting dated December 19,1977.

...

Horticulture:

Non-recurring

1. Sinking of well and installation of motor etc.	Rs.15,000
2. Raising 5 acres of orchard.	5,000
3. Purchase of garden tools.	2,500
4. Organisation of horticulture lab.	13,000
5. Library books.	5,000
6. Fruit and vegetable preservation lab.	25,000
7. Erecting fencing, wind breaks, etc.	5,000

Total:	Rs.70,500

Recurring*

Teaching staff

1. year	Rs. 9,600
2nd year	Rs. 9,600
3rd year	Rs.19,200

	Rs.38,400

Dairy science

Non-recurring

Equipment, glass ware	Rs.10,000
Dairy unit (Buffaloes and Cows)	Rs.15,000
Milk product equipment.	Rs. 2,000
Books and journals	Rs. 3,000

	Rs.30,000

Recurring

Teachers Pay Rs. 96,000 p.a.

Total: Rs.30,000 + 9,600 x 3* = Rs.58,800.
(1978-79, 1979-80 and 1980-81)*

Grand Total: (R + NR) = Rs.1,67,700.

Appendix IX to Item no.24 of
UGC meeting dated 19th December 1977.

Support approved and recommended by the U.G.C. for the
Department of Political Science, Osmania University, Hyderabad,
for participation in the University Leadership Programme.

...

Recurring

1. Reader - one	Rs. 19,000 p.a.
2. Documentation Officer - one (Rs.480-900)	Rs. 9,500 p.a.
3. Secretarial assistance. . .	Rs. 10,000 p.a.
4. Refresher courses, workshops and seminars.	Rs. 30,000 p.a.
5. Provision for TA/DA for exchange and visits of college teachers to the university department and vice- versa.	Rs. 5,000 p.a.
6. Stationery and postage.	Rs. 10,000 p.a.
7. Contingency.	Rs. 5,000 p.a.
Total:	<u>Rs. 88,500 p.a.</u>

Total recurring for three years: Rs.2,65,500.

Non-recurring

1. Teaching aids and books to 70 colleges @ Rs.2,500 per year.	Rs. 1,75,000
2. Books & journals for the university department.	Rs. 50,000
3. Equipments (including complete desk duplicating centre, calculator, projector etc.).	Rs. 50,000
Total:	<u>Rs. 2,75,000</u>

Grand total (Recurring + non-recurring) = Rs.5,40,500.

Appendix E to item no.25 of the
UGC meeting dated 19th December 1977.

Support approved and recommended by the UGC for the
Department of Political Science, Rajasthan University for
participation in the University Leadership Programme.

...

Recurring

1. One annual visiting Professor.	Rs.30,000 p.a.
2. One Reader	Rs.19,000 p.a.
3. One Lecturer (Translation)	Rs.17,000 p.a.
4. TA/DA for exchange and visits of college teachers to the university department and vice-versa.	Rs. 6,000 p.a.
5. Administrative support (inclusive of documentation services).	Rs.20,000 p.a.
6. Departmental library grant.	Rs.10,000 p.a.
7. Cyclostyling and stationery.	Rs.10,000 p.a.
8. Postage.	Rs. 5,000 p.a.
9. Contingency.	Rs. 5,000 p.a.
10. Annual summer institute.	Rs.30,000 p.a.
11. Short-term seminars and workshops.	Rs. 5,000 p.a.
Total:	Rs.1,54,000 p.a.

Total recurring for three years = Rs.4,62,000.

Non-recurring

1. Library books for colleges at Rs.2,500 per college for 25 colleges per year.	Rs.1,87,500
2. Typewriters.	Rs. 5,000
3. Cyclostyling duplicating machine.	Rs. 12,000
4. Equipment (automatic stencilling, cutting and processing machine etc.)	Rs. 35,000
Total:	Rs.2,39,500

Grand total (Recurring + non-recurring) = Rs.7,01,500.

...

Appendix XI to item no.26 of the
UGC meeting dated December 19, 1977.

Support approved and recommended by the UGC for the
Department of Philosophy, Calcutta University, for
participation in the University Leadership Programme.

...

Recurring

1. Professor - one	Rs. 24,000 p.a.
2. Lecturer - one	Rs. 14,000 p.a.
3. Visiting Professors	Rs. 25,000 p.a.
4. Administrative and technical staff.	Rs. 15,000 p.a.
5. Seminars, refresher courses, summer institutes, etc.	Rs. 20,000 p.a.
6. Stationery (paper, stencils etc.)	Rs. 8,000 p.a.
7. TA & DA to the staff.	Rs. 5,000 p.a.
8. Contingencies.	Rs. 5,000 p.a.

Total:	Rs. 1,16,000 p.a.

Total recurring for three years: Rs. 3,48,000

Non-recurring

1. Books & journals for the colleges at Rs. 2,500 per college for 50 colleges.	Rs. 1,25,000
2. Furniture & equipment.	Rs. 15,000
3. Typewriters (one English and one Bengali).	Rs. 6,000
4. Electric Stencil Cutter.	Rs. 21,000
5. One cyclostyling machine.	Rs. 10,000
6. Books & journals for the department.	Rs. 50,000

Total:	Rs. 2,27,000

Grand total (R + NR) Rs. 5,75,000

...

Appendix XII to Item No.28 of UGC
meeting dated December 19, 1977.

...

j) Grants Recommended:

R.E.D. Degree College

<u>Course</u>	<u>Non-recurring</u>		<u>Staff/Honorarium</u>
	<u>Equipment</u>	<u>Books</u>	<u>per annum</u>
	Rs.	Rs.	Rs.
1. Practical Electronics and • • Lab. instrument handling.	15,000	1,000	3,600
2. Chart, micro-techniques model making and zarine and texidermy.	25,000	1,000	7,200
3. Soil testing	15,000	1,000	3,600
4. Banking techniques.	-	2,000	3,600
Total:	55,000	5,000	18,000 p.a.
Grand total: Rs.	60,000 + Rs.18,000 x 3 = Rs.1,14,000		

D.E.I. Women's Training College

1. Commercial Art, Designing painting etc.	20,000	-	16,800
2. Fruit preservation, bakery tailoring, hosiery etc.	20,000	5,000	21,600
Total:	40,000	5,000	38,400

Grand total: Rs.45,000 + 38,400 x 3 + Rs.1,60,200

...

Appendix XIII to Item No.31.

A: Recurring for three years

1. Sr.Research Fellows	3	Rs. 600/- per month
2. Jr.Research Fellows	6	Rs. 400/- " "
3. Cartographic Assistants		Rs.7,000/- per annum
4. Lab. Attendants	3	Rs.50000/- per annum
5. Jeep for field work (4 wheel drive)		Rs.15000/- per annum
6. Contingency		Rs.17000/- per annum
7. Cartographic Material		Rs. 5000/- per annum
8. Reference literature including comparative Atlases to strengthen the existing library.		Rs.10000/- per annum
9. Computer Programming		Rs. 8000/- per annum

B: Non-recurring:

1. Laboratory / Cartographic Equipment		Rs. 1.37 Lakhs
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Appendix XIV to Item No.55

Recommendations made by the Standing Committee on
Gandhian Studies.

1.
 - (a) Commission may appoint a few small Visiting Committees with two or three members, to review the working of all the existing Gandhi Bhawans. Members of the Standing Committee may also be associated with these review committees.
 - (b) That while Gandhi Bhawans could be the Centre for organising Community action and community programmes like NSS, adult education, non-formal education etc. research in Gandhian Studies will have to be an integral part of the general research programme of the University. For research on Gandhian Studies to thrive in the Universities, it is important that it should draw the talents and resources available in all departments, including science departments.
2. That there would be no single formula for promoting Gandhian Studies in the universities and colleges. The important points is to awaken and stimulate interest in this area of national importance. Broadly, there would be two approaches first universities and colleges may be given faculty positions and other appropriate facilities for studies and research Gandhian thought. They may decide to set up a Centre for this purpose to co-ordinate the working of the programme which will be implemented through various departments or they may experiment with a departmental set up. It was, however, agreed that the Centre concept would be made feasible in the Indian set up.

The second thrust of the programme should be to encourage the departments themselves to integrate Gandhian thoughts and studies in their own teaching and research programmes. For this purpose support could be provided for fellowships books etc.
3. That the Commission's concern for the promotion of Gandhian studies may be conveyed to the universities and proposals for undertaking studies and research in Gandhian thought and ideology in the light of the recommendations made by the Committee may be invited from the Universities.
4. That some machinery should be provided for bringing together Gandhian Scholars in the universities and from outside to take stock of the present situation in the country and to indicate priorities of research in Gandhian Studies. In this connection, it was noted that 3 or 4 university centres should be identified for preparing reading materials for courses on Gandhian Studies and for indicating lines of future research in this area. This work could be undertaken by a team of scholars and the UGC may provide, if necessary scholarships and fellowships and other needed facilities to support this programme.

5. That four Summer Institutes in Gandhian Studies may be held at the following Institutions:

1. Gujrat Vidyapith, Ahmedabad
2. Allahabad University
3. Madurai University
4. NEHU, Shillong.

It was emphasised that each Summer Institute should provide for expert and scholars from outside the region and that field work and project report should be considered as an essential part of the Summer Institute.

6. That the scheme of National Lecturers may be extended to Gandhian Studies.

x-x-x-x-x-x

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:
Date : 19th December, 1977
Time : 10.00 A.M.
Place : U.G.C. Office,
New Delhi.

A G E N D A

- Item No. 1 : To receive minutes of the meeting of the Commission held on 7th and 8th November, 1977.
- Item No. 2 : (a) To approve the action taken on certain matters.
(b) To receive the items of information
(c) To approve the statement of proposals which could not be accepted by the Commission.
- Item No. 3 : To approve the statement of grants released after the meeting of the Commission held on 7th and 8th November, 1977.
- Item No. 4 : To receive the statement of expenditure incurred by the University Grants Commission during 1977-78 upto 30th November, 1977.
- Item No. 5 : To receive a statement indicating the progress of issue of utilisation certificates during the period ending 30th November, 1977. p.1-2
- Item No. 6 : To receive the Annual Accounts of the University Grants Commission for the year 1975-76 as presented to the Parliament under section 19(4) of the U.G.C. Act, 1956. p.3-4
- Item No. 7 : To consider further draft policy statement on adult education. 5-8.
- Item No. 8 : To consider the recommendations of the 5th Plan Visiting Committee for the development of Engineering and Technology at Bombay University. p.9-28.

- Item No. 9 : To consider the report of the Visiting Committee appointed to assess the development proposals of the Department of Pharmaceutical Sciences, Saugar University, Saugar during the Vth Five Year Plan. p.29-44
- Item No.10 : To consider the report of the visiting Committee appointed to assess the Fifth Plan proposals of the Faculty of Engineering and Technology, Annamalai University. p.45-77.
- Item No.11 : To consider the report of the visiting Committee appointed to examine the Fifth Plan proposals of the Faculty of Engineering and Technology, Aligarh Muslim University. p.78-173
- Item No.12 : To consider the report of the visiting Committee appointed by the University Grants Commission to examine the proposal of the Aligarh Muslim University for staff for the library. p.174-181.
- Item No.13 : To consider a proposal of Shivaji University Kolhapur for additional grants during Vth Plan. p.182-222.
- Item No.14 : To consider the proposal of the University of Delhi for collaboration between the North Eastern Hill University and the Delhi University. p.223- 232.
- Item No.15 : To consider the question of approving the completion cost of Phase I of the construction of building of Centre of Advanced Study in Sociology, Delhi University. p.233-237.
- Item No.16 : To consider the proposal of the Aligarh Muslim University for removing the specialisation for the post of Professor approved in the Department of Geology. p.238-265.
- Item No.17 : To consider a proposal received from Indian Institute of Science, Bangalore, for the grant of Rs. 25 lakhs for Students Hostel during Vth Plan. p.266-267.
- Item No.18 : To consider the proposal of Jawahar . Bharati, Kavali for financial assistance under the University Grants Commission scheme of restructuring of courses. p.268-273.

- Item No. 19 : To consider the proposal of the Government L.C.S. College, Ambagarh Chowki, M.P. (Ravi Shankar University) for the construction of Men's Hostel. p.274.
- Item No. 20 : To consider the proposal of the Delhi School of Social Work, based on the recommendations of the Seminar organised by the School on Integrated Approach to Rural Development with Social Justice. p.275-292.
- Item No. 21 : To consider certain establishment matters of the University Grants Commission. p.293
- Item No. 22 : To consider the question of relief assistance to colleges which have suffered seriously from the Cyclone in the Southern States of Andhra Pradesh, etc. p.294-298.
- Item No. 23 : To consider the report of the Review Committee on the University Grants Commission.
- Item No. 24 : To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of the Department of Political Science, Osmania University, Hyderabad for participation in the University Leadership Programme. p.299-306.
- Item No. 25 : To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of the Department of Political science, Rajasthan University, Jaipur, for participation in the University Leadership Programme. p.307-326
- Item No. 26 : To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of the Department of Philosophy, Calcutta University, Calcutta for participation in the University Leadership Programme. p-327-334
- Item No. 27 : To consider some observations made by the Panel on Law at its meeting held on September 12, 1977. p.335-336.
- Item No. 28 : To consider the report of the visit to DEI Women's Training College, Agra and Radhaswami Educational Institute Degree College, Agra under the scheme of Restructuring Courses. p.337-344.

- Item No. 29 : To consider the report of the UGC Committee on the proposal of the S.N. Bose Institute of Physical Science of Calcutta University for assistance for post M.Sc. programme being conducted at the Institute. p.345-369
- Item No. 30 : To consider the report of the UGC Committee on introduction of LL.M. course at Calcutta University and conversion of some posts of part-time lecturers into posts of full-time lecturer in Law. p.370-384
- Item No. 31 : To consider the report of the Visiting Committee which examined the proposal of the Geography Department, Panjab University, Chandigarh for departmental support. p.385-393
- Item No. 32 : To consider the report of the Visiting Committee to the department of Zoology, Panjab University for inviting the department to participate in the programme of 'Special Assistance to Selected Department', p.394-403
- Item No. 33 : To consider the recommendations of the Working Group on Student Welfare Programme. p.404-412
- Item No. 34 : To consider the recommendations of the Committee appointed to suggest model courses for defence studies at under-graduate and post-graduate level. p.413-467
- Item No. 35 : To consider the recommendations made by the All India Council for Technical Education with regard to constitution of Managing Committees for Non-Government Technical Institutes. p.468-470
- Item No. 36 : To consider further the proposal from the Ministry of Education and Social Welfare regarding the establishment of University in Goa. p.471-480
- Item No. 37 : To consider a reference from the Ministry of Education and Social Welfare, whether the M.B.A., LL.B., B.Ed. and B. Lib. Science courses should be treated as under-graduate courses. p.481-483
- Item No. 38 : To consider a proposal of the Ministry of Education and Social Welfare for taking over of Hindi Translation Cell at Banaras Hindu University and the Delhi University. p.484-497.

- Item No. 39 :To consider the recommendations of the NCC Evaluation Committee appointed by the Ministry of Defence. p.498-506.
- Item No. 40 :To consider relaxation of the minimum qualifications for the fellows to be appointed under the scheme of Preparation of University Level Books by Indian Authors in Medicine and Engineering and Technology subjects. p.507-509.
- Item No. 41 :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.510-511.
- Item No. 42 :To consider a note on the qualifications prescribed for the posts of lecturers in the Universities and colleges. p.512-514.
- Item No. 43 :To consider the question of prescribing minimum qualifications for recruitment to the posts of lecturers in the universities/colleges relaxation for candidates belonging to the category of Scheduled Castes/Scheduled Tribes. p.515-518.
- Item No. 44 :To consider a request received from Jawaharlal Nehru University for grant of fellowships to Ph.D. students until the submission of thesis and the declaration of results. p.519-520
- Item No. 45 :To consider the proposal of the Andhra University, Waltair for financial assistance towards the introduction of Correspondence courses at the post-graduate level. p.521-533.
- Item No. 46 :To consider the proposal of Gujarat University, Ahmedabad for financial assistance towards the introduction of Correspondence Courses at under-graduate level. p.534-535.
- Item No. 47 :To consider the proposal of S.N.D.T. Women's University, Bombay for assistance towards instructional material for the benefit of external/private students. p.536-537

- Item No. 48 : To consider the proposal submitted by the Bombay University for collaboration between the Centre of Advanced Study in Applied Chemistry, Department of Chemical Technology University of Bombay and the University of Manchester, Institute of Science and Technology (UMIST) and the Department of Colour Chemistry, University of Leeds under the IBUC Programme. p.538-545.
- Item No. 49 : To consider a proposal of the Kalyani University for opening of an M.Ed. course in Physical Education. p.546-582.
- Item No. 50 : To consider a proposal of the Utkal University for the establishment of Centre of Regional Studies. p.583-603
- Item No. 51 : To consider the proposal of Sri Venkateswara University to include the U.M.T. Sanatorium under section 2(f) of the UGC Act, 1956 which is a recognised institution of the University. p.604.
- Item No. 52 : To consider a proposal of the Banaras Hindu University for permission to blind persons to appear privately at all the University Examinations. p.605.
- Item No. 53 : To consider the proposal of the Allahabad University for the establishment of the museum in the department of Ancient Indian History, Culture and Archeology. 606-619.
- Item No. 54 : To note the date and place for the next meeting of the Commission.

Any other item.

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C O N F I D E N T I A L

UNIVERSITY GRANTS COMMISSION

Meeting :
Date : 19th December, 1977.
Time : 10.00 A.M.
Place : UGC Office,
New Delhi.

A G E N D A

- Item No. 55 : To consider recommendations made by the
Standing Committee on Gandhian Studies. p.620-628
- Item No. 56 : To consider a proposal from the Calcutta
University for financial assistance
towards the acquisition of land for
Calcutta University on 100% basis. p.629-637
- Item No. 57 : To consider a reference from the Government
of India Ministry of Information &
Broadcasting regarding 'Honoris Causa'
degree to be treated at par with a regular
doctoral degree awarded by recognised
universities. p.638
- Item No. 58 : To consider the request of the Amrit Kapadia
Navjivan Women's College, Hyderabad for
improvement of undergraduate educational
facilities during Vth Plan period- Relaxation
in eligibility conditions- regarding. p.639-640.

SLK

UNIVERSITY GRANTS COMMISSION

Date. Meeting:
19th December, 1977
Time. 10.00 A.M.
Place. UGC Office, New Delhi

A G E N D A .

- Item No. 59 To consider the report of the Visiting Committee which examined the Departmental Research Project for Departmental Support submitted by the Nuclear Physics Department, Andhra University, Waltair. p 641-64.
- Item No. 60 To consider the proposal of C.I.E.F.L., Hyderabad for the construction of Library building outside the fifth plan allocation of Rs. 100 lakhs. p 648-657.
- Item No. 61 To consider the recommendation of the Committee appointed to consider the question of relaxation of qualifications of teachers retrenched by private management due to various reasons i.e. discontinuation of certain courses, reduction in enrolment etc. consequent upon the revision of scales of pay. p 658-659.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Minutes of the 198th meeting of the University
Grants Commission held on November 7-8, 1977.

The following were present:

Professor Satish Chandra	- Chairman
Professor B. Ramachandra Rao	- Vice-Chairman
Shri P. Sabanayagam	- Member
Professor S.S. Saluja	- Member
Professor (Miss) A.J. Dastur	- Member
Professor S. Gopal	- Member
Dr. Amrik Singh Cheema	- Member
Professor S. Maqbool Ahmed	- Member
Professor B.M. Udgaonkar	- Member
Dr. Chandran D.S. Devanesen	- Member
Shri R.K. Chhabra	- Secretary

Shri G. Ramachandran and Professor R.P. Bambah had expressed their inability to attend the meeting.

SECRETARIAT

Additional Secretary

Dr. D. Shankar Narayan

Joint Secretary

Dr. J.N. Kaul
Shri S. Viswanath

Deputy Secretaries

Shri I.C. Menon
Dr. S.C. Goel
Dr. S.P. Gupta
Dr. T.N. Hajela
Shri Y.D. Sharma
Shri M.P. Balakrishnan

Item No. 1: To receive minutes of the meeting of the Commission held on October 17, 1977.

...

The minutes of the meeting of the Commission held on October 17, 1977 were confirmed.

p.t.o.

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. 3: To approve the statement of grants released after the meeting of the Commission held on October 17, 1977.

...

The Commission approved the grants released after the last meeting of the Commission held on October 17, 1977 (Appendix II*).

Item No. 4: To receive the statement of expenditure incurred by the UGC during 1977-78 upto October 30, 1977.

...

This was noted.

Item No. 5: To consider a paper on "Reforms on the educational system".

...

The Commission considered a draft paper entitled "Development of Higher Education in India : A Policy Frame", and desired that the paper as finally approved and as given in Appendix III may be further considered in the light of the discussion in the meeting.

Item No. 6: To consider an approach paper for the next Plan.

...

The Commission was generally in agreement with the approach paper for the next Plan. The paper as adopted by the Commission is given in Appendix IV.

Arising out of this, the Commission observed as follows:

(a) A paper may be prepared on the sharing basis for assistance to be provided to the universities and colleges in the next Plan period and brought up before the Commission.

(b) All the Junior Research Fellowships including those now administered centrally may be allocated to the universities henceforth and the question of monitoring the implementation of the scheme and subsequent enhancement of value to Rs.500/- p.m. at the end of two years period may be examined with the help of a Committee.

Item No. 7: To consider the report of the Review Committee on the U.G.C.

...

Consideration of this item was postponed to the next meeting.

Item No. 8: To consider certain establishment matters of the UGC.

...

- (i) Recommendations made by the Staff Inspection Unit on the staff requirements of the U.G.C. and proposals for additional staff to strengthen the secretariat of the Commission to meet the immediate requirements.
- (ii) Creation of a Cell in the office of the U.G.C. to assist the Liaison Officer in the effective implementation of reservation orders in favour of Scheduled Castes and Scheduled Tribes.

...

(i) The Commission considered the recommendations made by the Staff Inspection Unit on the staff requirements of the U.G.C. and the proposals made for additional staff to strengthen the secretariat of the Commission and decided as under:

- (1) To accept the report(s) made by the Staff Inspection Unit and adopt the assessment of Staff requirements made by it as on 1.4.1976 (Appendix V).
- (2) Not to resort to retrenchment of the surplus posts arising out of the SIU recommendations as identified on 1.4.1976 but to adjust these against identifiable items of work.
- (3) To consider for adjustment against surplus posts specific proposals for additional posts to take care of the increase in work load, etc. during 1976-77 and 1977-78, identifying the areas and the extent to which strengthening is proposed over and above the strength fixed as on 1.4.1976 by the Staff Inspection Unit.
- (4) To consider proposals for additional posts related to specific new areas or items of work for adjustment against the surplus posts as on 1.4.1976 or creation of the new posts as the case may be.
- (5) To create the following new posts for S.R. and H.R. Divisions to deal with the specialised nature of work on an ad hoc basis to be filled by contract/deputation basis; the necessary supporting staff required for these posts will be provided by adjustment of surplus posts as on 1.4.1976 to the extent possible:
 - (a) Junior Research Officers ...3
(Rs.1100-1600)
 - (b) Assistant Research Officers ...2
(Rs.700-1300)

(ii) The Commission accepted the proposal for creation of a Cell in the office of the U.G.C. for the effective implementation of reservation

orders in favour of Scheduled Castes and Scheduled Tribes in pursuance of the recommendation of the Parliamentary Committee on the Welfare of Scheduled Castes and Scheduled Tribes and decided that the following posts may be provided in the first instance to cope with the present work by adjustment of surplus posts as on 1.4.1976:

1. Assistant Secretary	...	1
2. Section Officer	...	1
3. Assistants	...	2
4. U.D.Cs.	...	2
5. L.D.C./Typists	...	2

(iii) The Chairman apprised the Commission of the present position (including communications received from the Ministry of Education & Social Welfare) and the steps taken to fill up the posts of Consultants in pursuance of the decision taken by the Commission at its meeting held on January 31, 1977 as well as the recommendations made by a Committee of the Commission in this regard. The Commission after due consideration decided that Fr. L. Pereira, Principal, St. Xavier's College, Bombay be appointed against the post of Consultant as detailed below:

1. Continuous service, based in Delhi, from November 10, 1977 to December 15, 1977 with a fixed honorarium of Rs.1,500 for the whole period.
 2. Non-continuous service during January 1978 to May 1978 the period from the first Monday to the second Friday each month to be spent in Delhi with an honorarium of Rs.750/- each month.
 3. Air travel to and from Bombay for the purpose.
- The position regarding the present appointment would be reviewed in April 1978.

Item No. 9: 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 in New Delhi on December 19, 1977.

Item No. 10: To consider the proceedings of the meeting of the UGC Standing Committee on New Universities and University Centres held on November 1, 1977.

...

The Commission considered the recommendations of the Standing Committee on New Universities and University Centres and agreed as follows:

1. The proposal of the Government of West Bengal for the establishment of a teaching-cum-affiliating University at Midnapore having

jurisdiction within the district of Midnapore may be accepted and the State Government be advised to constitute a Planning Board in consultation with the UGC for the proper and integrated development of the new University. It was noted that:

(a) with the establishment of the University, the entire post-graduate teaching should be done only within the University teaching departments; and

(b) any assistance from the Commission towards this University would be payable only after the University has been declared fit under Section 12A of the UGC Act.

2. The Commission desired that the Government of India be informed that the Andhra Pradesh Government be requested to send the proposal for the establishment of a University at Anantapur in accordance with the guidelines laid down by the Commission for setting up of new universities.

Item No.11: To consider the question of opening an account with American Express International Banking Corporation, New Delhi, for operating the grant of \$3 lakhs offered by the Ford Foundation for the development of the Area Studies Programme.

...

"Resolved that the Secretary, University Grants Commission is hereby authorised to operate on the account to be opened by the Ford Foundation (U.S.A.) in the name of University Grants Commission with the American Express International Banking Corporation, New York, for the purpose of issuing cheques to universities and scholars in dollars for utilisation of the grant to be provided by the Ford Foundation for special training of Indian scholars under the Area Studies Programme".

Item No.12: To consider the draft policy statement on adult education.

...

Consideration of this item was postponed to the next meeting.

R.K. Chhabra
Secretary

Satish Chandra
Chairman

Development of Higher Education in India

A Policy Frame

Objective

1.01 The main objective of this paper is to suggest a policy frame for the development of higher education in India over the next ten to fifteen years. As education at all stages forms an integrated whole, and as the university has a significant role to play in school and adult education, this task has been attempted against the background of a perspective for the development of education as a whole during the same period.

SECTION II : DEVELOPMENT OF EDUCATION IN INDIA

2.01 Achievements and Failures: The history of Indian education is a picture of light and shade, of some outstanding achievements as well as of many equally (or even more) outstanding failures. During the last 150 years, we have created a system of education which has now more than 120 universities (or similar institutions), 4500 affiliated colleges, 40,000 secondary schools and 600,000 elementary schools, 3.5 million teachers, 100 million students, and an annual expenditure of Rs. 25000 million which is next only to that on defence. It has given us a high level trained man-power whose size is the second largest in the world and the top-levels of which are comparable to those of leading countries in the world. It is this man-power which now provides the key-personnel in all walks of our national life and also enables us to help several other developing countries.

2.02 Unfortunately, the system has also developed three major weaknesses.

(1) It still continues to be dominated by models and value-systems adopted during the colonial regime. For instance, it lays greater emphasis on narrow individualism, unhealthy competition to the neglect of social good, verbal fluency (especially in English), and mere acquisition of information while it neglects social objectives, cooperation manual work, training in skills and building up of character. It places an almost exclusive emphasis on the formal school (with its single-point entry, annual sequential promotions, insistence on full-time attendance, and almost exclusive use of full-time teachers) and neglects both non-formal and recurrent education. The educational institutions function in isolation from the community as well as from one another. The system is a gigantic monolith, very difficult to move or change; and in spite of its achievements which are by no means inconsiderable, it has proved itself to be inadequate to meet our national needs and aspirations.

(2) The system maintains a set of double standards. A small minority of educational institutions at all levels is of good quality and compares favourably with those in developed countries. But access to them is 'selective' and is mostly availed of by the top social groups, either because they can afford the costs involved or because they show 'merit' which, on the basis of the existing methods of selection, shows a high correlation with social status. But this core of good institutions is surrounded by a large penumbra of institutions where standards are poor but an 'Open-door' access is provided. It is these institutions that are mostly availed of by the large majority of the people including the weaker sections. This dualism leads to undesirable social segregation and to a perpetuation and strengthening of inequalitarian trends in our society.

(3) Even in quantitative terms, it is the upper and middle classes that are the beneficiaries of the system which does not reach the people at all. Sixty per cent of the population (age 10 and over) who are illiterate have obviously received none of its benefits; of every 100 children of six years of age, 20 never go to school and 55 others drop out, sooner rather than later, so that only about 25 complete class VIII; and 70 per cent of the seats in secondary schools and 80 per cent of the seats in higher education are taken by top 30 per cent of the income groups.

2.03 What the system needs, therefore, is a drastic overhaul; a transformation of its character, through the introduction of a modern scientific outlook and other essential measures, to suit our national needs and aspirations; a substantial improvement of standards; an extension of its coverage so that the education of the people becomes, not a peripheral pursuit, but a central objective. It is in these three main directions that educational reconstruction in India will have to be vigorously pursued in the years ahead.

2.04 Transformation of the Educational System: Perhaps the most urgent and significant reform needed is to transform the value system, and the basic structure and processes of the educational system, to make it flexible and dynamic, and move in the ultimate direction of providing opportunities for life-long learning to every individual. This transformation will emphasize ethical values and human welfare enriched by science and technology. It will also imply the shifting of emphasis from teaching to learning, from individual to social objectives, and from mere acquisition of information to the development of skills and character-

formation based on knowledge. There would be multiple points of entry, flexible and student-oriented curricula, an equal emphasis on all the three channels of study (full-time part-time or own-time), use of all the teaching resources of the community (both human and institutional) rather than depending only on the school or professional teachers, and every facility for recurrent education so that an individual can join or step off the formal system as and when necessary, adopt any channel of study that suits him, and learn at his own best pace and from whomsoever he chooses, work and education (which will be closely linked to productivity) would run concurrently throughout the life of an individual; and education and development would be linked together, education assisting socio-economic transformation and participation in programme of such transformation becoming a medium of education itself.

2.05 Improvement of Standards: The standards of education need to be defined in the wider sense of the all-sided development of the personality of the individual and his commitment to social objectives; and these would have to be substantially improved and continually raised to suit the changing needs of the country. The system of double standards in educational institutions—one for the rich and the well-to-do and the other for the large majority of the people—should be done away with. All children should rub shoulders in a system of common schools at the elementary stage; and in all post-elementary education, access to the pace-setting institutions should be available to all talented children irrespective of their social or economic status. Methods of identifying talent by tests which do not discriminate against children from disadvantaged background should be devised; and a premium should be given to those from disadvantaged backgrounds even if their 'talent-rating' is lower. For such children, special remedial coaching and training will have to be provided, and the appropriate methodology evolved with care. It is true that the maintenance and improvement of standards needs physical inputs like good teachers and better learning tools and facilities. But they depend more basically on discovery and cultivation of talent and the creation of a climate of dedicated hard work in all educational institutions. It is these programmes that need to be developed on the basis of a high priority.

2.06 Expansion: If the coverage of the educational system is to be improved and if the large majority who now remain outside it is to become its principal concern, high priority will have to be given to the following three programmes:

(1) Adult Education: The education of adults has received very low priority so far. But in view of the fact that it yields rich and early dividends, it should

be accorded the highest priority in the years ahead; and even among adults, the education of the large numbers of poor and illiterate persons should receive utmost attention. The main objectives of this programme should be to educate and mobilize the masses and to involve them meaningfully in national development. It should also strive to make all adults (particularly in the age group 21-35) functionally literate and lay the greatest emphasis on the non-formal education of youth (age-group 15-21). A massive programme of motivating adults and enthusing and training voluntary workers and institutions will have to be developed for the purpose.

(2) Universal Elementary Education: The objective of this programme should be to provide free and compulsory education for all children (age-group 6-14). The task is very difficult because the non-attending children now consist mostly of girls and children of scheduled castes, scheduled tribes, landless agricultural labourers and other weaker sections of the society. An early solution of the problem, which is closely related to that of adult education, needs a deep political commitment, a mass movement, and a large investment of resources. It will also be necessary to bring about a radical transformation of the existing educational system by . . . the introduction of a multiple-entry system, part-time education and use of non-professional teachers. In addition to the existing channel of full-time formal education in the age-group 6-14, which will have to be strengthened and expanded part-time classes should be run for children in the age-group 9-14 who are required to work and do not therefore go to school, or drop out of it at an early stage. The principle to be followed will be that every child shall continue to learn, from the age of 6 to the age of 14, on a full-time basis, if possible, and on a part-time basis, if unavoidable for economic reasons. The standards of elementary schools should be improved, school timings and vacations suitably altered, and the programme of free mid-day meals expanded so that their attracting and holding power is substantially increased. The content of elementary education should be radically altered by the introduction of socially useful productive work and social service as integral parts of education and by relating the curriculum to the local environment; and the common school system of education should be adopted to promote social cohesion and national integration. Side by side, low-cost programmes of pre-school education should be developed, especially for the children of the poor in rural areas and urban slums, with the use of local personnel and materials.

(3) Special Facilities for Post-elementary Education: The access of a large majority of people, and especially the poor, to secondary and higher education should be increased. From this point of view, the special facilities which are now given to the scheduled castes and scheduled tribes should continue and should generally be extended to all people below a prescribed income level, irrespective of caste, region or sex. Special efforts should be made, at all stages of education, to discover talented children from the economically handicapped families; and as this talent is our best national asset, they should be treated as wards of the state and assisted, through scholarships and bursaries, placement, individual tuition and guidance, to receive the highest education they are capable of.

2.07 Secondary Education: The significance of standards in secondary education is obvious: it supplies the teachers for elementary education and the students for higher education and thereby controls the standards in both the stages. Yet, in Indian education, secondary education has always remained the weakest link. This situation calls for immediate and vigorous remedial action.

2.08 The following measures are suggested for improving the standards of secondary education:

(1) As in the new pattern, elementary and secondary education should cover twelve years so that secondary education can prepare for entry into work at a large variety of skilled levels and also send up more mature and better prepared students to the university.

(2) At present, there has been a very haphazard growth of secondary schools, many of which are of such small size that they can be neither economic nor efficient. It is necessary to plan the location of new secondary schools with great care and to rationalise that of the existing ones to the extent possible. Effort should also be made to see that all secondary schools reach an optimum size which makes them economically and academically viable.

(3) The curriculum of secondary schools should be drastically revised. Work and social service should become its integral parts. It is necessary to distinguish between the work-load on students and standards of attainment. Today, the work-load is heavy and the standards low. Good planning, good teachers and good methods of teaching and evaluation can reduce work-load and yet improve standards and this is the direction in which we should work. Till class X, there is

need to adjust the curricular load in order to find more time, not only for work and social service, but also for physical education, games and sports and cultural activities so as to develop a complete personality. In class XI-XII the higher secondary level, adequate steps towards differentiation and diversification should be taken and the programme should be intensive enough to prepare students either for the university or for entry into the world of work, as the case may be. It is also necessary to emphasize that everything included in the curriculum need not be a subject for examination. In fact, all curricula should have some elements which exist for their own sake and are not related to examinations.

(4) Great emphasis should be laid on teacher improvement, provision of adequate facilities (including improved teaching and learning materials), adoption of progressive and dynamic methods of teaching and evaluation and creation of a climate of dedicated hard work.

(5) Every effort should be made to identify talented children at the elementary stage and they should be assisted in all ways possible and necessary, including the provision of bursaries, to continue their education at the secondary stage.

2.09 The present system of public (and similar) schools, run by private bodies and charging high fees which restrict them to the children of the affluent is inconsistent with an egalitarian society. There is a need for Govt. to establish many more quality schools so that the poor talented children may be placed there, and also to require that every existing institution of this kind admit at least half of its students from among the talented but economically handicapped students, and give freeships to them.

2.10 Another major programme at the secondary stage which needs attention on a priority basis is vocationalization which will give us middle level semi-skilled and skilled manpower in all walks of life. The programme will link education closely with productivity; and what is even more important, it will reduce pressures on the universities. In the present educational system, each stage is treated as a preparation for the next higher stage of education. Instead, the curriculum at each stage must be designed keeping in view the fact that the stage may be terminal for a large fraction of students. Vocationalization will, therefore, have to be attempted at three levels: (1) at the end of the elementary stage; (2) at the end of class X; and (3) at the end of class XII. It should be clearly related to the employment opportunities available (including programmes of self employment) and should be

school-based, industry/agriculture-based, or of a sandwich type, depending upon the circumstances. The ultimate objective should be to divert about half the young persons in appropriate vocational courses; and a successful implementation of the programme will need the cooperation of industry and agriculture, and active participation of all agencies of Govt. It must also be emphasized that the extent to which students will opt for these courses will depend upon the development of the economy and the availability of jobs, the narrowing down of the wage-structure between different levels of workers and especially as between the blue and white collar categories, the extent to which the admission to the academic course preparatory to the university become more selected or the students who opt for vocational courses are assured of opportunities for further education and vertical mobility; and the discontinuance of the present practice of prescribing higher qualifications than actually required for performing the duties of middle-level jobs.

2.11 These significant reforms will convert the existing system of education into a new system suited to our needs and aspirations and will also involve a major socio-economic transformation. Obviously, the development of higher education and research over the next ten or fifteen years will have to conform to the directions of this educational and social transformation. What is even more important, the university system itself will have to play a leading role in bringing about this transformation. The details of this programme will be discussed in the next section. But before leaving the subject, we would like to emphasize one issue; no educational transformation can be brought about in a vacuum because education is a sub-system of the society as a whole and because the social and educational structures support and strengthen one another. Ours is a dual society in which economic and political power is mainly concentrated in the hands of a small class at the top; and this reflects itself in a dual educational system in which the access to the best educational institutions at all stages is mostly limited to the same top class. On the other hand, it is our dual educational system that strengthens and perpetuates our dual society. If this vicious circle is to be broken, action on the educational front alone will not be enough and will not succeed. What we need is a radical, simultaneous and complementary action, for educational as well as for social transformation.

2.12. While implementing the above educational reforms, therefore, we must also mount up a big programme of social, economic, political and moral action to reduce poverty and inequality. This will include the minimization of all forms of exploitation, imposition of limits and curbs on the

consumption of the rich and well-to-do and provision of a basic minimum standard of living to all the people through an emphasis on the increased production of goods and services needed by the common men, a guarantee of gainful employment to all able-bodied persons willing to work, and the organisation of nation-wide and efficient public distribution system of food-stuffs and other essential commodities. It is also obvious that this attempt at a simultaneous educational and social transformation will not succeed unless we also develop a mass movement in support of these objectives and involve the people themselves in these programmes. The backdrop of a nation-wide and comprehensive mass movement and mass involvement thus becomes indispensable for the educational advance of the people as well for national development.

SECTION III: DEVELOPMENT OF HIGHER EDUCATION AND RESEARCH

3.01 The Role of the University System: The university system has important responsibilities to the society as a whole as well as to the education system itself. The significance of the traditional functions of acquisition, preservation, dissemination and extension of the frontiers of knowledge, the balanced education of individuals, and the training of high level personnel for all walks of life is obvious. But a modern university, especially in a developing country like ours, has to undertake several other functions as well. It must, for instance,

- inculcate and promote basic human values and the capacity to choose between alternate value systems;
- preserve and foster our great cultural traditions and blend them with essential elements from other cultures and peoples.
- promote a rational outlook and scientific temper;
- enrich the Indian languages and promote their use as important means of communication and for national development and unity;
- promote the development of the total personality of students and inculcate a commitment to society through involvement in national service programmes;
- act as an objective critic of society and assist in the formulation of national objectives and programmes for their realization.
- promote commitment to the pursuit of excellence;
- promote the development of science and technology and of an indigenous capability to apply it effectively with special emphasis on national problems; and above all
- contribute to the improvement of the entire educational system so as to subserve the community.

3.02 Access to Higher Education: Admission to post-elementary education should be linked to talent and aptitude. We should not also deny the right of an individual to life-long learning or to study to the highest extent he is capable of, although the State has every right to decide how its subsidy for such education is to be regulated on the basis of talent and social justice. Our policy in relation to further expansion of all post-elementary (and especially higher) education has therefore to be based on several conflicting considerations. On the one hand, we cannot ignore the increasing demand for higher education from all sections of the people and especially from the weaker sections who consider it an almost exclusive channel of vertical mobility. On the other hand, we cannot also ignore or under-emphasize some aspects of the situation such as the inability of the economy to absorb its products, the growing spectre of educated unemployment, lack of resources in men, materials and money which often make expansion lead to dilution of standards, and the unacademic considerations that drive thousands of young persons to the universities.

3.03 The policy to be adopted in this regard should therefore consist of the following: (1) adoption of measures which will reduce pressures on the university system such as effective vocationalization at the secondary stage, delinking most of the jobs from degrees, and changing the present recruitment policies which virtually make a degree a minimum qualification for any good job; (2) exercising great restraint in the establishment of new institutions which should not be set up at all (except in backward areas) unless their need is clearly established on sound academic considerations and unless adequate resources in terms of men, materials and money are available; (3) planning the location of new institutions very carefully and rationalising that of the existing ones to the extent possible (4) by adopting selective admissions to full-time institutions of higher education at first degree and postgraduate levels on the basis of merit with reservation of at least half the seats for all weaker sections; (5) by enabling talented but economically weaker students to pursue their studies on a whole-time basis by ensuring to them the full cost of their education through appropriate bursaries, for which funds may be raised from public and private bodies; (6) by providing facilities for expansion of higher education through channels of non-formal education like correspondence courses; and (7) by opening Board and university examinations to private candidates to encourage self-study.

The policy outlined above will create the essential basic conditions for the proper development of higher education. It will also ensure that expansion of facilities in post-elementary education will not be at the cost of quality (which is what often happens at present), that non-formal post-elementary education where unit cost of education is appreciably lower, shall be available to all who desire it and

qualify for it, and that the access of the weaker sections to secondary and higher education will increase rather than decrease and that it would be adequately subsidized from State funds. The programme outlined above will largely depend for its success on the quality of leadership provided by University and College teachers. The terms and conditions of service should be attractive enough for some of the best minds in the country to join the profession. At the same time, the facilities for acquisition of further knowledge and adding to it should be provided. Also, it will succeed better if there are adequate job opportunities for those who have not been selected, if the formal and non-formal channels of education are treated as equal in status for purposes of employment, and if due concessions (including age relaxation) are allowed to ensure that those who adopt a method of recurrent education (i.e. transferring themselves from school to work and vice-versa according to needs) are at least not at a disadvantage in comparison with those who complete their education at one stretch.

3.03 The Undergraduate Stage: A major programme of reform of higher education is the restructuring of courses at the undergraduate stage to make them more relevant and significant, not only to the students, but also to the nation as a whole by assisting social transformation and national development. It is absolutely essential that every undergraduate student should be given a grounding in four important areas: (1) a set of foundation courses which are designed to create an awareness of areas such as Indian History and Culture; history of freedom struggle in India and other parts of the world; social and economic life in India including concepts and processes of development; scientific method including the role of science and technology in development; alternative value systems and societies based thereon; Cultures of Asia and Africa (selected countries); and Gandhian thought; (2) a set of core courses which will give the student an opportunity of acquiring a broad familiarity with some chosen disciplines, including a study of one or more of them in depth; (3) some applied studies projects/field activity which will form an integral activity of the course and will be carried out in the final year; and (4) involvement in a programme of national or social service for the first two years. This will provide a more rounded and richer education. To get the full advantage of this reform, several important measures will have to be adopted. For instance, the courses should be diversified, especially to cover newly emergent and inter-disciplinary areas; a greater freedom should be allowed to the student, through the adoption of the semester system, and to choose the courses best suited to his interests and capability, unit courses and modern and dynamic methods of learning and study should be adopted; and examination reform should be carried out with vigour and determination.

3.04 It is also necessary to provide liberal and well-planned assistance for the improvement of affiliated colleges which do most of the undergraduate teaching. From this point of view, the central programmes of assistance to affiliated colleges should be diversified and expanded. An effective machinery should be created at the State level for grants-in-aid to affiliated colleges, and the State grant-in-aid codes should be modernised and improved for use as tools of improving standards. Side by side, adequate and firm measures should be taken to improve the management of colleges.

3.05 Postgraduate Education and Research: The postgraduate stage assumes the highest significance for maintaining educational standards and for programmes of development. As its objective is to take a student to the threshold of new knowledge, it is essential that the teachers and students at this stage are themselves actively involved in the creation of new knowledge and its techniques, i.e. in research. Every institution providing postgraduate instruction must therefore have competent staff actively engaged in research and adequate research facilities in terms of laboratory equipment and research journals. It therefore follows that the responsibility for postgraduate education must, by and large, be directly assumed by the universities themselves.

At present about 50 per cent of postgraduate students and about 11 per cent of research students are studying in colleges. While a few colleges have outstanding research and teaching departments, most of them are poorly equipped for postgraduate instruction. Their situation should be reviewed in terms of the norms established by the University Grants Commission, and those having the potentiality of coming up to the norms within a few years should be assisted to do so as soon as possible, while the others should discontinue postgraduate instruction in the interest of standards. Collaborative efforts by colleges, which may not individually be viable units of postgraduate instruction but may be able to form viable units collectively, should also be encouraged. The University Grants Commission, Universities and State Governments will have to take concerted steps in this regard.

3.06 Other measures required for the development of higher education include the following:

(1) with the rapid increase in the number of universities, there is a need to ensure that all the University Departments themselves satisfy the norms as viable units of teaching and research.

(2) While inter-disciplinary courses should be introduced at the undergraduate level also, special efforts must be made in this regard at the postgraduate and research level.

(3) Individuals, groups and departments in universities and colleges should be supported, on merits, in carrying out high quality research. Special encouragement should be given to collaborative research efforts by a group, drawn from one or more departments, on the basis of pooled resources.

(4) High quality experimental research demands the development of indigenous instrumentation capability and culture. Efforts in this direction should be encouraged through support of research schemes and the creation of university instrumentation and service centres and regional instrumentation centres.

(5) While universities will continue to be involved in fundamental research, application oriented research, especially in collaboration with national laboratories and industries need to be specially encouraged in universities. Both fundamental and applied research require the highest intellectual qualities.

Fundamental discoveries in science lead to technological advances, while progress in technology provides the scientist with sophisticated tools and instruments and enables them to make fundamental discoveries. As such, both in teaching and research, it is necessary to see that the best talent in the country is harnessed for development science and technology. Nor should we neglect most modern and sophisticated technology which is very essential in certain areas like heavy industries, defence, communications, transport, energy, etc.

(6) In order that universities may be able to contribute to the social development and change, they have to go outside the four walls of the class room and get involved in a participatory understanding of some of the societal problems. Such research programmes as contribute to social development, especially to rural development, should be encouraged.

(7) While fostering knowledge of science and technology at the highest theoretical level and spreading it in the rural areas, there is a growing need to develop technology relevant to emergent national needs. Such a development would also demand an appropriate interaction between the institutions of higher learning and the productive processes and organs of society.

3.07 Diversification: As enrolments increase and the student community gets larger, it is essential to diversify, the courses and models of higher education, and to create new processes and models to suit the emerging needs. In fact, we should move in a direction where institutions of higher education represent a very wide spectrum of which the classical type is only one, although an important illustration.

3.08 Decentralisation: It is equally essential to move away from the existing system of the affiliating university or centralization of academic authority and external examinations. The system as it works creates very dilatory procedures. The rigidity of the affiliating system also deprives the good teachers of the opportunity to take initiative for creative, imaginative and more fruitful action. It is, therefore absolutely essential to decentralise authority and confer autonomy, from the university administration to the university departments, and from the universities to colleges. The existing bureaucratic and centralised structures of the universities have to be radically altered to avoid delays, to evade attempt at rigid uniformities, to create an elastic and dynamic system and to promote innovative initiatives and reforms.

3.09 Autonomous colleges: The concept of autonomous colleges is of special significance in this context. Autonomy for a college implies that the college and its teachers assume full responsibility and accountability for the academic programmes they provide, for the content and quality of their teaching, and for the admission and assessment of their students. Unless this basic condition is first met, it will not be possible to tackle the problem of 'relevance' satisfactorily or to diversify and relate curricula to local needs and conditions, and what is even more important to give a greater individual attention to the students on the basis of their needs and aptitudes. This alone will make it possible for institutions of higher education to become communities of teachers and students engaged in an agreed and mutually satisfactory joint pursuit of truth and excellence. However, it would be necessary to ensure that the terms and conditions of service for teachers prescribed by the Government and the University Grants Commission continue to apply to these institutions, and that the institutions continue to subserve the needs of national integration and development. The concept of autonomous college does not imply permanent categorisation of an institution under a separate label for a higher formal status but it requires an institution to be continuously subjected to justify its recognition as an autonomous colleges with periodic review and should be liable to lose the recognition if the conditions of higher academic excellence as well as its contribution to society are not maintained at the expected level. In short, such a privilege will have to be continuously earned and sustained through performances. Over the years, we should move in a direction where autonomy becomes, not a reward for excellence, but the minimum condition for the very existence of the college. It must also be emphasized that, in the interest of good education and in the larger interests of society itself, each institution has to seek its identity in its own unique fashion, consistent with its local situation and the academic perspectives of the local community.

3.10 As a step towards the development of this programme, it is necessary to survey carefully all the colleges in every district and to identify one or two colleges per district which can become academically viable through guidance for planning and financial assistance. These colleges should be assisted to realize their potential and given autonomy to develop new courses in relation to the needs of the local region and its development. The programme can, over the years, be extended to other colleges as they show a desire and potential to develop on these lines.

3.11 Academic Freedom: To be an objective critic of society is an important responsibility of the university system. This can be discharged satisfactorily only if the academic freedom of the teachers and students to express their views freely and fearlessly is adequately protected. This freedom also deserves to be exercised more widely and ably.

3.12 Extension: If the University system has to discharge adequately its responsibilities to the entire educational system and to the society as a whole, it must assume extension as the third important responsibility and give it the same status as research and teaching. This is a new and extremely significant area which should be developed on the basis of high priority. As can be easily imagined, the extension programme of the university system will fall into two broad categories.

(1) Extension Services to schools and colleges:

The universities should work with the colleges which, in turn, should work with the secondary and elementary schools in their neighbourhood and help them to improve standards by in-service education of teachers, sharing of facilities, provision of enrichment programme to students and discovery and cultivation of talent. The development of a proper Research and Development (R&D) programme for the education system is also a special responsibility of the universities.

(2) Extension Service to the Community:

The university system also has a great responsibility to the society as a whole. All universities and colleges should develop close relationships of mutual services and support with their local communities and all students and teachers must be involved in such programmes as an integral part of their education. The National Service Scheme (N.S.S) programme should be expanded and improved, ultimately to cover all students. The fundamental purpose of these and other student programmes should be to implant a spirit of cooperation and social commitment inter-related to moral development. It should be the obligation of the teaching community to give extension lectures to interpret recent trends in their fields

to the community, to create scientific awareness, to participate in adult education and workers' education programmes, etc. Universities can also help in the preparation of developmental projects for the community around them including the rural community. Such involvements will also help in bringing greater relevance into the courses at the undergraduate and the postgraduate levels and into the research programmes.

3.13 Standards: It will not be proper to continue to judge standards, as in the past, on the basis of academic performance only. In view of the new concept of the roles and functions of the universities and the acceptance of research, teaching and extension as equally important responsibilities of the universities, standards of higher education will have to be judged, not only on the basis of the academic achievements of its alumni and teachers, but also in relation to their social commitment and their contribution to social and national development. Moreover, attempts will have to be made, on the basis of the highest priority, to improve standards. The programmes to be developed for the purpose will include faculty development, provision of essential equipment, buildings and other facilities and organisation of an adequate programme of students services. These will need considerable investment in men, materials and money. But even more importantly, they need commitment and competence on the part of the teachers, good motivation in students who should be selected for their capacity, and a climate of sustained and dedicated hard work. A selective approach, proper planning and concentration of resources are also equally essential to achieve good results.

3.14 The problem of the medium of instruction is of special significance in this context. At the undergraduate stage, the process of transition from English to regional languages is already well under way. It must be expedited and assisted through the production of the necessary text books and other learning and teaching materials. At the postgraduate and research stage, where the process is mostly of self-learning, a medium of instruction is of less significance and what really matters is the capacity of the student to directly acquire the growing knowledge in the world in the field of his specialisation. It should be emphasized however that the growing use of the Indian languages increases, rather than decreases, the need to study English which will continue to have a significant place in our education. Obligatory passing in English should not be required at the undergraduate stage. Adequate arrangements should, however, be made for specialised intensive courses in English in every college on an optional basis.

Learning of English language should be promoted not by way of creating an impediment to any student for this or by

further studies but should be available as a positive help in the form of reading service at every stage of education including postgraduate level or even after that. English should be used for building knowledge and not for building status. If this role of English language as a positive instrument of knowledge is accepted, then facilities for its learning in various forms and consent should be made available to each group of students according to their own needs. This type of an approach will be an approach of service rather than subjecting everyone under a uniform pattern, irrespective of its need.

At the postgraduate stage, the student needs to have a good working knowledge of an international language so that he may have direct access to the specialised and growing knowledge in the world in his own or other fields. Passing a competence test in English may be required of a student seeking admission at the Master's level, depending on the needs of the field he wishes to study. Full encouragement should also be given to the study of foreign languages other than English.

Special groups may be appointed to examine the problem of switch-over to regional languages in the field of professional education.

3.15 The Role of the U.G.C. The coordination and maintenance of standards in institutions of higher education and research is a central responsibility. The UGC has been created by an Act of Parliament to look after this responsibility and empowered to take, "in consultation with the universities and other bodies concerned, all such steps as it may think fit for the promotion and coordination of university education and for the determination and maintenance of standards of teaching, examination and research in universities (Section 12 of the UGC Act)". To discharge this responsibility adequately, the UGC has to assume several roles and functions. For instance, it has a major role of providing leadership and impetus for reform and development. Towards this purpose, the Commission must continuously review the emerging problems of education, the status of teaching and research in different disciplines and the standards of teaching and research in the universities. It should through its committees and panels and other means evolve a consensus within the academic community regarding desirable changes in higher education.

3.16 It is the responsibility of the U.G.C. to strive to provide leadership to the entire educational system and assist it to bring about the needed transformation. This can be done by encouraging the universities to play an increasingly active role in improving the quality of education in colleges and schools, by intensifying the R & D effort in education and by promoting the philosophy of extension whereby teaching, research, service of the community and the building of character become an integrated activity.

3.17 U.G.C. has to play an increasing role in promotion of high quality research in universities because of the symbiotic relationship between teaching and research. At the same time it must promote applied research which has an immediate impact on the social and economic conditions of the people.

3.18 The U.G.C. should strive to remove regional imbalances in the development of higher education in different parts of the country and to relate such development to the programmes of socio-economic advance and cultural growth of the people in the regions.

3.19 The U.G.C. should actively promote through the creation of an appropriate pattern of recognition and appreciation, the maintenance of values in the academic community so that its commitment to the pursuit of truth and excellence is enhanced and it is enabled better to discharge its responsibilities to society.

3.20 The leadership and catalytic role of the U.G.C. has to be supported by the creation of appropriate organization at the university and State levels. These would include a mechanism for the surveys of undergraduate colleges in relation to well-defined norms and guidelines so as to ensure that further proliferation of sub-viable colleges is arrested, and for similar surveys of postgraduate colleges so as to ensure that they satisfy the U.G.C. norms and maintain certain minimum standards. It would also be necessary for the U.G.C. to persuade the universities to establish academic planning, evaluation and implementation boards to look after the postgraduate and research programmes in a long-term perspective, and College Development Councils to advise and guide the colleges to improve their academic standards with the help of various U.G.C. schemes.

3.21 Conditions Essential for Success: The system of higher education is now in a crisis, due to uncontrolled and unplanned expansion, inadequate inputs in terms of money, materials and talent, falling standards over a large proportion of institutions, weakening of student motivation, increase of educated unemployment, weakening of discipline and dysfunctionalities created by the adverse effect of socio-economic problems, a lack of relevance, and significance, and undue interference by subjecting universities to political and partisan pressures and lack of national policy of consensus in dealing with such situations. It is obvious that universities cannot function smoothly without adequate support from the Government. This crisis continues to deepen with the passage of time and spreads, not only to the entire educational system, but back again into the society itself. If this crisis is to be resolved quickly and successfully, three basic conditions will have to be fulfilled:

- (1) The Government should take hard decisions on delinking most of jobs from degrees, provision of large

additional investment needed to discover and develop talent and to provide satisfactory conditions of work, revision of recruitment policies, etc. It should also support the universities in taking hard decisions in selective admissions, regulation of opening of new colleges, provision of satisfactory conditions of work and protection of university autonomy.

- (2) The teachers and students should carry out their part of the responsibility through intensive efforts to improve standards and the whole academic community should strive to serve society, through sustained, dedicated work, and commitment to the pursuit of knowledge, excellence, and national development; and
- (3) A nation-wide effort should be organised to achieve a simultaneous break-through on the social as well as educational fronts.

The tasks of educational reconstruction thus require an intensive, coordinated and collaborative effort on the part of all the agencies involved, viz., the Centre, States, public, teachers, students and administrators. Instead of trying to blame each other (and each one of these has its own share of achievements as well as failures), all these agencies work together for bringing about an educational and social transformation on a scale commensurate with the size and complexity of our problems. If this can be done, there is no doubt that we shall soon be able to create a new educational system and a new society.

University Grants Commission

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Approach to Development of Higher Education
for the Plan period : 1978-83

I. Background and General Perspective:

1. The University Grants Commission has statutory obligations under the UGC Act 1956 (Act No. 3 of 1956) and the U.G.C. Amendment Act 1972 (Act No. 33 of 1972) to take "all such steps as it may think fit for the promotion and coordination of university education and for the determination and maintenance of standards of teaching, examinations and research in universities" (Section 12). For this purpose, the U.G.C. may "recommend to any university the measures necessary for the improvement of university education and advise the university upon the action to be taken for the purpose of implementing such recommendations" (Section 12.(d)). Finally, the U.G.C. is empowered to withhold grants from any university which contravenes or fails to comply with the UGC's recommendations within a reasonable time (Section 14).
2. In 1976-77, the U.G.C. had to deal with a higher educational system, including 103 universities, 10 deemed universities, 9 institutes of national importance, and 4,580 colleges (out of which 3200 were Arts, Science and Commerce Colleges) with over 2.5 million students (25% of them women's students and 10% at postgraduate and research level. This large system has institutions at widely varying stages of educational development. In recent years, opinions have been freely expressed by the general public, and also their elected representatives, that the UGC's financial support should become available to almost every institution of higher education and possibly in equal measure as well. Such a notion is academically untenable and in practice, makes it extremely difficult for the UGC to comply with its legitimate obligations of maintenance and improvement of standards of higher education. It is well known that

more than 50% of the Arts, Science and Commerce colleges in the country have enrolments less than 400 students in degree classes and above, and most of these colleges have inadequate buildings, staff, equipment and books essentially required for imparting higher education. A large number of them are located in and around large cities and therefore compete with one another for their enrolments. The location of a college at a place where the natural feeder system of high schools cannot provide an adequate number of students, is yet another factor which makes a college sub-viable. An academically sub-viable college, even if located in a rural area, cannot cater adequately to the rural needs. If colleges spring up freely owing to pressures other than academic needs, and without reference to any planned development of higher education or without the knowledge of UGC, it cannot be fair to insist that such institutions should be given public funds including UGC support.

3. Colleges enrol over 80% of all the students and perhaps employ an equal percentage of teachers in the context of present university system. The prevailing university structure of an affiliating system makes it obligatory for all these affiliated colleges to be entirely dependent on the university concerned, for laying down syllabi and courses of study, conduct of final examinations and award of degrees. There is little doubt that such an affiliating system, which is both outdated and distorted, inhibits any effort at experimentation with new educational concepts and ideas, including the introduction of socially relevant courses by individual institutions, irrespective of their strengths and motivations, and is largely responsible for the unsatisfactory standards in our educational system.

4. It would indeed be difficult for the UGC to deal with such a large system of universities and their colleges in the matter of maintaining

proper standards, without substantial collaboration from the universities themselves and from the State Governments concerned. Such a collaborative effort is essential, not only with regard to implementation of various developmental activities and maintenance of standards in existing institutions, but also in the matter of opening of new universities and colleges. The various agencies concerned, viz., the UGC and other bodies of the Government of India, as well as the State Governments, have to take concerted steps to arrest indiscriminate and unplanned proliferation of universities and colleges, in order that our higher educational . . . system may be able to maintain a certain minimum level of standards.

The above implies the creation and/or strengthening of the planning capability and also of the implementation machinery at the institutional level, in colleges and the universities, and also at the State Government level:

(a) Effective State level planning machinery for higher education will have to be provided through legislation. The State Governments should clearly indicate the resources available for higher education in any plan and, through this planning machinery, define how they will be used for supporting existing universities and colleges in relation to approved programmes of their development, and what funds would be left for the support of new universities and colleges, if any, to be established. The State Governments may also have to legislate that no new colleges would be established against the spirit of guidelines to be laid down by the UGC.

(b) Each university must set up an Academic Planning Board to look after the functions of perspective planning as well as implementation of planned programmes. In a situation where the Vice-Chancellors are often largely occupied with routine operations, there is often no other machinery in the university charged with the responsibility for long-term perspectives,

of effectively implementing approved programmes, as well as making sustained efforts to introduce academic reforms, such as, restructuring of courses or examination reforms, or of taking a comprehensive view of the research activities in the various departments and faculties of the university, and of looking after the general development of the colleges.

(c) Affiliating universities must set up one or more College Development Councils (one each for about 25 to 30 colleges) on the lines indicated recently by the UGC; through these College Development Councils the University should provide effective academic guidance to the colleges to develop themselves.

(d) The UGC may consider having field officers working in different regions for purposes of establishing a continuous academic dialogue with the institutions and for dissemination of information, interacting with institutions more closely and providing the necessary feedback information for the UGC so that it may develop and orient its activities in relation to the needs of different regions.

5. In recent years, there has been a serious questioning about the relevance and usefulness of the present educational system in relation to the needs of trained manpower and employment opportunities. There is also an apparent mis-match between the large output of our educational system and the problems of national development, particularly those of rural development, which have remained unsolved. While the need for making basic changes has been recognised by all concerned, it is extremely difficult to bring about such reforms and to sustain them, in a monolithic system such as our universities. There is, therefore, need to bring about a substantial amount of decentralisation as well as diversification of educational programmes, so that individual universities, their departments, and the colleges may experiment with new ideas, rather than follow a

uniform programme. This implies considerable autonomy and academic freedom to be given to the constituent departments and colleges of a university. The UGC has to play a significant role in this regard.

6. The role of the university system is not only to acquire, preserve and disseminate knowledge but also to promote a sense of social responsibility amongst the students, privileged to receive higher education, by inculcating in them desirable values and attitudes towards social problems, so that the knowledge and skills acquired by them while in the university could be usefully employed for the benefit of the society. It is, therefore, important for universities to take up programmes of extension and public service as a legitimate activity by involving both students and teachers. The students' and teachers' bodies have to play an equally important role in mobilising academic opinion and bringing about essential changes in the value system within the academic community, in favour of involvement in programmes related to national development.

III UNIVERSITIES

The universities represent a wide spectrum with respect to growth and development; strengths and weaknesses; goals and objectives; financial and human resources and inputs; as well as capabilities to discharge their functions effectively. It is, therefore, necessary (a) to distinguish the well developed universities/departments from the rest, and define different and appropriate strategies for UGC support to these universities/departments, representing different levels of growth and development and (b) to evolve, in consultation with the State Governments, a pattern for ensuring adequate maintenance grants which are essential for different universities to function optimally. There is also a considerable regional imbalance in the development of facilities for higher education in the country. The UGC therefore proposes to select a few state universities at a time for intensive support, similar to that available to a central university. The selection would be based on appropriate criteria, such as, the present stage of development of a university, the quality of its programmes and activities, its involvement in educational reforms and innovative programmes as well as community activities and extension, and the potential for functioning as an institution maintaining good standards. Such intensive support to selected universities would imply certain additional allocations to the UGC while distributing funds for higher education between the State Governments and the Central sector. Other State Universities would be taken up for such intensive support and development in successive stages.

(2) In the case of the well-developed universities, UGC would adopt a policy of minimising the general developmental support (for additional staff or building) to those departments which have already developed to an optimum level, and of giving such general development support only to those departments which have not yet reached a critical or viable

size so as to enable them to develop to an optimal level. More particularly, in the case of well-developed departments, (a) a better integration of plan and non-plan resources would be necessary,

(b) an adequate maintenance grant will have to be ensured, (c) the need for senior positions in such departments would be taken care of by the personal promotion scheme, (d) introduction of new specialisations in such departments should, by and large, be taken care of by making judicious use of non-plan positions when they fall vacant or by re-orientation of existing faculty, (e) while no new positions may be given to such a department, it could be given some fixed tenure positions in order to enable injection of fresh talents from time to time,

(f) the needs of such departments with regard to technical and supporting staff and maintenance of equipment will have to be looked into, (g)

the additional plan support to such departments should be correlated with specific quality programmes, such as research (CAS, department of special assistance, departmental support) or needs of a university leadership project (ULP) or in general any other activity which will lead to a

qualitative improvement of the educational system as a whole, (h) within such well-developed departments, growth of a few viable research units must be encouraged when they are given support along the lines suggested

above. Such viable research units within a department, while sharing common facilities, should have a degree of independence and freedom for interaction with other educational and research institutions as well as with the community. In this way, major thrust areas could develop in

each department. On the other hand, unless this is done, the tendency for larger departments to break-up into smaller departments will continue.

(3) The UGC will also have to consider ways by which acceptable conventions would be established for universities to consult UGC prior

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to opening of new departments in a university (irrespective of whether additional finances are needed or not) and for defining an optimum number of students to be admitted at the postgraduate level, including number of Ph.Ds scholars working in a department.

(4) In view of the fact that small or sub-viable departments continue to exist and get created in universities, the UGC will define norms for an optimum size facilities and infrastructure essential for the purpose and existing university departments would be enabled to grow to this optimum level.

(5) The subject panels have been requested to work out individual departmental profiles and based on them, suggest appropriate strategies for overall improvement of the sub-viable departments, and in the case of viable departments, indicate directions of future activities. Each subject panel will make a short list of well developed departments which would be visited by expert committees to help them to develop the strength and thrust of their academic programmes during a plan period. The additional inputs into such well developed departments would be mainly in terms of defined objectives and time-bound programmes and accountable activities whether related to teaching, research, extension or development of colleges through the ULP.

(6) During the last five years, UGC has introduced for improvement of undergraduate instruction in Colleges the COSIP-ULP programme, under which all colleges affiliated to a given university are helped to improve the facilities and teaching in a given subject, with the help of the university department in that subject. This programme has been reviewed recently and needs to be pursued with renewed vigour in view of the good and beneficial results it has already yielded. Working for college development under the ULP programme implies that a teacher in the university has to take time away from his normal teaching and research

so as to help the college system. This should be regarded as the normal responsibility of a university teacher. However, for an overall improvement of the college system, it is important that more and more university departments be encouraged to undertake ULP type of activities and the ULP culture must be spread throughout the University system. From this point of view the UGC may provide additional staff and other incentives to those university departments which would be willing to take a continuing commitment of the ULP type.

(7) The Commission has so far supported universities only in relation to the academic components of their needs, while the administrative and management aspects have not received much attention, with the result that the objectives of various UGC programmes have got locally distorted or defeated. The Commission will, therefore, look into question relating to the strengthening of the administrative and planning infrastructure in the universities so as to make it adequate for (a) perspective planning, including academic reforms and extension programmes, (b) efficient implementation of the plan programmes, (c) academic and administrative support to the Vice-Chancellor, (d) administrative support to the departments (e) development of colleges, (f) interface with the State Government so as to ensure that its Commitment matches with the Commitment of the UGC and the University, and (g) maintenance of proper information systems. The Commission has to look into the question of creating units of efficient management within universities. Towards this purpose, it proposes to initiate a management review of structures and procedures within the universities so as to enable them to function more effectively. The purely routine functions of the university (enrolments, prescribing syllabi, conducting examinations, affiliation of colleges etc.) must be separated from the truly academic functions, especially those relating to

postgraduate teaching and research, quality improvement programmes, basic restructuring of courses, development of interaction with the community through extension work, etc.

(8) Every academic position or research scheme given to a university has an impact on the over-head expenditure in the University, in terms of the space, facilities, technical and administrative staff required or various other aspects of maintenance expenditure. These need to be given a much more serious consideration than has been possible so far and the Commission may either give part of its plan support for the over-heads or ensure that the State Government does indeed take care of its responsibilities in this regard (either currently or at the end of the plan period).

Research:

(9) The UGC support to University Departments under the CAS and DSA programmes has been extended during the V plan period to include departmental support for building the infrastructure in promising departments. Further, the UGC has also started during this last plan period, in an effective manner, supporting individual research workers and groups in their research programmes, on the basis of research schemes submitted by them and assessed by the subject Panels with the help of independent referees. These programmes of increasing the University research effort, both in fundamental and applied areas of R & D significance, will continue to be strengthened so as to increase the tempo and contribution of research activities in the universities. Steps have already been taken by the UGC to introduce a suitable monitoring mechanism for the research support given by it.

Research in our universities tends to be largely individualistic. Efforts by a group from one or more departments, to pool the intellectual resources of several individuals and physical facilities so as to make

a massive effort in a well-defined thrust area will be particularly encouraged.

High quality experimental research demands the development of indigenous instrumentation capability and culture. Efforts in this direction must continue to be encouraged through support of research schemes having an emphasis on instrumentation building, and the creation of university instrumentation and service centres, and regional instrumentation service centres.

It would be necessary for the UGC to evolve a mechanism for assessment of the Ph.D. Theses accepted in the university system. This will help in ensuring the maintenance of standards at the Ph.D. level, especially at a time when the Ph.D. has been made a requirement for appointment to university teaching positions.

The UGC would also review the programme of research of research fellowships awarded by it, with regard to (a) effective utilisation of the fellowships, in terms of the percentage of them which lead to Ph.Ds and research publications, and (b) machinery for selection of research fellows and the assessment of their progress, (c) need for complete decentralisation of the award of fellowships and (d) UGC role in ensuring high quality of research training and output.

While universities will continue to be evolved in fundamental research, application-oriented research, especially in collaboration with national laboratories and industries need to be specially encouraged in the universities. What distinguishes pure research from applied research of quality, is not the quality of intellectual input, but only the objective. Applied research including action-research directed towards problems of social change should, therefore, find increasing place in universities and be recognised for the award of the Ph.D. The UGC will try to get various Government agencies and Ministries and industries interested

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in promoting applied research in Universities and allocating earmarked funds for this purpose.

In order that universities may be able to contribute to the social development and change, they have to get outside the four walls of the class-room and laboratories and get involved in relevant societal problems. Action research programmes of this kind, especially in relation to rural development, will be encouraged. Both social and natural scientists could play an important role in this regard.

There is a growing appreciation of the need to develop employment intensive technologies appropriate to our needs. Development of such technologies would demand an appropriate inter-action between the institutions of higher learning and the productive processes and organs of society. Such action-research programmes will also be encouraged.

In general, the ethos of research in universities has to be changed to give due credit to research efforts in areas and directions relevant to national development.

(10) Extension:

If the university system is to discharge adequately its responsibility to the entire educational system and to the society as a whole, it must assume extension as the third important responsibility and give it the same status as research and teaching. This is a new and extremely significant area which will be developed on the basis of high priority. Extension programmes will be directed to schools and colleges, or to the larger outside community and will include programmes of adult education.

Other programmes:

(11) During the Fifth Plan, the UGC has started in an experimental way, a scheme of Science Education Centres. The Science Education Centres is expected to be a university activity, which would spread science into the community around the university and contributed to the

building up of scientific temper. This programme needs to be promoted more vigorously during the next plan period.

(12) During the Fifth Plan, the UGC had planned to set up a few regional library centres, which should provide extensive library facilities to universities and colleges in their respective regions. This scheme has not yet got off the ground, the UGC will take early steps to implement it during the next Plan period.

III COLLEGES

1. There are 64 affiliating universities, and the colleges of these universities look after over 80 percent of the total enrolment of students at the undergraduate level, 51 per cent at the postgraduate level and 11 per cent at the research level.

Any attempt at improving standards and achieving coordination in university education will, therefore, have little impact unless the college system is covered effectively. This is all the more so, from the point of view of the competence, attitudes and values of the university products, for 85 per cent of whom the Bachelor's degree is terminal.

2. The UGC has several on-going programmes for development of colleges. They include:

General development of colleges

Support to colleges in backward regions, Women's Colleges, Colleges with large S.C/S.T. students.

Students amenities, book banks etc.

COSIP/COHSSIP

Support to PG colleges

Support to lead colleges.
Support to autonomous colleges.

Faculty Improvement Programme

Support for innovative programmes, like course restructuring.

Research grants to individual teachers etc.

The interaction between these programmes will be strengthened so as to evolve a dynamic strategy for the integrated and coordinated development of colleges and to improve the overall training and character-building of students in the college system.

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3. The UGC expects to evolve a systems approach which, on the one hand tries to take into account the difficulties of the colleges at various stages of development, and on the other hand integrates the various schemes it has towards a common purpose viz., the improvement of academic standards in colleges. The aim would be to raise the academic level of a large number of colleges in such a way that over a period of time, more and more colleges are enabled to attain an autonomous status. Autonomy should, in fact, be the goal for every college, and through the graded/layered support under various schemes, plus appropriate advice; all colleges will be helped to plan their development with this objective.

4. It is difficult task for the UGC to deal meaningfully with over 4,580 colleges of which 3200 are Arts, Science, Commerce Colleges spread around the country. The UGC has been criticised for supporting only a fraction (nearly 2000) of these colleges. The question to be asked is whether it is the responsibility of the UGC to give support to all colleges, in particular sub-viable colleges, which continue to be created without consultation with the UGC or whether the State Government should not have a major responsibility to them. The support which the UGC can give to a college out of its Plan grants, represents only a fraction of the total amount spent by the college during the plan period. Therefore, the ability of a college to utilise the plan grant very much depends on the status of its development. Colleges in affiliating universities are at various stages of development, and most of them need advice and guidance, in order to develop around sound

lines, making use of the support from the State Government and the various schemes of UGC. This function will be served in a decentralised fashion through the College Development Councils that are being promoted in universities by the UGC. It would be argued that the UGC's main assistance to sub-viable colleges should be by way of advice and guidance through the College Development Councils etc., so that they may become viable. However, major financial support from the UGC may primarily be focussed on those colleges which have the capacity to make effective use of the grants to develop and maintain high academic standards.

5. . . UGC will take early steps to provide guidelines defining conditions under which fresh colleges may be allowed to be started by State Governments. These guidelines may be finalised in consultations with the C.A.B.E., so that all State Governments may adopt an agreed policy in this regard. The financial responsibility and academic structure of the college right from the initial stage must be appropriately determined (the specific responsibilities of private management/State Government/UGC if at all), so that any new college starts off on a proper footing and does not remain a sub-viable drag on the system for too long. It is even desirable to consider whether at the present stage of development of the college system, the initiative for starting any new college should be solely restricted to the State Government or a University,

rather than allow indiscriminate proliferation through the private managements.

6. A large fraction of colleges remain temporarily affiliated for several years, because having been started without adequate preparation and provision, they are unable to muster resources required for satisfying the conditions of affiliation. Each affiliating university would be requested to make a systematic study of this problem, through its College Development Council, and come up with a Plan for ensuring that the existing colleges do satisfy the conditions of affiliation, within a reasonable period. Within any State, this should have a priority over the starting of new colleges, and the UGC, in cooperation with the State Governments, will ensure that these steps are taken, in the interests of maintenance of some minimal standards of collegiate education,

7. Colleges in many States have had difficulty in finding matching grants for schemes approved by the UGC. This problem also needs to be sorted out, so that the State Governments and the UGC together may be able to help colleges develop along the right lines. In view of the difficulties which many colleges have in finding the matching grant share for grants available from the UGC, there have been suggestions that they may be given grants on a hundred per cent basis. However, there are several difficulties in this regard. It has been noticed that non-academic considerations are often involved in the starting and running of a large number of colleges, and in their appointment of teachers; such colleges

are unable to plan effectively their academic development. Such colleges often remain academically and financially sub-viable and even though they are large in number it is difficult to consider public support for them on a 100 percent basis without ensuring some degree of Government/ University control on their management. The UGC will, therefore, have to evolve a suitable management structure for colleges. The Commission may also consider the question of redefining the minimum capital investment and endowment which any new college must provide in order to qualify for support from public funds, including the UGC. Whether the State Governments take full responsibility for sub-viable colleges or the UGC shares part of it, the task has to be performed in a decentralised fashion, and the UGC have to make effective use of College Development Councils for this purpose. In addition to creation of the College Development Councils, it will be desirable for the UGC to establish some Regional/Field Offices to serve the widely-spread system.

8. A possible de-limitation of the responsibilities of UGC and the State Governments vis-a-vis colleges could be the following:

The UGC may concentrate its efforts on the development of colleges lying in the quality sector or those which have been developed to a stage, where additional support from UGC would help them move into the quality sector within a reasonable period of time, or those which have been selected jointly by the State Government, the University and

the UGC as lead colleges. The problem of mediocre or sub-viable institutions spread over the country is only partly one of funds, but largely one of academic and financial management and leadership. The latter type of colleges would need constant supervision and advice, including visits by university academics, which function has to be decentralised and should properly belong to the State level body mentioned earlier and to the College Development Council of the University. UGC would help in this regard by helping in the creation of College Development Councils, with some funds that may be channelised through them. However, the major responsibility for seeing a college through the initial period until it becomes viable should lie with the State Government.

9. Once a College Development Council has been established in a university it should be expected to maintain a standard upto-date data base on the colleges affiliated to that university, and to assist each college to prepare a long-term perspective plan for development, in terms of which it may approach the UGC for support. UGC support may then be related to the status of development of the college and its programmes, taking into account any special programmes the college may have, related to its immediate environment. Depending upon the status of development, the college may get a grant either under the general support and/or COSIP, COHSSIP, autonomy etc.

10. University departments which play an active role in the development of the college system through the College Development Councils or

otherwise, may be given special grants by the UGC, for additional staff, books and journals, equipment etc. Teachers who have been successful in organising effective ULP programmes should be associated with the work of the College Development Councils wherever possible.

11. About a thousand teachers are already taking part in the teacher fellowship programme of the UGC. This number may be increased so as to have at least 2,000 teachers on the teacher fellowship role at any given time. Such a programme implies the availability of sufficient number of university departments or national laboratories where the teachers may be given adequate facilities and guidance. In particular, it implies:

- (a) creation of teachers' hostels and faculty facility complex especially at those universities where a large number of teachers may be expected to join under the ULP, and
- (b) strengthening certain University departments in relation to their willingness to accept teacher fellows.

12. The FIP has now got momentum, and it will be consolidated. The time has also come to make UGC's grants to a college correlated with the interest taken by the college in FIP. It is also necessary to streamline the FIP programme, so as to avoid hardships to teacher fellows, and to define criteria for deciding which teacher fellows may be allowed the benefits of a full three-year teacher fellowship.

13. Every college should be required to prepare a five-year Plan for utilising the teacher fellowships under FIP, so that it may systematically upgrade the qualifications of its

faculty, on which ultimately depends the academic strength of the colleges. The teachers concerned should know these Plans well in advance, so that they may plan their academic programme and absence from their families appropriately. Wherever possible, teachers may also be encouraged by the College and the College Development Council to take advantage of the minor and major research schemes of the UGC, and programmes like national associateships.

14. What is discussed above is a systems approach to college development. The college has to show initiative, good management and internal motivation in order to qualify for UGC support (barring possibly some basic grants for books and equipment). The UGC should help the college in creating a certain capability for planning with the help of its College Development Unit and the College Development Council at the University, and then provide the necessary support for the Plan programmes so generated.

15. Through such a systems approach in which a college is helped to utilise the different schemes of the UGC to improve its academic status, every college in principle should be expected to be able to march towards autonomy. The scheme of autonomous colleges has been delayed in implementation. The process has recently got off the ground in a few universities (e.g. Madras and Madurai), and it will now be vigorously pursued by the UGC in the next Plan period. The aim would be to prepare at least about 500 colleges to become autonomous by the end of the next Plan. In that case, the scheme will reach almost

half the college student population.

16. The COSIP/ULP programme has recently been reviewed by the UGC, and it should be pursued vigorously taking into account the recommendations of the Standing Committee on COSIP.

17. A few colleges in the country are known for their high academic standards, and some college departments have even been supported under the CAS scheme by the UGC. Such colleges may be given further special treatment by the UGC so as to maintain their excellence.

18. With the introduction of a twelve year schooling and strengthening vocationalisation (often called the 10+2+ scheme) enrolment trends in the colleges must be watched carefully so as help evolve a policy. Statewise surveys should be conducted to identify criteria and possible locations of any new colleges that may be required to started, if at all, during the next five to ten years (a 10 year Plan for establishing new colleges to be formulated). The surveys should also help in the identification of existing sub-viable colleges and in evolving a policy for them (closing, merger, conversion into junior colleges, efforts to develop a limited number among them into lead colleges in terms of well-defined criteria etc). Planning may be made on a districtwise basis, and where several sub-viable colleges exist in a given district, efforts may be made to develop at least one of them into an academically viable institutions (lead college) through guidance for planning and financial assistance. Such a lead college may ultimately be given autonomy to develop new courses in relation to needs of

local/region development. In a college selected as a lead college, enhanced hostel facilities and stipends may be provided so as to enable deserving students from different parts in the district to pursue higher education.

The importance of this districtwise approach based upon a systematic survey jointly by UGC and State Governments cannot be overemphasised. Today there are a large number of colleges which have small departments with only one or two teachers in a given subject. Such teachers then have no academic interaction with others in the same subject. Also, colleges find it difficult to maintain adequate libraries if they have to provide instruction in a large number of subjects, some of which may be taken by a few students only. On the other hand, if different colleges were encouraged to concentrate only on a few subjects or subject combinations in which they could have academically viable teaching units, the system would be in a better position to do justice to the students, and to evolve courses appropriate to the regional needs.

When the UGC gives grants to new colleges or to the existing colleges for new departments, it should take into account the overall picture of the district emerging out of the above survey. The same should be done by a University when granting new affiliations.

19. The UGC norms for Postgraduate departments in colleges were circulated 3 or 4 years ago, and universities were requested to conduct surveys in the light of the norms. A few surveys have in practice been carried out. A notable one

amongst them led to the closure of all the P.G. instruction outside the University departments. Some surveys have been carried out in Tamil Nadu and Kerala, and have recently been the basis for support of their colleges for P.G. instruction by the UGC. UGC will pursue vigorously the surveys in other States, so that any support for P.G. instruction in colleges is correlated with the potentiality of the colleges to fulfil the UGC norms within a few years with the help of the support being given by UGC. Where such potentialities do not exist, the UGC should continue the recently accepted policy of not supporting such departments for P.G. instruction. The surveys have brought out the necessity of an intensive FIP in many of the PG colleges which do not have staff with research qualifications. Such colleges will therefore have to be encouraged to implement such programmes. The Visiting Committees have also recommended appointment of additional teachers in many of these colleges, so as to help them fulfil the UGC norms. This matter will have to be pursued with the State Governments, so that the recommendations in this regard are actually implemented.

20. PG instruction in colleges takes different forms in different universities:

- a) An individual college taking an entire responsibility for PG instruction in certain subjects.
- b) Inter-collegiate cooperative programmes by a cluster of colleges under the aegis of the universities.

In either case, the norms of the UGC for a PG Instruction Unit must be satisfied. Wherever a cooperative PG programme exists among several colleges, efforts will have to be

made to ensure that the collective laboratory and library facilities and the staffing are adequate to run them effectively.

In other places where such collaborative programmes do not exist at present, efforts may be made by the UGC to encourage the colleges concerned to get together to evolve a cooperative PG programme. While doing so, colleges undertaking such cooperative programme may be encouraged to evolve courses which are not a mere replica of the courses in the University departments.

21. To summarise some of the important suggestions above.

A possible strategy to be adopted by UGC could have the following ingredients:

(a) All colleges which qualify for support may receive some basic grant on two counts: first, a books plus equipment grant and, second, a grant for faculty improvement, to enable teachers to better themselves academically through study, conferences, degree programmes and research programmes. These basic grants would be on a 100 percent basis.

(b) A general development grant would be made available to all colleges satisfying prescribed qualifying criteria, and showing some potential and capability of becoming viable.

(c) Finally, both a general development grant and a quality programme grant (on the lines of COSIP/COESIP) should be offered to all institutions eligible for UGC assistance, which have shown themselves to be truly capable of utilising UGC grants effectively. A list of such institutions will be drawn up, following appropriate criteria. Such a list will

include not only about ~~500~~ colleges of the type likely to become autonomous in the course of the next five years, but also about 500-700 "lead colleges"(i.e. 1 or 2 per district) chosen from the point of view of planned removal of regional imbalances in the spread of quality education. If there are about 1000-1200 colleges in this list, they will take care of 65-70 percent of the total student population in the colleges.

22. It will be necessary to look into strengthening the staffing in the UGC Secretariat and field offices that are proposed, so that the UGC may play a more effective role in advising and helping the college system.. .

23. In our country, it is important that institutions of higher learning should not confine their activities merely to teaching and research. They have an additional function to fulfil more directly towards the society. These may include remedial programmes for students from disadvantaged background, programmes for adult education, programmes in neighbouring slums or other field work, keeping their libraries open for the neighbouring community, intensive social work, and extension service based upon systematic surveys etc. A college may even adopt an area, in which case the work for its development will have to be included in the academic credit of the student and the workload of the teacher. In this way, we may be able to promote the emergence of our own land armies. UGC may encourage

colleges to embark upon such programmes, and provide support for them. Efforts may be made to integrate such extension work in colleges and universities with the various national programmes of eradication of illiteracy, adult education, area planning, integrated rural development etc.

24. At a time when restructuring of the courses at the undergraduate level has been going on under the 10+2+3 scheme, it is noticed that teachers are often not able to participate in a meaningful fashion in the discussion of new programmes because of a feeling of insecurity. It is, therefore, important that the security of teachers be ensured through the evolution of an instrument of Rights and Responsibilities of Teachers and defining their service conditions in an appropriate fashion. With the recent improvement in salary scales, and early steps that should be taken to improve the service conditions, one should look forward to teachers playing their rightful role of leadership in the tasks of educational and social reconstruction.

IV. STUDENTS

Our nation's greatest natural resource is the boundless energy and enthusiasm of our students joined to the wide variety of talents which these young people possess. Although higher education rightly concentrates on the training of the mind and on the intelligent application of skills required by difficult study, it is the "whole man" that must be taken care of. From this point of view, it becomes essential that care is taken to ensure:

(a) that all good institutions have playing fields, gymnasias and other facilities for vigorous bodily exercise;

(b) that cultural activities of every sort are stimulated among the students of this land whose music, theatre, art and dance are today the focus of much international interest;

(c) that suitable material amenities are made available to students to permit the type of austere comfort which allows young people to concentrate on higher educational goals.

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Appendix-V TO ITEM NO.8-(1)

Sl.No.	Name of the post	Existing Sanctioned Strength	Adopted SIU Assessment as on 1-4-76	Surplus
1	2	3	4	5
1.	Chairman	1	1	-
2.	Vice-Chairman	1	1	-
3.	Secretary	1	1	-
4.	Additional Secretary	1	1	-
5.	Director (SRC)	1	1	-
6.	Consultant	3	-	3
7.	Joint Secretary	2	2	-
8.	Deputy Secretary	7		
9.	Deputy Secretary (ER)	1	8	1
10.	Finance Officer	1		
11.	Education Officer	12	18	4
12.	Assistant Secretary	10		
13.	Accounts Officer	2	2	-
14.	Publication Officer	1	1	-
15.	Senior Statistical Officer	1	-	1
16.	Librarian	1	1	-
17.	Documentation Officer	1	1	-
18.	Section Officer (Grade-I & Grade-II)	31		
19.	Section Officer (Grade-II Stat.)	31	26	5
20.	P.S. to Chairman	1	1	-
21.	P.S. to Vice-Chairman	1	1	-
22.	Assistant Education Officer	3	-	3
23.	Junior Statistical Officer	3	1	2
24.	Assistant Editor	1	1	-
25.	Officer on Special Duty	1	-	1
26.	Personal Assistant	10+1 (personal)	10	1
27.	Artist	1	1	-

Cadre to be wasted out.

Personal to the incumbent

Personal to the incumbent

1	2	3	4	5
28.	Assistant Librarian	1	-	1
29.	Senior Statistical Assistant	3	1	2
30.	Production Assistant	1	1	-
31.	Assistant (including Cashier & Hospitality Assistant)	89	73	16
32.	Receptionist	2	2	-
33.	Stenographer (including Hindi Stenographer)	12+1 (Hindi)	10	2+1 (Hindi)
34.	Junior Stenographer (including Hindi Junior Stenographer)	25+1 (Hindi)	26*	* This includes leave reserve but does not include Hindi Junior Stenographer.
35.	Statistical Assistant	13	4	9
36.	Technical Assistant	1	1	-
37.	Library Assistant	1	1	-
38.	Caretaker	1	1	-
39.	Junior Library Assistant	2	2	-
40.	Upper Division Clerk	72	53	19
41.	Assistant Draftsman	1	1	-
42.	Coder	3	2	1
43.	Key Punch Operator	5	3	2
44.	Sorter Operator	1	1	-
45.	Supervisor Machines	1	-	1 (To be abolished in due course)
46.	Proof Reader	1	1	-
47.	Telephone Operator	2	2	-
48.	Lower Division Clerk	92	80*	12 * Including 1 leave reserve
49.	Staff Car Driver	5	4	1
50.	Copy Holder	1	1	-
51.	Despatch Rider	2	2	-
52.	Roneo Supervisor	1	1	-
53.	Senior Library Attendant.	1	1	-
54.	Junior Library Attendant.	1	-	1

1	2	3	4	5
55. Junior Roneo Operator		2	1	1
56. Selection Grade Daftri		3		
57. Daftri		14	17	-
58. Lift Operator.		2	2	-
59. Hospitality Attendant		1	1	-
60. Security Guard		1	1	-
61. Jamadar		3	3	-
62. Peon		38	25*	13
				*Including 4 leave reserves and on the basis of messenger system.
63. Chowkidar		9	9	-
64. Farash		6	6	-
65. Sweeper		10	10	-

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Date : 19th December, 1977

Item 2(a): . To approve the action taken on certain matters

.....

- (1) Schemes of colleges accepted under Rs. 5 lakh scheme.

The following proposals of colleges have been approved by the Commission for financial assistance under Rs. 5.00 lakh scheme during the Fifth Plan period:

Name of the college	Purpose	Estimated cost	UGC share	Date of approval
2	3	4	5	6

U.P. University

N.S. Degree College, Mayabagh, Agra.	N.S.C.	Accepted in principle.	Limit Rs. 35,000/-	3.10.1977
Narain College Shikohabad	N.S.C.	Agreed in principle		19.10.1977
P.O. Bagla Degree College, Hathras	Library Building	Accepted in principle		26.10.1977
	Books & Journals	Rs. 1,00,000/-	Rs. 75,000/-	26.10.1977

Madhya Pradesh University

P.G. College Pratapgarh	Books & Journals	Rs. 60,000/-	Rs. 45,000/-	17.11.1977
	Equipment	Rs. 80,000/-	Rs. 60,000/-	17.11.1977
		Rs. 1,40,000/-	Rs. 1,05,000/-	
B.N.B. Degree College, Faizabad.	Construction of women's hostel.	Accepted in principle		18.11.1977
A.S. Saket Mahavidyalaya Faizabad	Sh. B.B.L. Srivastava & Shri Maya Prakash Gupta proposals for award of Teacher fellowship accepted,			2.10.1977

1	2	3	4	5	6
<u>Gorakhpur University</u>					
7	Tilak Degree College, Jaunpur.	Teacher Fellowship to Smt. Shanti Singh for working for Ph.D. at Kashi Vidyapith.		2.10.1977 Approved.	
8	Lal Bahadur Shastri Smarak Degree College, Anandnagar Gorakhpur	Equipment for all departments.	Rs. 1,07,154/-	Rs. 80,365/-	18.10.1977
9	Gandhi Smarak Degree College, Azamgarh.	Books & Journals Equipment	Rs. 40,000/- Rs. 12,000/- Rs. 52,000/-	Rs. 30,000/- Rs. 9,000/- Rs. 39,000	2.11.1977
<u>Bundelkhand University</u>					
10	Pt. J.L.N. College Banda (UP)	Const- ruction of library building.	Accepted in principle		2.10.1977
<u>Garhwal University</u>					
11	Dayanand Women's Training College Dehradun.	Construc- tion of class rooms Equipment including Lingaphane	Rs. 43,458/- Accepted in principle Rs. 3,000/-	Rs. 2,250/-	6.11.1977
<u>Meerut University</u>					
12	J.N. Degree College, Gahati Gulaothi	N.R.S.C.	Accepted in principle	Maximum limit Rs. 35,000/-	2.10.1977
13	Kanohar Lal Mahila Mahavidyalaya Meerut	Books & Journals Equipment	Rs. 60,000/- Rs. 28,000/- Rs. 88,000/-	Rs. 45,000/- Rs. 21,000/- Rs. 66,000/-	2.10.1977

2	3	4	5	6
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But University (Contd.)

M.M. Degree College, Lhekra	N.R.S.C.	Accepted in principle	UGC share maximum Rs. 35,000/-	2.11.1977
M.L. Girls College, Chaziabad.	Books & Journals Equipment	Rs. 1,00,000/- Rs. 60,000/- <u>Rs. 1,60,000/-</u>	Rs. 75,000/- Rs. 45,000/- <u>Rs. 1,20,000/-</u>	2.11.1977
Ch. Chottu Ram Degree College Muzaffarnagar	Construction of two class rooms.	Accepted in principle		9.11.1977
J.A.V. College Muzaffarnagar	Rs. 9,631/-	approved to Dr. V.K. Agrawal & Dr. Bana for attending Indian Science Congress at Ahmedbad under Faculty Improvement Programme (Rs. 5 lakhs scheme)		19.11.1977
S.A.A. Jain Degree College, Khatauli	Visiting Teacher		3,000/-	

Bkhand University

Bareilly College Bareilly	Award of Teachers Fellowship to Shri S.L. Pandey and Shri R.C. Agarwal in Physics & Chemistry approved.			2.10.1977
Bareilly College Bareilly	Teacher Fellowship to Shri A.D. Srivastava & Shri V.K. Mahandru (conditional) approved.			18.10.1977

ra University

C.S.R. Sarma College, Ongole	Teaching accommodation	Rs. 1,26,670/-	Rs. 84,446/-	22.10.1977
			<u>Allocations</u>	
			<u>Earlier appd.</u>	<u>Revised</u>
S.S. & N. College Barasaraopet	Library Buildings & extension of class rooms	Rs. 2,21,037/-	Rs. 1,00,000/-	1,47,476/-
	N.R.S.C.	Rs. 85,000/-	Rs. 35,000/-	35,000/-

1	2	3	4	5	6
<u>Andhra University (Contd.)</u>				<u>Allocation</u>	
				<u>Earlier appd.</u>	<u>Revised</u>
	S.S.&N College (Contd.)	Animal House	Rs. 58,000/-	Rs. 30,000/-	29,000/-
		workshop shed	Rs. 53,000/-	Rs. 30,000/-	34,000/-
		Workshop Dept.	Rs. 52,000/-	Rs. 30,000/-	52,000/-
		Books & Journals	Rs. 60,000/-	Rs. 30,000/-	45,000/-
		Lab. Equip.	Rs. 1,40,000/-	Rs. 36,000/-	1,05,000/-
		F.I.P.	Rs. 30,000/-	Rs. 30,000/-	30,000/-
				* Rs. 3,21,000/-	
23	Govt. College Rajshundry	N.R.S.C.	Rs. 70,000/-	Rs. 35,000/-	
		Workshop Shed	Rs. 1,12,600/-	Rs. 34,000/-	27.10.1977
		Workshop Equipment	Rs. 94,800/-	Rs. 66,000/-	
				Rs. 1,35,000/-	
24	P.R. Govt. College, Kakinada	N.R.S.C.	Rs. 43,650/-	Rs. 35,000/-	27.10.1977
		Workshop shed.	Rs. 1,12,600/-	Rs. 34,000/-	"
		Workshop Equipment	Rs. 94,800/-	Rs. 66,000/-	"
				Rs. 1,35,000/-	
25	R.V.V.N. College Dharamkotota Amravathi	Books & Journals	Rs. 1,40,000/-	Rs. 1,05,000/-	29.10.1977
		Lab. Equip.	Rs. 1,44,000/-	Rs. 1,08,000/-	"
				Rs. 2,13,000/-	
26	A.N.R. College Gudivada	Books & Journals	Rs. 1,00,000/-	Rs. 75,000/-	6.10.1977
		Lab. Equip.	Rs. 1,20,000/-	Rs. 90,000/-	"
		Workshop Equipment	Rs. 26,000/-	Rs. 26,000/-	"
		workshop Shed	Rs. 40,000/-	Rs. 34,000/-	"
		Teaching accommo- dation	Rs. 2,66,800/-	Rs. 1,33,400/-	"
				Rs. 3,58,400/-	

* Earlier reported under item 2(a) Nos. 1/8 dated 3-5 June, 1976
& 1/9 dated 16.5.1977.

PTO

2	3	4	5	6
Govt. College, Kazole.	N.R.S.C.	Rs. 43,650/-	Rs. 35,000/-	19.10.1977
	Workshop Shed	Rs. 1,12,600/-	Rs. 34,000/-	"
	Workshop Equipment	Rs. 94,800/-	Rs. 66,000/-	"
			<u>Rs. 1,35,000/-</u>	

(Schemes worth Rs. 84,540/- (UGC's share stand already accepted vide Item 2(a) 1/2 dated 20.6.1977).

Via University

S.R.&B.G.N.H. Govt. College Bhammam	N.R.S.C.	Rs. 43,650/-	Rs. 35,000/-	7.11.1977
	Workshop Shed	Rs. 1,12,600/-	Rs. 34,000/-	"
	Workshop Equipment	Rs. 94,800/-	Rs. 66,000/-	"
			<u>Rs. 1,35,000/-</u>	

(Schemes worth Rs. 1,05,000/- (UGC's share) stand already accepted vide item 2(a) No. 1/1 dated 15.11.1976).

Venkateswara University

Sri Padmavathi Women's College Tirupati	Extension of class rooms	Rs. 1,92,000/-	Rs. 1,28,000/-	7.11.1977
	N.R.S.C.	Rs. 1,24,000/-	Rs. 35,000/-	"
	Animal House	Rs. 39,000/-	Rs. 26,000/-	"
	Workshop Shed	Rs. 40,000/-	Rs. 33,000/-	"
	Books & Journals	Rs. 1,00,000/-	Rs. 75,000/-	"
	Lab. Equip.	Rs. 1,20,000/-	Rs. 90,000/-	"
	Workshop Equipment	Rs. 30,000/-	Rs. 30,000/-	"
	F.I.R.	Rs. 35,000/-	<u>Rs. 35,700/-</u>	"
			<u>Rs. 4,52,700/-</u>	

1	2	3	4	5	6
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**Sri Venkateswara University
(Contd.)**

C. Sri Sarvodaya College, Nellore.	Lib. Bidg.	Rs. 3,22,963/-	Rs. 2,15,308/-	29.10.1977
	Books & Journals.	Rs. 1,20,000/-	Rs. 90,000/-	29.10.1977
			<u>Rs. 3,05,308/-</u>	

General University:

1. Union Christian College, Alwaye	N.R.S.C.	Rs. 35,000/-	Rs. 35,000/-	27.10.1977
2. St. Teresa's College, Arnakulam	Library Building	Rs. 6,28,504/-	Rs. 2,18,686/-	5.10.1977
	F.I.R.	Rs. 83,300/-	Rs. 8,300/-	
			<u>Rs. 2,26,986/-</u>	

(Schemes worth Rs. 1,87,500/- (UGC's Share) stand already accepted vide item 2(a) 1/4 dated 21.2.1977).

Allocations

			<u>Earlier approved</u>	<u>Revised</u>
Mar Ivanies College, Trivandrum.	Staff quarters	Rs. 2,65,250/-	Rs. 1,32,625/-	Rs. 1,32,625/-
	Teaching accommodation	Rs. 2,84,600/-	-	Rs. 1,42,300/-
	Books & Journals	Rs. 1,00,000/-	Rs. 45,000/-	Rs. 75,000/-
	Lab. Equpt.	Rs. 1,57,368	Rs. 60,000/-	Rs. 1,18,000/-
	Workshop Shed	Rs. 35,970/-	Rs. 30,000/-	Rs. 33,400/-
	Workshop Equipment	Rs. 30,000/-	Rs. 30,000/-	Rs. 30,000/-
			<u>* Rs. 2,97,625/-</u>	<u>Rs. 5,31,325/-</u>

* Status already reported under item 2(a) No. 1/10 dated 15.11.1976).

2	3	4	5	6
<u>Bagalpur University</u>				
T.N.B. College Bhagalpur	Books & Journals	Rs. 1,30,000/-	Rs. 97,500/-	3.11.1977
	Lab. Equip.	Rs. 2,00,000/-	Rs. 1,50,000/-	"
<u>Bidwan University</u>				
Suri Vidyasagar College, Suri	Lab. Building	Rs. 99,094/-	Rs. 66,062/-	17.11.1977
	Library Building	Rs. 1,16,367/-	Rs. 77,573/-	"
<u>Calcutta University</u>				
Rajarendra Lal Khan Women's College.	Construction Teaching Accommodation	Rs. 6,90,520/-	Rs. 2,22,000/-	18.10.1977
Drubchand Malakar College, Dikshin Barasat.	Library Building	Rs. 1,42,575/-	Rs. 95,050/-	23.10.1977
New Alipore College Calcutta	Class rooms	Rs. 2,07,822/-	Rs. 1,03,011/-	18.10.1977
<u>Dibrugarh University</u>				
J.B. College, Jorhat	Construction of class- rooms	Rs. 1,62,015/-	Rs. 1,21,511/-	24.10.1977
D.R. College Golaghat.	Hostel Building	Rs. 1,57,000/-	Rs. 59,919/-	27.10.1977
<u>Diphila University</u>				
Bali Ram Bhagat College, Samstipur	Books	Rs. 75,000/-	Rs. 56,250/-	30.9.1977
<u>Magadh University</u>				
S.N. Sinha College, Warsaliganj	Extension of men's Hostel	Rs. 93,987/-	Rs. 60,573/-	27.10.1977
	Lab. Equip.	Rs. 60,000/-	Rs. 45,000/-	"

1	2	3	4	5	6
<u>Magadh University (Contd.)</u>					
43	A.N. College Patna	Construction of canteen	Rs. 76,100/-	Rs. 50,733/-	1.11.1977
<u>North Bengal University</u>					
44	Rajganj College Rajganj	Books & Journals	Rs. 1,80,000/-	Rs. 1,35,000/-	24.10.1977
		Equipment	Rs. 1,40,000/-	Rs. 1,05,000/-	"
<u>Ranchi University</u>					
45	Mahila College Chaibasa	Books & Journals	Rs. 50,000/-	Rs. 37,500/-	11.11.1977
		Lab. Equip.	Rs. 50,000/-	Rs. 37,500/-	"
46	S.S.L.N.T. College Dhanbad	Books & Journals	Rs. 40,000/-	Rs. 30,000/-	8.11.1977
		Lab. Equip.	Rs. 1,00,000/-	Rs. 75,000/-	"
		Workshop Shed & Equip.	Rs. 65,000/-	Rs. 65,000/-	"
<u>Sambalpur University</u>					
47	D.A.V. College Titilagarh	Lab. Equip.	Rs. 80,000/-	Rs. 60,000/-	23.10.1977
<u>Utkal University</u>					
48	D.A. College North Balasore	Books	Rs. 60,000/-	Rs. 45,000/-	24.10.1977
		N.R.S.C.	Rs. 45,000/-	Rs. 35,000/-	"
49	Bhadrak College Badrak	Books & Journals	Rs. 1,50,000/-	Rs. 1,12,500/-	2.11.1977
		Lab. Equip.	Rs. 1,85,000/-	Rs. 1,38,750/-	"
		N.R.S.C.	Rs. 70,000/-	Rs. 70,000/-	"
		Workshop Shed & Equip.	Rs. 70,000/-	Rs. 70,000/-	"
		Staff quarters	2,68,348/-	Rs. 1,34,174/-	"
		Lab. Building	Rs. 1,35,975/-	Rs. 90,616/-	"
		Girls Hostel	Rs. 1,41,125/-	Rs. 1,05,843/-	"
50	Dhenkanal College Dhenkanal	Workshop Equipment	Rs. 65,000/-	Rs. 65,000/-	10.11.1977

(2) Schemes of College accepted for development
of P.G. Departments.

.....

The following proposals from colleges for development of postgraduate departments received so far have been examined and grants on 100% basis have been approved to the colleges as per details given below:

S.No.	College	Department	Enrolment	Grants approved for	
				Books	Equipment
1	2	3	4	5	6
				Rs.	Rs.
<u>Agra University</u>					
1.	D.E.I. Women's Training College, Dayalbagh.	i) Hindi ii) English iii) Psychology iv) Music	18 21 38 25	- 2,000/- 1,500/- -	- 10,000/- - -
				3,500/-	10,000/-
2.	Narain College, Shikohabad	i) Economics ii) Hindi iii) Mathematics iv) Physics v) Chemistry vi) Zoology	98 34 22 17 15 20	10,000/- - 10,000/- - - 10,000/-	- - - - 15,000/- -
				30,000/-	15,000/-
<u>Bundelkhand University:</u>					
3.	Pt. Jawaharlal Nehru College, Banda.	i) English ii) Sociology iii) Economics iv) Political Sc.	23 58 63 62	10,000/- 10,000/- 10,000/- 10,000/-	- - - -
				40,000/-	-
<u>Meerut University</u>					
4.	J.V. College, Baraut	i) Chemistry ii) Physics iii) Botany iv) Zoology v) Economics vi) Political Sc.	50 22 29 33 102 113	10,000/- 10,000/- 10,000/- 10,000/- 10,000/- 10,000/-	20,000/- 20,000/- 15,000/- 15,000/- - -
				60,000/-	70,000/-
5.	J.V. Jain College, Saharanpur	i) Drawing & Painting ii) Economics iii) English iv) Geography v) Hindi vi) History vii) Political Sc. viii) Sanskrit ix) Sociology		10,000/- 10,000/- 10,000/- 10,000/- 10,000/- 10,000/- 10,000/- 10,000/- 10,000/-	10,000/- - - 10,000/- - - - - -
				90,000/-	20,000/-

(3) Kerala University-Establishment of new Study Centres during 5th Plan period:

....

The University Grants Commission vide its letter No. F.22-11/76(OP) dated 8.3.1977 invited proposals from the Universities for establishment of new study Centres during the Fifth Plan period. Accordingly, the proposal of the Kerala University for establishment of 3 new study Centres as indicated below has been accepted by the Commission in accordance with the norms and conditions laid down for the purpose, and the University has been informed of the decision vide letter No. F.79-4/77(DIa) dated the 1st November, 1977:

- a) Palai (Govt. College, Rajamundhry)
- b) Kottayam (The Kottayam Public Lib.)
- c) Alleppey (S.D. College, Santhanapuram, Alleppey)

....

(4) Assistance for Construction of Staff Quarters during 5th Plan period.

....

In October, 1976, the University Grants Commission had requested Universities/P.G. Centres to forward suitable proposals for construction of Staff Quarters on 50:50 sharing basis to cover about 50% of the number of additional teaching posts approved by the Commission in the 5th Plan Period.

As against the additional posts sanctioned to P.G. Centre, Anantapur, under I priority - 2 Professors 9 Readers and 8 Lecturers, the proposal of the centre to construct 6 type I Quarters for Professors/Readers and 4 type II Qrs for Lecturers at an estimated cost of Rs. 7,17,140/- has been accepted out-side the 5th Plan allocation of the P.G. Centre subject to the usual terms and conditions. The P.G. Centre has been informed accordingly vide letter No. F.87-3/77 D-1(a) Dated 24.10.1977.

....

- (5) Sri Venkateswara University, Tirupati -
Establishment of new Study Centres during
5th Plan period.

....

The University Grants Commission vide its ~~1976~~
circular letter No. F.22-11/76 (CP) dated 8.3.77
invite proposals from Universities for the establishment
of new Study Centres during 5th Plan peirod.

Accordingly, the proposals of Sri Venkateswara
University for the establishment of 5 new study centres
as indicated below has been accepted by the Commission
in accordance with the norms and conditions laid down
for the purpose and the University has been informed
of the decision vide letter No. F.18-1/76 D-1(a)
dated 25.10.1977.

	<u>Name of the City</u>	<u>Location</u>
1.	Cuddapah	Red Cross Building
2.	Kurnool	Silver Jubilee Govt. College
3.	Chittoor	Govt. College
4.	Nellore	V.R. College
5.	Kavah	Jawahar Bharati

.....

- (6) Approval of Candidates under the scheme of
National Associateship.

.....

The University Grants Commission instituted
the National Associateship scheme during 1970 to
enable outstanding and young teachers upto the age
of 35 years, from Universities and colleges engaged
in research to visit and work for short periods at
University Centres, Research Institutions, National
Laboratories etc. which have special facilities
relevent to their respective field of study and research.

There are 300 positions available under five
years scheme and 100 positions under one year scheme
at a time. The Commission at its meeting held on
10th December 1973, interalia decided that the
selection of National Associates may be done in
consultation with relevant subject panels. Accordingly,
the nominations received from various universities
were referred to various subject panels and they

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recommended 61 more candidates for the award of National Associateship as given below:-

S.No.	Name of the subject panel	Number of candidate recommended by the Panel	
		Five years	One year
1.	Bio Sciences	7	12
2.	Chemistry	1	5
3.	Physics	7	12
4.	Commerce	-	2
5.	Economics	-	3
6.	History	1	1
7.	Linguistics	-	2
8.	Modern Indian Languages	1	1
9.	Political Science	2	-
10.	Psychology		3
11	Social Work		1
		<hr/>	<hr/>
		19	42

Since there is no panel on Fine Arts, the application of Kum. Kiran Agrawal, Lecturer in Painting & Drawing, D.J. College, Baraut was sent to Professor Lalmani Misra, Professor & Head of the Department of Fine Arts, Banaras Hindu University who recommended her for the award. As such she has been awarded the National Associateship for one year w.e.f. 1.6.77.

The panel on Bio-Sciences at its meeting held on 16th & 17th April, 1976 recommended Dr. Shailja Nigam, Reader in Audiology, speech and Hearing, All India Institute of speech & Hearing, Mysore for the award of National Associateship. Since the Institution was not included under Section 2 (f) of the UGC Act, it was not entitled to receive grants from the Commission. Subsequently it has now been brought under Section 2 (f) of UGC Act and as such Dr. Nikam has been awarded National Associateship for one year w.e.f. 1.9.77.

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The total number of positions filled in so far, including 63 positions as mentioned above is as under:

	Total Positions	Positions filled up.	Positions available
5 year scheme	300	182	118
1 year scheme	100	74	26

A list of Candidates Selected for the award is given in Annexure I and II.

....

- (7) Regularisation of the visit of Dr. Bhagwan Das Professor & Head of the Department of Statistics Indore University, under the Scheme of National Associateship.

....

Dr. Bhagwan Das, Reader and Head Department of Mathematics & Statistics was awarded a National Associateship for a period of 5 years from January, 1974.

According to rules governing the scheme of National Associateship, an awardee under the scheme is expected to undertake at least one visit to the Institution in first two years of the award and if he fails to participate in the programme within three years, his name is taken off from the rolls of National Associateship. In the case of Dr. Bhagwan Das the period of two years expired on 31st December, 1976.

In May 1977 Dr. Bhagwan Das informed that he would be visiting T.I.F.R. Bombay from 20th May, 1977 to 14th July, 1977. Since the proposal was received incomplete, no action could be taken.

In July 1977, Dr. Bhagwan Das informed that he visited T.I.F.R. Bombay from 20th May, 1977 to 4th July, 1977 (both days inclusive). Since the visit had been undertaken already and the T.I.F.R. certified it, the visit has been regularised as a special case and the grant due to him has been paid.

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(8) Allahabad University -Establishment of University Service & Instrumentation Centre during the fifth plan period.

....

On the recommendations of the Standing Committee of the UGC on 'Instrumentation Centres', the setting up of University Service & Instrumentation Centre of level II has been approved at Allahabad University and the following assistance has been approved outside the fifth plan allocation:-

- | | | |
|----|--|----------------|
| 1. | Equipment for Mechanical Shop | Rs. 0.30 lakhs |
| 2. | Equipment for Electronics Shop | Rs. 1.20 lakhs |
| 3. | For Glass Blowing including Lathe | Rs. 0.50 lakhs |
| 4. | Components, contingencies, consumables & tools | Rs. 1.00 lakhs |

Rs. 3.00 lakhs

....

(9) Centenary grant to Agra College, Agra.

.....

On receipt of a proposal received from the Agra College, Agra for assistance for its post centenary Golden Jubilee Celebration, the Commission under its scheme of Centenary grant to Colleges/ Universities has approved, in principle, the proposal of Agra College, Agra for the construction of (i) Library hall in women's wing & (ii) an Auditorium-cum-Assembly hall in women's wing on 100% basis subject to the maximum of Rupees one lakh as UGC assistance.

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(10) Appointment of one Professor in accountancy in lieu of 1 Reader and 1 Lecturer in the Faculty of Commerce, University of Saugar.

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The Saugar University informed that there was only one Professor in Commerce Faculty which

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is one of the biggest faculties of the University having 200 post-graduate students and 50 research scholars besides running the new M. Phil Course under the Faculty Improvement Programme. Thus another post of Professor was essentially required in the Faculty of Commerce. The University proposed to appoint 1 Professor in Accountancy in lieu of a Reader and 1 Lecturer in Commerce approved for the V Plan Period.

The proposal of the University has been approved.

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- (11) Approval for the write off of books and equipment purchased out of the University Grants Commission grant by Dhamtari Science, Arts and Commerce College, Dhamtari (M.P.).

.....

An amount of Rs. 62,750/- was paid to Dhamtari Arts, Commerce and Science College, Dhamtari for the purchase of Lib. Books and Lab. Equipment under different schemes viz. T.B.L. Basic Grant for the purchase of Library books; Book Grant 1969-70, 1970-72, Establishment of Book Bank and Equipment grant etc.

The College informed the University Grants Commission that due to accidental fire in the College, all the books and equipment, purchased out of the University Grants Commission Grants had been destroyed and also requested the Commission for its approval for writing off the value of Books and equipment from the books of account.

The reports of the Police and Fire Brigade were obtained in this regard. The matter was referred to the R.S. University Raipur for verification. Finance Officer, Ravi Shankar University verified the matter of fire damage and reported total loss at Rs. 1,10,860.84 paise of which University Grants Commission's share has been reported to be Rs. 41,194.00 only. On the basis of these reports it has been agreed to accord approval for writing off an amount of Rs. 41,194.00 out of the University Grants Commission grants.

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(12) Allocation of Junior Research Fellowship
to Universities.

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The question of making available Junior Research Fellowship of the value of Rs. 400/- p.m. to such Universities to whom fifth plan visiting Committees have not recommended any allocation has been examined. There are 13 Universities where Visiting Committee reports do not contain any recommendation for allocation of Junior Research Fellowship during fifth plan period. The Visiting Committees which visited these Universities were perhaps not aware that the allocation of Junior Research Fellowship was within their purview. It has therefore been decided to allocate 154 Jr. Fellowship at any given time to the following Universities during the V plan period:

Sl No.	University	Fellowships allocated by RF Division.	Fellowship proposed to be allocated by D:2 Division.
1.	Allahabad	64	32
2.	Kurukshetra	24	12
3.	Gorakhpur	20	10
4.	Guru Nanak Dev University.	8	4
5.	Himachal Pradesh	8	4
6.	Lucknow	64	32
7.	Meerut	20	10
8.	P anjab	80	40
9.	Punjabi	20	10
		<u>303</u>	<u>154</u>

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- (13) Approval of Additional Grants to the Department of Molecular Biophysics, Indian Institute of Science, Bagalore under the special Assistance Programme.

.....

The Department of Molecular Biophysics of Indian Institute of Science, Bangalore was invited to participate in the programme of Special Assistance by the Commission at its meeting held on 23rd August, 1976 (Item No. 10) and grants approved.

On a specific request from the Department, additional academic post- One Professor - 2 Readers and One Lecturer and a grant of Rs. 15,000/- p.a. has been approved for supporting Administrative and Technical Staff for a period of 5 years vide orders dated 6.5.1977.

.....

- (14) College Science Improvement Programme University Leadership Project - Approval of grants for the extension of follow-up activities to the Department of Physics, Rajasthan University.

.....

The Commission at its meeting held on 17th October, 1977 (Item No.6(46)) while considering the recommendations made by the Standing Committee for COSIP, interalia agreed that the ULP departments which have completed the initial phase and follow up phase successfully may be encouraged and assisted to maintain continuous contact and interest in the COSIP.

The proposal received from the Department of Physics, Rajasthan University for extension of the follow-up phase by another one year has been considered and an additional adhoc grant of Rs. 2,00,000/- has been approved and released and an expert committee is being constituted to evaluate the progress of the work done by the department under follow-up phase (vide orders dated 27.10.77).

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(15) Approval of grants for follow-up activities to Colleges.

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The approval of grants to 35 Colleges for undertaking follow-up activities have already been reported to the Commission.

Proposals from following Colleges have since been examined and grants approved for undertaking the follow-up activities during the next two years.

Name of the Colleges	Affiliated to University	Grant approved Rs.	Date of approval
1. Veerasaiva College, Bellary.	Karnatak	2,00,000/-	1.10.1977
2. S.P.College, Poona	Poona	2,00,000/-	22.10.1977
3. Jagannath Barooah College, Jorhat	Dibrugarh	1,50,000/-	1.11.1977
4. Maharaja's College, Ernakulam.	Cochin	1.50,000/-	18.11.1977

.....

(16) Financial Assistance to Teachers in Universities and Colleges for Minor Research Projects in Science subjects-selection for one year 1977-78.

.....

A meeting of the expert Committee appointed by the Commission to examine the proposals received under the scheme, "Financial Assistance to Teachers in Universities and Colleges for minor research projects in Science subjects" was held in the office of the Commission on the 5th and 6th November, 1977. Total number of 1826 applications were received in different subjects that of which 1093 proposals have been recommended by the Committee and a total grant of Rs. 41,61,974/- has been

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approved vide orders dated 27th November, 1977, as detailed below:

<u>S1 No.</u>	<u>Subject</u>	<u>No. of teachers selected</u>	<u>Grants approved</u>
1.	Physics	148	7,39,000/-
2.	Chemistry	461	12,96,080/-
3.	Mathematics	94	3,79,300/-
4.	Botany	88	5,54,640/-
5.	Zoology	178	6,47,664/-
6.	Geography	46	1,29,150/-
7.	Geology	25	1,26,600/-
8.	Engineering	31	2,00,540/-
9.	Agriculture	8	36,500/-
10.	Medicine	10	48,470/-
11.	Anthropology	8	35,000/-
12.	Home Science	5	15,500/-
13.	Miscellaneous	1	2,000/-
	TOTAL :	<u>1103</u>	<u>42,10,444/-</u>

The entire grant for the implementation of the approved projects in each case is being released in full.

.....

- (17) Approval of additional grant to the department of Chemistry, Sardar Patel University under the programme of 'Special Assistance to Selected departments'.

.....

The Commission at its meeting held on 20th June, 1977 vide resolution No. 23 agreed to invite

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the department of Chemistry, Sardar Patel University to participate in the scheme of 'Special Assistance to selected Departments' and approved the grants for different purposes including an Equipment grant of Rs. 2.5 lakhs only.

Prof. R.D. Patel, Vice-Chancellor, Sardar Patel University vide his letter dated 9th September, 1977 informed that the non-recurring assistance approved is much less than asked for in the original proposal of the University. He requested that an additional grant of Rs. 5 lakhs would be required for the purchase of a small Angle X-Ray Diffraction Unit and a unit for studying dynamic mechanical properties in the department.

In view of the urgent need for the equipment asked for and since the assistance approved was much less than the ceiling grant suggested, The request was agreed to vide orders dated the 14th November, 1977.

.....

- (18) Sanction of grant to the Kerala University for organising a World Conference on Malayalam Language and Kerala Culture organised from November 1-7, 1977.

....

The Kerala University requested for a grant of Rs. 1,40,000/- for organising a World Conference on Malayalam language and Kerala Culture. The Total estimated expenditure of the above Conference was Rs. 10,50,000/- against which the state Government of Kerala had sanctioned a grant of Rs. 5 lakhs. The Government of India also agreed to provide a sum of Rs. 1 lakh for the purpose. The university had sought a grant of Rs. 1,40,000/- for organising the seven seminars on (1) Malayalam language, (2) Malayalam Literature, (3) Kerala History, (4) Society and Culture (5) Arts of Kerala (6) Philosophy and Religion and (7) Development of Kerala with special emphasis on overseas Malayalees. On this occasion, normally, the Commission provides a grant of Rs. 30,000/- maximum to the universities for organising such International Conferences. Since the Conference which was to be organised by the Kerala University covered seven seminars, a grant of Rs. 50,000/- was provided to the University for this purpose as a special case. The sanction of the Commission was conveyed to the University vide letter No. F. 3-55/77 (FIP) dated 1st November, 1977.

.....

- (19) Applicability of the orders regarding cash payment in lieu of unutilised earned leave at the credit of the Central Government employees on the date of retirement on superannuation to the employees of the University Grants Commission.

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The orders contained in the Government of India, Ministry of Finance (Department of Expenditure) Office Memorandum No. P-14028/1/77-E.IV(A) dated the 29th October, 1977 regarding cash payment in lieu of unutilised earned leave at the credit of the Central Government employees on the date of retirement on superannuation on or after 30.9.1977 have been made applicable to the employees of the University Grants Commission, subject to the conditions contained therein. (vide orders dated the 11th November, 1977)

.....

- (20) Payment of additional dearness allowance to the employees of the University Grants Commission.

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The Government of India's orders contained in the Ministry of Finance (Department of Expenditure) Office Memorandum No. 13017/3/E.II (B)/77 dated the 19th November, 1977 regarding payment of additional dearness allowance to Central Government Employees with effect from the 1st September, 1977 have been made applicable to the employees of the University Grants Commission with effect from the same date viz. 1st September, 1977 (vide orders dated the 28th November, 1977).

.....

- (21) Representation of Mrs. Pushpa Arora, Senior Library Attendant for promotion as Junior Library Assistant.

.....

In pursuance of the decision taken by the Commission at its meeting held on the 26th September, 1977 (Item No. 44) on a reference made by the Commission, the Ministry of Education and Social Welfare vide its letter No. F. REC.Q-11023/8/77/T-7 dated 31st October, 1977 has informed that the certificate in Library Science awarded by Raja Balwant

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Singh College, Agra is not recognised by the Government of India for employment purposes under the Central Government. This position has also been confirmed by the Directorate of Education, Delhi Administration.

2. In the light of the reply received from the Ministry of Education and Social Welfare and the Directorate of Education, Delhi Administration as well as the discussion at the meeting of the Commission when the case of Mrs. Pushpa Arora, Senior Library Attendant for promotion to the existing post of Junior Library Assistant was considered, it has been decided (vide orders dated 24.11.1977) not to consider her for promotion to the post of Junior Library Assistant on the basis of her existing professional qualifications and to reiterate to her the earlier advice to improve upon these to become entitled for promotion as Junior Library Assistant in accordance with the provisions of the Cadre and Recruitment Rules for the post. Necessary action is being taken to fill up the post in accordance with the provisions of the Cadre and Recruitment Rules.

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Annexure I to Item No. 2a(6)

Name of the Candidates Selected during the period March, 1977 to November, 1977 for the award of National Associateship for five years.

....

S.No.	Name of the awardee	Subject	Name of the University.	Date from which the award is effective.
1.	Dr. N.H. Singh	Biochemistry	Haryana Agril. University.	1.6.77
2.	Dr. S.S.Kandan	-do-	Marathwada Agril. University.	1.6.77.
3.	Dr. Ashok Kumar	Bio Sciences	Himachal Pradesh University.	1.6.77
4.	Dr. P.S. Dubey	Botany	Vikram University.	1.6.77
5.	Dr. P.A. Khan	-do-	Berhampur University.	1.11.77
6.	Dr. Asim K. Ray	Physics	Visva Bharati	1.6.77
7.	Dr. P.K.Mukherjee	-do- do-	Burdwan University.	1.6.77
8.	Dr. A.K. Chaudry	-do-	Aligarh Muslim University.	1.12.77
9.	Dr. S.N.Thakur	-do-	Banaras Hindu University.	1.12.77
10.	Dr. AN.Mantri	-do-	-do-	1.12.77
11.	Dr. S.K. Singh	-do-	Aligarh Muslim University.	1.12.77
12.	Dr. B.C. Venkatereddy	-do-	Andhra University.	1.12.77
13.	Dr.A.S. Narain	Zoology	Gorakhpur University.	1.6.77
14.	Dr. M.Z. Khan	-do-	Poona University.	1.6.77

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15.	Dr. HGopabandhu Behera .	Chemistry	Sambalpur University.	1.11.77
16.	Dr. I.S. Swami	Hindi	Rama Krishna Puramhans Mahavidyalaya Osmanabad.	1.9.77
17.	Dr. H.P. Ray	History	Jawaharlal Nehru University.	1.9.77
18.	Shri J.K. Baral	Pol. Sc.	Berhampur University.	1.8.77
19.	Shri V.R. Chitoori	-do-	Andhra University.	1.8.77

Annexure II to Item No. 2a

Name of Candidates selected during
the period February 1977 to November,
-1977 for the award of National
Associateship for one year.

.....

No.	Name of the awardee	Subject	Name of the University.	Date from which the award is effective.
1	2	3	4	5
1.	Dr. C.B. Taori	Biochemistry	Mahatma Gandhi Instt. of Medical science, Sevagram (Wardhi)	1.6.77
2.	Dr. P.R. Sudhakaran	-do-	Kerala University.	1.6.77
3.	Dr. A.K. Singh	Botany	Jodhpur University.	1.6.77
4.	Shri N.S. Visht	-do-	Garhwal University.	1.11.77
5.	Shri S.K. Gupta	-do-	-	1.11.77
6.	Shri P.C. Malik	-do-	Jodhpur University	1.11.77
7.	Shri Rajeev Dhashmana	-do-	Garhwal University.	1.11.77
8.	Dr. Santosh Kumar	Physics	Agra College, Agra.	1.12.77
9.	Dr. D.S. Srivastava	-do-	Aligarh Muslim University.	1.12.77
10.	Dr. D.S. Parman	-do-	-do-	1.12.77
11.	Shri Vinod Kumar	-do-	D.B.S. College, Dehra Dun	1.12.77
12.	Dr. A.K. Bhattacharya.	-do-	Holker Sc. College, Indore.	1.12.77
13.	Dr. R.S. Kasana	-do-	Indore University.	1.12.77
14.	Dr. V.P. Gupta	-do-	Jammu University	1.12.77
15.	Dr. H.N. Sharma	-do-	JNU P.G. Centre, Jmial.	1.12.77
16.	Dr. Sutender Kumar	-do-	Regional Engg. College, Srinagar.	1.12.77
17.	Dr. C.D.K. Virmani	-do-	Bareilly College,	1.12.77
18.	Dr. M.P. Das	-do-	Sambalpur University.	1.12.77
19.	Dr. G.S. Chaddha	-do-	G.B.Pant Univ. of Agri.	1.12.77

1	2	3	4	5
20.	Dr. P. Ramakrishnan	Zoology	Govt. Arts & Sc. College, Calicut,	1.6.77
21.	Dr. S.R. Reddy	-do-	Bangalore Univ.	1.6.77
22.	Dr. J.R.F. Alfred	-do-	N.E.H.U.	1.6.77
23.	Dr. K. Shakuntala	-do-	Bangalore Univ.	1.6.77
24.	Dr. V.S. Krishna Nair	-do-	Calicut Univ.	1.11.77
25.	Dr. V.K. Shinde	Chemistry	Shivaji Univ.	1.5.77
26.	Dr. H.S. Rathore	-do-	Aligarh Muslim University.	1.11.77
27.	Dr. C.L. Kirtania	-do-	Dum Dum Moti Jheel College, Calcutta.	1.11.77
28.	Dr. K. Durai Raj	-do-	Sh. Josephs College, Tiruchirapalli	1.11.77
29.	Dr. Rampal Singh Rajput	-do-	Bareilly College, Bareilly.	1.11.77
30.	Dr. Shailja Nikam	Audiology and Speech.	All India Instt. of Speech & Hearing Mysore.	1.9.77
31.	Sh. R.D. Pathak	Commerce	Himachal Pradesh University.	1.7.77
32.	Sh. M. Chandra Sekher	-do-	Andhra University.	1.7.77
33.	Sh. G. Ramachandrudu	Economics	-do-	1.7.77
34.	Sh. Radha Krishan Nair	-do-	Karnatak University	1.7.77
35.	Sh. K.R.G. Nair	-do-	Hastinapur college Delhi.	1.7.77
36.	Km. Kiran Agarwal	Fine Arts	Digambar Jain P.G. College, Baraut.	1.6.77
37.	Km. V.N. Handiekar	History	J.M. Patel College, Bhandra.	1.9.77
38.	Sh. C.M. Daflaur	Psychology	Magadh University	1.7.77
39.	Sh. S.W. Despande	-do-	Poona Univ.	1.7.77
40.	Dr. B.K. Singh	-do-	Magadh University.	1.7.77

: 3 :

1	2	3	4	5
41.	Miss Meera Chaudhry.	Sanskrit	G.D.Mahila Mahilavidyalaya. Ballia.	1.6.77
42.	Smt. Manju Srivastva	-do-	Bangalore University.	1.6.77
43.	Sh. B.S. Murthy	Social Work	Berhampur University.	1.7.77
44.	Sh. C.R. Vedavelli	Telugu.	S.K.B.R. College Amalapuram. (A.P.)	1.9.77

Confidential

UNIVERSITY GRANTS COMMISSION.
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Meeting :

Dated : 19th December '77

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

...

- (1) The Reservation of 1% vacancies for Blind, deaf and orthopaedically handicapped in Central Services.

....

The Ministry of Education and Social Welfare have sent a copy of the letter (D.O. No. 12-62/77-NI dated 23rd August 1977) addressed to Vice-Chancellors by the Union Education Minister regarding reservation of 1% vacancies each for the Blind, the deaf and the orthopaedically handicapped in group 'C' and 'D' posts in Central Services and in comparative posts in Government of India public sector undertakings Annexure. The State Governments have also been requested to take similar action.

....

- (2) Revised scales of pay of Teachers in the Universities and Colleges -implementation thereof by the Government of Gujrat.

....

A copy of the Government of Gujarat, Education Department Resolution No. MIS-1077-3226-KH dated 20.8.77 regarding the implementation of the revised salary scales of teachers of technology and engineering, M.S. University of Baroda is enclosed Annexure. The scale suggested by Gujarat Government are somewhat different from those recommendation by the Commission.

.....

Annexure to Item No. 2(b) (1)

Copy of D.O.No.F.12-62/77-NI dated 23.8.77
from Dr. Pratap Chandra Chunder, Minister of
Education and Social Welfare, Government of India,
to the Chairman, University Grants Commission.

.....

It is the avowed policy of the Government of India to extend assistance to all weaker sections of the community. Physically handicapped people constitute one of the weakest segments of our population and deserve special attention. With this in mind, the Government of India have recently decided to reserve 1% vacancies each for the blind, the deaf and the orthopaedically handicapped in groups 'C' and 'D' posts in Central Services and in comparable posts in Government of India Public sector Undertakings. All the State Governments have also been requested to take similar action. Indeed, several State Governments have already reserved vacancies for the physically handicapped in certain public services.

2. For more than two decades, the Government of India have also awarded substantial scholarships for all stages of education, including University education. Unfortunately, however, we keep receiving reports from physically handicapped students about reluctance of various Universities to admit them. Now that wider employment opportunities are likely to be available for the physically handicapped, it is of the greatest importance that every obstacle in the way of their education should be removed. I would, therefore, suggest that you may be good enough to reserve 3% vacancies for physically handicapped students. A background note, giving full information is enclosed Appendix.

3. I would be grateful if you will be good enough to keep me apprised of the decision of the University.

Appendix

RESERVATION OF SEATS FOR PHYSICALLY HANDICAPPED
STUDENTS IN UNIVERSITIES

.....

BACKGROUND NOTE

....

The human organism is composed of numerous systems each of which is susceptible to damage through injury or disease. Those with physical impairments include the blind, the deaf, the crippled or the orthopaedically handicapped, the diabetic, the cardiac, the epileptic and a large number of others whose handicaps do not give rise to educational problems. In our country, however, the constraint of resources has made it necessary for us to focus attention largely on three categories of physically handicapped people- the blind, the deaf and the orthopaedically handicapped.

2. To promote the education of handicapped children, an important step taken by the Department of Social Welfare as early as 1955 was to launch a scheme for the award of scholarships. The number of scholarships awarded by the Government of India has risen from 50 in 1955-56 to 2744 in 1976-77. Many of these scholarships are awarded for University education. A number of State Governments have also initiated their own scholarship programmes.

3. The table below gives some idea of the number of physically handicapped students awarded scholarships by the Central Government since the commencement of the fourth plan period:-

Period	Categories			Total
	Blind	Deaf	Orthopaedically Handicapped	
Fourth Plan	610	32	2822	3464
1974-75	181	51	734	966
1975-76	196	11	790	997
1976-77	261	11	795	1067

4. The traditional approach to the education of handicapped children was to place them in special residential schools. Such schools do have an important role to play and are continuing. It is being increasingly realised, however, that the best place for a handicapped child to be educated is the ordinary school where he can interact at ease with ordinary children. The Government of India have, therefore, launched a centrally sponsored scheme under which 100% assistance is offered to the State Governments for initiating integrated education programmes.

5. All these steps have led to an increasing number of physically handicapped students seeking admission to Universities. Unfortunately, handicapped students often complain of being refused admission to various institutions of learning on grounds of their physically disability.

6. Realising that a similar situation existed in the field of employment, the Government of India have recently decided to reserve 1% vacancies each for the blind, the deaf and the orthopaedically handicapped in groups 'C' and 'D' posts in the Central Services and in comparable posts in the Government of India public Sector Undertakings, subject to an over-all ceiling of 3%. It has also been decided that in posts considered specially suitable for the physically handicapped they will be given preference even in excess of the prescribed quota of 3%.

7. It is felt that the time has come for similar action by various Universities. According to rough estimates, India has 16 to 20 million physically handicapped people belonging to the categories we have in mind. They constitute roughly 3% of the population. It is proposed, therefore, that 3% seats may be reserved for physically handicapped students in the various Universities.

8. A probable reason for reluctance to admit physically handicapped students may be apprehension that they may cast a heavy burden on the teaching staff or fellow students. This is not borne out by facts. Blind students can take notes in Braille or record some of the lectures on pocket tape recorders. Deaf students can usually lip-read effectively or supplement their work by additional reading. Orthopaedically handicapped students do not usually require special educational aids. However, blind and orthopaedically handicapped students may have to be occasionally escorted by fellow students. Experience has shown that many students are glad to lend a helping hand. Thus, the apprehension that admission of physically handicapped students in substantial numbers in Universities may cast an unbearable burden does not appear to be well founded. Nor is it likely that standards of academic excellence will be adversely affected by the admission of physically handicapped students. To illustrate, this year of the 20 students placed on the merit list in the Higher Secondary Examination of the Delhi Board, four were blind, giving an unmistakable evidence of the intellectual ability of physically handicapped students.

COPY

Revision of salary scale of teachers of
Faculty of Technology and Engineering,
M.S. University of Baroda, Baroda Vth Five
Year Plan Scheme.

Government of Gujarat
Education Department,
Resolution No.MIS-1077-3226-KH,
Sachivalaya, Gandhinagar,
Dated the 20th August, 1977.

Read:- Letter No.19-36/74-T-S- dated 30.9.1975 for
the Government of India, Ministry of Education
and Social Welfare, New Delhi.

Resolution No.MIS-1075-4947-Kh, dated 23.11.1975
November, 1976.

Resolution:-

Government of India, Ministry of Education
and Social Welfare under their letter No.19-36/74-T.S.
dated 30-9-1975 have extended the revision of salary
scales of the University Teachers sanctioned on the
recommendations of the Sen Commission to the Technical
Teachers in the Engineering Colleges. Accordingly
the question of extending the pay scales of the
University Teachers sanctioned under Govt. Resolution,
Education Department No.MIS-1075-4947-Kh dated 23.11.1975
to the Technical teachers in the Faculty of Technology
and Engineering, M.S. University of Baroda, was under
the consideration of Government. After careful
consideration Government is pleased to extend these
revised pay scales to the teachers in the Faculty of
Technology and Engineering, M.S. University of Baroda
excluding the teachers (Technical and non-technical)
in the Polytechnic of the said University as under:-

UNIVERSITY:

1. TECHNICAL

- | | |
|-----------------------|--|
| 1. Demonstrator/Tutor | Rs.500-20-700-25-900 |
| 2. Lecturer | Rs.700-40-1100-50-1300-
assessment 50-1600 |
| 3. Reader | Rs.1200-50-1300-60-1600-
assessment 60-1900 |
| 4. Professor | Rs.1500-60-1800-100-2000-
125/2-2500 |

II. NON-TECHNICAL

- | | |
|---|--|
| 1. Demonstrator/Tutor | Rs.500-20-700-25-900 |
| 2. Lecturer | Rs.700-40-1100-50-1300-
assessment-50-1600 |
| 3. Professor/Reader/
Associate Prof.etc. | Rs.1200-50-1300-60-1600-
assessment-60-1900 |

The above pay scales are subject to the terms and conditions prescribed in the Government Resolution dated 23-11-1976 and its appendices with the modification that the qualifications prescribed in Appendix 'A' & 'B' should be supplemented by Appendix 'R' & 'T'. The Non-Technical teachers shall be governed by the qualifications prescribed in Appendix 'A' & 'B' to Government Resolution No.Mis-1075/4947-KH dated 23-11-1976 and as may be modified from time to time.

The teachers shall have the option to come to the revised scale from 1st January, 1973 or the date convenient to them thereafter. As regards the next increment, the procedure as specified in Appendix 'C' of G.R.E.D.No.MIS-1075-4947-Kh dated 23-11-1976 will be followed. The teachers will be required to exercise their option by 31st October, 1977 and the option once exercised shall be final.

This issues with the concurrence of the Finance Department under its dated 19-8-1977 on Education Department file No.F.S.6027/MIS-1077-3226-Kh.

By order and in the name of the Governor of Gujarat.

Sd/-
(G.R. Rao)
Joint Secretary to the Govt. of Gujarat
Education Department

APPENDIX 'R'

THE QUALIFICATIONS PRESCRIBED FOR THE EXISTING
LECTURERS/PROFESSOR IN TECHNICAL SUBJECTS IN THE
FACULTY OF TECHNOLOGY AND ENGINEERING N.S.
UNIVERSITY OF BARODA.

The existing Lecturers in the above faculties shall have to acquire a Master's degree in first class in the relevant subject provided they have not already acquired Master's degree within a period of five years, failing which they shall not be allowed to earn increments. Professors, Assistant Professors and Readers shall be required to obtain a first class Master's degree or a Doctorate degree in the relevant subject within a period of five year failing which they shall not be allowed to earn the increments.

Note:- The period of 5 years will be reckoned from the date of these orders.

APPENDIX 'I'

QUALIFICATIONS PRESCRIBED FOR TEACHING POSTS IN
TECHNICAL SUBJECTS IN THE FACULTY OF TECHNOLOGY
AND ENGINEERING M.S. UNIVERSITY OF BARODA FOR
FUTURE RECRUITS.

.....

1. Professor: First class Master Degree/Doctorate Degree in appropriate field with minimum 7 to 10 years distinguished experience in teaching/research in Institution of University standard at post graduate level. Specialised knowledge in one more specified fields with experience in guiding research, professional/scientific work of outstanding merit would be preferred.
2. Assistant Professor
Associate Professor/
Reader: First class Master's degree/Doctorate Degree in appropriate field with minimum of five years experience in teaching/research in Institutions of University standard. Specialised knowledge in one or more specified fields/subjects with outstanding teaching research experience and Doctorate degree or published work of equal standard would be preferred.
3. Lecturer: First class Master's Degree in appropriate field, with two years in industrial research experience in any Institution of University standard, Doctorate Degree or published work of equal standard desirable.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

.....

Meeting:

Dated : 19th December, 1977.

Item No. 2(c) : To receive the statement of proposal which could not be accepted.

...

The proposals of the following colleges have not been approved by the Commission under Rs. 5.00 lakhs Scheme during the fifth Five Year Plan period;

S.No.	Name of the College	Project	Estimated	Date	Reason
1	2	3	4	5	6

Osmania University

1.	S.V.E.S. Telugu Kalasala, Hyderabad.	Teaching Accommodation.	Rs.2,25,000	26.5.77	Low students enrolment (350)
2.	K.R.R. Arts & Science College, Kodad	Lib. Building Lab Equip. NRSC	Rs.2,00,000 Rs.1,65,000 Rs. 35,000	2.2.77	do-

Andhra University

3.	Sri L.B. College, Vishakhapatnam.	Extension of Class room.	Rs.5,36,918	18.4.77	Low Faculty strength (12 teachers)
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Gauhati University

4.	S.S. College, Hailakandi,	Lecturer theatre Boys Hostel Girls Hostel	Rs.4,25,200 Rs.5,62,000 Rs.5,62,000	24.10.77	Enrolment less than 200.
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Sambalpur University

2.	Deogarh College, Deograh.	Women's Hostel Staff Qrs Books & Journals	Rs.4,93,800 Rs.2,05,800 Rs. 80,000	14.10.77	Low enrolment.
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UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 19th December, 77

Item No.3 : To approve the statement of grants released after the meeting of the Commission held 7th & 8th November, 1977.

.....

S.No.	Name of the University/ College	Subject	Instalment	Amount sanctioned.
1.	<u>Agra University.</u>			
		Organisation of Seminar on Surdasa as follow up up action programme for celebrating the 400th Anniversary of Ram Charit Manas- Sanction of UGC thereof.	-	8,000
<u>Affiliated Colleges</u>				
	R.B.S. College, Bichpuri, Agra.	University Grants Commission Assistance for the research project entitled "Study of Whistlers and VLF Emissions at low-latitudes submitted by Dr. Birbal Singh, RB.S. College, Bichpuri.	-	17,000
	Shri Tika Ram Kanya Mahavidyalaya, Aligarh.	Payment of Salary to Staff S. Qudeer Lecturer in Chemistry appointed as a Substitute in place of Smt. Namita Singh Teacher Fellow.	-	10,000
	St. John's College, Agra.	Payment of Salary to Prabhakar Singh, Lecturer in Physics appointed as a substitute.	-	11,718
	P.C. Bagia College, Hathras.	Additional grant for Book Bank	-	12,500
				<hr/> 59,218 <hr/>

2. Aligarh Muslim University

University grants Commission Assistance for the research project entitled Study of Effects of Environmental and Etching conditions on charged Particle Tracks in Solids of Dr. D.S. Srivastava, Physics Section, ZH College of Engg. and Technology. Aligarh Muslim University, Aligarh.	-	26,800
University Grants Commission Assistance for the research project entitled A study of microfossils from the the shelf region off Goa and Kerala.	=	4,800
Development of Higher Technical-Education under Vth Plan - purchase of Books & Journals.	III	3,00,000
Research Associateship in Science/Humanities including Social sciences/ Engineering & Technology - Extension in Associateship tenure- payment of Associateship to Dr. S.P. Verma.		8,400
Research Associateship in Science/Humanities including Social Sciences- payment of difference of Associateship		2,700
Assistance for employing part time teachers for undertaking courses in languages in the centres of advanced study in History.		10,000
Development of Higher Technical Education under Vth Plan - purchase of Equipment.	III	8,00,000
University Grants Commission Assistance for the research project entitled influence of Transition metal carbides on the corrosion Behaviour of Iron Base Alloys Submitted by Ir. Anees Uddin Malik, AMU.		17,800

Aligarh Muslim University (Contd)

Junior Research Fellowships in Humanities including Social Sciences in Technology & Engg. payment of Fellowship to Miss Famida Khan.	-	9,600
Junior Research Fellowships in Sciences - payment of Contingency grant.		955.90
Establishment of Centre of Continuing Adult Education purchase of a Jeep sanction of grant for.		60,000
University Grants Commission Assistance for the research project entitled Desalination Membrane Phenomena) submitted by Dr. MN Beg, Department of Chemistry Aligarh Muslim University.		14,600
National Associateship Scheme-Shri HAS Zafri.		1,400
Writing of University level books/monographs.		6,236.40
Production cum training centre at the Polytechnic of the Aligarh Muslim University Aligarh.	Ist	2,00,000
		<hr/>
		14,63,292.30
		<hr/>

3. Allahabad University.

Award of Teacher Fellowship to Brajesh Kumar, Lecturer in Hindi at DV (PG) college Orai Jalaun.		4,463.70
UGC assistance for the research project.		7,800

Allahabad University (Contd)

University grants Commission Assistance for the research project entitled studies in the Electrophoretic Behaviour of Halogens and their cations with special reference to their analytical use submitted by Dr. K.L. Yadava, Department of Chemistry, Allahabad University.	24,600
University grants Commission Assistance for the research project entitled Acoustic and Thermodynamic properties and molecular interactions in liquids submitted by Dr. S. Prakash, Department of Chemistry, Allahabad University.	6,800
University grants Commission Assistance for the research project entitled Nature and function of the hitherto unknown pseudobranchial neuro-secretory system of certain teleosts-submitted by Dr. C.B.L. Srivastava.	73,600
Writing of university level books/monographs.	8,041.75
University Grants Commission assistance for the research project entitled velocity and attenuation of ultrasonic waves submitted by Dr. J.D. Pandey, Department of Chemistry Allahabad University.	6,800
Award of Teacher Fellowship under the Faculty improvement programme allocated to the Department of Botany University of Allahabad - Payment of grant for.	3,500

Allahabad University (Contd)

Grant in aid for purchase of Equipment- 6th Plan scheme -Development grants as per 5th Plan visiting Committee Report.	10,00,000
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Junior Research Fellowships in Humanities including Social Sciences and Engg. - Payment of Fellowship to Miss S. Habib.	9,600
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University Grants Commission Assistance for the research project entitled Studies on Electron Spin Resonance Absorption Spectra of Solids and Liquids submitted by Dr. B.N. Mishra and others - Allahabad University.	52,500
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University Grants Commission Assistance for the research project entitled acoustic and Thermodynamic properties of liquid mixtures by Dr. Sheo Prakash, Allahabad University.	7,800
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University Grants Commission for the research project entitled Physical properties of imperfect crystals submitted by Dr. Bal Krishna Agrawal, Allahabad University.	27,000
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Writing of University level books/Monographs.	2,000
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Affiliated Colleges

TS Mehta College, Bharwari, Allahabad.	Payment of salary to Shri Chandra Mohan.	6,361
Eving Christian College, Allahabad.	Grant towards the loan of books	4,660
-do-	Additional Grant for book	12,500

12,58,025.45

4. Andhra University.

Research Fellowship in Engineering and Technology, payment of fellowship	6,000
Junior Research Fellowship in Science- payment of contingencies grant.	1,500
Research fellowship in sc. payment of Fellowship	500
University Grants Commission Assistance for the research project entitled Use of water balance concepts for estimation of water potential of river basins submitted by Dr. B. Subba Rao and Prof. V.P. Subramanyam Andhra University Waltair.	17,000
Award of Teacher Fellowship under the Faculty Improvement Programme allocated to the Department of Psychology Andhra University, Instt. Payment of grant for.	3,000
Award of Teacher Fellowship to Smt. K Krishnamurthy Lecturer in History.	3,250
Award of Teacher Fellowship under the Faculty Improvement Programme allocated to the Department of Hindi Andhra University Payment of grant for.	40,000
University Grants Commission Assistance for the research project entitled Biochemical studies on Indian Edible and Medicinal Plants submitted by Dr. TM. Radhakrishnan Department of Biochemistry, JVD. College of Science & Technology, Andhra University, Waltair.	90,600
UGC Assistance for the research project entitled Remote Sensing of Lower Atmosphere using Acoustic sounder By Dr. J. Shri Rama Murthy, College of Science Andhra University.	1,22,600

Andhra University (Contd)

-.-.-.-.-

University Grants Commission
Assistance for the research pro-
jects "Atmospheric wave
Disturbances over India and
Neighbourhood during the
Monsoon Pre and Post-Monsoon
Seasons submission by Dr.
R. Ramanadham, Dr. I Subramanya
and Dr. D.V. Bhaskar Rao, Andhra
University, Waltair. 74,400

Grant in aid for the purchase of
equipment for Science & Humani-
ties under IInd Priority
during the Vth Plan period-release
of first instalment- regarding. 5,00,000

Grant in aid for the purchase of
equipment for Science and Humani-
ties Departments under Ist
priority during Vth plan period
release of grant regarding. 9,00,000

Affiliated Colleges

A.College Gudiwada.	Utilisation of Services of outstanding retired teachers payment of grant in respect of Dr. B.S.M. Dutt	2,000
V.S.R. College, Tamli.	Construction of Gymnasium	2,500
-do- A.University.	Development of Engineering and Technology during Vth Plan Grant for purchase of Books III	3,70,000
-do-	University Grants Commission Assistance for the Research project entitled spectroscopic studies of Diatomic Molecular Radicals and Ions of Astrophical Interest by Prof. P. Tiruvenganna Rao, College of Science & Tech. Andhra University, Waltair.	88,000
-do-	Utilisation of services of o/s retired teachers.	1,000

Affiliated Colleges (Andhra University)Contd.

D.N.R. College, Andhra.	Vth Plan Development proposals release of first instalment towards faculty improvement programme- Engineering.	Ist	10,000
Bapatla College of Arts & Science, Bapatla, Andhra.	-do-	"	60,000
-do-	Vth Plan Development proposals release of first instalment towards the construction of workshop shed & animal house-		20,000
CRC College, Chilikaluripet Guntur.. Andhra Pradesh.	-do-	Ist	70,000
Bindu College, A.P.	-do-	"	20,000
Bindu College, A.P.	-do-	"	50,000
-do-	-do-	"	15,000
Besant Theosophical National Associateship College, Madanapalle. Andhra.	Scheme		1,200
J.K.C. college, Guntur. Andhra Pradesh.	Soil Health Care workers programmes- release of grant		10,000
A.N. Rao College, Gudivada.	Grants towards the loan of books		4,000
JMJ College for Women,	-do-	-do-	2,500
D.R.G. Government College, Andhra.	-do-		2,500

Affiliated Colleges (Andhra University)Contd.

Ø.College, Guntur.	Setting up of Book Bank	2,500
Bapatla College of Arts & Sciences, Baptla.	Students aid fund in the colleges	2,500
J.M.J. College for Women, Teoali. Andhra.	Students aid fund in the colleges	8,514
ØØØØ	-do-	2,000
St. Joseph's College for Education for Women, Guntur.	-do-	1,440
Y.A. Govt. College for Women Ghirala. Andhra	-do-	1,388
Maris Stella College, Vijayawada.	-do-	4,500
Charma Apparao College, Nuzvid Krishna.	-do-	1,488
Govt. College, Basola.	-do-	2,000
Caundi Ranganayakulu College, Chilakaluripet, Guntur A.P.	-do-	1,666
Noble College, Machilipatnam. Andhra Pradesh.	-do-	2,400
K.V.B.College, Krishna.	-do-	1,500

Andhra University (Affiliated Colleges)(Contd)

Mrs. AN.N. College, Vishakhapatnam.	Payment of Salary to Sh. B.V? Gopalarao Lecturer in Chemistry at Mrs. AVN College, Vishakhapatnam.	5,847
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Andhra Loyola College, Vijayawada Andhra Pradesh.	Organisation of seminar on re structuring of Practicals relevant to Theory.	8,500
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25,32,793

5. Annamalai University.

University grants Commission Assistance for the research pro- ject entitled Construction of Ar Plus Ion lacer submitted by Dr. K. Ramaswamy Dr. K. Balasubramanian and Sri D. Shanmugasundaram Annamalai University.	49,600
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University grants Commission assistance for the research proj- entitled studies on the Marine Antagoinistic Streptomyces of Dr. D.Chandramohan, Centre of Advanced Study in Marine Biology, Annamalai University annamalainagar, Fifth Five year plan Release of the 5th Instalment of grant.	5,000
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Research Fellowships in Science payment of Fellowship	1,502.32
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Development of Schemes under Vth Plan period purchase of equipment and Books and journals.	2,999.96
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University grants Commission Assistance for the research project entitled Culture of the prawn Penaeus Indicus submitted by Dr. K Krishnamurty Annamalai University.	14,600
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Annamalai University (Contd)

University Grants Commission
Assistance for the research
project entitled studies on the
Marain Antagoinistic Streptomyces
of Dr. Chandramohan, Centre of
Advanced study in Marine Biology,
Annamalai University. 5,000

78,702.28

6. A.P. Singh University

Basic grants to affiliated
colleges for purchase of
essential library books and
laboratory equipment for
improvement of instructional
facilities. 6,00,000

Writing of University level
books 2,000

Affiliated colleges

Arts & Commerce
College
Hanumana
Rewa. (M.P.) Grants to affiliated colleges
for loan of books to students
setting up of books 1,500

Janta Mahavidya
laya, A. (Rewa) Students aid fund 1,500

Degree College,
Niwari,
Tikamgarh. Financial assistance to
affiliated colleges for the
expansion of Book Bank scheme
during 76-78 second allocation. 3,000

Chhatarmal
Maharaja
Degree College,
Maharajpur.
Madhya Pradesh. -do- 2,250

S.V. Mahavidyala
Rewa. -do- 3,000

6,13,250

7. Uttar Pradesh University.

Affiliated Colleges.

Sh.L.B.S.College, Gonda.	Development of undergraduate education during the Vth plan period purchase of books and Journals.	22,000
-do-	-do-	18,000
B.N.K.B. Degree College, Akbarpur.	payment of Salary to Shri Mithilesh, Lecturer in Geography at B.N.K.B. Degree College, Akbarpur, Faizabad.	7,269
Pratap Bahadur Degree College, Pratapgarh.	Financial assistance to the college for the development of play field and purchase of accessories for games and sports during Vth plan period.	5,000.
M.L.K. Degree College, Balrampur.	Additional grant for book	7,030
-do-	Establishment of Book bank	4,668
T.N. Degree College, Tanda.	-do-	2,813
-do-	-do-	4,218
		<hr/> 70,998 <hr/>

8. Bangalore University.

University Grants Commission assistance for the research project entitled synthesis of Peptides of Biological interest of Dr. K.M. Sivanadaiah.	20,600
Development Schemes under Vth Plan period.	2,00,000

Bangalore University (Contd)

Development Schemes under Vth Plan period Construction of Physics & Chemistry Block	Ist 2,00,000
	0
-do-	5,00,000
University Grants Commission Assistance for the research project entitled Neurochemical correlates of Alloxandiabetes. by Dr. (Mrs) Nayemunisa, Department of zoology, Bangalore University- Release of grant.	9,800
University Grants Commission Assistance for the research project entitled Eco-Ethology and reproductive Physiology of freshwater Prawns. submitted by Dr. Katre Shakuntala and Dr. S.Ravichandra, Reddy Department of Zoology, Bangalore University.	58,400
8th Annual Conference of the Anatomical Society of India in December, 1977.	5,000
Award of Teacher Fellowship to Shri P.Murali lecturer in Commerce at S.V.D. College of Arts and Commerce and Law,	3,442
Award of Teacher Fellowship Sh. S.N. Prasad, Lecturer in Physics.	3,158
Award of Teacher Fellowship under the FIP allocated to the Department of Bangalore University- payment of grant for.	11,200
Award of Teacher Fellowship under the F.I.P. allocated to the Department of Zoology, Bangalore University-payment of grant for.	16,000

Bangalore University (Contd)

	Award of Teacher Fellowship under the F.I.P. allocated to the Department of Chemistry Bangalore University- payment of grant for.	16,000
	Basic Grants to affiliated colleges for purchase of essential library books and laboratory equipment for improvement of instructional facilities.	6,80,000
<u>Affiliated Colleges.</u>		
Rural College Kanakpura.	Improvement of Undergraduate Educational facilities during 5th Plan period.	70,000
National College, Bangalore.	Payment of salary to staff	2,005
Rural College, Kanakapura.	Book Bank	591
S.N.College, KIE Society's IInd Block Rajajinagar, Bangalore.	Science Improvement programe	14,506
V.Evening College of Arts and science Commerce College. Bangalore.	Students Aid fund to colleges	3,500
VC of Arts & Sc. and Commerce Bangalore.	-do-	3,500
V.College, Bangalore.	-do-	3,050
S.A.College Bangalore.	-do-	4,034
B.N.S.Collefe for Women North Temple Street Bangalore.	-do-	2,800

Affiliated colleges (Bangalore University (Contd.))

M.E.S. Teacher College, Bangalore.	Students Aid fund in the college for the year 1977-78	1,166
St. J. Medical College, Bangalore.	-do-	2,000
M.C. College, Bangalore.	-do-	4,748
Sc. College, Bangalore.	-do-	1,706
Teachers College, Bangalore.	-do-	192

16,37,398

B. Banaras Hindu University

Award of Teacher Fellowship
under the F.I.P. allocated
to the Department of Zoology
Banaras Hindu University
Payment of grant for. 22,750

Award of Teacher Fellowship
to Sh. V.K. Sharma Lecturer
in Psychology at D.A.V.
College, Muzaffarnagar. 3,141

Award of Teacher fellowship to
MNP Tiwari Lecturer in History
at Gandhi Degree College,
Maltari, Azamgarh. 2,375

-do- 25,000

-do- 1,625

-do- 3, 3,725

University Grants Commission
Assistance for the research
project entitled Genetic Improve-
ment of Nitrogen fixation
capacity of Blue-green Algae
submitted by Dr. L.K. Kashyap
Dr. S.P. Singh and Dr. D.N.
Tiwari of Banaras Hindu
University. 69,600

p.t.o.

Banaras Hindu University (Contd)

University Grants Commission Assistance for the research project entitled Electronic batteries using organic charge-transfer complexes Dr. SN. Bhat, Department of Chemistry	15,000
Junior Research Fellowships in Science - payment of Fellowship	2,400
-do-	2,400
Writing of University level books monographs	3,600
Development of Mining Engineering	10,00,00
Research Project entitled Dielectric Horn Antennas -payment of grant	50,000
University Grants Commission Assistance for the research project entitled Chemotherapy of Malaria submitted by Dr. SN Pandeya Department of Chemistry Institute of Technology Banaras Hindu University.	7,800
University Grants Commission Assistance for the research project entitled synthesis of some Biologically active heterocyclic analogs of Benzimidazoles submitted by Dr. K. Ranganayakulu, Department of Chemistry, Banaras Hindu University,	7,800
University Grants Commission Assistance for the research project entitled Analysis of seasonal fluctuation of gonadotropic content and its effect on reproduction in some important food fishes of Eastern Uttar Pradesh submitted by Dr. T.P.Singh, Department of Zoology, Banaras Hindu University, Varansi.	1,00,000
Banaras Hindu University - Purchase of Books and Journals for the Institute of Medical sciences during Vth Plan period. VIII	2,00,000

Naras Hindu University (Contd)

4th National Convention on Environmental Engineering 5,000

Basic grants to colleges for purchase of essential library books and laboratory equipment for improvement of instructional facilities. 5,000

-do- 10,000

-do- 15,000

15,52,216

Berhampur University,

Award of Teacher fellowship to S.P. Rath 2,975

National Associateship Scheme 1,800

Writing of University level books 7,800

Affiliated Colleges

SKCC College Orissa. Students aid fund in the colleges 323

13,498

11. Bhagalpur University

Research Fellowships in sc 1,512

Award of Teacher Fellowship to Krishan Kumar, Lecturer in Chemistry at Muraka College, Sultanganja. 3,411

-do- 3,241

-do- 4,047

-do- 957

Bhagalpur University Contd.

	Award of teacher fellowship	1,500
	-do-	3,578
	-do-	3,000
	-do-	3,419
	-do-	2,750
<u>Affiliated Colleges.</u>		
Sahibganj College, Sahibganj	Development of of play fields and purchase of accessories.	5,000
Marwari College, Bhagalpur.	Financial assistance during Vth Plan period.	5,000
-do-	-do-	20,000
		67,413

12. Bhopal University.

Safia College, Bhopal.	Junior Research Fellowships in Sc.	2,400
Regional College, Bhopal.	University Grants Commission assistance for the research project entitled Biochemical Aspects of Fish Productivity and their application in Madhya Pradesh of Dr. G.K. Lehri, Department of Zoology, Regional College of Education, Bhopal - Fifth Five Year Plan period- Release of the 5th instalment of grant.	4,800
Govt. College, Ganj Basoda.	Financial assistance to affiliated colleges for the expansion of Book Bank scheme during 1976-78	5,000
Gandhi Medical College, Bhopal	Travel grant to dr. SZ Islam.	5,399
Hamidia Arts Commerce College Bhopal.	Scholarship for post graduate studies.	3,000

Shopal University (Contd)

S.S.L. Jain	College Science Improvement programme.	50,000
College,		
India		

70,599

13. Bihar University.

Award of Teacher Fellowship to C.K. Pandey, Lecturer in History	2,911.29
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-do-	3,081
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Affiliated Colleges

S.R.L. Prasad	Students Adif fund in the colleges	803.10
College,		
Chakia.		
Champaran.		

6,795.39

14. Bombay University

Allocation of unassigned grant during during the 5th Plan period.	24,000
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Establishment of study Centre- Ramnirajan Jhu jhunwala College, Ghatkopar, Bombay.	3,000
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Junior Research Fellowship in Science. payment of Fellowship	2,400
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Award of Teacher Fellowship to Shri J.C. MAJUMDAR, Lecturer in Chemistry at Gurucharan Collate, Silchar.	77.50
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Affiliated Colleges.

Institute of Science, Bombay.	Award of Teacher Fellowship	1,500
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Wilson College, Bombay.	Fifth Five Year plan Improvement of undergraduate educational facilities.	40,000
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Bombay University (Affiliated Colleges)

St. Xavier's College, Bombay.	Payment to staff on a/c of salary.	7,493
Sophia College, for Women BOMBAY.	Purchase of Canteen equipment	8,000
College of Arts and Science for Women, Goa.	Grants towards the loan of Books	8,000
Smt. Bhangirathiba M. Ruia Mahila Mahavidyalaya, 11, Krishan Kunj, Wancha Gandhi Road, Bombay.	Book Bank	1,500
R.P. Gogats College of Arts & Sc. R V. Jagalakar College of Commerce Ratangiri.	-do-	1,464
St. Xavier College, Bombay.	-do-	2,000
Shri Chinal College, Commerce and Eco- nomics, Bombay.	-do-	5,930
DassKirti Doengursee College, Bombay.	-do-	440
Chetana's M.B. College of Commerce & Economics Bandra East. Bombay.	-do-	5,500
Sardar Patel College of Engineering. Bombay.	Writing of university level books	515.4

1,11,819.

15. Bundel Khand University.

Junior Research Fellowship - payment of fellowship	2,500
Basic grants to colleges for purchase of essential library books and laboratory equipment for improvement of instructional facilities.	20,000
Financial assistance to the colleges for the development of play fields and purchase of accessories for games and sports during the Vth Plan period.	5,000
-do-	4,000

Affiliated Colleges.

Bipin Bihari College, Jhansi.	Additional grant for book bank	4,218
Daya Nand Vedic Post-graduate College, Oeai.	UGC assistance to research proj.	6,800
Pt. J.N.College, Banda.	Students aid fund.	6,800

49,318

6. Burdwan University

University Grants Commission Assistance for the research project entitled Systematic Investigation on the selectivity of Diketond allied thio-keto compounds to various metal ions of commercial importance submitted by Dr. Jyotirmoy Das Department of Chemistry Burdwan University.	7,800
Award of Fellowship to teachers'	101
-do-	15,000
University Grants Commission Assistance for the research project	15,600

p.t.o.

Burdwan University (Contd)

Junior Research Fellowships, in Science- payment of Fellowship		2,400
-do-		2,400
Grant in aid towards the construc- tion of an extension of Zoology Building-5th Plan scheme		40,000
-do-		5,000
-do-		50,000
Extension library and laboratory building during Vth Plan period		11,500
Participation of student Youth in soil Health Care workers		10,000
Financial assistance during vth Plan periods for Development Scheme.		25,000
-do-		15,000

Affiliated colleges.

S.College, Birbhum.	Grant for the constructi n of oaboratory building during Vth Plan		20,000
Katwa College, Katwa	Purchase of Laboratory equipment		30,000
A.K.P.C. Mahavidyalaya, Subashnagar. Hooghly.	-do-		40,000
-do-	-do-		10,000
-do-	Students aid fund in the colleges		5,149
-do-	-do-		2,068

3,07,018

Bidhan Chandra Krishi
Viswavidyalaya,
Kalyani.

Participation of Student Youth
in Soil Health Care 10,000

10,000

18. University of Calcutta.

University Grants Commission
Assistance for the research project
entitled Investigation on the
Growth and Improvement of an
Edible Mushroom with a view to
Determine its Suitability for
Cultivation of Dr. R.P. Purkayastha,
Department of Botany, University
College of Science, University
of Calcutta, Calcutta. 6,000

Award of Teacher Fellowship to
Km. Ira Mitra, Lecturer in
History at Kala MLK Woemens
College, Midnapore. 4,702

Award of Teacher Fellowship 7,250

-do- 4,416

-do- 8,500

University grants Commission
Assistance for the research
project entitled Cerebellar
influences on Gastric
Function submitted by Prof.
Ajit Kumar Maiti of Calcutta
University. 51,800

University grants Commission
Assistance for the research
project entitled Afferent innervation
of the abdominal viscera in
birds submitted by Dr. Juthika
Koley, Department of Physiology,
University College of Science,
Calcutta University. 9,800

p.t.o.

Calcutta University (Contd)

University Grants Commission Assistance for the research project entitled A Study of mirror reactions 6Li --- and 6Li submitted by Prof. P.C. Bhattacharya University College of Science, Calcutta University, Calcutta 72,000

University Grants Commission Assistance for the research project entitled Research on Microwave avalanche Transit time consillators and corresponding development of the device and circuits submitted by Dr Roy Institute of Radio Physics & Electronics, University of Calcutta and Dr. W.S.Khokle, Central Electronics Engineering Research Institute, Pilani. 1,48,400

Fellowships in Science 2,400

Affiliated colleges

Ramakrishna Mission Residential College, Narendrapur, Parganas.	Participation of Student Youth in Soil health	10,000
Sripat Singh College, Murshidabad.	-do-	10,000
St. Xavier's College, Calcutta.	-do-	10,000
Hooghly Mohisn College, Chinsurah, Hooghly.	UGC assistance for the research Proj.	21,800
Shivsagar College, Nadia.	FA to teachers in the research work	500
MM Chandra College, Calcutta.	support for advanced Research in the Humanities.	15,000

Affiliated Colleges (Calcutta University)

Rammohan College, 102/1 Raja Rammohan Sarani, Calcutta.	Financial Assistance to purchase of Lab. Equip	20,000
-do-	-do-	10,000
RamaKrishna Mission Vidyamandir, Howrah.	College Science Improvement programme-Selected Colleges	40,000
Presidency College, Calcutta.	-do-	46,000
Seth Soorajmull Jalan Girls College, 8-9 Bankin Chatterjee Street, Calcutta.	Book Bank	11,250
Jhargram Raj College, PO Jhargram, Dist. Midnapore, West Bengal.	-do-	4,000
-do-	-do-	5,500
Vivekananda Satvarshiki Mahavidyalaya, Midnapore, Manikpara.	payment of salary to staff.	216
Banwarilal Daulotia College, Asansol.	-do-	7,606
-do-	-do-	5,970
Thakur College, Agartala, Tripura.	Students Aid Fund	1,000
S.R.College for Women, Dum Dum.	-do-	2,444

Affiliated Colleges, ----- (Calcutta University (Contd))		
SS Mahavidyalaya, Midnapore.	Students Aid Fund in the Colleges	3,500
Prabhu Jagathandhu College, P.O. Andul Calcutta.	-do-	2,272
Womens College, Agartala, Tripura.	-do-	7,500
C.Memorial College, of Education, 24 Pargana, West Bengal.	-do-	2,000
Prabhat Kumar College, Midnapore.	-do-	6,794
Institute of Education for Women, Hastings House Alipore, Calcutta.	-do-	2,000
S.Collegē, Nandigara West Bengal.	-do-	2,000
Hindu College, Gobardanga	-do-	8,500
MG. Mahavidyalaya, West Bengal.	-do-	2,000
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		5,73,11
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19. Calicut University

Establishment of Examination Reform	50,000
UGC assistance for the post of Development officer	11,000
Utilisation of services of o/s retired teachers.	2,000

University of Calicut (Affiliated Colleges)

Sree Kerala Verma College, Trichur	Utilisation of services of outstanding retired teachers- payment of grant in respect of Prof. P.G. P.S. Pilla.	2,000
Govt. College, Kerala.	Financial assistance to college for the development of Play fields & purchase of accessories for games and supports in colleges during Vth Plan period.	5,000
Siryed College, Taliparamba Kerala.	Grant for the construction of Animal House Vth plan period - Improvement of Under Graduate Educational facilities.	15,000
P.S.M.O. College, Kerala.	Improvement of undergraduate Educational facilities, construction of N.S.C. Building.	12,000
Sree K.V. College, Trichur.	Basic grant for purchase of Booms and Journals Vth Plan period.	5,000
Little F Flower College, Guruvayoor, Puthampalli.	Improvement of undergraduate educational facilities.	70,000
N.S.S. College, Ottapalam.	Students aid fund	3,500
Nirmalagiri College, Birmalagiri. Kerala.	-do-	2,000
Vimala College, Kerala.	-do-	3,400
Sir Syed College, Taliparamba. Kerala.	-do-	2,000
Sree Karala, Verma College, Trichur, Kerala.	-do-	4,970

Affiliated Colleges,
Calicut University.

Little Flower College, Guruvayur Kerala.	Students aid fund in the colleges	3,050
Mercy College, Palghat Kerala.	Students aid fund in the college	2,000
M.E.S. Kalladi College, Mannarghat College, Palghat kerala.	-do-	1,912
Govt. College, Chittur. Kerala.	-do-	2,988
-do-	Setting up of Book Bank	2,000

1,99,824

20. Chander Shekhar Azad University.

Utilisation of services of outstanding retired teachers payment of grant in respect of Dr. Indra Gupta.	4,500
-do-	8,604

13,103

21. Cochin University

Research Fellowships in Science- payment of Fellowship.	2,400
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University Grants Commission Assistance for the research project entitled studies on the Helminth parasites of marine organisms of the nearshore and offshore waters submitted by Dr. Mohandas, Department of Marine Sc.	26,800
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University of Cochin Contd.

Writing of Univ. level Books 3,600

32,800

22. University of Delhi

University Grants Commission
Assistance for the research
project entitled Histophysiological
investigations concerned with the fibre
architecture differentiation,
energy metabolism and its regulation
in mixed and un-mixed vertebrate
skeletal muscles, Dr. C.L. Talesara
Department of Zoology, University
of Delhi. 15,200

UGC Assistance for the research
project entitled synthesis of
nitrogen heterocyclis, their
electrochemical and pharmacological
studies by Prof. G.S. Sahria,
Department of Chemistry, Delhi
University- Release of grant. 9,600

Utilisation of services of
outstanding retired teachers
payment of grant in respect
of Prof. F.C. Auluck. 6,825

Writing of University level book 2,000

University grants Commission
assistance for the research
project entitled some transition metal
derivatives of Polydentate
Tertiary Phosphines- Head of the
Department of Chemistry, Delhi
University of Delhi. 24,000

University Grants Commission
Assistance for the research
project entitled studies on
metal chelate of Macrocyclic
ligands submitted by Prof.
A.P. Singh Department of
Chemistry, University of Delhi. 14,600

University of Delhi (Contd)

University Grants Commission Assistance for the research project entitled Electrochemical Studies of some acid soils in relation to soil Genesis submitted by D. B.S. Kapoor, Department of Chemistry, University of Delhi	20,800
-do-	22,800
Construction of Building for the Faculty of Music.	50,000
-do-	1,00,000
Award of Teacher Fellowship to Jagan Das Agre Lecturer in Physics at Hindu College Moradabad.	33
-do-	1,729
University Grants Commission Assistance for the Research project entitled Physiology of Reproduction by Prof. M. R.N. Prasad, Department of Zoology, Delhi University Approval of grants.	41,200
Centre of Advanced Study in Chemistry- University of Delhi- Release of Non- recurring grant for construction of Vertical extension of Chemistry Block	75,000
Indo Bulgarian Cultural Exchange Programme - Salary of Bulgarian Language Teacher.	12,357
Full time LL.M. Courses.	3,000
University Grants Commission Assistance for the research project entitled Organisation, ultrastructure and seasonal behaviour of Cambium and phloem in some Indian trees by Dr. G.S. Paliwal, Department of Botany, Delhi University- release of grant.	4,800

31:

University of Delhi (Contd)

Indo Polish Cultural
Exchange Programme - 11,340

Indo Yugoslav Cultural
Exchange Programme- Mrs.
Gordane Dickie. 14,324

Junior Research Fellowship
in Humanities including
Social Sciences- payment
of fellowship to Mrs.
Kanta Bhatia. 4,800

Senior Research Fellowships in
Science- Payment of
contingency grant. 2,000

-do- 1,500

-do- 1,500

University Grants Commission
Assistance for the research
project entitled Organisation
Ultrastructure and Seasonal
behaviour of Combium and
Pholem in some Indian trees
by Dr. G.S. Paliwal,
Department of Botany,
Delhi University. 4,800

University Grants Commission
Assistance for the research
project entitled study of
the surface effects in
metal -ferroelectric metal
and metal ferroelectric-
Semiconductor. 55,000

UGCC Assistance for the
research assistance for
experimental study of
some Biomolecules. by Dr.
N.K. Fay of Delhi University
and Dr. R.K. Mishra, All
India Institute of Medical
Sciences. 91,100

Support for advanced
Research in the Humanities
and Social Sciences, 10,000

University of Delhi (Contd)

Support for advanced Research in the humanities and Social Sciences.	Ist	10,000
UGC assistance for the research project entitled the Study of the transport properties of group II VI and III V semiconductors submitted by Dr. P.C. Mathur, Deptt. of Physics & Astrophysics, University of Delhi.		1,00,200
-do-		24,800
Seminar on the Reform of Company law.		5,000
UGC Assistance for the research project entitled phase Transitions in Polytypic Crystals at High and low Temperatures submitted by Dr. G.C. Trigunayat. University of Delhi.		39,800

Affiliated Colleges,

Delhi College of Engineering, Kashmere Gate, Delhi.	UGC assistance for the research project	75,550
Hamdard College of Pharmacy, Tughlagabad Madangir, New Delhi.	Purchase of Audio Visual Aids	6,000
-do-	-do-	14,000
Rajdhani College, Rajagraden, Ring Road, New Delhi.	-do-	20,000
P.G.D.A.V. College, Nehru Nagar, Ring Road, New Delhi.	-do-	180

Affiliated Colleges,
Delhi University

Bharati Mahila College, Link Road, KarolBhagh. New Delhi.	Establishment of Students Aid fund for the year 77-78	1,940
P.G.D.A.V. College, Nehru Nagar, New Dlh.	Developjctn of play fields & Purchase of accessories for grames sport.	319
Miranda House, Patel Chest Marg, Delhi.	Special repairs to the Principal's Bungalow.	1,500
Shyam Lal College, Day Class es	Replacement of worn out water fitting and provision of water storage tank in the Science Laboratories.	5,000
Kmla Nehru College, New Delhi.	Grants to affiliated colleges	3,344
St. Stepjens College, Delhi.	Colleges affilated to Delhi University- Establishment of Students Aid Fund Payment of Grant for 1977-78.	5,500
Ram Lal Anand College, Evening College, Anand Birketan Marg, New Delhi.	-do-	3,500
-do-	-do-	4,500
Shri Arvindo College, Malviya Nagar, New Delhi	College Affiliated to Delhi Univeristy Establishment of Students Aid Fund	5,992
Institute of Home Science.	-do-	2,000
Zakir Hussain College, Delhi	Scholarship for P.G. Students	3000
Hindu College, Delhi.	Writing of University Level Book	12,296.

Affiliated Colleges
Delhi University.

Dr. Zakir Hussain
Memorial College,
Formerly Delhi
College,
Ajmeri Gate,
Delhi.

Writing of university
level books/Monographs. 3,014.63

9,47,743-6:

23. Dibrugarh University.

University Grats Commission
Assistance for the research
project entitled initiation
and Retardation of Polymerization
of Vinyl monomers submitted by
Dr. N.N. Dass, Depatt of Chemistry
Dibrugarh University Dibrugarh. 75,000

Release of grant for construction
of Class room 50,000

Release of grants to J.B. College,
Jorhat for (a) construction
of Women's Hostel, (Purchase
of Books & Journlas, (c)
Laboratory equipment and (D)
Extension of Library Building. 1,60,000

Financial assistance to colleges
under students welfare
programme for development of
Play fields and purchase
of accessories for games and
sports. 19,000

Payment of salary to staff 9,880

Affiliated Colleges,
Assam.

DMD Co lege,
Assam.
-do-

Book Bank 1,250

Students aid fund 2,000

3,08,13

. 24 . Gaugati University

Award of Teacher Fellowship	1,500
Junior Research Fellowship in Science Humanities including Social Sciences to students	1,300
-do-	5,482
Grant in aid towards purchase of Stationery for the computer centre IDC . 316	20,000

Affiliated Colleges

Nalbori College, Assam,	Purchase of Books and Journals and laboratory Equipment.	50,000
Kokrojha College, Kokrajhar. Goalpara.	Participation of student youth in soil Health Care workers programme.	10,000
Arya Vidyapeeth Gauhati.	Development of P.G. Studies	30,000
Churachandpur College, Churachandpur.	Construction of Mens hostel	20,000
KarimGanj College, Cachar Assam.	Payment of salary to staff	4,414
Nalbari College, Kamrup	Studentsaid fund	3,500
Marigaon College, Nowpong. Assam.	-do-	1,500
Dakshin Kamrup College, Mirza Assam	-do-	1,500
Karimganj College, Cachar.	-do-	2,000

Gauhati University, Gauhati (Contd)

Karimganj College,
Cachar.
Assam.

Setting up of Book Bank in
colleges during 5th Plan.

3,250

 1,54,446

25 Garhwal University (Garhwal)

Basic grants to affiliated
colleges for purchase of essential
library books and laboratory equipment.
for improvement of instructional
facilities. 2,60,000

Affiliated Colleges.

K.M.P. Post- . . . Development of undergraduate
Graduate College, studies during the Vth plan
Dehra Dun. period purchase of Equipment.

15,000

C

S.G.RR College,
Dehradun.

Payment of Salary to Staff

12,000

Dayanand
Brijendra
Swaroop College,
Dehradun

Basic grant for development
of PG studies in Humanities

10,000

-do-

Assistance for library
facilities.

8,545

DBS College,
Dehradun

Payment of Salary to Shri
D.P. Joshi

11,718

DAV College,
Postgraduate
Dehradun.

Grants to affiliated colleges

5,625

 3,22,888

26. G.B. Pant University of
Agriculture & Technology

Writing of university level books 3,600

3,600

27. Gorakhpur University

University Grants Commission 32,800
Assistance for the research
project entitled organise
derivatives of Phosphorus and allied
compounds submitted by Dr. R.N. Narain
Gorakhpur University.

University grants commission for
the research project entitled
studies on the synthesis of
Post-control N.Heterocycles
submitted by Dr. S.C. Bahel,
Department of Chemistry
University of Gorakhpur. 7,300

University Grants Commission
Assistance for the research
Project entitled studies on
Endocrine Glands Related to
Plasma 9,800

University Grants Commission
Assistance for the research
project entitled Ecological
and Physiological factors
affecting mating behaviour and
subsequent reproductive programming
of certain economically imporing
phytophagous insects pests by
Dr. S.S. Krishna, University of
Gorakhpur, Gorakhpur. 58,600

University Grants Commission
assistance for the research
Studies on Mucorales Gorakhpur
university of Gorakhpur. 12,600

Basic grants to affiliated
colleges for purchase of
essential library books and
laboratory equipment for
improvement of instructional
facilities. 15,00,000

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Gorakhpur University (Contd)

Utilisation of services of Outstanding retired teachers payment of grant in respect of Dr. B.D. Sinh.	2 66
Construction of canteen building under Students amenities during Fifth Plan period.	15,000
Payment of salary to staff	11,937

Affiliated Colleges.

Gulab Devi Mahila Grant for purchase of equipment Mahavidyalaya, Ballia.	8,000
Gandhi Samiti -do- Samarak Mahavidyalaya, Koilisa, Azamgrah.	15,000
-do- -do-	15,000
Lal Bahadur -do- Shastri Smarak Degree College, Anandanagar, Gorakhpur.	82,000
Baput Degree College, -do- Pepeganj, Gorakhpur.	4,000
B.R.D. Degfee College, Deoria. -do-	2,000
Budha Post graduate -do- College, Deoria.	34,000
Gulab Devi Mahila -do- Mahavidyalaya, Ballia.	15,000
Gandhi Samarak -do- Mahavidyalaya,	35,500

p.t.o.

Affiliated Colleges,

Gorakhpur University.

Bapu Degree College, Peppeganj, Gorakhpur.	Grant for purchase of books and journals.	15,000
Udaipartap College, Varanasi.	Writing of University level books	660
Shri Dajrang Degree Coolege Dadar Ashram Bikandarpur Ballia.	-do-	35,000
G.S.S.Degree College, Koilsa, Azamgarh.	-do-	30,000
Budha Postgraduate College, Deoria.	-do-	25,000
-do-	Financial assistance to colleges for development of Postgraduate studies in Humanities and Social Sciences during Fifth Plan period.	8,000
Shri Gandhi Degree College, Maltari, Azamgarh.	Grant for construction of Lib. Building.	70,000
Gandhi Shantibadi Samarak Mahavidyalaya, Kolisa Azamgarh.	Grant for construction of lib. building	50,000
-do-	Additional class room	40,000
Tilakdhari College, Jaunpur.	Teacher Fellowship Programme Department of Botany-Banars Hindu University-Payment of Substitute teachers salary release of on account grant.	13,600

p.t.o.

Affiliated Colleges (Gorakhpur University)

Budha Postgraduate College Kuahinagar, Deoria.	Grant for construction of canteen/cafetaria under students amenities.	25,000
S.S.S.Vidyapith Degree College, Chasiapur. U.P.	Additional grant for book bank	937
-do-	Students aid fund in the colleges.	1,740
		21,73,740

28. Gujarat University

	Construction of Class IV Qrs.	20,000
	Boring an additional Tube well	40,000
	Basic grants to affilited colleges for puchase of essential library books and laboratory equipment for improvement of instructional facilities.	16,000

Affiliated colleges.

Gujarat College, Ahmedabad.	Financial assistance to Teachers for research/learned work in Humanities and Social Science-Payment of Secord instalment of grant.	1,500
S.R.P.Arts & K.D. Commerce, College, Khambhat	payment of salary to staff	11,353
L.D.College of Engineering Ahmedabad.	Travel grant to Dr. P.C. Sonpal.	638

89,491

29. Gujarat Agricultural University, Ahmedabad.

Financial assistance to students 1,500

1,500

30. Guru Nanak Dev University

Award of Teacher Fellowship 9,305

-do- 403.26

Organisation of Summer Institute in Linguistics in Collaboration with the Central Institute of Languages, Mysore - Payment of Grant. 10,000

Affiliated Colleges,

Baring Union College Humanities and Social Sciences. 30,734.08
Christian College, Batala.

Khalsa College, Regional Conference of COHSSIP 18,000
Amritsari.

Iyallpur Khalsa College Development of PG Studies 20,000
College, Jullundur.

Ramgarhia College, Improvement of Undergraduate 15,000
Phagwara educational facilities

DAV College, Jullunderu -do- 20,000

Khalsa College Students aid fund 2,000
for Women Amritsar.

Hans Raj Mahila Grants towards the loan of 12,500
Jullundur Books

1,37,742.34

31. Haryana Agriculture University

Writing of University
Level Books / Monographs 3,600

Visit of Dr. D.N.Garg, Sirlo-
gist, Department of Bact. &
Hygiene to U.K. under the
Programme of Exchange of Visits
by Younger Scientists between
India and U.K. during 1977-78 12,106
15,706

32. Himachal Pradesh University

Junior Research Fellowships in
Sciences - payment of contin-
gency grant. 3,000

National Associateship Scheme
- Dr. K.C. Sharma 126.50
Last & final
payment

Affiliated Colleges

G.B. Pant Memorial Students Aid Funds in
Govt. College, the colleges - Grant
Rampur Busha- for 1977-78 1,208
har (H.P.)

Govt. Degree -do- 2,000
College, Una
(H.P.)

Govt. College Financial assistance to college
Dharamsala for the development of play
(H.P.) fields and purchase of accesso-
ries for games and sports in
colleges during V Plan period 5,000
1st instalment
11,334.50

33. Hyderabad University

Guha Research Conference, 1978 3,000

Unassigned grant for 1977-78 15,000
1st instalment

18,000

34. Indore University

National Associateship scheme - Dr. Bhagwan Dass	980.90	
Indo-USSR Cultural Exchange Programme 1976-77 - Reimbursement of salary of Russian Teachers	2,100	
Salaries to the Additional staff approved during V Plan for Teaching Department	1,25,000	
Construction of Printing Press - V Plan proposals	25,000	
	1st instalment	
UGC Assistance for the research project "Synthesis and fabrication of holographic lenses, zone-plates, gratings, and study of their applications ; especially of Optical Information Processing submitted by Dr. R.S. Kasana, Univ. of Indore	21,300	
Basic grants to affiliated colleges for purchase of essential library books and laboratory equipment for improvement of instructional facilities	2,40,000	
<u>Affiliated Colleges</u>		
Shri Vaishnav College of Commerce, Indore	Students Aid Fund in the Colleges - Grant for 1977-78	3,512
Indore Christian College, Indore	Junior Research Fellowships in Humanities including Social Sciences - payment of Fellowship to Shri M.C. Tongia	2,400
Govt. Arts & Com. College, Indore	Award of Teacher fellowship to Sh. Y.V. Dabir, Lecturer in Economics	<u>4,374.99</u>
		<u>4,24,667.89</u>

35. Jabalpur University

Research Associateship in
Science / Humanities
including Social Sciences
- payment of difference
of Associateship @ Rs. 300/-
per month 2,700

Research Associateship in
Science / Humanities
including Social Sciences/
Engineering & Technology -
Extension in Associateship
tenure - payment of
Associateship to Dr. Jyoti
Prakash Sen 13,200

UGC Assistance for the
research project entitled
" Electrical properties
of organic molecular
crystals and polymeric thin
films with special reference .
to electrical conduction
and electret effects and
possible applications of
polymeric foil-electrets
in research and industry"
submitted by Dr. S.C. Datt,
University of Jabalpur 52,000

Basic grants to affiliated
colleges for purchase of
essential library books and
laboratory equipment for
improvement of instruc-
tional facilities 2,80,000

Affiliated Colleges

Navyug Arts and
Commerce College,
Jabalpur (M.P.) Reimbursement of Students
Aid Fund in the Colleges -
Grant for 1976-77 223

Hawabagh Women's
College, Hawabagh Students' Aid Fund in the
Colleges - Grant for 1977-78 1,600

Govt. M.H. College
of Home Science
for Women, Jabalpur Grants to affiliated colleges
for extension of Library
building 1,00,000-
1st instalment

4,49,723

36. Jadavpur University

University Leadership
Project in Geology 30,000

Research Associateship
in Science / Humanities
including Social Sciences
- Payment of difference
of Associateship @ Rs. 200 1,800

Research Associateship in
Science / Humanities includ-
ing Social Sciences / Engg.
& Technology - Payment of
fellowship and contingency
grant - Dr. T. Nammalvar 11,600

Junior Research Fellowships
in Humanities including
Social Sciences - payment
of Fellowship 4,800

UGC assistance for the
research project entitled
" Kinetics of the oxida-
tion of some organic
compounds by complexions
derived from rarer platinum
metals" by Dr. K.K. Sen
Gupta, Deptt. of Chemistry,
Jadavpur Univ., Calcutta -
32 - Fifth Five Year Plan
Project - 9,500

Affiliated Colleges

Smt. J.D.B. Instt.
of Home Science,
Calcutta-20 (WB) Financial assistance during
Vth Plan period for the
purchase of Library books
and Journals 10,000
2nd instalment
67,800

37. Jammu University

National Associateship
Scheme - Dr. R.K. Singh 800

Award of Teacher Fellow-
ship under the F.I.P.
allocated in the Deptt.
of Maths, Jammu Univ. -
payment of grant for 3,500

Junior Research Fellowships
in Science / Humanities
including Social Sciences -
payment of Fellowship 4,800

Introduction of Correspondence
Courses at the Under-
graduate level 50,000

Affiliated Colleges

M.A.M. College,
Jammu

Financial assistance to
teachers in the Universi-
ties and colleges for
undertaking minor research
projects in Science -
Payment of grant in Humani-
ties & Social Sciences 5,000

64,100

8. Jawaharlal Nehru University

Junior Research Fellowships
in Science - Payment of
Fellowship 2,400

Junior Research Fellowships
in Science - Payment of
Fellowship 2,400

Award of Teacher Fellowship
to Sh. Kanchan Singh,
Lecturer in Geography at
Meerut College, Meerut 3,100

Provision of furniture
for students Hostel Blocks
in Sec. I of the Jawaharlal
Nehru University Campus and
Married Research Scholars
Living Rooms 67,750
final instalment

Scholarship for post-graduate
studies in Arabic / Persian -
1976-77 - Shri A.H. Siraj
Ahmed 3,000

Jawaharlal Nehru Univ. (Contd.)

University Grants Commission assistance for the research project entitled "Dinitrogen fixing procaryotes in the intestine of Termites and their influence on the biocoenosis of protozoa <u>in situ</u> " submitted by Dr. A.K. Varma and Prof. P.N. Srivastava, School of Life Sciences, Jawaharlal Nehru University	32,000
Writing of university level books / monographs	800
Purchase of books and Journals for the Jawaharlal Nehru University Post-graduate Centre at Imphal during Vth Plan period	2,00,000
	9th instalment
Indo-Mongolian Cultural Exchange Programme - Reimbursement of the salary of Mongolian Language Teacher	8,602
	<hr style="width: 100%; border: 0.5px solid black;"/>
	3,20,052

39. Jawaharlal Nehru Technology University, Hyderabad.

Affiliated College

Regional Engineering College, Warangal	Research Fellowships in Engineering & Technology - payment of contingency grant.	1,000
		<hr style="width: 100%; border: 0.5px solid black;"/>
		1,000

40. Jiwaji University

Junior Research Fellowships in Science - payment of Fellowship	2,400
-do-	2,400
-do-	2,400

Jiwaji University (Contd.)

Award of Teacher fellowship
to Km. Archana Parmar, Lectuer
in Chemistry - 1,500

Construction of Central
workshop - 25,000
1st instalment

Construction of Botany
Harbarium - V Plan proposals 50,000
1st instalment

Financial assistance towards
construction of Zoology
Museum - V plan proposals 30,000

Purchase of books and
journals during V Plan 2,00,000

Purchase of Scientific
equipment for Central
workshop 1,00,000

Higher Education & Research -
Development Schemes of the
Universities for the Vth
Plan period - Grant-in-aid
for the purchase of Accesso-
ries for games and sports
under NSO programme 7,500
1st instalment

Affiliated Colleges

Govt. College,
Morar (Gwalior-6) Financial assistance to
teachers in the univs. &
colleges for undertaking
minor research projects
in Science - Payment of
grant (Code No. 7683) 2,500

M.L.B. Arts &
Commerce College,
Gwalior Award of Teacher fellowship
to Sh. S.C. Sharma, Lecturer
in Political Science 4,188.14

Govt. Science
College, Gwalior Award of Teacher Fellowship
to Sh. M.S. Chhabra,
Lecturer in Chemistry at
Govt. College, Datir 4,194.84

Contd...

Jiwaji University (Contd.)

Govt. College, Morar (M.P.)	Grants to affiliated colleges for the purchase of laboratory equipment and library books -	60,000 1st instalment
M.J.H.B. Mahavidyalaya, Bhind (M.P.)	Development of Post-graduate Studies in Humanities and Social Sciences / Science subjects - Department of Botany, Geography, Mathematics, Political Science, Economics, History and Hindi- sanction of grant for the purchase of laboratory equipment and books	80,000 1st instalment
Govt. College, Datia (M.P.)	Grants to affiliated colleges for development of undergraduate facilities during the Vth plan period	60,000 1st instalment
Govt. Science College, Gwalior	Grants to affiliated colleges for the development of undergraduate facilities during the Vth plan period	45,000 2nd instalment
Govt. Nehru Degree College, Ashoknagar (Guna) M.P.	Grants to affiliated colleges for the establishment of Book Bank	1,500 IIInd & final instalment
		<u>6,78,583.07</u>

41. Jodhpur University

Junior Research Fellowships - Extension in Fellowships tenure - payment of fellowship to Shri B.L. Sharma	10,774.19
Award of Teacher Fellowship under the F.I.P. allocated to the Deptt. of Zoology, Jodhpur University - Payment of grant for	18,000

Jodhpur University (Contd.)

U.G.C. assistance for the research project entitled "Physiological and enzymological effects of environmental and chemical stresses on certain crop plants of deserts" submitted by Dr. M.N. Tewari, Univ. of Jodhpur 37,800

Junior Research Fellowships in Humanities including Social Sciences - payment of Fellowship to Shri Ajit Kumar 2,250

UGC assistance for the research project entitled "Investigation of the Metal Chelates of Polydentates derived from Homocyclic and Heterocyclic Carbonyl Compounds and Amino Acids" - Dr. R.K. Mehta - 6,800

UGC assistance for the research project entitled "Fluorescence studies on Dye-surfactant systems and fluorometric micro analysis" submitted by Prof. R.C. Kapoor, Jodhpur University, Jodhpur 14,600

UGC assistance for the research project entitled "Studies in Unsolvated Aluminium Hydrides and Organometallic Compounds of Aluminium and Boron as Rocket Fuels" submitted by Dr. Krishna C. Mathur, Univ. of Jodhpur 17,800

Construction of Science Block - II Phase - II (Botany and Zoology Block) 25,000

1,33,024.18

42. University of Kalyani.

Writing of University level book on "Electrodynamics" under the supervision of Dr. Padmanabha Dasgupta 10,444.13

Publication of learned / Research work including Doctoral Thesis during the 5th plan period - Grant-in-aid for. 20,000

2nd instalment

30,444.13

43. Kakatiya University

. Sr./Jr. Research Fellowships in Science / Humanities including Social sciences / Research Fellowships in Engineering & Technology - payment of fellowship 2,400

Jr. Research Fellowship in Science - payment of Fellowship. 2,400

Affiliated College

Lal Bahadur College, Warangal (A.P.) Construction of cycle-shed - 4th plan scheme first & final instalment 4,231.93

9,031.93

44. K.S.D. Sanskrit University

Grant-in-aid towards construction of Hostel for P.G. Men Students - 5th plan scheme 50,000

50,000

45. Kanpur University

Basic grants to affiliated colleges for purchase of essential library books & laboratory equipment for improvement of instructional facilities 8,60,000

Kanpur University

Affiliated Colleges

R.M.P. Degree College, Sitapur (U.P.)	Development of under-graduate educational facilities during Vth plan period - Purchase of books & journals	15,000
Christ Church College, Kanpur	Utilisation of services of outstanding Retired Teachers - Payment of grant in respect of Dr. J. Verma	2,000
H.B. Technological Institute, Kanpur	UGC assistance for the research project entitled "Spectra structure Correlation in Transition Metal and Rare Earth Compounds" submitted by Dr. D.P. Khandelwal, H.B. T.I., Kanpur and Dr. H.D. Bist, I.I.T., Kanpur	37,000
Janta Mahavidyalaya, Ajitmal (Etawah)	Construction of 4 addl. class rooms - Development of undergraduate education during Vth plan 1st instalment	40,000
Bhagwan Din Arya Kanya Mahavidyalaya, Lakhimpuri Khiri	Grant for books & journals - Development of undergraduate education during fifth plan period 2nd instalment	10,000
Bhagwan Din Arya Kanya Mahavidyalaya, Lakhimpur Khiri	Grant for purchase of equipment - Development of undergraduate education during fifth plan period.	3,000
C.S. Nehru Degree College, Hardoi	Grant for construction of library building - Development of undergraduate education during fifth plan period	1,00,000

Kanpur University (Contd.)

Dayanand College of Law, Kanpur (U.P.)	Additional grant for Book Bank.	12,500
Juhari Devi Girls Degree College, Canal Road, Kanpur	-do-	7,500
D.B.S. College, Govind Nagar, Kanpur (U.P.)	-do-	4,638
-do-	-do-	12,500
Cane Growers' Nehru Degree College, Gola Gokaran (Kheri) U.P.)	-do-	5,000
-do-	Grant for Book Bank 2nd & final instalment	1,875
Arya Kanya Mahavidyala, Nandoi (U.P.)	-do-	1,500
-do-	Additional grant for Book Bank	4,000
Mahila Mahavidyalaya, Kidwai Nagar, Kanpur (U.P.)	Grant for Book Bank	2,733.21
Dayanand College of Law, Kanpur	Grants towards establishment of Book Bank 3rd instalment	1,698
Janta Mahavidyalaya, Ajitmal (Etawah)	Financial assistance to the college for the development of play fields and purchase of accessories for games and sports during Vth plan period 1st instalment	3,750
Bhagwandin Arya Kanya Mahavidyalaya, Lakhimpur Kheri	-do-	3,750
Feroze Gandhi College, Rai Bareilly	Payment of salary to Shri Rakesh Sinha, Lect. in Botany, appointed as a substitute in place of Shri P.S.Pandey	3,087

Kanpur University (Contd.)

A.N.D. Mahapalika Mahila Mahavidyalaya, Harshnagar, Kanpur	Payment of salary to Km. Madhu Nigam, Lecturer in Music, A.N.D.M.N. Maha- vidyalaya, Kanpur	16,488.4
-do-	Payment of salary to Sh. Yogmaya, Lecturer in Sanskrit, A.N.D.M.M. Mahavidyalaya, Kanpur	16,488.4
Feroze Gandhi College, Rai Bareilly	Payment of salary to Sh. Pradeep Kumar Srivastava, Lecturer in Chemistry.	9,520.4
		<u>11,78,12</u>

46. Karnataka University

Award of Teacher Fellow- ship under the F.I.P. allocated to the Deptt. of Zoology, Karnataka University - payment of grant for.	8,000
Award of Teacher Fellowship under the F.I.P. allocated to the Deptt. of Statistics Karnatak University - Payment of grant for	5,527
Award of Teacher Fellowship under the F.I.P. allocated to the Deptt. of Botany, Karnataka University -	16,000
Award of Teacher Fellow- ship under the F.I.P. allo- cated to the Deptt. of Philosophy, Karnatak Univ.	3,000
Support for Advanced Research in the Humani- ties and Social Sciences 2nd instalment]	5,000
Financial assistance to teachers in the univs. and colleges for under- taking minor research projects - payment of grant	1,000

Karnataka University (Contd.)

	Starting of M.B.A. course during the Vth Plan period	
	- Payment of grant for faculty development	5,000
		1st instalment
	-do-	45,000
	Purchase of Furniture & equipment	1st instalment
	UGC assistance for the research project entitled "Studies on Physical Properties of Certain Nematic Liquid Crystals" submitted by Dr. K. Suryanarayana Rao and Dr. D.K. Deshpande, Karnataka Uni., Dharwar	35,000
	Jr. Research Fellowships in Science - payment of Fellowships	2,400
	Development Schemes under Vth Plan period	40,000
<u>Affiliated Colleges</u>		
Raja Lakhmangouda Science Instt. Belgaum.	College Science Improvement Programme - Selected Colleges Project - Grant-in-aid	12,443.39
Karnataka Regional Engg. College, Surathkal, Karnataka state, Srinivasnagar.	Research project entitled "Bacterial leaching of low grade Copper ore of India" - payment of grant.	30,000
S.B. College of Science, Gulbarga	Payment of salary to Shri S.V. Kalamath, Lecturer in Botany, S.B. College of Science, Gulbarga	5,443.55
-do-	Payment of salary to Shri M.B. Krishnappanvar, Lect. in Zoology, S.B. College of Science, Gulbarga	5,540.32
B.V.V. Sanghis Basaveshwar Commerce College, Bagalkot	Establishment of Book Bank	1,875
		2nd instalment

Karnataka University (Contd.)

K.M.T. Divakar College of Commerce, Bank Karwar (M.K.)	Establishment of Book	1,500
		2nd instalment
K.R.E. Society's Kar-natak College of Commerce, Bidar	-do-	750
Smt. A.B.H. College for Women, Gandhi- nagar	-do-	750
		4th instalment
B.R.D. College of Commerce, Raichur (Karnatak)	Students Aid Fund to colleges for the year 1977-78	2,000
Laxmi Venkatesh Desai College, Raichur	-do-	2,000
S.D.V.S. Sangh's S.S. Arts & P.P. Sc. Institute, Sankeswh- war (Distt. Belgaum)	-do-	1,500
J.S.S. Arts & Sc. College, Gokak	-do-	2,000
C.S. Bombalagi Arts & Samitia Sc. College, Ramdurg	-do-	1,320
V.M.S.S. Vastrad Arts & Science College, Hungund	-do-	1,500
Govindram Sokesaria Sc. College, Belgaum	-do-	2,000
S.B. College of Arts, Gulbarga	-do-	3,500
Vijaya Nagar College, Hospet	-do-	3,500
Dr. A.V. Baliga College of Commerce, Kumta	Students Aid Fund to colleges for the year - - 1975-76	711

Karnataka University (Contd.)

BVW Sangh's Students Aid Fund to Basweshvar Commerce College, Bagmkot	college for the year 1977-78	2,000
S.J.M.V. Women's College, Hubli	-do-	2,000
J.T. College, Groag, Detgeri	-do-	3,500
Gokhale Centenary College, Ankola (N. Kangra)	-do-	3,500
B.V.B. College of Arts Science, Bidar (Karnatak State)	-do-	2,000
Govt. College of Education, Belgaum	-do-	312
Rani Parvati Devi College, Belgaum	-do-	3,500
Shri Kadasiddeshwar Arts College & B.S. Kotambri Science Institute, Hubli	-do-	3,500
J.G. College of Commerce, Hubli	-do-	3,500
PC Jabin Sc. College, Hubli	-do-	2,000
KMT Divekar College of Commerce, Karwar	-do-	1,820
		<u>2,79,892.50</u>

47. University of Kashmir

Organisation of workshop in Commerce	20,000
	<u>20,000</u>

48. Kerala University

	Seminar on Malayalam Language, Malayalam literature, Kerala History, Society & Development of Kerala and other aspects along with the first World Conference on Malayalam Language and Kerala culture	50,000
	UGC assistance for the research project entitled "Studies on Releaser Phenomenes of the Musk shrew suncus Murinus Viridescens" undertaken by Dr. K.M. Alexander	13,400
	Jr. Research Fellowships in Humanities including Social Sciences - Payment of fellowship to Smt. R. Jayanthi	2,400
	Establishment of Study Centres	73,712
	Procurement of Computer by Kerala University-	5,00,000
	Writing of University level books / monographs	3,300
<u>Affiliated Colleges</u>		
Medical College, Trivandrum	Jr. Research Fellowships in Science - payment of fellowship	2,400
Loyala College of Social Sciences, P.O. Trivandrum-17.	Writing of University level books / monographs by Indian Authors - Extension of the book writing fellowship of Shri K.E. George Kutty	2,000
Alphonsa College, Palai (Kerala)	Books and Journals - 5th plan development scheme	15,000

Kerala University (Contd)Affiliated Colleges.

Alphonsa College, Palai, Kerala	Books and Journals -5th Plan Development Scheme.	15,000
St. Xaviers College for Women, Alwaye.	Equipment -Vth Plan	50,000
Catholicate College, Pathanamathitha Kerala.	Improvement of Undergraduate Educational Facilities.	50,000
Mar Ivanois College, Trivandrum.	Basic grant for purchase of books and Journals	10,000
-do-	-do-	10,000
-do-	-do-	5,000
Daselius College, Kottayam Kerala.	Construction of Lecture and class Rooms	35,000
Maharaja's College, Ernakulam.	Students aid fund in the colleges	4,964
Post Memorial Training College, Mavalikara Kerala.	-do-	240
Assumption College, Chenganacherry Kerala.	-do-	4,064
Fatima College Mata National College, Quilon S.India.	-do-	7,500
M.S.S. College, Tilamal.	-do-	2,060
Kuriakose Ellas College, Kottayam.	-do-	2,000

 8,58,111.02

: 50 :

49. Konkon Krishi Vidyapeeth.

Financial assistance to Teachers
in the universities and colleges
for undertaking minor research
projects in science subjects-payment
of Second instalment of grant 1,000

1,000

50. Kurukshetra University.

University Grants Commission
Assistance for the research
project entitled Search for
New Reducing Agents submitted
by Dr. C.P. Garg and Dr. R.P.
Kapur, Deptt of Chemistry,
Kurukshetra University: 7,800

University Grants Commission
Assistance for the research
project entitled Taxonomic
studies of Elateriae (Coleoptera:
Insecta) submitted by Dr.
L.K. Vats of B.N. Chakravarty
University. 9,800

Grants to purchase of equipment
during Vth Plan period 10,00,000

writing of University level
books 2,000

University Grants Commission
Assistance for the research
project entitled synthetic studies
on Bridge head nitrogen Heterocycles
as Potent Anthelmintics of Dr.
H.K. Pujari Department of Chemistry
Kurukshetra University, Kurukshetra
Fifth Five year Plan period. Release
of 4th instalment of grant. 7,300

UGC Assistance for the research
project 37,200

p.t.o.

Kurukshetra University (Affiliated Colleges) Contd.

Dayal Singh College, Haryana.	Construction of four class rooms	10,000
BBR College, Sidhrawali, Gurgaon, Haryana.	Payment of Salary to staff	6,112
S.D.College, Palwal.	Teacher Fellowship Programme in the Centre of Advanced Study in Mathematics Panjab University- payment of substitute teachers' salary- release of 'on account' regarding.	8,952
Guru Nanak Girls College, Santpura, Yamunanagar.	Financial assistance to teachers	4,000
R.K.S.D. College, Kaithal	Grants towards the loan of books	2,800
Govt. College, Mohindragarh. Haryana.	-do-	2,813
-do-	Setting up of book bank	4,200
B.N.C. Govt. College, Bhiwani.	Book Bank	2,613
Fateh Chand College for Women, Hissar.	Book Bank	1,875
Ahir College, Rewari.	-do-	1,406
LN Hindu College, Rohtak	-do-	1,875
BPSM Girls College Kahnpur Kalan Sonapat.	-do-	1,500

Affiliated Colleges.

Kurukshetra University.

J.V.M.G.R.R. college, Charkhi Dadri.	Students aid fund	4,500
D.A.V. College, Ambala City Haryana.	-do-	3,500
Govt. College, Kalka Haryana.	-do-	2,000
Dayal Singh College, Karnal, Haryana.	-do-	5,500
Maharaja Agrason College, Jagadhri	Students aid fund	960
Technological Institute. Bhiwani.	-do-	2,000
I.B.College, Panipat	-do-	3,500
S.D.College, Panipat.	-do-	5,500
R.K.S.D.College, Kaithal	-do-	4,500
Hindu college, of Education, Sonepat.	-do-	1,500
Kamala Memorial College, Marwara, Distt. Jind.	-do-	2,000
Dayanand College, Hissar.	-do-	4,014
-do-	-do-	2,250

10,53,970

1. Kumaon University.

Organisation of Seminars on
Science & Rural Development
in Mounting. 15,000

Affiliated Colleges.

Kadhey Hari Govt. Degree College, Basic grants to colleges 10,000

Moti Ram Babu Ram Degree College, Haldwani. -do- 20,000

Uspadhi Mahavidyalaya Pilibhit. -do- 10,000

Almora College, Almora. College Science Improvement 50,000

1,05,000

2. Lucknow University

University Grants Commission Assistance to research proj. 7,800

2nd Conference of the Indian Societies of Endocrinology. 5,000

Research Fellowships in Humanities. 6,300

-do- 1,500

-do- 2,400

UGC Assistance for the research Project. 8,500

-do- 29,100

Affiliated Colleges.

BSI of Falaeo Botany, University Road, Lucknow. -do- 3,191

SJD College, Lucknow. Students aid fund 7,438

71,229

p.t.o.

53. Madras University

	Writing of university level books/monographs.	1,714-29
	University Grants Commission assistance for the research project entitled "Gauge Theory" submitted by Dr.G. Rajasekasan, University of Madras, Madras.	42,000
	Basic Grants to affiliated colleges for purchase of essential library books and laboratory equipment for improvement of instructional facilities.	21,00,000
<u>Affiliated Colleges</u> <u>Madras University</u>		
St. Joseph's College, Tiruchirappalli-2.	College Humanities & Social Sciences Improvement Programme - Payment of grant for	4th ins- tal- ment 36,200
Sri Avinashilingam Home Science College for Women, Coimbatore	Implementation of National Service Scheme release of grant for 1977-78.	4,660
-do-	Improvement of Under-graduate Educational facilities during 5th Plan period.	1,00,000
A.V.C. College, Mayuram-609305	Development of Post-Graduate Studies in Humanities & Social Science and Sciences during V Plan period.	31,000
Pachaiyappa's College Madras-600030	Teacher Fellowship Programme in the department of Physical Chemistry - University of Madras - Special Assistance Programme - Payment of substitute teacher's salary - release of 'on account' grant - regarding.	13,000

Madras University (Contd.)

St. Christopher's Training College, Vepery, Madras	Development of Teacher Training Educational facilities during 5th Plan period.	5,000
Regional Engineering College, Tiruchirapalli	Establishment of Book Bank.	3,750
Soothalakshmi Ramaswami College, Tiruchirapalli.	-do-	2,375
The New College, 49 Peters Road, Madras-600014	Scholarship for post-graduate studies in Arabic - Shri Abdul Cader Jallani, -1977-78.	3,000
Madras Science College, Madras-3.	Grants towards the loan of books - setting up of Book Bank during 5th Plan period.	14,000
Gobi Arts College, Gobichettipalayam-	Improvement of under-graduate educational facilities during 5th Plan period purchase of lab. equipment & book,	47,000
Nirmala College for Women, Red Fields, Coimbatore	Establishment of Book Bank Scheme.	1,425
Presidency College, Madras	Teacher Fellowship Program in the CAS in Chemistry - University of Delhi - Payment of substitute teacher's salary - release of 'on account' grant.	5,056
Arigoar Aan Govt. Arts College, Cheyyar, N.A. Dist. (Tamil Nadu)	Faculty improvement & workshop equipment	45,000
Sri Sarada College for Women, Salem-4.	Development of Post-graduate educational facilities during 4th Plan.	5,000
Loyola College, Madras	UGC Assistance for the research project entitled "Influence of the effect of added electro-on binary systems containing amines" submitted by: i) Dr. Mathew J. Moollel, S.J. ii) Dr. Sebastian Kalarickal, S.J. and iii) Dr. R. Raghavan of Loyola College, Madras.	55,600

Madras University (Contd.)

Jawaharlal Institute of P.G. Medical Education & Research, Dhanwantri Nagar, Pondicherry.	International Workshop on Human Genetics.	10,000
St. Joseph's College, Tiruchirapalli.	UGC Assistance for the research project entitled "The carnatic flora project" by Dr.K.M. Mathew, St. Joseph's College, Tiruchirapalli.	23,278.46
Sri Avinashilingam Home Science College for Women, Coimbatore.	Development of PG Studies in Humanities & Science departments during V Plan.	5,000
P.S.G. Arts College, Coimbatore	Establishment of Book Bank Scheme	Final 2,375
Sacred Heart College, Tirupattur	Students Aid Fund to colleges for the year 1977-78.	35,000
Govt. Arts College, Krishnagiri	-do-	2,000
Govt. College of Engineering, Salem-11	-do-	3,173
Urumu Dhanalakshmi College, Tiruchirapalli	-do-	1,500
Auxilium College, Katapadi Extension, Vellore.	-do-	3,500
Govt. Arts College for Women, North Madras	-do-	3,686
Sri Vasavi College, Erode-628316	-do-	3,500
Sri R.K. Mission Vidyalaya Arts College, Coimbatore	-do-	2,825
PSG Arts College, Coimbatore	-do-	7,500
K.K. Govt. Arts College, Tiruvarur	-do-	2,398
C.Abdul Hakeem College, Melvisharam, NA	-do-	3,500
Kandeswami Kandar's College, Ve VELUR (ALEM)	-do-	4,500
Govt. Medical College, Chengalpattu.	-do-	1,428

Madras University (Contd.)

Govt. College for Women, Kumbakenam (TN)	Students Aid Fund to College for the year 1977-78.	2,396
Holy Cross College, Tiruchirapalli-2	-do-	6,500
Gobi Arts College, Gobichattipalayam, Karattadipalayam	-do-	2,000
D.G. Arts (Govt.) College for Women, Mayuram (TN)	-do-	2,000
Mazharul Uloom College, Ambur (W.A. Dist.)	-do-	1,500
Govt. Arts College, Ariyalur	-do-	1,500
A.V.V. Memorial Shri. Pushpam College, POONDI (Thanjavur Dist.)	-do-	7,500
Vivekananda College, Mylapore, Madras	-do-	4,500
D.B. Jain College Jyatinagar, Madras	-do-	2,000
A.A. Govt. Arts College Cheyyar N.A. Distt.	-do-	2,350
College of Engineering GUINDY, Madras	-do-	2,200
Govt. Arts College, OOTACAMUND	-do-	220
Rajah Serfoji Govt. College, Thanjavur	-do-	3,944
Govt. Medical College, Combatores-14	-do-	2,744
Seethalakshmi Ramaswami College, Tiruchirapalli	Payment of salary to Km.P.G. Barumathi	5,000
PSG College of Arts & Science, Coimbatore	-do- Dr.K.V.N. Saxena	8,264-19
Ayya Nadar Janaki Anmal College, Sivakam	-do- Sh.A.Rajamathavakalanithi	5,692-50
Sri Paramakalyani College, Alwarkurichi	-do- Sh. T.V. Gopalan	4,752
Vivekanand College, Madras.	-do- Sh. K.N. Ranganathan	6,129-04
G. Verkataswamy Naidu College, Kovilpatti.	-do- Sh.S. Paulsamy.	12,670

Madras University (Contd.)

Vivekananda College, Mylapor, Madras.	Payment of Salary to Km.K.Pathasarthy	6,237-89
Sir Theagaraya College Madras-600021	-do- Km.P. Krishnamurthy	6,911-22
The M.T.D. Hindu College, Pettai(Tirunevali) T.N.	-do- Sh.M.G. Sankaralingam	8,280-
Ayya Nadar Janaki Ahmmal College, Sivakashi, TN	-do- Sh.A. Rajamathavakalanithi	7,839-54
		<hr/> 27,39,122.13 <hr/>

54. Madurai University

Award of Teacher Fellow- ship to Sh.R. Taulasidas, Lecturer in Physics at G.V.N. College, Kovilpatj .	1,852-71 .
National Associateship Scheme - Dr.S.K. Mohanlal	2,000
UGC Assistance for the research project entitled "Influence of endocrines on Immunity" submitted by Dr.R.M. Pitchappan, Dept. of Immunology, Madurai Univ.	29,800
Junior Research Fellow- ships in Science - pay- ment of fellowship.	24,000
UGC Assistance for the research project entitled "Development of Immune Functions in Fishes" of Dr.V.R. Muthukkaruppan, Dept. of Biological Sciences, 5th Five Year Plan period - release of the 5th instalment of grant.	15,000

Affiliated Colleges

Madurai Univ.

Scott Christian College, Wagercoil (TN)	College Humanities & Social Sciences Improve- ment programme. 2nd	69,700
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Affiliated Colleges (CONTD.)

Madurai Univ.,

Sarah Tucker College, Tirunelveli (TN)	College Humanities and Social Sciences Improve- ment Programme - Payment of grant for.	71,700
V.O. Chicambram College, Tuticorin (S.India)	Construction of Resi- dential Flats to teachers during IV Plan period.	50,000
Periyar K.V.M. College Tiruchirapalli	Improvement under-graduate educational facilities - Construction of Workshop Shed.	1st 30,000 instalment
Aditner College of Arts & Science, Virapandian- patnam Tiruchendur (TN)	Purchase of Laboratory Equipment	1st 20,000 instalment
A -do-	Purchase of Books & Journals	1st 20,000 instalment
Hoston Training College Madras	Improvement of Teachers Educational facilities during V Plan.	10,000
The Sethupathi Govt. Arts College, Ramasuthapuram (TN)	Establishment of Book Bank.	1,870
Dr. Zakir Husain College Ilayangudi	-do-	Final 1,460-47
Pioneer Kumara Swamy College, Nagercoil	-do-	Final 1,250
Saraswathi Narayanan College, Perungudi Madurai	Purchase of Books & Journals Vth Plan	1,500
Thiagarajar College, Madurai-9.	Basic Grant for purchase of Books & Journals for P.G. Department during Vth Plan period. IIInd	14,996-98
-do-	Support for Advanced Research Humanities and Social Sciences	1st 10,000
N.M.S.S.V. Nadar College, Madurai	Payment of Salary to Shri.R. Baskaran, Demonstrator in Physics appointed in place of T. Lakshman.	7,869-99

Affiliated Colleges (Contd.)
Madurai University

Madura College Madurai.	Payment of Salary to Shri S.K. Ramesh, Lecturer in Physics appointed in place of M.Krishamoorthy.	3,773-26
S.M. Govt. Arts College for Women, Madurai-2.	Payment of Salary to Miss K. G. Shantha, Lecturer in Physics, appointed in place of M's. Georgia Mary.	5,945-50
The American College, Madurai	Payment of Salary to Shri K.V.N. Sarma, Lecturer in Physics appointed in place of Shri R. Augustus John Vijaikamar.	6,587-58
Yadava College, Madurai	Payment of Salary to Sh.S. Rajendran, Lecturer in Physics in place of Shri E.Papavinasan	7,410-33
The American College, Madurai	Students Aid Fund to Colleges for the year 1977-78.	5,500
Thiagarajar College of Engineering, Madurai.	-do-	5,500
The W.D.T. Hindu College Petal-Tirunelveli (TN)	-do-	2,856
Yadava College, Madurai	-do-	3,500
The Standard Fireworks Rajaratnam College for Women, Sivakasi (S.India)	-do-	1,500
Sree Devi Kumari Women's College, Kuzhithurai (Kanyakumari Dist.)	-do-	2,000
Virudunagar Hindu Nadar's Senthikumara Nadar College VIRUDOONAGAR	-do-	6,500
Alagappa Chettiar College of Engg. & Tech. Karaikudi (TN)	-do-	740
Sadakathaliah Appa College, Palayamkettai, Tirunelveli-11	-do-	3,316

55. Magadh University

Award of Teacher Fellowship to Sh.A.R.P. Sinha Lecturer in Botany, Govt. College, Port Blair. 4,711-12

Award of Teacher Fellowship to Sh.A.R.P. Sinha 531-14

Award of Teacher Fellowship to Sh.Jagat Narain Singh, Lecturer in Geology, at Gaya College, Gaya. 1,500

Support for Advanced Research in the Humanities & Social Sciences. 1st 2,000

Affiliated Colleges
Magadh University

S.S. College, Jahanabad (Gaya) Bihar. Financial assistance during 5th Plan Period - Purchase of Laboratory Equipment. 1st 40,000

T.P.S. College, Patna Financial assistance during V Plan period - Purchase of Laboratory equipment for Psychology Department. 1st 8,000

S.S. College, Jahanabad (Gaya) Bihar Financial assistance during 5th Plan period for Books & Journals. 1st 30,000

Maharaja College, M.B.R.R. Pd. Singh College, Arrah (Bihar) Financial Assistance during V Plan period - Books & Journals 1st 20,000

-do- Financial assistance during V Plan - Laboratory equipment 1st 40,000

1,46,742.25

56. Marathwada University

Visit of Dr. G.S. Kaiyarkar in Economics, to U.K. under the Programme of Exchange of visits by Younger Scientists between India and U.K. during 1976-77. 64

Financial assistance to post-doctoral fellow for participation in International Conference abroad - Dr. M.M. Hanomanta. 7,456-50

Support for Advanced Research in the Humanities and Social Sciences. 1st 600

Financial Assistance to teachers in the universities and colleges for undertaking minor research projects in Humanities & Social Science. 2,000

Affiliated Colleges
Marathwada University

Nanded Education Society's Peoples College, Nanded (Maharashtra)

Fifth Five Year Plan - Improvement of Undergraduate educational facilities. 2nd 40,000

M.E. Arts Commerce, & S.C. Science Mahavidyalaya, Warud Distt. Amravati (Maharashtra)

Payment of Salary to Km. A.P. Bhugal, Lecturer in Botany 5,000

L.B.S. Mahavidyalaya Dhamabad, Distt. Nanded (Maharashtra)

Payment of Salary to Shri S.K. Pasarkar Lecturer in Botany. 9,920-10

A.N. College of Science, Arts & Commerce, Warora, Distt. Chanda (MS)

Payment of salary to Shri S.R. Kshirsagar Lecturer in English appointed in place of Shri K.K. Reddy. 4,210-24

Govt. College of Education, Nanded

Students aid Fund in colleges - Grant for 1977-78. 200-00

Affiliated Colleges (Contd.)

Marathwada University

S.B.S.S. College of Arts & Commerce, Aurangpura, Aurangabad	Students Aid Fund in Colleges - Grant for 1977-78	4,700
PES Pratishthan Mahavidyalay Paithan (Distt. Aurangabad(MS))	-do-	1,700
MSP Mandal's Shri Shivaji College of Arts, Science & Commerce, Parbhani.	-do-	3,130
KSP Mandals Shivaji Mahavidyalaya Udgip, Distt. Aurangabad.	-do-	3,500
Lal Bahadur Shastri Mahavidyalaya Dharmabad (Distt. Nanded (M.S.))	-do-	1,400
Dayanand Commerce College, Latur (Maharashtra)	-do-	2,000
PES's Williad College of Science, Aurangabad.	Students Aid Fund in Colleges - Grantfor 1974-75.	1,932
Maharashtra Mahavidyalaya Nilanga, Distt. Osmanabad (MS)	Setting up Book Bank - Sanction of grant. II & Final	1,900
Dharmabad Shikshah Sanstha's Lal Bahadur Shastri Mahavidyalaya Dharmabad (S.C. Rly) Nanded.	-do-	1,900
Maulana Azad College of Arts & Commerce Post Box No.27 Aurangabad-	-do-	2,750
		93,362.84

57. Maharshi Dayanand University
Affiliated Colleges

Chhotu Ram College of Education, Rohtak (Haryana)	Students Aid Fund in the College - Grant for 1977-78.	2,000
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Affiliated Colleges
Maharshi Dayanand
University

Nehru College, Jhajjar (Haryana)	Students Aid Fund in the College - Grant for 1977-78	3,500
A-I Jat H. Memorial College, Rohtak (Haryana)	-do-	2,000
Vaish College, Rohtak (Haryana)	-do-	5,500
		<hr/> <u>11,000</u> <hr/>

58. M.S. University of Baroda

Award of Teacher
Fellowship under the
F.I.P. allocated to the
Deptt. of Botany, M.S.
Baroda University - Payment
of grant for. 35,000

Award of Fellowship
sanctioned for the Fifth
Plan period under
Development Scheme. 10,000

Organisation of All
India workshop on the
problems of teaching and
research on History of
Arts in Indian
Universities. 5,000

Organisation of Seminar
on Surdas as follow
up action programme
for celebrating the
400th anniversary of
Ram Charit Manas. 4,578

Post-graduate
scholarship in Arabic/
Persian - Km. Naseem
Banu Nasirmiya -
1977-78.

Publication of Critical
Edition of Vishnu-
Purana. 40,000

M.S. University of Baroda (Contd.)

Allocation of Un-
assigned grant during
the 5th Five Year Plan
Period - 1976-77. Final 18,509

Allocation of Un-
assigned grant during
the 5th Five Year Plan
Period - 1977-78. 21,000

Construction of Arts
Block Building Final 8,133

UGC Assistance for the
research project
entitled: "Studies on
polyamines and phytate
in relation to their
role in seed physiology"
submitted by Dr. S.K.
Srivastava, Department
of Biochemistry. 22,000

Construction of a build-
ing for the Faculty of
Law Final 5,000

1,69,120

59. Mithila University

Junior Research
Fellowships in
Humanities including
Social Sciences to
Smt. Neeta Jha. 2,400

Award of Teacher
Fellowship to Sh.L.K.
Sinha, Lecturer in
Physics at L.S. College,
Muzaffarpur. 4,194-89

-do-
to Sh.S.S. Jha, Lecturer
in Political Science at
Gumla College, Gumla. 113-10

-do-
to Sh.L. Pandit, Lecturer
in Chemistry, C.S. College,
Samastipur. 3,653-23

Affiliated Colleges
L.N. Mittal University

R.N.A.R. College Samastipur (Bihar)	Financial assistance during V Plan period for development scheme - 10,000 Purchase of Books & Journals.	
L.N. Janta College (formerly Janta College) Jhanjharpur	Construction of Addi- tional Teaching Accommodation - release of grant for,	37,850
K.P. College, Murliganj, Bihar	Construction of Additional Teaching Accommodation Assistance during Vth plan.	25,000
C.M. Science College (Science & Law) Darbhanga (Bihar)	Students Aid Fund in the College - Grant for 1977-78.	4,500
A.M.P. College, Shanpur - Factory P.O. and Dist. Samastipur (Bihar)	Setting up of Book Bank in Colleges during 1976-77.	1,000
Rosera College, Rosera, Samastipur	Setting up of Book Bank in Colleges during IVth Plan. Final	3,250
Kunwar Singh College, Lahoria Sarai, Distt. Darbhanga Bihar	Setting up of Book Bank in Colleges during 1976-77.	1,000
		90,961.22

60. Meerut University

Unassigned grant 1977-78	24,000
Award of Teacher Fellowship under the F.I.P. allocated to the Dept. of Mathematics, Meerut University.	8,000
Award of Teacher Fellowship to Sh. Tripal Singh, Lecturer in Physics, J.V. College, Baraut.	56.46

Meerut University (Contd.)

	Basic grants to affiliated colleges for purchase of essential library books and laboratory equipment for improvement of instructional facilities.	8,60,000
<u>Affiliated Colleges</u>		
D.A.V. College, Muzaffarnagar	College Humanities and Social Sciences Improvement Programme - Payment of grant for - 5th	46,000
-do-	UGC Assistance for the research project entitled "Studies on the pollution and eutrophic action by industrial wastes and its effects on the fish and fisheries of the western districts of Uttar Pradesh" - Dr. R.C. Dalela.	15,000
N.R.E.C. College, Khurja (UP)	Award of Teacher Fellowship to Sh.R.S. Upadhyay, Lecturer in Physics, D.A.V. College, Bulandshahr.	8
Meerut College, Meerut	Award of Teacher Fellowship to Sh.R.P. Bhatnagar, Lecturer in Pol.Science, Lajpat Rai, College, Sahibabad	4, 676.09
Multanimal Modi College, Modinagar	Award of Teacher Fellowship to Sh.Harish Chandra, Lecturer in Chemistry, A.S. Degree College, Mawana.	4,080.65
N.R.S.C. College, Khurja (UP)	Award of Teacher fellowship to Shri M.C. Chandra, Lecturer in History.	3,141.67
-do-	Award of Teacher Fellowship to Sh.V.V.S. Nirwal, Lecturer in Physics at C.C.R. Degree College, Muzaffarnagar.	433-37

Affiliated Colleges (Contd.)
Meerut University

M.M.H. College, Ghaziabad (UP)	Award of Teacher Fellowship to Sh.S.K. Rastogi, Lecturer in Pol. Science, N.A.S. College, Meerut (UP)	1,139-80
J.V. Jain College, Seharampur	Award of Teacher Fellowship to Sh.S.N. Pandit, Lecturer in Economics, MAV (PG) College, Bulandshahr	2,984-76
Raghunath Girls College, Meerut (UP)	Financial assistance to colleges for development of post- graduate studies in Humanities and Social Sciences & Sciences during 5th Plan period.	10,000
-do-	-do-	40,000
Meerut College, Meerut	-do-	25,000
-do-	-do-	25,000
-do-	-do-	45,000
Jain Kanya Pathshala Degree College, Muzaffarnagar (UP)	Improvement of undergraduate edu- cational facilities under the Vth Five Year Plan - Purchase of books & journals.	10,000
R.S.S. College Pilkhawa (Meerut)	Additional grant for Book Bank.	5,000
-do-	Grant for Book Bank	1,875
Maharaj Singh College, Sharanpur	College Science Improvement Programme - Selected Colleges Project Grant-in-aid	4th 30,000
B.S.M. College, Roorkee	Students Aid Fund in the College - Grant for 1977-78.	1,544
Gochar Mahavidyalaya Rampur Manhyaran (Sharanpur)	-do-	1,030

Affiliated Colleges
Meerut University

M.M. College, Modinagar (UP)	Grant towards the loan of books to students - Setting up of Book Bank.2nd	9,375
Sanatam Dharam College, Muzaffarnagar	Payment of salary to Dr. Bratima Wahi, Lecturer in Botany, . , S.D. College, Muzaffarnagar.	5,977-76
D.A.V. College, Muzaffarnagar (UP)	Payment of Salary to Dr. Uma Kant, Lecturer in Mathematics, appointed as substitute in place of Shri S.P. Arya, Teacher Fellow.	8,620-84
Deva Nagari College, Meerut (UP)	Payment of salary to Shri S.K. Seth, Lecturer in Mathematics appointed as a substitute in place of Shri Pattan Lal Gupta.	2,877
Digambar Jain College, Baraut (Meerut)	Payment of salary to Sh. A.K. Shukla, Lecturer in Mathematics, appointed as a substitute in place of Shri R.K. Gosain.	6,929-54
Meerut College, Meerut	Payment of salary to Smt. Ranjana Aggarwal Lecturer in Geography appointed as a substitute in place of Sh. Kanchan Singh.	6,265-47
D.A.V. College Muzaffarnagar (UP)	Payment of salary to Km. M. Sharma Lecturer in Psychology as a substitute in place of Shri V.K. Sharma.	6,297-44
M.M.H. College, Ghaziabad.	Payment of salary to Sh. Ram Kumar, Lecturer in Geography, appointed as a substitute in place of Shri N.K. Agnihotri U.G.C. Teacher Fellow	6,009-73

Affiliated Colleges
Meerut University

Mihir Bhoj Degree College, Dadri	Payment of salary to Dr. R.P. Gupta, Lecturer in Mathematics, appointed as a substitute of Shri V.P. Pastogi, Teacher Fellow	7,908-29
Raghunath Girls (PG) College, Meerut	Payment of salary to Km. Sonita Singhal Lecturer in History.	7,455-45
Mihir Bhoj Degree College, Dadri	Payment of salary to Sh. Bishan Chand Lecturer in Chemistry appointed as a substitute in place of Shri Jagvir Singh UGC Teacher Fellow.	7,814-52
..... Sanatan Dharma College, Muzaffarnagar (UP)	Payment of salary to Sh. Shiv Kumar Gupta Lecturer in Commerce appointed as a substitute in place of Shri Sushil Kumar Gupta.	11,757-60
Janta Degree College, Patla (Ghaziabad)	Payment of salary to Sh. Jaibir Singh, Lecturer in Geography substitute of Shri Govind Singh, Teacher Fellow	7,455-45
S.D. COLLEGE Muzaffarnagar	Payment of salary to Shri Arun Kumar, Lecturer in Chemistry, S.D. College Muzaffarnagar.	6,073-67
M.M.H. College, Ghaziabad (UP)	Payment of Salary to Shri O.P. Garg, Lecturer in Mathematics appointed as a substitute in place of Shri R.C. Towar.	5,630-26
Meerut College, Meerut.	Payment of Salary to Km. Rekha Agarwal, Lecturer in Zoology, Meerut College, Meerut	2,907-94
-do-	Payment of salary to Shri Aji Chauhan, Lecturer in Statistics, appointed as a substitute in place of Shri S.N. Gupta.	5,537-45

Affiliated Colleges
Meerut University

Durga Parshad Degree
College, Anupshahr.

Payment of salary to
Sh. A.K. Aggarwal,
Lecturer in Physics
appointed as a substitute
in place of Shri S.S. Dhal. 2,877

Digambar Jain College
Baraut (UP)

Payment of salary to
Sh. Nathi Singh, Lecturer
in Physics, appointed
as a substitute in
place of Shri S.S. Tayal 7,548-26

-do-

Payment of salary to
Shri B.K. Mehrotra
Lecturer in Physics,
appointed as a substitute
in place of Shri B.S.
Sharma. 7,950-42

12,57,188.89

61. Mysore University

Development Schemes
under Vth Plan period
Excavations etc. for
the Deptt. of Ancient 1st
History and Archaeology. 25,000

Unassigned grant for
the year 1977-78 other
than the UGC Unit. 10,000

Allocation of grant
for UGC Unit
(un-assigned grant)
for 1977-78. 1st 10,000

Development Schemes
under Vth Plan period
Books and Journals
for P.G. Centre,
Bangalore. IIIrd 2,00,000

Basic Grants to
affiliated colleges for
purchase of essential
library books and lab.
equipment for improvement
of instructional
facilities. 9,40,000

Mysore University (Contd.)

	Award of Teacher Fellowship under the F.I.P allocated to the Dept. of Chemistry, Mysore Univ.	31,000
	Award of Teacher Fellowship under the F.I.P. allocated to the Dept. of Zoology, Mysore Univ.	1,500
	UGC Assistance for the research project entitled "Basic Research on Liquids Crystals" of Dr.D. Krishnamurthy, Dept. of Physics, Univ. of Mysore Fifth Five Year Plan period.	3rd 16,200
<u>Affiliated Colleges</u> Mysore University		
St. Aloysitus College Bangalore	Construction of Animal House during the 5th Plan period.	1st 15,000
The National Instt. of Engineering Mysore.	Teacher Fellowship Programme in the Dept. of Inorganic & Physical Chemistry - Indian Inst. of Sc. Bangalore - Special Assistance Programme Payment of substitute teacher's salary - release of 'on account' grant.	6,450
J.S.S. College of Arts & Science, Karnatak	Grants towards the loan of books - setting up of Book Bank.	1st 2,800
Bharati College, Kalamuddana Doddi.	Establishment of Book Bank Scheme.	IIInd 1,500
M.G.M. College, Udupi.	-do-	IIInd 1,425
Kilagres College, Kalianpur S. Kanara	-do-	IIInd 1,318
Sri J.C.B.M. College, Sringeri	Students Aid Fund to College for the year 1977-78.	1,500

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Affiliated Colleges
Mysore University

Sri Poornaprajna College, Udupi.	Students Aid Fund to Colleges for the year 1977-78.	4,500
Sri Bhuvanandra College, Karkala	-do-	3,500
S.J.V.P. College, Harihar	-do-	1,500
D.R.N Science College, Devangore	-do-	1,500
Govinda Dass College Surathal (S.K.)	-do-	2,000
Mahatma Gandhi Memorial College, Udupi.	-do-	3,144

12,79,837

62. Nagpur University

Support for Advanced
Research in the
Humanities & Social
Sciences. 3,000

UGC Assistance for the
research project
entitled "Activation
analysis of some Bio-
logically important
Elements present in
Indian Food Stuffs"
submitted by Dr.M.N.
Ray 6,800

Award of Studentship of
the value of Rs.250/-
p.m. to the PG students
of Applied Geology Course
4th Plan Development
Schemes. 22,500

p.t.o.

Affiliated Colleges
NAGPUR UNIVERSITY

L.B.A. Mahila Mahavidyalaya, Yavatmal.	Grants to affiliated colleges for Book Bank.	1,500
Lokmanya Tilak Mahavidyalaya Wani	Grants to affiliated colleges for the purchase of books & journals under Rs.5 lakhs scheme.	20,000
-do-	Grants to affiliated colleges for the purchase of lab. equipment under Rs.5 lakhs scheme. 2nd	20,000
-do-	Grants to Colleges for construction of library building under Rs.5 lakhs scheme. 1st.	60,000
N.M.D. Mahavidyalaya Gondia	Grants to affiliated colleges for the purchase of lab. equipment under Rs.5 lakhs scheme.	25,000
-do-	Grants to affiliated colleges for the purchase of books & journals under Rs.5 lakhs scheme.	30,000
M.S.S. Institute of Social Work, Nagpur.	Grants to affiliated colleges for the purchase of books & Journals 2nd under Rs.5 lakhs scheme.	10,000
Dr. Ambedkar College, Nagpur.	Financial assistance to Teachers for research/learned work in Humanities and Social Sciences. Final	2,500
Shri Shivaji College Akot, Distt. Akola	Students Aid Fund in the Colleges - grant for 1977-78	372
Chanpoth Arts, Commerce & M.P. Deo Memorial Science College, Nagpur.	-do-	2,144

Affiliated Colleges
Nagpur University

Jijamata Mahavidyalaya Students Aid Fund in Buldana (MS)	the Colleges - Grant for 1977-78	2,000
Dhanvati National College, Nagpur.	-do-	2,980
Janta College of Education, Chandrapur. (M.S.)	-do-	500
A. Arts & Sc. & Birla Adarsha Commerce College, Dhamangaon Amravati.	-do-	1,656
Jankidevi Bajaj College of Science, Wardha (M.S.)	-do-	2,010
Govindram Seksaria College of Commerce, Warina (MS)	-do-	4,000
Vidarbha Mahavidyalaya Amravati (MS)	-do-	4,254
Mahila Mahavidyalaya Amravati (M.S.)	-do-	500
Smt. R.S. College of Arts & Science, Anjangaon, Surji.	-do-	388
		2,22,104

63. North Bengal University

Award of Teacher Fellowship to Smt. Goyatri Bhattacharya, Lecturer in Bengali at Rajganj College, Rajganj.	3,000
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North Bengal University (Contd.)

National Associateship Dr. K.C. Das	1,000
Award of Teacher Fellowship under the F.I.P. allocated to the Deptt. of Chemistry, North Bengal Univ.	30,800
Award of Teacher Fellowship under the F.I.P. allocated to the Deptt. of Physics, North Bengal Univ.	12,000
UGC Assistance for the Research Project entitled "Study of Liquid Crystal Ordering by X-ray".	14,500
Grant-in-aid - purchase of Books & furniture 2nd & for the Student Home. final	9,000
Award of Teacher Fellowship under the F.I.P. allocated to the Deptt. of Physics, North Bengal Univ.	6,500
UGC Assistance for the research project entitled "Pharmacognosy Cultivation and Improvement of Solaso- dine Yielding Plants of the Eastern Himalayas" submitted by Dr. Prabhat Kumar Basu, Centre for Life Sciences, North Bengal Univ.	32,800

Affiliated Colleges
North Bengal Univ.Balurghat College,
Balurghat, W.B.Financial Assistance to
Teachers for research/
learned work in Humanities
and Social Sciences Final 1,000

North Bengal University (Contd.)

National Associateship Dr. K.C. Das	1,000
Award of Teacher Fellowship under the F.I.P. allocated to the Deptt. of Chemistry, North Bengal Univ.	30,800
Award of Teacher Fellowship under the F.I.P. allocated to the Deptt. of Physics, North Bengal Univ.	12,000
UGC Assistance for the Research Project entitled "Study of Liquid Crystal Ordering by X-ray".	14,500
Grant-in-aid - purchase of Books & furniture 2nd & for the Student Home. final	19,000
Award of Teacher Fellowship under the F.I.P. allocated to the Deptt. of Physics, North Bengal Univ.	6,500
UGC Assistance for the research project entitled "Pharmacognosy Cultivation and Improvement of Solaso- dine Yielding Plants of the Eastern Himalayas" submitted by Dr. Prabhat Kumar Basu, Centre for L-ife Sciences, North Bengal Univ.	32,800

Affiliated Colleges
North Bengal Univ.Balurghat College,
Balurghat, W.B.Financial Assistance to
Teachers for research/
learned work in Humanities
and Social Sciences Final 1,000

Affiliated Colleges (Contd.)
North Bengal Univ.

Balurghat College, Balurghat W.B.	Setting up of Book Bank in Colleges during 5th Plan.	4,000
Malda Women's College, P.O. Malda, Distt. Malda (W.B.)	Financial assistance for construction of Women's Hostel during V Five Year Plan.	75,000
-do-	Students Aid Fund in the colleges - Grant for 1977-78	2,000
St. Joseph's College P.O. North Point. Darjeeling.	Students Aid Fund in the Colleges - Grant for 1977-78.	3,500
Dinhata College Dinhata, P.O. Dinhata, Distt. Cooch-Behar.	Payment of salary to Shri Subarnata Fanchanan, Lecturer in Chemistry, appointed as a substitute in place of Shri Ranjit Kumar Sarker.	8,726-66
		1,94,826.66

64. North Eastern Hill University

Scholarship for post graduate studies to the students belonging to the Border Hill Areas - 1977-78 - Shri Besterwell Kharbuli.	3,000
Scholarship for post graduate studies to the students belonging to the Border Hill Areas - 1977-78 - Miss Janet Mariana Pugh.	3,000

North Eastern Hill University (Contd.)

Setting up of Study
Centres at Kohima &
Aizawl -- N.E.H.U. 1st 60,000

Junior Research
Fellowships in Humani-
ties including Social
Sciences to Shri D.
Bhattacharjee. 24,000

Scholarship for Post
graduate studies in
Science/Humanities
including Social
Sciences to the students
belonging to the Border
Hill Areas - Miss Betylda
Mary Jyrwa 3,000

Affiliated Colleges:

North Eastern Hill University

St. Edmund's College Shillong Participation of
student youth in Soil
Health Care Workers
Programme 10,000

St. Anthony's College Shillong. Financial assistance
to St. Anthony's
College- Shillong
during V Plan -

(a) Construction
of Science Block

(b) Purchase of lab.
equipment and

(c) purchase of books
& journals. 2,75,000

St. Mary's College,
Shillong. Release of Grant for
the construction of
library and laboratory
building. IIIrd 20,000

Dinapur College,
Dinapur. Students Aid Fund in the
colleges - Grant for 1977-78
1,500

Jowai Gov. College,
Jowai. -do- 1,165

4,00,665

65. Osmania University

	Organisation of workshop in Public Administration.	20,000
	Utilisation of services of outstanding retired teachers-Payment of grant in respect of Prof. D. Venkatavadhani.	8,900
	Utilisation of services of outstanding retired teachers-payment of grant in respect of Prof. S.S. Qadiri.	9,075
	Grant-in-aid for the purchase of equipment for the Science Department during 5th plan.	70,000
	Award of Teacher Fellowship under the F.I.P. allocated to the Department of Chemistry.	173
	Writing of university level books/monographs.	3,600
<u>Affiliated Colleges</u>		
S.N.V. Mahavidyalaya Hyderabad.	Financial assistance to colleges for the development of play fields & purchase of accessories for games and sports in colleges during Vth plan period.	5,000
Nizam College Hyderabad	UGC assistance for the research project entitled Physicochemical studies of the metal complexes of Nucleosides and Nucleotides in Solution submitted by Dr. P. Ra bindra Nizam College, Hyderabad.	17,800
	UGC assistance for the research project entitled Investigation of Platinum group metal complexes of purine, pyrimidine nucleosides and nucleotides and their antitumour activity submitted by Dr. (Mrs.) Ba dar Taq-ur Khan-	6,800
College of Arts & Sc. Kamareddy, Distt. Nizamabad.	5th Five Year Plan-Improvement of undergraduate educational facilities.	95,000

Osmania University (Contd.)

Affiliated Colleges (Contd.)

Govt. Comprehensive College of Education, Hyderabad.	5th Plan Period-Improvement of under-graduate educational facilities.	6,500
Nehru Memorial Arts & Science College, Jogipet Distt. Medak.	Purchase of Equipment--Payment of grant.	2,500
Amrat Kapadia Navjivan Women's College, Hyderabad.	Development of Post-graduate Education during 5th plan period.	12,500
Sarojini Naidu Vanita Mahavidyalaya Hyderabad.	Students' Aid Fund in the Colleges--Grant for 1977-78.	4,300
Mumtas College, Hyderabad.	Setting up Book Bank-- Sanction of grant.	2,499
S.V.E.S. Telugu Kalasala (Evening) Vidyanagar, Hyderabad.	-do-	3,250
College of Arts & Science, Kamareddy Distt. Nizamabad.	-do-	1,625
Vivek Vardhini evening College, Hyderabad.	Payment of salary to Shri B.S. Rao, Lecturer in Economics, V.V. Evening College, Hyderabad.	6,834
Osmania College Kurnool	Grants towards the loan of books to students--Setting up of Book Bank.	8,000

2,84,356

66. Panjab University

Senior Research Fellowships in Sciences in the Department of Mathematics--Payment of Contingency grant.	296
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Panjab University (Contd.)

Junior Research Fellowships in Humanities including Social Sciences-Payment of Fellowship to Shri Hargur Meet Singh.	2,400
Junior Research Fellowships in Sciences.	2,400
Award of Teacher Fellowship to Shri Amarjit Singh Verma, Lecturer in English, L.R.M. College, Jaqaraon.	3,374
Financial Assistance to colleges for the development of play fields and purchase of accessories for games and sports in universities during V plan period.	7,000
Purchase of Psychology Mobile Van in collaboration with the Education Department.	4,000
Assistance to universities towards fields training in Geology during the Fifth Five Year Plan.	2,000
Establishment of Students' Aid Fund in Universities-1976-77.	158
Establishment of Students' Aid Fund in universities-1977-78.	12,500
Establishment of Study Centre at Chandigarh-Grant for the purchase of books.	10,000
Centre of Advanced Study in Mathematics-Release of an 'on account' grant for 1977-78 Teacher Fellowships.	25,000

Panjab University (Contd.)Affiliated Colleges:(

M.R. College, Fazilka	Teacher Fellowship Programme in the Centre of Advanced Study in Mathematics-Payment of substitute teacher's salary.	7,575
D.A.V. College of Education, Abohar.	Payment of salary to Smt. S.K. Walia, Lecturer in Education, appointed as substitute of Miss Usha-Jogi, Teacher Fellow	5,129
Guru Nanak College Moga	Payment of salary to Shri Malkiat Singh, Lecturer in Economics	8,109
D.A.V. College of Education, Abohar.	Development of Teachers Training College during Vth Plan period-Purchase of Equipment.	3,000
B.M. College, Moga	Students' Aid Fund in the Colleges.	4,500
Swami Premanand Mahavidyalaya Mukerian	-do-	3,780
Malwa College Bondi Samrola	-do-	2,000
G.A.M. College Abohar.	-do-	2,000
J.C.D.A.V. College Busayā (Hoshiarpur)	-do-	2,000
		1,07,221

67. Punjabi University

Scholarship for post-graduate studies in Sanskrit-1977-78 Shri Shri Krishan Sharma Kaushik.	3,000
Award of Teacher Fellowship under the F.I.P. allocated to the Department of Economics Punjabi University.	10,500

Punjabi University (Contd.)

	6,000
Support for Advanced Research in the Humanities and Social Sciences.	

Affiliated Colleges:

D.A.V. College Bhatinda.	5,000
Improvement of undergraduate educational facilities during the 5th Plan Period-Purchase of Books and Journals.	

Govt. College for Women, Patiala.	35,000
Development of undergraduate education during the Fifth Plan period-Purchase of Books and Journals.	

Rajindra Govt. College, Bhatinda.	89
Payment of salary to Shri Gian Singh, Lecturer in Economics.	

Public College, Samana (Patiala)	1,875
Establishment of Book Bank.	

S.D. Kenya Mahavidyalaya Mansa (Patiala)	2,000
Students' Aid Fund in the Colleges-Grant for 1977-78.	

A.D. College for Women, Sangaur (Pb)	1,500
-do-	

Jawaharlal Nehru Memorial Municipal College for Girls Mandi Gobindgarh	4,500
Grant towards the loan of books to students-Setting up of Book Bank.	

58,564

68. Patna University

Organisation of Summer Instt. in Statistics for College Teachers during 1977-sanction of an 'on account' grant for Teachers during 1977.	5,119
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Patna University (Contd.)

	Junior Research Fellowships in Humanities including Social Sciences—Payment of Fellowship to Miss Neena Chandra.	2,400
	Junior Research Fellowship in Science—Payment of Fellowship.	2,400
	Award of Fellowship under F.I.P. allocated to the Department of Physics, Patna University.	27,000
	Fourth Plan development schemes—salaries of additional staff in science department.	4,494
	Award of Teacher Fellowship under the F.I.P. allocated to the Department of Botany University of Patna—Payment of grant for.	27,000
<u>Affiliated Colleges</u>		
Patna Science College Patna	Financial Assistance during Fifth Plan Period for the purchase of Books and Journals.	80,000
-do-	Financial Assistance during V Plan period for the purchase of laboratory equipment.	1,20,000
		<hr/> <u>2,68,413</u>

69. Poona University

Award of Teacher Fellowship	3,000
-do-	20,000
Assistant to Decan College, Postgraduate and Research	20,000
Support for Advanced Research in the Humanities and Social Sciences	20,000
Full-time L.L.M. Course	3,000
Special Assistance Programme	8,000
Proposal for Decan College	20,000
Centre of Advanced Study in Sanskrit,	50,000
Support for advanced Research	8,000
Basic Grants to affiliated Colleges for purchase of essential lib. Books	14,00,000

Affiliated colleges.

College of Education Jalgaon.	Assistance to teachers	14,000
D.N. Mahavidyalaya. Faizpur.	-do-	80,000
K I of Social Science Hillside, Karanagar, Poona.	-do-	1,250
SVP Sansthas Arts and MFMA Commerce College, Dhulia.	Utilisation of services of outstanding retired teachers	9,000

Affiliated Colleges,
Poona University (Contd)

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P.V.P. College, of Arts and Commerce.	Grants to affiliated colleges	Ist 50,000
-do-	-do-	20,000
-do-	-do-	70,000
SSVRS Arts and MFMA. Commerce College Dhulia	-do-	90,000
PQGV Mandal's Science Commerce and S.I. Patil Arts college Shahada.	Teachers Fellowship Programme	4,500
Daccan College Postgraduate and Research Institute, Poona.	Support for advanced Research	10,000
Ahmednagar College, Ahmednagar.	Sc. improvement Programme	80,000
-do-	University Grants Commission Assistance for the research project entitled Molecular forms Genetics and evolution of Emoglobins of Eovids in Descent of Dr. John Barnabas, Dept. of Biochemistry, Ahmednagar College University of Poona, Ahmednagar, Fifth Five year plan period.	18,400
st. Miras College for Girls Poona.	Students aid fund in the colleges	1,500
GC of Commerce Karve Road Poona.	-do-	6,756

Affiliated Colleges,
Poona University (Contd)

Ahmednagar College, Students Aid fund in the colleges Ahmednagar.		6,960
Bhusawal Arts Science & P.O.No. Commerce College, Bhusawal Poona.	-do-	5,500
N.V.P.M. Arts and Commerce College, Iagalgaon, Nasik	-do-	1,500
College of Education Shivaji Nagar, Gangapur Road, Nasik Maharashtra	-do-	2,000
S.S. Mahavidyalaya, Poona	-do-	2,682
College of Education Dhulia.	-do-	430
A.E.Society's College, of Education, Vishram Lugh Ahmednagar, Maharashtra.	-do-	560
R.V. Narayanarao Boravake College, Shrirampur Distt. Ahmednatar Maharashtra.	-do-	2,800
College of Education Mandubar.	-do-	602
S.S.V.P.S.Arts and M.P.M.A College Dhulia.	-do-	7,500

Affiliated Colleges
Poona University (Contd)

Y S Arts and Commerce College Dhulia	Students aid fund in the colleges	3,500
S.P.M Arts S.B.B. & S.N.D. Commerce, S.M.A. Science, College Shivpur.	-do-	3,500
Arts and Commerce College Charagaon.	-do-	1,320
Arts and Commerce & Science College, Ahmednagar.	-do-	3,527
S.S.B.College of Education Shrirampur Distt. Ahmednagar.	-do-	1,500
HPT Arts and Science College, Nasik	Payment of salary to staff	5,750
Pratap College, Amalner	-do-	5,374
SSB College of Education Shrirampur Distt. Ahmednagar.	FA to affiliated colleges	4,000
College of Education Dhulia.	-fo-	2,500
NVPM Arts college Nasik.	-do-	2,500
Wadia College, Poona.	-do-	2,500
PES Modern College, Pune.	-do-	6,000

20,79,91

70. Rajendra Agricultural University,
Pusa.

Research Fellowships in Science.	2,400
-do-	2,400
	<hr/>
	4,800
	<hr/>

71. University of Rajasthan.

Award of Studentship to students	7,891
Vth Plan Development Scheme	50,000
Release of grant towards the construction of Teaching Accommodation Class room	80,000
Writing of university level books	3,600
Continuing Schemes of the 3rd year Plan Staff for Research wing	730
Development of Higher Education and Research -Vth Plan Development Schemes.	5,00,000
University Grants Commission Assistance for the research project entitled Studies on Electrogenerated Reagents in organic synthesis submitted by Dr. R.A. Misra, Rajasthan University.	12,000
University Grants Commission Assistance for the Research project entitled Ternary complexes of metallic Elements with Polydentate Ligands in presence of phosphate and Polyphosphates submitted by Dr. P.C. Vyas, University of Rajasthan Jaipur.	14,500
-do-	25,600
College Science Improvement Programme - University Leadership Project in Chemistry.	1,50,000

University of Rajasthan (Contd)

Higher Education and Research Development Schemes of the Universities for the Vth Plan period (1974-79) purchase of Scientific Equipment.	5,00,000
Writing of University level book	3,600
University Grants Commission Assistance for the research Project entitled The Chemical Investigation of some Indian Plants used in Ayurvedic medicine submitted by Dr. Lalit Prakash.	3,000
Financial Assistance to teachers in the universities and colleges for undertaking minor research projects in Payment of grants.	2,500
Award of Teacher Fellowship under the F.T.P. allocated to the Department of Rajasthan University, payment of grant.	25,500
-do-	6,500
-do-	15,000
-do-	3,000
COSIP - ULP in Physic- Fellowup activities-Adhoc grant in aid.	2,00,000
University Grants Commission Assistance for the research project entitled Electrolysis of Heterocyclic compounds An application of Electro organic synthesis by Dr. (Miss) K. Zutshi- Release of Grants.	25,000
Writing of University level book	400

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Affiliated Colleges (Rajasthan University)

Government College, for boys Sringarnagar. Rajasthan.	Purchase of books & Journals	25,000
Sophis Girls College, Ajmer. Rajasthan.	-do-	5,000
G.P. College of Education, Bagar Rajasthan.	Financial assistance to college for the development of play fields	10,600
M.L.V. Government College, Bhilwara, Bhilwara, Rajasthan.	National Associateship	1,531
Govt. College, Rajgarh.	Participation of student	10,000
S.G.N.Khalsa College, Sringarnagar. Rajasthan.	Construction of students hostel	4,000
M.S.G. College, Bharatpur.	Utilisation of services of outstanding retired teachers payment of grant in respect of Dr. Ramanand Tiwari.	9,000
Lal Bahadur Shastri College, Tilak Nagar.	-do-	29,80
Government College Rajasthan	Release of grants towards construction of workshop	9,00
-do-	-do-	25,00
Manoria Mahila Mahavidyalaya, Jaipur.	Payment of salary to staff	9,98
Banasthali Vidyapith Gyan- Vignan Mahavidyalaya, Rajasthan.	-do-	6,51.77

p.t.o.

Affiliated Colleges (Raj. University)

Seth G.B. Podar College, Nawalgarh Rajasthan	Students aid fund in colleges	3,500
Rajasthan Vidya- peeth Bijay Singh Pathik Shramjovi College, Ajmer.	--do--	4,360
Sari Parashnath Umed Mahavidyalaya, Faina. Rajasthan.	--do--	1,060
S.B.K.Government College, Jaisalmer.	--do--	336
Govt. College, Jalore.	--do--	553
Kanoria Mahila Mahavidyalaya, Jaipur. Rajasthan.	--do--	2,223
G.P. College, of Education Bajar .	--do--	1,500
Govt. College Sirohi Rajasthan.	--do--	2,000
		17,89,88

72. University of Ranchi

Award of Teacher fellowship
to Km. A.Yadav Lecturer
in Physics, Patna Science
College, Patna 3,504

Ranchi University (Contd)

	Award of Teacher Fellowship	3,200
	-do-	3,604
	-do-	3,141
	-do-	3,419

Affiliated Colleges

Mahila College, Chaibasa. Bihar.	Construction of Non-Resident Student Centre- Release	15,000
St. Xavier's C College, Ranchi.	Participation of student Youth in Soil Health Care Workers	10,000

41,968

73. Ravi Shankar University

Affiliated Colleges.

GMD Post Graduate College, Bilaspur.	Payment of salary to staff	5,000
Govt. Girls Degree College Raipur.	Grants to affiliated colleges	5,147
Govt. Arts & Sc. College, Durg.	Students Aid Fund	4,696
-do-	-do-	1,280
-do-	-do-	5,500
-do-	-do-	2,264
-do-	Grants to affiliated colleges	2,963

26,850

74. University of Roorkee

	UGC assistance for the Research Writing of Univ. Level books	17,000 3,600
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20,600

75. Rohilkhand University:
Affiliated colleges

Hindu College, Moradabad (U.P)	Financial assistance to colleges for development of postgraduate studies in Humanities and Social Sciences & Sciences during the Fifth Plan Period- Purchase of equipment	40,000/-
Hindu College, Moradabad(U.P.)	Purchase of books and journals.	45,000
Gokul Dass Hindu Girls College, Moradabad (U.P)	Purchase of library books and laboratory equipment .	30,000.
Bareilly College, Bareilly (U.P)	--do--	40,000/-
Mahatma Gandhi Memorial Degree College, Sambhal (Moradabad-U.P)	--do--	5,000/-
Nawal Kishore Bhartiya Municipal Girls Degree College, Chandausi(U.P)	--do--	10,000/-
Subhayawati Bai Dani Mahila Mahavidyalaya, Dhampur, Bijnor (U.P)	--do--	10,000/-
Swami Shuklevanand Degree College, Shahjahanpur (U.P)	--do--	20,000/-
Hindu College, Moradabad(U.P)	--do--	40,000/-
Dayanand Arya Kanya Degree College, Moradabad (U.P)	--do--	10,000/-
K.G.K. College, Moradabad (U.P)	--do--	40,000/-
S.M. College, Chandausi (U.P)	--do--	30,000/-
S.V. College, Bijnor (U.P)	--do--	30,000/-

Contd...2/-

S.J. College, Najibabad (U.P)	Basic grant to colleges for purchase of essential library books and laboratory equipment for improvement of instructional facilities.	20,000/-
N.M.S. College, Badaun (U.P)	-do-	15,000/-
Govt. Baza College, Rampur (U.P)	-do-	40,000/-
K.G.K. Postgraduate college, Koradakh(U.P)	-do-	1,500/-
Bareilly College, Bareilly (U.P)	Payment of salary to awarded a Teacher Fellow.	2,808-50
V. College Bijnor (U.P)	-do-	5,568-30
S.V. College, Bijnor (U.P)	Development of undergraduate educational facilities during Vth plan period - Purchase of books & journals.	25,000/-
S.V. College, Bijnor (U.P)	Purchase of equipment	20,000/-
S.V. College, Bijnor (U.P)	Student Aid Fund in the College, Grant of 1977-78.	7,500/-
S.J. College, Najibabad (U.P)	Establishment of Book Bank Release of grant.	2,813/-
S.J. College, Najibabad (U.P)	Grant of Book Bank	4,218/-
76. <u>Sanbalpur University:</u>		<u>4,94,407.85</u>
Sambalpur University, Burla(Sambalpur) Orissa.	University Grants Commission for the research project entitled Growth production and energetics in commercially important Indian Frog" by Dr.M.S.Dash. Release of grant-	14,800/-
	Wringing of University level books/monographs.	15,296/-
	Research project in connection with sixth Parliamentary election.	9,000/-

Sanbalpur University Contd:

Grant-in-aid towards the field trips for the department of Sociology & social Anthropology. 5,000/-

Collection of Manuscripts in the department of History 5,000/-

UGC Assistance for the research project entitled "Electronic and Magnetic Properties of Solid Surfaces" 16,800/-

Affiliated Colleges

R.E. College, Rourkela(Orissa)	Award of Teacher Fellowship	1,500/-
G.M. College, Sambalpur.	-do-	2,561/-
Rajgangpur College, Rajgangpur(Orissa)	Setting up of Book Bank in colleges -5th Plan.	1,500/-
J.W. College, Pantnagar (Orissa)	Purchase of books and journals	15,000/-
Govt College, Sundergarh(P.G.) Orissa)	Students Aid Fund in the colleges.	1,858/-
Sonapur College, Sonapur(Balangir) Orissa.	-do-	566/-
Sonepur College, Sonepur (Balangir) Orissa.	Book Bank	1,500/-
Sonepur College, Sonepur (Balangir) Orissa.	Book Bank	3,000/-
B.B. College, Rairakhol, Distt(Sambalpur)	Payment of salary	4,000/-
		<hr/> 97,331.83

77. Sardar Patel University:

UGC Assistance for the research project entitled "Synthesis of organomenrucrials and their Antifungal Activities" 13,600/-

Contd...

Sardar Patel University (Contd)

Payment of Teacher Fellowships	2,400/-
Payment of Humanities	4,000/-
Award of Teacher Fellowship	6,500/-
Salary of staff for the deptt. of Education during the Fifth plan.	10,000/-
Research project on Intigration of district Dairy Co-operation in Gujarat.	1,020/-
Purchase of equipmnt	11,770/-
Synthesis of isocoumarine and study of their physiological activity.	7,800/-
X-ray Topographic studies of single crystals.	76,300/-
Purchase of library books and laboratory.	2,00,000/-
National Conference on Crystallination.	5,000/-
Salary of Staff.	15,000/-

Affiliated Colleges

A.C. College, Anand (Gujarat)	Students Aid Fund in the Colleges.	2,000/-
N.S.P. A. College, P.B. No.39 Anani(Gujarat)	-do-	393/-
P.B.P A. College, P. Box.No.39 Anani(Gujarat)	-do-	1,250/-
		<u>3,57,033</u>

78. Sampurnanand Sanskrit University:

Scholarships for post graduate studies in Sanskrit	3,000/-
	<u>3,000</u>

Contd...

79. Saugar University:

	81,800
University Grants Commission Assistance for the research project entitled "The fungi of M.P."	
Award of P.H. Scholarship in Engg.	40,000
Writing of university level books/monographs.	1,200
Organisation of Seminar on Darshan our Samaj.	5,000
Short-term Course in Geomorphology & phology.	15,000
Writing of university level books/monographs.	2,000
Award of Teacher Fellowships.	16,500
Award of Postgraduate Scholarship in Engg.	46,500
Purchase of Gestetner Electronics	15,000
University Grants Commission Assistance for the research project entitled.	7,800
Award of Research Fellowship	96,324
Programmes of Special assistance to selected departments	12,000

Affiliated Colleges.

Govt. Arts & Science College, Durg (MP) Award of Teacher Fellowships	6,071
Govt. Science College, Durg (M.P) - do-	6,071
Govt. Science College, Durg (MP) - do-	5,837
Govt College, Kampura (Distt Manshour(MP) - do-	4,424

Colleges Contd.

University College Book Bank. of Education, Sagar(MP)		4,500/-
Govt. Degree College, Narainpur(MP)	Development of under graduate facilities.	20,000/-
G.P.G. College, Balaghat(MP)	Purchase of Library books.	1,00,000/-
M.G.M. College, Itarsi(M.P)	Students Aid fund in the colleges.	2,248/-
G.P.G. College, Balaghat (MS)	Student Aid Fund in the Colleges.	2,300/-
S.H.S.G. Mahavidyalaya, Sagar(M.P)	Grants of affiliated colleges.	1,500/-
		4,91,076/-

80. Saurashtra University:

University Grants Commission Assistance for the research project entitled "Ecological studies of Arid regions of Kutch and Saurashtra (Gujarat State)	24,800/-
Support of Advanced Research in Humanities and social sciences.	18,000/-
University Grants Commission: Assistance for the research entitled "Physiological and biochemical changes associated with Cotton hair development" submitted by Dr. T.D. Singh Department of Bio-Sciences, Saurashtra University, Rajkit.	21,600/-
Basic grants to affiliated colleges for purchase of essential library books and laboratory equipment for improvement of instructional facilities.	6,00,000/-

Contd.....

Saurashtra University(Contd)

Allocation of Unassigned grant and grant for UGC Unit- release of grant 1976-77. 14,2998-45

Unassigned grant for the year 1977-78. 24,0000/-

Scheme of Assistance for the Publication of Learned/Research Work including Doctoral Theses during fifth plan period - Grants for the years 1975-76 and 1976-77. 5,0000/-

Affiliated Colleges

Kamal Science College, and P. Arts College, Aneli(Gujarat) Students Aif Fund in the colleges grant for 1977-78. 1,7440/-

G.M.College, Portgular (Gujarat) -do- 2,0000/-

S.S.P. Jain Arts and Commerce College, Dhurngadha (Gujarat) -do- 2,0000/-

Arts and Commerce College, Ranjodhpur. Grant to College Libraries for lona of Books to students Book Bank. 6,0000/-

M.P. Shah M. College, of Commerce and Law Jannagar (Gujarat) Expansion of Book Bank 8007-25

M.V.M. College, Arts & Science Rajkot 'Rajkot) Scholarship for post graduate studies in Sanskrit 1977-78. Kn. Pratime Tholakia. 3,0000/-

81. S.N.D.T.University: 7,23,245.2

Basic grants to affiliated colleges for purchase of essential library books and laboratory equipment for improvement of instructional facilities. 2,40,0000/-

Contd....

S.N.D.T. University Contd:

Grant-in-aid for the Establishment
of a Study Centre at Sir Vithaldas
Nagar - Santa Cruz Bombay. 23,810-52

Grant for the purchase of books
and journals during the 5th
Five Year Plan Period. 30,000/-

Grant-in-aid for the Establishment
of a study centre at Smt. P.N.
Doshi Women's Women's college, 19,850-07
Ghatkopar, Bombay

Purchase of books and journals . .
during the 5th five year plan 77,000/-
period-Central Library.

-do- 38,000/-

Appointment of additional
staff in the department of
Education, Bombay. Sanction 30,000/-
of grant for.

Affiliated Colleges

Smt.N.C.G.&BV.G.M.
Arts & Commerce Student Aid Fund in the colleges
College, 883 Diamong grant for 77-78. 3,500/-
Chowk Bhavnagar.

4,62,160.50

82. Shivaji University:

Placement of Russian language
Teacher. 14-055/-

University Grants Commission
Assistance for the research
project entitled "Studies on the 2,400/-
Diagnostic Role of Esterase in
Experimental Nephrotic Syndrome Edema"

Contd....

Shivaji University (Contd)

Purchase of Scientific Equipment during the 5th Five Year Plan Period.	5,00,000/-
Award of Fellowships sanctioned for the Fifth Plan Period under development schemes.	31,200/-
Construction of workshop -- Vth Plan scheme.	50,000/-
Award of Teacher Fellowships under the FIP allocated to the Deptt. of Zoology.	7,000/-
Grant-in-aid towards the construction of Women's Hostel for 50 students.	5,000/-
Establishment of Study Centres at Kolhapur and Solapur.	37,589/8

Affiliated Colleges:

Chintaman Rao College of Commerce, Sangli (M.S.)	Book Bank	7,500/-
Pandharpur College, Pandharpur (M.S.)	Purchase of books and journals under Rs.5 lakhs scheme.	50,000/-
Raja Ram College, Kolhapur.	Payment of Fellowship.	2,400/-
Raja Ranrao Mahavidyalaya, Jat. Distt. Sangli, Maharashtra.	Book-bank	1,500/-
College of Arts & Commerce (Maharashtra State)	Book bank	3,230/-

Contd....

Affiliated Colleges(Contd)

Lal Bahadur Shastri College, Sairsa(MS)	Students Aid Fund in the Colleges.	3,600/-
D.B.P. Dayanani College, of Arts & Science, Solapur(MS)	-do-	3,420/-
College of Engineering . Karad (M.S.)	-do-	2,945/-
Arts and Commerce College, Astha (M.S.)	-do-	2,000/-
D.A.V. Velankar College, Solapur (Maharashtra State)	-do-	3,280/-
Rajaram College, Kolhapur	-do-	1,178/-
S.M.T. College, of Education, Kolhapur (M.S)	-do-	244/-
S.G.M. College, Karad (M.S)	-do-	5,500/-
Science College, Karad, Distt. Satars(MS)	-do-	2,400/-
		<hr/> 7,37,412.87
83. <u>South Gujarat University:</u>		

Basic grants to affiliated colleges for purchase of essential library books and laboratory equipment for improvement of instructional facilities. 4,00,000/-

Contd....

South Gujarat University (Contd)

Release of grant of purchase of equipment for workshop during the Fifth Five Year Plan Period. 75,000/-

Grant for purchase of Library Books and journals during the Fifth Five Year Plan Period 1,90,000/-

Affiliated Colleges:

M.R. Arts & Science College, Rajpura (Broach) Gujarat	Students Aid Fund in the colleges grant for 1977-78.	3,500/-
Sir, K.P. College, of Commerce Surat (Gujarat)	--do--	2,902/-
M.T.D. Arts College, Surat.	--do--	2,864/-
Shri J.S. Bhakta & Shri K.M. Bhakta Arts College, & Shri A.N. Shah Science College, Kholad(Gujarat)	--do--	498/-
JM Shah Arts & Commerce College, Jambular (Broach) Gujarat	--do--	2,000/-
Govt. Arts & Science College, Dasn, Via Vapi,	--do--	1,224/-
Arts & Commerce College, Chikhli (Valsad)Gujarat	--do--	2,880/-
Arts and Commerce College, Chikhli(Valsad) Gujarat.	Grant to affiliated colleges for the construction i) additional teaching accommodation & ii) Extension of Library Building.	1,00,000/-

7,80,868

Contd...

84. Sri Venkateswara University:

Writing of university level books/monographs. 3,470-97

Annual Conference of the Indian Psychological Association. 5,000/-

Faculty Improvement Programme 1,00,000/-

Study Centres at Tirupati and Anantapur- Payment of Recurring grant during Fifth Plan Period. 77.313.22

Steering committee meeting on the Islamic Colloquium. 8,440/-

Award of Teacher Fellowship to Shri K.Venkata Siva Sarma, Lecturer in Physics, Govt. College, Raja Mahuri. 3,354-84

Award of teacher fellowships 4,333-33

Award of Teacher Fellowships to V. Chandraya, Lecturer in Commerce at Jawahar Bharati, Kaveli. 116/-

Junior Research Fellowships in Science- Payment of Fellowship. 2,400/-

Support of Advanced Research in the Humanities and Social Sciences, 1,500/-

Grants-in-aid for the purchase of books and journals for Bio-chemistry Departments during 5th Plan Period- regarding 20,000/-

UGC Assistance for the research project entitled "Social state and laser spectroscopy Submitted by Prof. S.V.J. Lakshman, S.V. University. 1,07,000/-

Contd.....

S.V.University(Contd):

University Grants Commission
Assistance for the research project entitled "Solid State and Laser Spectroscopy" submitted by Prof. S.V.J.Lakshman, S.V.University. 1,07,000/-

UGC Assistance for the research project entitled "growth of Single crystal semiconductor films (by 48,100/- recrystallization) for thin film devices"

Assistance towards Seven Fellowships approved by the Commission-contingencies. 10,500/-

Postgraduate Centre Anantapur- Unassigned grant for 1977-78. 15,000/-

Construction of Animal House during 5th Plan Period-regarding. 1,00,000/-

Affiliated Colleges

Jawahar Bharati, Kavali (A.P)	Purchase of books and journals for the department of Economics and Commerce.	10,000/-
B.T. College, Hyderabad(A.P)	Purchase of accessories for games and sports in colleges during Vth Plan Period.	4,000/-
Jawahar Bharati, Kavali-524202(AP)	Payment of Salary to Shri O. Lakshminarayana.	1,681-94
Govt. Comprehensive College of Education Nellore (A.P)	Book-Bank-Release of 2nd and final instalment.	459-71
V.R. College, Nellore(A.P)	Setting up Book bank-Sanction of Grant-Regarding.	3,250/-
S.V. Arts College, Tirupati.	Grants towards the loan of books to students - setting up of Book Bank.	4,000/-
		6,36,920.01

35. Udaipur University

Release of Unassigned grant	32,168
UGC Assistance for the research project entitled 'Studies on Transition Metal Complexes of Hydroxytriazenes, submitted by Dr. D.N. Purohit.	7,800
UGC Assistance for the research project entitled 'Study of Ionospheric irregularities and its static and dynamic characteristics submitted by Dr. R.K. Rai and Shri S.K. Vijayvergia, School of Basic Sciences and Humanities	65,600
Scholarship for post-graduate studies in Sanskrit-1977-78- Shri Shreeniwasan Ayyar.	3,000
Introduction of Correspondence Courses at the under-graduate level.	50,000

Affiliated Colleges

Kodavaris Mahavidyalaya
Janpur, Distt. Puri

Payment of salary to Sh. B.P. Mohanty, Lecturer in Chemistry appointed as a substitute in place of Shri B.P. Mishra.	4,975
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1,63,543

University of Agricultural Sciences

UGC Assistance for the research project entitled 'Survey of Medicinal plants of Karnataka' by Dr. G. Boraiah, College of Basic Sciences & Humanities.	14,600
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14,600

87. Utkal University.

	Allocation of grant for UGC Unit (Unassigned grant) for 1976-77.	6,000
	Grant-in-aid towards the appointment staff for the computer centre	1,00,000
	Award of Teacher Fellowship under F.I.P. allocated to the Department of Chemistry.	3,700
	Award of Teacher Fellowship to Sh. Bhudheswar Pati, Lecturer in History, D.K. College, Jaleswar.	
	Award of Teacher Fellowship under the F.I.P. allocated to the Department of Philosophy.	7,000
<u>Affiliated Colleges</u>		
Narasingh Choudhury College, Jaipur	Purchase of Library Books	2,900
Banki College Distt. Cuttack	Financial assistance for purchase of Books & Journals.	8,000
-do-	Purchase of Laboratory Equipment	25,000
Fakir Mohan College Balasore	Financial Assistance for purchase of books and journals.	30,000
-do-	Financial Assistance for purchase of laboratory equipment.	10,000
S.V.M. College Jagatsinghpur	-do-	65,000
-do-	Financial assistance for the construction of Science Laboratory during V Five Year Plan.	30,000

Utkal University (Contd.)

Affiliated Colleges

S.V.M. College Jagatsinghpur	Assistance for the construction of Staff quarters.	10,000
-do-	Assistance for purchase of books and journals	30,000
Rave nshaw College Cuttack	Utilisation of services of out- standing retired teachers.	9,000
-do-	Award of Teacher Fellowship to Shri Ch. Nalinikanta Sarane, Lecturer in Chemistry at S.V.M. College, Jagatsinghpur.	3,258
Vidya Bhavan Govind Ram Seksaria Teachers College Udaipur.	Writing of university level books/monographs.	2,916
Ueendra Nath College Sore, Balasore	Setting of Book Bank in colleges.	2,000
Rairangpur College Rairangpur	-do-	4,000
Udala College Udala	Setting up of Book Bank in colleges during Vth plan	1,000
K.B.D.A.V. College Mirakarpur	Students Aid Fund in the colleged	1,000
Gopabandhu Science College, Athgarh	-do-	1,500
Fakir Mohan College Balasore	-do-	4,298
S.C.S. College Puri	-do-	3,814
College of Accountancy Management Studies Cuttack	-do-	288

Utkal University (Contd.)

Affiliated Colleges (Contd.)

Godavari Mahavidyalaya Banpur	Payment of salary to Smt. Sulochna Devi, Lecturer in Chemistry	4,318
		3,633,994

88. Vikram University

UGC assistance for research project entitled Studies on fish growth and metabolism by Prof. H. Swarup		31,000
National Associateship scheme Dr. V.W. Bhaqwat		1,873
Assistance for publication of thesis including research work.		20,000
Grant for purchase of books and journals.		2,30,000
Award of Fellowship under the F.I.P. allocated to the Deptt. of Chemistry.		40,000
-do- Department of Botany.		13,750
UGC Assistance for research project entitled 'Chemical Investigation of the Essential Oils of the Malwa Region Plant' of Prof. M.M. Eokadia, School of studies in Chemistry, Virakm University.		7,800
Basic grants to affiliated colleges for purchase of essential library books and laboratory equipment.		6,00,000

Affiliated Colleges

Govt. College Mandsaur	Grants to affiliated colleges for the development of undergraduate facilities.	1,00,000
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Vikram University (Contd.)Affiliated Colleges

Madhav Mahavidyalaya Ujjain.	Payment of salary to Dr. K.K. Haldar Substitute of Shri R.N. Tiwari Lecturer in Geology,	7,912
Govt. Girls College Ujjain.	Development of Postgraduate studies in Humanities.	30,000
Madhav College Ujjain	Grants to affiliated colleges for the construction of Mens Hostel	17,758
Nehru Govt. College Agar-Malwa	Grants to colleges Libraries for loan of books to students	7,500
Govt. J.N. Degree College Barwaha	Students Aid Fund	1,432
		11,09,025

89. Visva-Bharati University

UGC assistance for research projects entitled Currents and Symmetries in Gauge Theories and their influence on the Hadronic Matters.	16,800
National Associateship scheme	1,000
Award of Teacher Fellowship to Shri Raghunath Panigrahi, Lecturer in Physics.	3,191
JRFs in Humanities	2,400
Construction of Record Room at the Administrative Block	7,728
Assistance for translating the Tamil works of the Alvaras in Hindi done by Sri A. Srinivas Raghvana, Sr. Fellow.	30,000
Dr. Zakir Hussain Memorial Lectures	3,549

 64,688

INSTITUTIONS DEEMED TO BE UNIVERSITY

1	<u>Birla Institute of Technology & Science, Pilani.</u>	Writing of university level book titled Electromagnetic Theory under the supervision of Dr. J.S. Verma.	36
		Payment of Jr. Fellowship to M.Sc. (Tech.) students in Instrumentation and Computer Science Batch 1975-77 and 1976-78	6,632
		Establishment of students aid fund	8,432
			<hr/> 15,100 <hr/>
2	<u>Gujarat Vidyapith, Ahmedabad</u>	Unassigned grant for the year 1976-77	2,236
			<hr/> 2,236 <hr/>
3.	<u>Indian School of Mines, Dhanbad</u>	Construction of 200 seated hostel	5,00,000
		Construction of Open Well a Pump House Store room and an overhead Tank	2,00,000
		Construction of 24 units of type -II quarters	5,00,000
		Construction of 20 units of Type-I quarters	5,00,000
		Unassigned grant for the year 1976-77	5,000
			<hr/> 17,05,000 <hr/>

4. Indian Institute of Science,
Bangalore

Award of Teacher Fellowship under F.I.P. allocated to the Department of Physics.	4,165
Research Fellowship in Engineering & Technology	896
Research Associateship in Science/ Humanities including Social Sciences/ Engineering & Tech.	12,600
Research Associateship in Science/ Humanities	2,100
Writing of university level books/ monographs.	3,600
	<hr/> 23,361 <hr/>

5. Jamia Millia Islamia
New Delhi

Purchase of Library Books & Journals	1,00,000
	<hr/> 1,00,000 <hr/>

6. Tata Instt. of Social Sciences
Bombay

Purchase of Library Books & Journals	1,00,000
Writing of university level books/monographs	12,790
Purchase of equipment for Data Processing Unit	85,000
Construction on extension of Library Building	50,000
Unassigned grant and grant for UGC Unit	21,000
	<hr/> 2,68,790 <hr/>

Other Institutions

- 124 -

7. Indian Instt. of Technology
BombayOrganisation of Seminar/Symposia
during 1977-78 8,000Organisation of Special Advanced
Level Winter School in Macrotucak
Chemistry during Dec. 1977 45,000

53,000

8. Indian Instt. of Technology
New Delhi

International Symposium 20,000

Award of Teacher Fellowship under the
F.I.P. allocated to the Department
of Physics 5,500-do- Department of
Chemistry 6,500

32,000

9. Indian Instt. of Technology
KanpurWriting of university level
books/monographs 3,700Award of Teacher Fellowship under
F.I.P. allocated to the Department
of Mathematics. 3,679

7,379

10. Indian Instt. of Technology
KharagpurWriting of University Level Books/
monographs 1,800

-do- 10,712

12,512

11. <u>Indian Instt. of Technology Madras</u>	Writing of University Level Books/ Monographs	3,000
		<hr/> 3,000 <hr/>
12. <u>Central Rice Research Instt. Cuttack</u>	Award of Teacher Fellowship to Shri . B.C. Nanigua-ki, Lecturer in Botany at Rajendra College, Dalangir.	123
		<hr/> 123 <hr/>
13. <u>Indian Instt. of Managoment Calcutta</u>	Writing of University Level Books/ Monographs	3,600
		<hr/> 3,600 <hr/>
14. <u>Indian Instt. of Public Administration: New Delhi</u>	Award of Teacher Fellowship to Shri S.N. Gupta, Lecturer in Statistics, Meerut College, Meerut.	23
		<hr/> 23 <hr/>
Total Plan		<hr/> 4,11,93,898.98 <hr/>

NON - PLANDelhi UniversityAffiliated Colleges:

H.College, Delhi.	Maintenance Grant for 1977-78	3rd	3,01,000
M.College, N.Delhi.	-do-		2,28,000
SPM.College, New Delhi.	-do-	"	4,49,000
Miranda House, Delhi.	-do-	"	4,07,000
M.S.College, New Delhi.	-do-	"	8,00,000
SL College, Delhi.	-do-	"	2,00,000
J.M. College, New Delhi.	-do-	4th	1,12,000
St. S.College, Delhi.	-do-	3rd	1,50,000
M.L.N. College, New Delhi.	-do-	"	1,41,000
S.College, New Delhi.	-do-	"	7,53,000
H.College, Delhi.	-do-	"	4,44,000
B.M. College, New Delhi.	-do-	"	1,74,000
R.T.R.College, New Delhi.	-do-	"	31,000
I.College, Delhi.	-do-	"	4,05,000
K.N. College, New Delhi.	-do-	"	3,00,000
Z.H. College, Delhi.	-do-	"	1,95,000

Delhi University Affiliated Contd.

		Maintenance grant for 1977-78-payment of	3rd.	
Lady Shri Ram College, New Delhi.			3,60,000	
Daulat Ram College, Delhi	-do-	"	4,71,000	
Gyan Devi Salwan College, New Delhi.	-do-	"	1,74,000	
Deshbandhu College, New Delhi.	-do-	"	97,658	
Sri V.College, New Delhi.	-do-	"	35,825	
Desh Bandhu College, New Delhi.	-do-		8,17,000	
K.M. College, Delhi.	-so-	4th	5,37,000	
S.V.College, New Delhi.	-do-	"	3,17,000	
S.R.College Delhi.	-do-	"	3,31,000	
JD Mahavidyalaya, New Delhi.	-do-	"	4,00,000	
Ramjas College, Delhi;	-do-	"	5,50,000	
MLN College, New Delhi.	-do-	"	5,00,000	
DAV College, New Delhi	-do-	"	1,81,000	
PGDAV College, New Delhi.	-do-	"	2,26,000	

Delhi University (Affiliated Colleges) Contd.

Moti Lal Nehru College, Moti Bagh New Delhi.	Maintenance grant for 3rd 1977-78.	1,41,000
Hans Raj College, Delhi.	-do-	" 4,100

1,02,32,583

Central Institute of English
and Foreign Languages, Hyderabad.

Grant in aid for Non Plan for
1977-78 CIEFL Hyderabad. 10,00,000

10,00,000

Tata Institute of Social
Science, Bombay.

Maintenance grant for
1977-78- Payment of
grant 3,00,000

3,00,000

Total Non Plan 1,15,32,583.00

Total Plan 4,11,93,898.98

Grand Total 5,27,26,481.98

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:
Dated: 19th December, 77.

Item No. 4: To receive a statement showing expenditure incurred by the University Grants Commission during the year 1977-78 (upto 30-11-1977)

<u>Section I - Non/Plan Project</u>	Budget Estimates 1977-78 <hr/> (Rs. in lacs)	Provisional Expenditure upto 30-11-1977 <hr/> (Rs. in lacs)
A. Administration Charges	59.11	44.25
B. <u>Block Grants</u>		
i) Grants to Central Univ.	2020.00	1519.01
ii) Grants to Instt. deemed to be universities.	359.76	281.75
iii) Grants to State Universities for specific purposes	9.00	3.00
C. Maintenance Grants to Delhi Colleges.	850.00	642.48 *24.65
D. Grants not covered under Block Grant Health Service Scheme	10.63	-
Total Section-I	<hr/> 3318.50	<hr/> 2490.49 *24.65
<u>Section II-Plan Projects</u>		
A. Grants to Central & State Universities for Humanities	453.00	193.40
B. Grants to Central & State Universities for Science	948.00	352.06 *0.05
C. Grants to Central & state Univ. for Engineering & Tech. @	647.00	84.40
D. Grants to constituent/affiliated Colleges	685.00	318.62 *0.14
E. Grants to Central & State Univ. for Misc. Schemes,	1732.00	420.92 *0.83
F. Misc. Expenditure	64.00	18.36
Unesco Coupons	-	-
Total Section-II	<hr/> 4529.00	<hr/> 1387.76 * 1.02
Total section I&II	<hr/> 7847.50	<hr/> 3878.25 *1.02

(a) Rs. 547 lakhs for Engg. & Tech. for 1977-78 plus Rs. 100.00 lacs to be provided by the Deptt. of Coal

(b) Rs. 3882 lakhs for development Schemes under plan for 1977-78.

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

SCHEME UNDER OPERATION BY THE COMMISSION

A.	<u>Out of Grants received from Ministry of Education & Social Welfare</u>	
	i) Evaluation of Books	1,050
	ii) Fellow for Writing of Books	2,27,696 @15,852
	iii) National Award of Prizes	@14,213
	iv) National Service Scheme	1,50,000
	v) National Sports Organisation Programme (Continuing Scheme)	
	a) Construction of Gymnasium	1,46,621
	b) Play fields	12,174
B.	<u>Out of grant from N.C.E.R.T.</u>	
	i) National Survey on Higher Education	-
C.	<u>Out of grant from Gandhi Samarak Nidhi</u>	
	i) Construction of Gandhi Bhavan in Universities	-
D.	<u>Out of Interest received on Endowment Funds</u>	
	i) Hari Om Ashram Trust Endowment Fund	-
	a) Science	-
	b) Life Science	-
	ii) Dr. Zakir Hussain Memorial Lectures	7,400
	iii) Shri Aurbindo Memorial Lectures	700
	iv) Ram Charit Manas	10,000
	v) Dr. Ambedkar Memorial Lectures	<u>8,272</u>
	Total Section-III	6,23,978
	Total Section I, II & III	3884.49 (Rupees in lakh) *1.02

SECTION IV DEPOSITS & ADVANCES

i)	Conveyance Advance	24,848
ii)	Festival Advance	6,100
iii)	House Building Advance	1,45,200
iv)	Fan Advance	-
v)	Food Grain Advance	<u>2,300</u>
	Total Section IV	<u>1,78,449</u>

Expenditure during 1976-77 upto 31.11.1976 was as under:

(Rupees in lakh)

Section I Non-Plan Project	2,365.89
Section II Plan Projects	1,152.57
Total Section I & II	<u>3,518.46</u>

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 19th December, 1977.

Item No. 5 : To receive a Statement indicating the progress of issue of utilisation certificates during the period ending 30th November, 1977.

The Commission desired (Resolution No.5) dated the 12th May, 1975 that it should be kept informed of the progress of clearance of utilisation certificates after two months bringing the statement upto date i.e. upto 1973-74. The statement showing clearance of Plan and Non-Plan items for the period ending 30th November, 1977 is given in Annexure.*

P.T.O.

SIK

Annexure to Item No.5

OUTSTANDING UTILISATION CERTIFICATE

(2)

PLAN

Amount in lakhs of Rupees

Year to which pertains	Outstanding as on 1.10.1977		Outstanding as on 1.12.1977	
	No. of Items	Amount	No. of Items	Amount
1958-59	64	21.78	61	21.14
1959-60	93	23.98	90	23.46
1960-61	205	32.86	201	32.41
1961-62	334	83.26	320	82.02
1962-63	814	116.67	795	114.78
1963-64	1075	173.20	1054	172.38
1964-65	1686	186.54	1675	181.52
1965-66	2039	240.51	2026	237.86
1966-67	1892	252.93	1886	251.80
1967-68	2703	337.99	2689	336.41
1968-69	3236	369.03	3218	367.64
1969-70	5011	313.77	4986	307.87
1970-71	6112	928.65	6085	921.36
1971-72	7058	1101.09	7021	1087.99
1972-73	5406	1287.70	5353	1271.54
1973-74	4621	1067.98	4582	1056.49
Total	42349	6537.94	42042	6466.97

Item Cleared: 307

Amount Cleared: Rs. 70.97 lakhs.

NON - PLAN

Amount in Lacs of Rs.

Year to which pertains	Outstanding as on 1.10.1977		Outstanding as on 1.12.1977	
	No. of Items	Amount	No. of Items	Amount
1969-70	1	.80	1	.80
1970-71	-	-	-	-
1971-72	3	5.50	3	5.50
1972-73	6	8.23	6	8.23
1973-74	30	289.09	30	289.09
Total	40	303.62	40	303.62

Items Cleared: Nil
Amount cleared : Nil

Revised

CONFIDENTIAL

5

UNIVERSITY GRANTS COMMISSION

Meeting :

Dated : 19th December, 1977

Item No.7: To consider further draft policy statement on Adult Education.

The University Grants Commission Standing Committee on Adult and Continuing Education at its meeting held on August 30, 1977 considered the draft policy statement on Adult education and desired that the specific role of universities in adult literacy/education programmes may be discussed at a joint meeting of the Standing Committee and the Executive Committee of the Indian University . . . Association for Continuing Education.

The joint meeting held on November 3, 1977 discussed the policy statement and requested Dr. Mohan Sinha Mehta, the Chairman of the Standing Committee on Adult/Continuing Education to finalize the statement for consideration by the Commission.

The matter was placed before the Commission at its meeting held on 7th and 8th November, 1977 (Item No.12). The Commission desired that the matter may be brought up again in the next meeting.

The statement finalised by Dr. Mohan Sinha Mehta is attached (Annexure P.6-8). If this statement has the approval of the Commission, it will be circulated to the universities to enable them to draw up their plans accordingly.

The matter is placed before the Commission.

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UNIVERSITY ADULT AND CONTINUING EDUCATION

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Universities cannot confine their concern to the expansion of the frontiers of knowledge and to its dissemination to fulltime post secondary students. Their activities should also include (a) organisation of educational programmes, including literacy for illiterate adults, to enable them to play a self-reliant and active role in their own development and in the development of their environment; and (b) organisation of special programmes for different groups of people at various levels.

2. For all classes of people-high and low, rich and poor the well-to do and the deprived- education should become a life-long process. Besides it should also be understood that the urgent need is to prepare the vanguard for effecting social change from the centre outwards and from the top downwards. The idea is to reconstruct the vision of a new society and the universities are uniquely suited and well provided to work for this purpose. In this perspective the universities should re-examine their past experience and future responsibility in the field of adult education and should prepare a plan for action based on an assessment of their capability and the learning needs of adult men and women. Therefore, every university ought to recognise that adult education can no more remain the concern of a department or of a limited number of its teachers; it must extend to the entire faculty and, what is even more important, to the students.

3. An area with which universities are becoming increasingly familiar is extension of an continuing education. The present status of these programmes in Indian Universities with the exception of agricultural universities and some other institutions, is marginal in the system of higher education. However, extension and continuing education activities can provide a new dimension to the programmes of the universities, as well as new insights. The courses devised for formal full-time instruction can be opened up to make them easily accessible to adults:

- through correspondence methods,
- by making access conditions elastic

(6a)

- by organisation of part-time and own-time activities.
- by bringing the university and community closer to each other for problem solving situations and breaking social barriers.

Besides, efficiency of the work-force (including white collar sections of the middle class) can be upgraded by organisation of well-conceived and systematic programmes, including programmes which would equip the community for the future. Organised on a wide scale, and with proper emphasis, continuing education might facilitate a far-reaching change in the university system-making it more open in regard to access, methods, curricula, certification etc.

4. Programmes of extension and continuing education, however are variable in the higher education system and are seldom able to include, within the scope of university activity, the vast mass of people who are the most disadvantaged. In the changing emphasis in educational priorities, the importance in university adult education must also shift to organisation of adult education activity aimed at extending educational facilities within the next five years to about 10 crore illiterate persons in 15-35 age-group. There are two main areas to which universities might address themselves in this connection (a) various programmes of professional development and research and (b) involvement of teachers and students in organisation of adult education programmes for the illiterate youth.

5. Programmes of professional development might include regular degree and post-graduate courses in adult education. Such courses have to be inter-disciplinary and liberal as well as related to the adult education needs of the community. Their importance lies in the fact that they would prepare the future teachers for other universities when they set up their centres or departments of adult and continuing education. Besides, universities could organise a number of courses designed on the basis of the field requirements. These could include courses in training methodologies, preparation of curricular of teaching/learning materials, animation techniques, use of mass media and problems of communication, producing literature etc. Universities also

have a responsibility in organising innovation and experimentation for developing tools for use by others on a mass scale; considering that in all mass programmes of education there is, inevitably, considerable departure from the desired norms, evaluation assumes a special significance. Universities can provide the needed evaluation techniques as well as the machinery therefor. In addition to innovation and evaluation, other research areas can also be identified. University research in adult education could vary from action-oriented projects, such as methods to survey the needs of learners in various situations, to complex research problems such as motivation for adult learning.

6. In the context of the massive programme of adult education now contemplated, it would not be desirable for universities to restrict their role to professional development, evaluation and research. Every university should commit itself to directly organising adult education programmes, with an indispensable component of literacy, for illiterate youth. In doing so each university will have to decide the most appropriate means for involvement of its teachers and students.

7. Students are a most dynamic and vital element in the university. The efforts made in the past to involve students in adult education programmes have not been sustained or systematic and, therefore, had limited success. One important reason for that has been insufficient involvement of teachers. The full involvement of students in such activities is hardly feasible without the involvement of teachers. It would be highly desirable that all teachers should be drawn into these programmes by adopting flexible methods for the purpose. Teachers associations, the Association of Indian Universities, the UGC and the leadership within the university would have to exert their influence to persuade teachers to participate in the programme with vision and enthusiasm and to ensure that teachers function with students not as supervisors and directors but as co-workers.

8. Involvement of teachers and students can be either (i) by adopting study-service method with well-defined and qualified social service becoming a part of the credit programme or (ii) by making necessary modification in the National Service Scheme so that every

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student undertakes service for a certain minimum hours or (iii) by providing institutional incentives and linking of grants with institution's performance in this field could also be considered by the UGC.

9. Involvement of universities in this matter with the most significant concerns of community life holds the promise of basic structural and curricular reform in the whole system of higher education. Application of a large section of the Faculty and the student community to purposeful community service will, inevitably, affect the tone and discipline of the universities, the curriculum and methods and general relationship between the students and teachers on the one hand and the entire university community and the society on the other.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 19th December, 1977

Item No. 8 : To consider the recommendations of the
5th Plan Visiting Committee for the
development of Engineering and Technology
at Bombay University.

The University Grants Commission appointed a Visiting Committee to examine the Fifth Plan proposals of the Department of Chemical Technology and Sir J.J. College of Architecture, Bombay University. The committee consisted of the following:-

- 1 Prof. D.K. Guha
Department of Chemical Engineering
Indian Institute of Technology
Kharagpur.2
- 2 Shri J.M. Benjamin
Chief Architect,
C.P.W.D.
Government of India
New Delhi.
- 3 Professor M.K. Sarkar
Head
Department of Chemical Engineering
Indian Institute of Technology
Delhi
- 4 Dr. S.P. Gupta
Deputy Secretary
University Grants Commission.

The Committee visited the Bombay University on 5th-6th September, 1977 and held discussions with the Vice-Chancellor, Directors, Heads of the Departments, students etc. The Committee also went round the laboratory, library, workshop hostel and other facilities.

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Background Information:

Department of Chemical Technology:

The Department of Chemical Technology offers the following courses:

- B.Sc. (Tech..)
- B.Chem. (Engg.)
- B.Pharm.
- M.Sc. (Tech..)
- M.Chem. (Engg.)
- M. Pharm
- Ph.D. (Tech..)
- M.Sc. & Ph.D. (Sc.)
- M.E. (Mech)(Plastic Engg.)

At present there are in all about 650 students and about 250 research scholars including candidates for postgraduate degrees. The Department is well-equipped for chemical and technological research. In addition to the Director, who is also a University Professor, the teaching and research staff consists of 17 Professors, 29 Readers, 15 Lecturers, 6 others and 27 Associate Lecturers and Demonstrators. In addition, there is a total of 124 skilled and unskilled supporting staff for the various laboratories of the Department.

Sir J.J. College of Architecture:

Sir J.J. College of Architecture is situated in the Sir J.J. School of Arts Campus and is the oldest institution imparting architectural education not only in India but also in the whole of Asia. The College was affiliated to the University of Bombay in 1952 for the 5½ years full-time course leading to the degree of Bachelor of Architecture. Since May 1973 the College has come under the management of the University of Bombay. Adhoc grants have been made available from University Funds to meet the immediate needs of the College. The library of the College has about 6700 books. The present facilities include a workshop with basic tools and equipment.

The main observations and recommendations of the committee are given as under:-

I Department of Chemical Technology:

The committee was impressed with the amount and quality of work and activities and research programmes conducted in the various sections of the Department. The sections of the Department are also very active in R&D and consultancy activities. This Department as it appears today is like an institution having enormous activities in various sections equivalent to full-fledged Departments.

The Committee observed that a large number of old and obsolete equipment not conducive to present day needs for instructional purposes are housed in different laboratories. Though quite a few of them are still in working order and occasionally used for instructional purposes, the committee feels that gradual replacement of these by smaller (Laboratory-scale size) and more advanced ones should be undertaken with immediate effect.

In view of the very advanced level research work done by the Department, the committee feels that a number of costly and sophisticated instruments should be added to the Department as a centralised facility to facilitate the work of various advanced research groups that are already existing in the Department.

The proposal for starting a new 3-year B.Sc. (Tech.) course in 'Rubber Technology' and for 2 year post-graduate course in 'Plastics Engineering' may be deferred for the time being in view of inadequate preparations made by the Department in this direction.

II Sir J.J. College of Architecture:

This college though the oldest one in the country for imparting education in architecture has been languishing for some time for want of adequate support and funds. The college could not start a regular post-graduate degree course or research and development activities though the need has been felt for a long time. The committee went round the institution and was satisfied that scope exists to expand the activities. Therefore, the committee supports the proposal of the

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college to start a regular post-graduate degree course in 'Housing for Developing Countries' and of research for Housing and Environmental Sciences. The committee was informed that the courses for (i) part-time Diploma in Architecture and (ii) Diploma course in Town Planning are being progressively discontinued. The space thus made available should be suitably utilised to conduct the new post-graduate courses.

The committee observed that the College is situated in buildings which are leased by the State Govt. and no additional constructions could be permitted on the existing campus. Efforts should be made to house the College of Architecture in a suitable locality at the new campus in Kalina where proper hostel accommodation both for boys and girls should be made available.

Lack of hostel accommodation is great handicap to the improvement of the College. At present, the college has one hostel situated at Bandra which is about 16 km. from the college. The students therefore face under difficulties in reaching the college as well as in using the college facilities e.g. studies, library etc. beyond the working hours.

Summary of the financial recommendations:

I Department of Chemical Technology:

	<u>Rs.</u>
A. Equipment	32,85,000
B. Audio-visual aids	1,00,000
C. Space	1,00,000
D. Books and Journals	4,00,000
E. Library Equipment	80,000

Recurring:

Professor 2

Reader 1

Others 3

etc.

2,35,000

42,00,000

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II Sir J.J. College of Architecture:

Books and Journals	3,50,000
Equipment	7,50,000

Recurring

Professor	1	
Readers	2	
Others		
etc.		1,49,000
		<hr/>
		12,49,000
		<hr/>

Grant Total (UGC share) Rs. 61.99 lakhs.

The Commission has made an allocation of Rs. 60 lakhs for the development of Engineering and Technology at Bombay University. A copy of the report of the committee is given as Annexure.*

p 14-23

The matter is placed before the Commission for consideration.

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Report of the Fifth Plan Visiting Committee
for the Department of Chemical Technology
and the Sir J.J. College of Architecture,
Bombay University.

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The University Grants commission appointed a Visiting Committee to examine the Fifth Plan proposals of the Department of Chemical Technology and Sir J.J. College of Architecture, Bombay University. The Committee consisted of the following:-

- 1 Prof. D.K. Guha
Department of Chemical Engineering
Indian Institute of Technology
Kharagpur-2.
- 2 Shri J.M. Benjamin
Chief Architect,
C.P.W.D.
Government of India
New Delhi.
- 3 Prof. M.K. Sarkar
Head
Department of Chemical Engineering
Indian Institute of Technology
Delhi.
- 4 Dr. S.P. Gupta
Deputy Secretary
University Grants Commission.

The Committee visited the Bombay University on 5-6th September, 1977 and held discussions with the Vice-Chancellor, Directors, Heads of the Department, students etc. The Committee also went round the laboratory, library, workshop, hostel and other facilities.

Background Information:

Department of Chemical Technology:

The Department of Chemical Technology offers the following courses:

- B.Sc.(Tech.)
- B.Chem.(Eng.)

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B.Pharm.
M.Sc. (Tech.)
M.Chem. (Engg.)
M.Pharm.
Ph.D. (Tech.)
M.Sc. & Ph.D. (Sc.)
M.E. (Mech.) (Plastics Engg.)

The B.Sc. (Tech.) course is of three-year duration and is offered in 7 technologies viz. textile chemistry, food technology, technology of intermediates and dyes, technology of plastics, technology of paints, technology of oils, technology of pharmaceuticals and fine chemicals. The total number of seats in this course is 115, out of which 39 seats are reserved for candidates from States other than Maharashtra. B.Chem. (Engg.) course is of 4 years duration with an annual intake of 60. The B.Pharm course is of three-year duration with an intake of 15. The duration of the M.Sc. (Tech.) course is 4 terms. The M.Chem. (Engg.) course is given partly by paper and partly by thesis. The duration of the course is again 4 terms. The M.Sc. (Tech.) in metallurgical engineering and M. Pharm. course are purely by research and are of 4 terms or 2 calendar years. The ME (Mech.) plastics engineering is of 2 year duration. The number of students admitted to the course is only 2 at present. For the Ph.D. (Tech.) degree the number of candidates to be admitted is 19.

Qualified persons intending to proceed for the degree in the faculty of science by research work within the purview of the Department of Chemical Technology may also be admitted. No intake capacity is fixed for these degrees which depends on the availability of accommodation every year.

At present there are in all about 650 students and about 250 research scholars including candidates for postgraduate degrees. The Department is well-equipped for chemical and technological research. In addition to the Director, who is also a University Professor, the teaching and research staff consists of 17 Professors, 29 Readers, 15 Lecturers, 6 others and 27 Associate Lecturers and Demonstrators. In addition, there is a total of 124 skilled and unskilled supporting staff for the various laboratories of the Department.

The total number of students who have graduated since the foundation of the Department is nearly 3,535. In addition, about 275 scholars have obtained Ph.D. and about 635 the M.Sc. degrees by research in the faculties of technology and science from the Department. The staff and students of the Department have so far published about 1600 research papers. Numerous schemes of research have been sponsored by CSIR, ICMR, Bombay State Industries Research Committee, Department of Atomic Energy, PL 480, Indian Central Oil Seeds Committee and other Government organisations. The results of the investigations carried out in the Department have been of great value to the progress of industries in the country. The Department has done pioneering work in various fields of chemical technology and a dye-stuff factory has been started based on the work carried out in these laboratories. The Department has attracted numerous endowments from individuals, corporations, industrial firms and grants from State and Central Governments.

The Department of Chemical Technology was selected by the UGC as a Centre of Advanced Studies in Applied Chemistry with special reference to Polymers, Fibres and Dyes. The Centre started in October, 1964 and has produced some excellent work since then. The Centre was included in the UNESCO Assistance Programme since 1965 and from 1970-75 it received assistance under the UK Govt. Assistance Programme. The Centre has been ranked as excellent by the Reviewing Committee of the UGC and financial support amounting to Rs. 20 lakhs has been granted for the Fifth Plan period (Appendix-I). Recently the Ministry of Overseas Development UK has approved the proposal of the Centre for collaboration with British Universities under the Indo-British Universities Collaboration Programme.

The University hostels at the site of the Department have accommodation at present for about 200 students.

Sir J.J. College of Architecture:

Sir J.J. College of Architecture is situated in the Sir J.J. School of Arts Campus and is the oldest institution imparting architectural education not only in India but also in the whole of Asia. It was founded in 1896 to offer initially a

draftsmans course. The Government Diploma Examination in Architecture (GD Arch.) was held for the first time in 1923. The College was affiliated to the University of Bombay in 1952 for the 5½ years full-time course leading to the degree of Bachelor of Architecture. Since May, 1973 the College has come under the management of the University of Bombay. The syllabus leading to the B. (Arch.) degree was revised and re-organisation of staff has also taken place. Adhoc grants have been made available from University Funds to meet the immediate needs of the College. The library of the College has about 6700 books. The present facilities include a workshop with basic tools and equipment. However, there are no laboratory facilities having photographic, accoustical, climatology equipment and audio-visual aids.

The annual intake in the full-time B. (Arch.) degree course is 80, while in the part-time diploma course in Architecture, it is 40 and in the part-time postgraduate diploma course in Town Planning it is 20. However, the part-time diploma courses are being dis-continued progressively. The staff consists of

Principal & Professor	1
Professor of Architecture	5
Assistant Professor	7
Lecturer in Architecture	2
Lecturer in Sociology	1
Workshop Instructor	1
Workshop Assistant	2
Curator of Survey Instrument	1
Laboratory Assistant	1
<u>Part-time Staff:</u>	
Professor	2
Lecturer Technical	5
Studio Assistant	1
Studio Assistant	9

Fifth Plan Proposals:

The Commission has made an allocation of Rs. 60 lakhs for the Department of Technology and Sir J.J. College of Architecture. An amount of Rs. 10.50 lakhs for equipment and Rs. 3.92 lakhs for books and journals has been given as basic development grant within the Fifth Plan allocation. The University has sent Fifth Plan proposals involving an amount of Rs. 42 lakhs for the Department of Chemical Technology, Rs. 18 lakhs for the Sir J.J. College of Architecture. The proposals include consolidation and development of the departments and starting of new course i.e. B.Sc. (Tech.) course in Rubber Technology, Postgraduate course in Plastics Engineering and M.Arch. course in Housing in the developing countries.

Observations & Recommendations:

I DEPARTMENT OF CHEMICAL TECHNOLOGY:

The Committee was impressed with the amount and quality of work and activities and research programmes conducted in the various Sections of the Department. The Sections of the Department are also very active in R & D and consultancy activities. This Department as it appears today is like an institution having enormous activities in various sections equivalent to full-fledged Departments. It is learnt that an earlier committee had recommended conversion of the Department into a full-fledged Institute of Chemical Technology, but the implementation of the recommendation was perhaps bogged down by legal and extra academic difficulties. The committee recommends that further efforts should be made in this respect. In view of the very useful work carried out in the various sections of the Department, the committee recommends that necessary steps may be initiated both at the University level as well as other appropriate quarters to give a new status to the present Department of Technology and designate this Department as an Institute of Chemical Technology.

The Committee observed that a large number of old and obsolete equipment not conducive to present day needs for instructional purposes are housed in different laboratories. Though quite a

few of them are still in working order and occasionally used for instructional purposes, the committee feels that gradual replacement of these by smaller (laboratory-scale size) and more advanced ones should be undertaken with immediate effect.

It was felt by the committee that the laboratory practicals conducted in the technological discipline have become very expensive to run mainly because of high cost of contingent materials. Consequently, the quantum of practical instructions is on the decline which is of some concern.

In view of the very advanced level research work done by the Department, the committee feels that a number of costly and sophisticated instruments should be added to the Department as a centralised facility to facilitate the work of various advanced research groups that are likely existing in the Department.

The committee found that the M.Pharm. course . . . conducted in the Department is essentially by research and consequently the output has been as low as less than 5. This mode of training for Master's degree is outdated and the committee recommends that the M.Pharm. partly by papers and partly by research as is followed in M.Chem. Engineering and similar courses.

The Committee noted that the existing facilities for the storage of solvents required by all the sections of the Department is rather inadequate and the committee recommends that necessary steps for storing solvents with fire-proof and explosion-proof arrangements be made available to the Department.

It was brought to the notice of the committee that the funds made available for books and journals and back volumes has also been rather inadequate for the research students and staff of the Department and that from restricted funds it has become extremely difficult to procure books and journals and also maintain them which includes binding of back volumes.

The Committee also noted the absence of **Xerox** Copying Machine and reprographic facilities.

The proposal for starting a new 3-year B.Sc. (Tech.) Course in 'Rubber Technology' and for 2-year post-graduate course in 'Plastics Engineering' may be deferred for the time being in view of inadequate preparations made by the Department in this direction.

The committee had a discussion with the student representatives and learnt about the inadequacy of various types of student amenities. The students were of the view that there should be more facilities for residential accommodation, library books under book bank scheme sports and common-room facilities etc. The committee thinks it desirable to recommend a hostel for the University which may accommodate 100 students of the Department of Chemical Technology, Sir J.J. College of Architecture etc.

II SIR J.J. COLLEGE OF ARCHITECTURE:

This college though the oldest one in the country for imparting education in architecture has been languishing for some time for want of adequate support and funds. The college could not start a regular post-graduate degree course or research and development activities in housing though the need has been felt for a long time. The committee went round the institution and was satisfied that scope exists to expand the activities. Therefore, the committee supports the proposal of the college to start a regular post-graduate degree course in 'Housing for Developing Countries' and of research for Housing and Environmental Sciences. The committee was informed that the courses for (i) part-time Diploma in Architecture and (ii) Diploma course in Town Planning are being progressively discontinued. The space thus made available should be suitably utilised to conduct the new post-graduate courses.

The committee observed that the college is situated in buildings which are leased by the State Government and no additional constructions could be permitted on the existing campus (Appendix II). Efforts should be made to house the college of Architecture in a suitable locality at the new campus in Kalina where proper hostel accommodation both for boys and girls should be made available.

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Meanwhile, it is recommended that the space available under Physics and Chemistry Laboratories should be given over to the College of Architecture to take care of their immediate needs, particularly in connection with the space urgently needed for studios for senior under-graduate and post-graduate students.

The workshop is at present situated in a temporary building and much of the space is occupied by old and unnecessary equipment. This should be immediately disposed of so that this valuable space is made available for workshop purposes.

The committee also observed that there are no recreational facilities for students at the college. The canteen is at present serving the students of the several institutes on the campus and is extremely inadequate and also unhygienic. Efforts should be made for its improvement.

Lack of hostel accommodation is a great handicap to the improvement of the college. At present, the college has one hostel situated at Bandra which is about 16 km. from the college. The students therefore face undue difficulties in reaching the college as well as in using the college facilities e.g. studios, library, etc. beyond the working hours.

The committee recommends that the sharing of the teaching load between the permanent faculty and the visiting faculty should be rationalised.

The committee recommends that the college should take advantage of Quality Improvement Programme conducted at the various Universities and I.I.T's for the improvement of the Faculty.

The committee also noticed that the library facilities are inadequate; the number of books and journals is insufficient and there are no facilities for documentation and reprography. The committee has recommended grants for augmentation of these facilities in the college.

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Summary of the Financial recommendations:

I Department of Chemical Technology:

Non-Recurring:

	<u>Rs.</u>
A. Equipment	32,85,000
B Audio-Visual aid, films, etc.	1,00,000
c. Space for Solvent Room (fire-proof, explosion-proof)	1,00,000
D. <u>Library</u>	
a) Equipment for Documentation reprography.	80,000
b) Books and Journals	4,00,000

Recurring:

A. Staff:

a) Teaching	65,000
) Professor 2 (Process Engg. and Fermentation Tech.)	
Reader 1 (Pharmacology/ Phytochemistry)	
b) Technical	35,000
Statistics 2	
Draftsman 1	
B. Working expenses	1,00,000
C. Faculty Improvement Seminars etc.	35,000
Total Rs.	42,00,000

II Sir J.J. College of Architecture:

Non-Recurring:

	<u>Rs. in lakhs</u>
1 Books & Journals	3.5
2 Equipment	7.5
(a) Studio equipment	
(b) audio-visual aids, slides etc.	

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- c) documentation, reprography, photography
- d) Workshop
- e) building technology equipment
- f) Accoustics, climatology, materials museum etc.

Recurring:

Professor 1 (Housing & Urban Development)		
Readers 2 (Town Planning/Housing)		1.11
S.T.A. 2		
J.T.A. 4		
Working expenses	Rs.	22,000
Visiting Professorship	Rs.	8,000
Seminars, Faculty Improvement etc.	Rs.	8,000
<u>Total - Rs. 12.49 lakhs</u>		

Research Fellowship 2

III. University Hostel for 100 students - Rs. 7.50 lakhs
(UGC share @ 50%)

Grand Total (UGC share) = Rs. 61.99 lakhs

The committee wishes to place on record its sincere thanks to the Vice-Chancellor, Director, Principal and members of staff for the cooperation and assistance extended to it in the successful completion of its job.

Centre of Advanced Study in Applied Chemistry, Department of
Chemical Technology, Bombay University-With Plan Grants.

NON-RECURRING

Equipment (including basic grant of Rs. 2,00,000)	Rs. 12,20,000
Books and Journals (including grant of Rs. 1,00,000)	Rs. 1,00,000
Total:	<u>Rs. 13,20,000</u>

RECURRING. (in addition to existing allocation) upto 31.3.1981.

1. Academic Staff- additional one post of a Professor.	Grant to cover actual expenses on salary plus admissible allowances. Actual as per expenditure on posts filled.
2. Two Research Associates (Rs. 700-1300)	
3. Adm. & Technical Staff.	Rs. 30,000 p.a.
4. Travel.	Rs. 2,000 p.a.
5. Working expenses	Rs. 36,000 p.a.
6. Seminars.	Rs. 1,400 p.a.

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Appendix II

Sir J.J. College of Architecture, Bombay
Transfer of the - to the University of Bombay

GOVERNMENT OF MAHARASHTRA

Education Department
Resolution No. JJC-1771/107023-K
Sachivalaya Annexe, Bombay-32
Date 19th May, 1973.

READ:- Government letter, Education Department
No. JJC-1771/107023-K, dated the 20th May,
1972.

Letter from the Registrar, Bombay University
No. Aff./Recog/13530 of 1972, dated the 25th
July, 1972.

Resolution, Education Department No. JJC-1771/
107023-K dated 5th September, 1972.

D.O. letter No. JJC-1771/107023-K dated 28th
September, 1972 from the Secretary to Govt.
Education Department, addressed to the Registrar,
Bombay University.

D.O. letter No. 5067 dated 6th March, 1973, from
the Registrar, University of Bombay.

D.O. letter No. JJC-1771/107023-K dated 27th
April, 1973 from Secretary, Education Department
addressed to the Registrar, Bombay University.

RESOLUTION:

The question of transfer of the management of the
Sir J.J. College of Architecture, Bombay to the University
of Bombay was under consideration of Government for some
time past. Government has now, in consultation with the
University of Bombay, decided to transfer the management
of the Sir J.J. College of Architecture, Bombay with
effect from 21st May, 1973 to the University of Bombay
along with Degree course in Architecture; and the
Diploma courses in Architecture and Town Planning on the
following terms:-

2. Accommodation for the college:

The University shall, for the present, be occupied
of the present building of the college for a period

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of three years in the first instance on lease on a nominal rent of Rs. 1/- per annum. The maintenance of the building will continue to be with the Building and Communications Department, as at present.

3. Property:

Other items including books, furniture, equipment, fixtures, fittings etc., comprising property of the said college should be reckoned w.r. to aggregate cost of various items at their original book value and should be entrusted to the University for the management pending final transfer of the 'property' to it, on the condition that it should not be encumbered or alienated by the University without prior approval of Govt.

4. Hostel Accommodation:

The hostel of the Sir J.J. College of Architecture located at Kala Nagar, Bandra (East) Bombay-51 will continue to remain with Government. However, the same number of seats as are being allotted to the students of the college of Architecture at present, shall continue to be placed by Govt. at the disposal of the University of Bombay for allotment to the students of the college.

5. Transfer of staff:

The Director of Technical Education, Maharashtra State, Bombay has already been requested to ascertain the willingness or otherwise of the staff (teaching as well as administrative, ministerial and class IV) for their permanent transfer to the University of Bombay. Pending exercise of option by the staff of the college of Architecture, Government is pleased to direct that the existing staff of the college (teaching, administrative, ministerial and class IV) should be treated as on temporary deputation to the University of Bombay on the terms and conditions, as mentioned in the Appendix 'A' accompanying this Resolution.

6. Hostel staff and contingencies:

The hostel staff of the college as mentioned in Appendix 'B' and hostel contingencies should be transferred to the establishment of the Director of Technical Education, Maharashtra State, Bombay

with effect from 21st May, 1973. The provision for hostel staff and hostel contingencies existing in the current year's budget should hereinafter be operated by the Director of Technical Education, Maharashtra State, Bombay.

7 Consequent on the transfer of the college to the Bombay University, Government is pleased to accord sanction to the payment of a grant of Rs. 3,50,000/- during the current financial year to the University of Bombay as per details given below, so as to enable the University to meet the expenditure involved on account of maintenance of the college, purchase of deficit equipment and stationery, up-gradation of the pay-scales of teaching staff, etc:

i) Maintenance grant	2.20.000/-
ii) Purchase of additional equipment	1,00,000/-
iii) Purchase of stationery	25,000/-
iv) Minor alterations and repairs to the college building.	5,000/-
	Total... 3,50,000/-

The University shall also be allowed to retain the income of the college on account of tuition fees, book bank and other receipts, during the year 1973-74 and onwards.

8 Government scholarships which are at preseng open to the students of the college will continue to be paid by the Director of Technical Education, as in the case of other-non Government Technical Institutions.

9 The expenditure involved in the proposal should be debited to the head indicating below and should initially be from the advance of Rs. 3,50,000/- sanctioned under Government Memorandum Finance Department No. CNF-1173/43/B-I dated 16-5-1973.

(i) Non-Plan:

"28-Education-E-Technical Education-Q-Grants-in-aid contributions etc.-Q-6-Grants to non-Government College of Architecture-Demand No. 52".

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(ii) Plan:

"28-Education-E-Technical Education-Q-Grants-in-aid-Contribution etc-Q-5-Schemes in the Five Year Plan-Q-5(4) Grants to non-Government College of Architecture-Demand No. 52".

10 A supplementary Demand for recoupment of the advance should be presented to the Legislature, at it's ensuing Session. The Director of Technical Education, Maharashtra State, Bombay should be requested to submit monthly statement of expenditure from out of the contingency Fund to the Accountant General, Maharashtra, Bombay, the Finance Department and the Education Department.

11 This Resolution issues with the concurrence of the Finance Department, vide u.o. No. 20173/673/F-6 dated 18-5-1973.

By order and in the name of the Governor of Maharashtra.

Sd/- H. Gonsalves
Under Secretary to Government

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

29

Meeting:

Dated : 19th December, 77

Item No. 9 : To consider the report of the Visiting Committee appointed to assess the development proposals of the Department of Pharmaceutical Sciences, Saugar University, Sagar during the Vth Five Year Plan.

The assess the proposals received from the Saugar University for the development of its Department of Pharmaceutical Sciences during the Fifth Five Year Plan period, the Commission appointed a visiting committee consisting of the following:-

- 1 Prof. G.B. Singh
Department of Pharmaceutics
Institute of Technology
Banaras Hindu University
Varanasi.
- 2 Prof. A.K. Dorle
Department of Pharmaceutical Sciences
Nagpur University
Nagpur.

The Committee visited the Saugar University on 29th-30th September, 1977.

In June, 1976 the Commission invited proposals from the Saugar University for the development of its Department of Pharmaceutical Sciences during the Vth Five Year Plan. The University was requested to frame proposals within a ceiling of Rs.15 lakhs drawn in two priorities viz. 75% under first priority and 25% under second priority. In June, 1977 the University submitted proposals involving an expenditure of Rs. 11,40,000/- under first priority and Rs.3,60,000/- under second priority as detailed below :-

Ist Priority

1.	Additonal buildings, furniture etc.	Rs.5,32,000/-
2.	Equipment	Rs.3,00,000/-
3.	Books & Journals	Rs. 84,000/-
4.	Additional staff	Rs.2,24,000/-
	Total	<u>Rs.11,40,000/-</u>

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II Priority

1	Equipment	Rs.	2,50,000/-
2	Medicinal garden including Green House implements.	Rs.	10,000/-
3	Books and Journals	Rs.	84,000/-
4	Maintenance	Rs.	16,000/-
Total			<u>Rs. 3,60,000/-</u>

A copy of the report of the Visiting Committee is enclosed as Annexure. *
* p 33-44

The general observations of the Visiting Committee are as under:-

- 1 From 1977-78 the University has introduced an admission test for admissions to B. Pharm courses. However, the Committee found that even a student who obtains 3rd division in his higher secondary examination could join B. Pharm course.
- 2 The University is not spending anything from its own resources on purchase of books and journals. The Committee feels that atleast the income from the admission test should be ploughed back into the development of the Department of Pharmaceutical Sciences.
- 3 There is a communication gap between the teachers and the head of the department.
- 4 Only a few teachers are engaged in active research work. It is desirable that the other teachers also be persuaded to take interest in research work.

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- (21)
5. There is a lot of inbreeding in the department, so much so that at the level of readers/professors more than 90% posts have been filled in by persons from within the department.
 6. The University should review the position of Science teachers in the department. It may be better if the teachers in science subjects are borne on the strength of the main science departments of the University.
 7. Admissions to M.Pharm.course have been made just to fill the 20 seats available with the result that it has created many problems for the university regarding award of fellowships etc. It is desirable that for M.Pharm. course atleast, no student with less than 60% marks in the degree course is admitted even if a few seats remain vacant. This is the practice at many other universities.
 8. Library facilities are rather poor and there is urgent need for dialogue between the department and the central library to improve the library facilities.
 9. Text books section of the Library needs to be strengthened.
 10. The accommodation meant for students amenities should be used for the purpose for which it was meant.
 11. In the system of examination, there is no relationship between the marks obtained by a student in theory and in sessionals. The examination system has been so much watered down that even if a student gets 30% marks in theory, he could have a general score of 60% by getting 90% in the sessionals. The Committee was informed that the system has come to this stage due to persistent demands of students.
 12. The syllabus of B.Pharm.course does not compare favourably with the syllabus adopted by other institutions conducting Pharmacy courses. There is urgent need to up-date the syllabus. In fact there was a demand to this effect even from the students.

The summary of the financial recommendations of the Committee is given below:

contd.....

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<u>Non-Recurring</u>	<u>UGC share</u>
1. Additional buildings (including furniture)	Rs. 1.50 lakhs
2. Equipment	Rs. 4.00 lakhs
3. Gas Plant	Rs. 0.75 lakhs
4. Library Books & Journals	Rs. 2.00 lakhs
<u>Recurring</u>	
i) Reader	Two
ii) Technical Asstt.	Two
iii) Technicians	Two
iv) Van Driver	One
v) Animal House keeper.	One
vi) Mali	One
vii) Maintenance of Drug Garden	Rs. 0.30 lakhs upto 31.3.79
viii) Seminars, Symposia etc.	Rs. 0.10 -do-
ix) Research Fellowships of Rs. 500/-p.m.	Three at any given time.

The report of the Visiting Committee is placed before the Commission for consideration.

AS(SA)/DS(CE)

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Ram:

Report of the Visiting Committee on fifth five year plan proposals of the Department of Pharmaceutical Sciences, University of Saugar, Sagar.

To assess the proposals received from the University of Saugar for the development of its Department of Pharmaceutical Sciences during the fifth five year plan period, the UGC appointed a visiting Committee, consisting of the following:

1. Prof. G.B. Singh,
Department of Pharmaceutics,
Institute of Technology,
Banaras Hindu University,
Varanasi.
2. Prof. A.K. Dorle,
Department of Pharmaceutical Sciences,
University of Nagpur,
Nagpur.
3. Shri B.R. Kwatra,
Assistant Secretary,
University Grants Commission,
Bahadurshah Zafar Marg,
New Delhi.

The Committee visited Saugar University on 29th-30th September, 1977. It met the Vice-Chancellor, the Registrar, Head, other faculty members and students of the Department of Pharmaceutical Sciences. The Committee also went round the department and saw the class-rooms, laboratories, workshop and the library. Members of the Committee also saw the hostels occupied by the students of the department of Pharmaceutical Sciences.

In June, 1976, the UGC invited proposals from the Saugar University for the development of its Department of Pharmaceutical Sciences during the fifth five year plan period. The University was requested to frame proposals within a ceiling of Rs.15 lakhs drawn in two priorities viz.75% under first priority and 25% under second priority. In June, 1977 the University submitted proposals involving an expenditure of Rs. 11,40,000/- under first priority and Rs. 3,60,000/- under second priority as detailed below:-

I Priority

- | | |
|--|----------------|
| 1. Additional buildings,
furniture etc. | Rs. 5,32,000/- |
| 2. Equipment | Rs. 3,00,000/- |

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3. Books & Journals	Rs. 84,000/-
4. Additional Staff	Rs. 2,24,000/- p.a.
	Rs. 11,40,000/-

II Priority

1. Equipment	Rs. 2,50,000/-
2. Medicinal garden including Green House implements.	Rs. 10,000/-
3. Books & Journals	Rs. 84,000/-
4. Maintenance	Rs. 16,000/-
	Rs. 3,60,000/-

Total: Rs. 11,40,000/- + Rs. 3,60,000/- = Rs. 15,00,000/-.

During the fourth five year plan (1972) the UGC on the recommendations of the AICTE approved the following grants for the development of postgraduate courses in Pharmacy at Saugar University:

Non-recurring:

(i) Building	Rs. 1,46,000/- (later revised to Rs. 2.20 lakhs)
(ii) Equipment	Rs. 2,20,000/-
(iii) Books & Journals	Rs. 10,000/-

Recurring:

(i) Additional Staff	One Professor, Two Readers and two Lecturers
(ii) Supporting Staff	15% expenditure on teaching staff.
(iii) Maintenance	Rs. 20,000/-
iv) Scholarships (Total)	Rs. 1,20,000/-
(v) Library	Rs. 5,000/-
(vi) Research Work	Rs. 3,000/-

contd.....

Since the University got State Government's assurance to maintain the above posts permanently after the non-availability of Commission's assistance at the end of five years in 1973 only, it decided to implement the above scheme from 1974-75 only i.e. first year of the fifth five year plan. In spite of the fact that the AICTE/UGC had approved the above grants on the condition that the department would admit only 10 students per annum to M. Pharm. Course, the University admitted 20 students in the very first year of the implementation of the scheme without providing the requisite facilities.

A statement showing the grants approved for the development of postgraduate courses in Pharmacy during 1972 but to be paid in fifth plan, the adhoc/sanctioned and paid during the fifth plan for equipment and books is enclosed as appendix.

Background:- The teaching of pharmaceutical subjects was started by the Saugar University in July, 1952, under the department of Chemistry. The courses at first consisted of B.Sc.(Pass) degree with Pharmaceutical Chemistry, Industrial Chemistry and pure chemistry as main subjects followed by one year course leading to B.Pharm.(Tech.).

In September, 1955, the AICTE recommended substantial grants for buildings and equipment and the department was recognised in November, 1957 as a separate department providing facilities for a 3-year B. Pharm. degree course. Simultaneously, a two year M.Pharm. course was started and some students were also registered for the Ph.D. From July, 1964, a four year integrated course for B. Pharm. degree with higher secondary examination or its equivalent as the admission qualification was introduced and the department was redesignated as Department of Pharmaceutical Sciences. The Semester system of examination was also introduced but was discontinued.

The Scheme of M. Pharm. Course included one examination at the end of first year and thesis in the final year. In the revised pattern, there are four papers and thesis with specialisation in one subject. Pharmaceutics, Pharmaceutical Chemistry or Pharmacogony. The UGC has been providing assistance towards the award of studentships to all M.Pharm. students @ Rs. 250/- per month earlier now raised to Rs. 400/- per month, who obtain 60% or more marks in B.Pharm. The existing courses with their intake capacities are shown below:-

1. B. Pharm. four year integrated degree course with minimum admission qualification as higher secondary with Physics, Chemistry, Mathematics or Biology or equivalent or Diploma in Pharmacy Preliminary or Part I examination recognised by the Pharmacy Council of India. Intake-32.

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2. M. Pharm. Two year course after B.Pharm. Intake-20. The enrolment and out-turn of students during the last three years was as follows:

<u>Admissions</u>	<u>1973-74</u>	<u>1974-75</u>	<u>1975-76</u>
(a) <u>B.Pharm.</u>			
Part I	32	32	32
Part II	32	34	29
Part III	31	30	34
Part IV	30	32	30
(b) <u>M-Pharm.</u>			
(Previous)	10	18	20
(Final)	9	11	17
<u>Out-Turn.</u>			
<u>B. Pharm.</u>			
Part I	32	32	32
Part II	32	32	34
Part III	31	31	30
Part IV	30	30	32
<u>M. Pharm.</u>			
(Previous)	10	10	20
(Final)	10	9	17

The Students admitted to the B. Pharm. course during 1977-78 include 17 first divisioners, 11 second divisioners and 1 third divisioner. For M. Pharm. course, the students admitted during 1976-77 include 13 first divisioners and 7 second divisioners. During 1977-78, 15 first divisioners and 5 second divisioners were admitted to the M.Pharm. course.

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The sanctioned strength and the staff in position are as follows:

<u>Post</u>	<u>Sanctioned</u>	<u>In position</u>
Professors	2	2
Readers	5	2
Asstt. Professors	8	11 Three against the posts of Readers
Instructors	3	1

Under the scheme of development of postgraduate courses, the UGC had agreed to upgrade one of the two posts of Readers to that of a Professor. However, the Committee was told that the State Government had not agreed to this. The University had advertised the posts of Readers and the three posts against which Assistant Professors are working at present, are likely to be filled in soon.

The faculty on the whole, is well qualified. Four persons hold doctorate degrees and two are registered for Ph.D.

Only three teachers are guiding research work. The Committee feels that other members of the staff should also take active interest in research work. The department has no research project in hand at present.

Categorywise, the Committee feels that all the three sections viz. Pharmaceutics, Pharmaceutical Chemistry and Pharmacognosy should be headed by a Professor. This is necessary keeping in view the research work and the content of M. Pharm. courses. The Committee, therefore, strongly recommends that the University may again approach the State Government to clear the upgradation of the post of a Reader to that of a Professor already agreed to by the AICTE and the UGC.

Meeting with the Teachers: The teachers by and large appear to be satisfied. Some teachers pointed out that workshop and glass blowing facilities are needed. It was also mentioned that the departmental garden was earlier getting water supply from the Tube-well of the Botany department but the same had been disconnected on the ground that the UGC had provided funds for this purpose to Botany Department only. The Committee feels that water supply should be restored to the garden of the Department of Pharmaceutical Sciences.

contd....

Some teachers pointed out that very few journals were being acquired by the department. The Committee feels that this is a serious situation as without latest journals, it would not be possible to keep the teachers up-to-date in their subjects. Grants are being recommended for this purpose to enable the department purchase back numbers as well as current journals. It hopes that full use would be made of these journals.

Meeting with the Students:

In a meeting with the students, the students pointed out that they have to incur a lot of expenditure on their educational tours; there were no free boarding and lodging facilities during training programme, very few recreation facilities etc. The major grievance of the students however, relates to non-availability of Junior Fellowships of Rs. 400/- p.m. to those students who have secured less than 60% marks in B.Pharm. This is a peculiar problem with Pharmacy Department, Saugar University as this is perhaps the only such department where even those students who secure less than 60% marks in B. Pharm. are admitted to M.Pharm. course. In the interest of academic standards, the Committee is not in favour of lowering the eligibility condition of 60% marks in B. Pharm. towards Junior Fellowships for M. Pharm. Students. Moreover, lowering of eligibility condition at Saugar will have repercussions on Pharmacy departments in other parts of the country.

Fifth plan proposals and recommendations:

The Department has at present, a total built up area of 34,300 sq.ft. However, due to lack of planning, the following facilities which every Pharmacy department is supposed to provide, need to be provided immediately:

1. Ascpic Room
2. Library
3. Research Labs.
4. Animal House
5. Workshop
6. Seminar Room

contd....

The Committee feels that by adding an additional accommodation of about 500 sq.mts. and by making suitable adjustments within the existing area, the department will have sufficient accommodation to cater to the needs of undergraduate and postgraduate teaching and doctoral research programme. For this purpose, the Committee recommends an expenditure of Rs. 3 lakhs (including furniture, fittings and alterations) out of which the UGC's share will be Rs. 1.5 lakhs.

The Committee has noted with concern that the equipment grants recommended during the fourth plan and basic grants given by the Commission during fifth plan have not been utilized so far. The Committee feels that many of the items need replacement and some additional items considered essential for a department of Pharmaceutical Sciences need to be provided immediately. For example Microscopes (with oil immersion lenses) Chemical Balances, Potentiometric Titration assembly, PH Meters, Fluorimeter, Lathe etc. need to be provided immediately. For research work the scholars and staff of the department should use the sophisticated instruments in the central instrumentation facilities centre bring set up at the Saugar University.

The Department has well organised pharmaceuticals section in which the research facilities are up to the standard. Another branch which is full of promise to grow is Pharmacognosy. The area around Saugar abounds in medicinal plants and poor efforts have been made to exploit these resources for their potential medicinal use. The Chemataxonomic study of such potential medicinal plants has been attempted and can be further expanded advantageously. The department deserves complement in research work in giving lead in this discipline. In order to further strengthen this discipline, the Committee recommends that the following be provided for the systematic survey of the flora, its identification and further exploration as potential medicinal constituents.

- 1) mobile van with facilities for mobile Chemotaxonomic laboratory including a van driver and mobile laboratory facilities for which the non-recurring expenditure of Rs. 1 lakh and recurring expenditure of Rs. 5000/- p.a. be provided.

The Committee also noted with concern that the facilities for teaching Pharmacology have been unfortunately neglected by the Department. No qualified teacher of any category has been appointed so far with specialization in this subject.

It is suggested that the University may ensure that some of the vacant posts are filled in by persons having specialization in Pharmacology. In order to build up this discipline in the department, the Committee recommends a

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provision of Rs. 50,000/- for purchase of equipment in this subject.

So far in Pharmaceutical Chemistry, the emphasis has been only on the natural products. A survey of the pharmacopoeia reveal that the natural products constitute only 10% of the pharmacopoeial monographs. Research in the area of evaluation of drugs and the synthetic approach which constitute a very important aspect of pharmaceutical chemistry also may be undertaken. A provision of Rs. 1.00 lakh for equipment is recommended in order to bring up the facilities in this area.

The grants recommended by the Committee for equipment are as follows :-

1)	Pharmaceutics	- Rs. 1.00 lakh (including fixt for aseptic rc
2)	Pharmacognosy	- Rs. 1.50 (including mobile Chemotoxonomy lab.)
3)	Pharmacology	- Rs. 0.50 lakh
4)	Pharmaceutical Chemistry	- Rs. 1.00 lakh
		<hr/> Total- Rs. 4.00 lakhs

Library.

The Library facilities in the department are very poor. The total number of books available are stated to be 2,500 and the number of journals being actually subscribed is almost negligible. Since the library facilities and the journals form the heart of any academic institution, immediate steps should be taken to strengthen library facilities by purchasing more books, back number of journals and current journals. Since books in Pharmacy are very costly and students cannot easily afford to buy them at least five to six copies of each text book should be purchased and loaned to the students. The books purchased from the funds allocated to the department should be kept in a separate section meant for the staff and students of the department of Pharmacy. This may, however, be worked out by consultation between the university librarian and the head of the department. The Committee recommends an assistance of Rs. 2.00 lakhs for purchase of books and journals by the department.

Staff:

The present staff pattern in the department is 2P, 5R and 8L and 3 instructors. As already indicated the post of a reader has already been agreed to by the UGC to be converted into that of a professor. This should be got cleared from the state Government. With this, the number of readers in the department will remain four. The Committee feels that while each section should be headed by a professor, there should be two readers in Pharmaceutics and an additional reader in Pharmaceutical analysis which is common subject at M. Pharm. examination. The three posts of instructors be upgraded to lecturers. The final staff strength in the department shall then be 3P (one each in Pharmaceutics, Pharmacognosy and Pharmaceutical Chemistry) 6 R (one each in Pharmaceutics, Pharmo-Chemistry, Pharmacognosy, Pharmacology, Pharm. Engineering and Pharm. Analysis) and 11 L.

Supporting Staff:

The Committee recommends following additional supporting staff.

- Technical Assistant- 2
- Technician - 2
- Animal House Kepr - 1
- Mahi (for Drug Garden) 1

Gas Plant:

The teaching and research work in the department is greatly handicapped for want of a continuous supply of Gas, as it is dependant upon the department of Chemistry for the supply of Gas. The Committee recommends a provision of Rs. 75,000/- for installation of gas plant in the department

Drug Garden:

The department has maintained a drug garden with a green house which is nearing completion. A provision of Rs. 30,000/- p.a. is recommended for its further development.

Seminars, Symposia etc. to be held at Sagar or to enable teachers attend at other place

Rs.10,000/-
(including contingency).

Research fellows -3 at any given
(one in each branch). time.

p.t.o.

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General observations:

1. From 1977-78 the University has introduced an admission test for admission to B. Pharm. Course. However, the Committee found that even a student who obtains third division in his higher secondary examination could join B. Pharm. Course.
2. The University is not spending anything from its own resources on purchase of books and journals. The Committee feels that atleast the income from the admission test should be ploughed back into the development of the Department of Pharmaceutical Sciences
3. There is a wide communication gap between the teachers and the head of the department.
4. Only a few teachers are engaged in active research work. It is desirable that the other teachers also be persuaded to take interest in research work.
5. There is a lot of inbreeding in the department, so much so that at the level of readers/professors more than 90% posts have been filled in by persons from within the department.
6. The University should review the position of science teachers in the department. It may be better if the teachers in science subjects are born on the strength of the main science departments of the University.
7. Admissions to M. Pharm. course have been made just to fill the 20 seats available with the result that it has created many problems for the university regarding award of fellowships etc. It is desirable that for M. Pharm. course atleast, no student with less than 60% marks in the degree course is admitted even if a few seats remain vacant. This is the practice at many other universities.
8. Library facilities are rather poor and there is urgent need for dialogue between the department and the central library to improve the library facilities.
9. Text books section of the Library needs to be strengthened.
10. The accommodation meant for students amenities should be used for the purpose for which which it was meant.

p.t.o.

- (43)
11. In the system of examination, there is no relationship between the marks obtained by a student in theory and in sessionals. The examination system has been so much watered down that even if a student gets 30% marks in theory, he could have a general score of 60% by getting 90% in the sessionals. The Committee was informed that the system has come to this stage due to persistent demands of students.
 12. The syllabus of B. Pharm. course does not compare favourably with the syllabus adopted by other institutions conducting Pharmacy courses. There is urgent need to up-date the syllabus. In fact there was a demand to this effect even from the students.

The summary of the financial recommendations of the Committee is given below:

<u>Non-recurring:</u>	<u>U.G.C. Share.</u>
(1) Additional buildings (including furniture)	Rs. 1.50 lakhs
(2) Equipment	Rs. 4.00 lakhs.
(3) Gas Plant	Rs. 0.75 "
(4) Library Books & Journals	Rs. 2.00 "

Recurring

(i) Reader	Two	
(ii) Technical Asstt.	Two	
(iii) Technicians	Two	
(iv) Van Driver	One	
(v) Animal House keeper	One	
(vi) Mali	One	
(vii) Maintenance of Drug Garden	Rs.0.30lakhs upto	31.3.79
(viii) Seminars, Symposia etc.	Rs.0.10 "	"
(ix) Research Fellowships of Rs. 500/-p.m. -	Three at any given time.	

The grants requested for equipment, books & journals are inclusive of the basic/adhoc grants approved/paid by the Commission during the fifth five year plan.

The Committee is thankful to the Vice-Chancellor, the Registrar, the Head and other staff members of the department of Pharmaceutical sciences for their hospitality and-co-operation extended in its work.

SAUGAR UNIVERSITY
of
STATEMENT/SPILL OVER FROM IVTH PLAN TO VTH PLAN PERIOD

44

S.No.	Name of the Scheme.	Approved Cost	UGC Share	Grant paid upto 31.3.1974	Spill over of IVth Plan	Grant paid upto 31.3.1977	Balance.
<u>Development of Postgraduate Course in Pharmacy.</u>							
1.	Building	2,20,000	2,20,000	-	2,20,000	1,20,000	1,00,000
2.	Equipment	2,20,000	2,20,000	-	2,20,000	25,000	1,95,000
3.	Library Books	10,000	10,000	-	10,000	5,000	5,000
4.	Teaching Staff (Recurring for 5 years)	1,01,000 p.a.	1,01,000 p.a.	-	5,05,000	1,25,000	3,80,000
<u>Adhoc grant paid to the University for Equipments & Library Books during Vth Plan Period.</u>							
1.	Equipment	2,25,000	2,25,000	-	-	75,000	1,25,000
2.	Library Books	84,000	84,000	-	-	30,000	54,000

CONFIDENTIAL

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UNIVERSITY GRANTS COMMISSION

Meeting:

Dated : 19th December, 1977

Item No.10 : To consider the report of the Visiting Committee appointed to assess the fifth plan proposals of the Faculty of Engineering and Technology, Annamalai University

To assess the proposals received from Annamalai University for the development of its faculty of Engineering and Technology during the Fifth Five Year Plan, the Commission set up a Visiting Committee consisting of the following:

1. Professor B.V. Ranganathan
Department of Civil Engineering
Indian Institute of Science
Bangalore.
2. Prof. V.S. Rajamani
Department of Electrical Engineering
Indian Institute of Technology
New Delhi.
3. Prof. L.R. Govil
Department of Mechanical Engineering
Institute of Technology
Banaras Hindu University
Varanasi.
4. Prof. Gopal Tripathi
Department of Chemical Engineering
Institute of Technology
Banaras Hindu University
Varanasi.

The Committee visited the Annamalai University on 29th-30th July, 1977.

The Annamalai University was requested to send proposals within a ceiling of Rs. 75 lakhs in two priorities i.e. 75% under 1st priority and 25% under 2nd priority. The University first submitted proposals worth Rs. 82.46 lakhs which were later revised at the time of the visit of the Committee. The report of the Visiting Committee is enclosed as Annexure.

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The main observations of the committee are as follows:-

1. The University has a great handicap in getting matching funds to implement the schemes sanctioned by the UGC.
2. Against the approved intake of 180 students at the degree level (60 each in civil, Electrical and Mechanical Engineering) the college has been admitting more than 200 students every year during the last three years. In the department of Technology, more than 60 students are being admitted as against 45 recommended by the AICTE. Moreover, instead of assigning a specific branch to students at the very time of admission, the students are branched out into three fields in the third year only. This has resulted in pressures being put on the university for more employment oriented branches and imbalances in the student teacher ratio of various departments.
3. The Committee is of the opinion that the total intake of students should be 180, 45 in each of the four disciplines viz. Civil, Electrical (including Electronics) Mechanical and Chemical Engineering and the students should be assigned their branches at the time of admission.
4. There are a number of posts lying vacant for a period of more than five years, with the result that only about 65% of the sanctioned strength has to carry the entire workload. Immediate steps should, therefore, be taken to fill up the vacant posts.
5. There is a lot of inbreeding as more than 90% of the faculty are either students of this faculty or joined, this faculty as lecturers and then became Readers or Professors.
6. Degree course in Electronics which has already been started may be approved.
7. The postgraduate course in Production Engineering in the Department of Mechanical Engineering may be started but without any addition of intake. Instead of the present postgraduate course in Heat Power Engineering admitting 10 students, the department should admit 5 students to each of the two postgraduate courses.
8. Faculty Improvement Programme introduced by the UGC should be extended to teachers of Engineering and Technology.

9. The University should frame a comprehensive proposal for students welfare programmes and apply to the UGC for necessary assistance.
10. The maintenance of the buildings is very poor and needs urgent attention.
11. The department of Technology should be redesignated as department of Chemical Engineering & Technology, and the sections in the Engineering Department be designated as Civil, Mechanical & Electrical and Electronics Engineering. This would be in conformity with the practice in other universities.

A Summary of the financial recommendations of the Committee is given below:-

	<u>Department</u>	<u>Ist Priority</u>	<u>II Priority</u>
1	Department of Civil Engg.	Rs. 8,00,000/-	Rs. 2,10,000/-
2	Department of Elect. Engg.	Rs. 15,90,000/-	Rs. 2,50,000/-
3	Department of Mech. Engg.	Rs. 14,80,000/-	Rs. 4,45,000/-
4	Department of Chem. Engg.	Rs. 12,50,000/-	Rs. 3,30,000/-
5	Science and Humanities Departments.	Rs. 2,00,000/-	Rs. 65,000/-
6	Bus & Driver	Rs. 75,000/-	-
7	Furniture for Hostels	Rs. 1,00,000/-	-
8	New Hostel	Rs. 5,00,000/-	-
		<u>Rs. 59,80,000/-</u>	<u>Rs. 13,00,000/-</u>

The report of the Visiting Committee is placed before the Commission for consideration.

Report of the Visiting Committee on Fifth Five
Year Plan proposals of the Faculty of Engineering
and Technology, Annamalai University, Annamalainagar.

To examine the proposals received from Annamalai University for the development of its faculty of Engineering and Technology during the Fifth Five Year Plan Period, the University Grants Commission set up a Visiting Committee consisting of the following members:-

- 1 Professor B.V. Ranganathan
Department of Civil Engineering
Indian Institute of Science
Bangalore.
- 2 Professor V.S. Rajamani
Department of Electrical Engineering
Indian Institute of Technology
New Delhi.
- 3 Professor L.R. Govil
Department of Mechanical Engineering
Institute of Technology
Banaras Hindu University
Varanasi.
- 4 Professor Govil Tripathi
Department of Chemical Engineering
Institute of Technology
Banaras Hindu University
Varanasi.
- 5 Shri B.R. Kwatra
Assistant Secretary
University Grants Commission
New Delhi.

The Committee visited the Annamalai University on 29-30th July, 1977. On 29th July the Committee met the Dean, Heads of departments, other teachers and students of the Faculty of Engineering & Technology and went round the class rooms, laboratories, workshops, library and students Hostels. On 30th July it also met the Vice-Chancellor and Registrar, Annamalai University and had final discussions with them.

In June, 1976 the University Grants Commission had requested the Annamalai University to send proposals for the development of its Faculty of Engineering & Technology during the fifth five year plan period to the extent of Rs. 75 lakhs divided into two priorities viz. upto 75% under the first priority and upto 25% under the second priority. In response

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to this, the University submitted proposals involving an expenditure of Rs. 82.46 lakhs - Rs. 60.90 lakhs under the first priority and Rs. 21.56 lakhs under the second priority as detailed below:-

	<u>I Priority</u>		<u>II Priority</u>	
	<u>NR</u>	<u>R</u>	<u>NR</u>	<u>R</u>
i) Improvement/ Development of the existing facilities	5.85	2.85	-	-
ii) Department of Civil Engg.	3.00	1.50	1.35	1.15
iii) Department of Mechanical Engg. and workshop.	6.00	1.50	2.00	1.00
iv) Department of Electrical and Electronics Engg.	4.00	1.50	1.00	0.70
v) Science Deptts.	4.75	0.75	2.25	0.50
vi) Instrumentation facilities.	3.50	0.50	1.00	0.20
vii) General	14.50	2.50	5.08	1.53
	41.60	11.10	12.68	5.08
Department of Chemical Engg.	6.90	1.30	3.10	0.70
	48.50	12.40	15.78	5.78
	Total Rs. 82.46 lakhs			

A statement showing the spillover of various schemes approved during the earlier plans and the grants sanctioned and paid during the fifth five year plan is enclosed as Appendix-I.

BACKGROUND:

The Annamalai University is a residential University. It is situated in Chidambaram Town about 250 kms. from Madras on the Madras Rameshwaram Line. It was founded in 1929 by the munificence of the late Dr. Raja Sir Anna-malai Chettiar of Chettinad. The departments of Engineering and Technology were started in 1945. The University is also running

a Polytechnic named as Mithial Polytechnic. All these constitute the Faculty of Engineering and Technology. In 1961-62 the scheme of 5-year integrated degree courses in Civil, Electrical, Electronics, Mechanical and Chemical Engineering were introduced. Postgraduate courses were started as early as 1954. M.Sc. degree by research was offered and more than 30 candidates obtained degrees under this scheme. From 1963, two year postgraduate courses leading to M.Sc. (Engineering) and M.E. (Chem.) degrees were started.

The student enrolment and out-turn during the last four years at degree and postgraduate levels were as follows:

		<u>Admissions</u>			
		<u>1973-74</u>	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>
<u>I Engineering</u>					
(a)	Undergraduate	210	213	225	212
(b)	Postgraduate				
	Civil	1	1	1	* (* 6
	Electrical	7	2	4	* for all
	Mechanical	3	1	1	* the
					* three
					branches)
<u>II Technology</u>					
	Undergraduate	66	76	62	64
	Postgraduate	10	12	8	8

		<u>Out-turn</u>							
		<u>1973-74</u>		<u>1974-75</u>		<u>1975-76</u>		<u>1976-77</u>	
		A	P	A	P	A	P	A	P
<u>I Engineering</u>									
	B.E. (Civil)	24	21	20	17	24	24	63	
	P.E. (Elect. & Electronics)	40	38	19	15	32	29	13	
	B.E. (Mech.)	49	43	38	26	18	17	55	
	M.Sc. (Structural)	-	-	-	-	1	1	Figures not available	
	M.Sc. (Power System)	-	-	6	5	8	8	"	
	M.Sc. (Heat Power)	4	4	3	3	3	3	"	
<u>II Technology</u>									
	Undergraduate	79	76	61	54	60	57	54	
	Postgraduate	19	19	7	7	9	9		

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The minimum percentage of marks secured by the candidates admitted to the degree courses has been as follows:-

<u>Year</u>	<u>B.E. General</u>	<u>B.E. Chem.</u>
Upto 1969-70	60%	60%
From 1970-71 to 1974-75	55%	60%
From 1975-76 onwards	60%	60%

The number of research scholars including staff members registered for Ph.D. during 1973-75 were as follows:-

	<u>1973</u>	<u>1974</u>	<u>1975</u>
Engineering	2	4	3
Technology	1	1	-

No Ph.D. was awarded in Engineering or Technology during the last three years.

The University has no set policy to admit a specified number of students for various branches of the degree courses in Civil, Electricals and Electronics and Mechanical Engineering. The specialisation is decided after the second year and due to the large flexibility allowed to the students to choose a particular branch, great imbalance is created in the workload of teachers.

The position of staff sanctioned and the staff in position as on 1.7.1976 is as follows:-

<u>Department</u>	<u>Sanctioned Strength</u>				<u>Staff in position as on 1.7.1977</u>			
	<u>P</u>	<u>R</u>	<u>L</u>	<u>O</u>	<u>P</u>	<u>R</u>	<u>L</u>	<u>O</u>
<u>Engineering</u>								
1 Civil	6	6	15	-	3	5	8	-
2 Electrical	2	5	8	-	1	1	11	-
3 Mechanical	3	8	12	-	2	5	8	-
4 Physics	-	2	3	2	-	2	3	1
5 Chemistry	-	2	2	2	-	1	2	1
6 Mathematics	1	2	5	-	1	-	5	-
7 English	-	-	1	3	-	-	1	1

Department	Sanctioned Strength				Staff in position as on 1.7.1977				
	P	R	L	O	P	R	L	O	
<u>Technology</u>									
1	Chemical	3	5	7	-	2	3	5	-
2	Mechanical	-	1	-	-	-	-	-	-
3	Electrical	-	-	1	-	-	-	1	-
4	Mathematics	-	1	2	-	-	-	2	-
5	Physics	-	-	1	1	-	-	-	1
6	Chemistry	-	2	2	1	-	1	2	1

Some of the posts are understood to be lying vacant for the last more than five years. Moreover, more than 90% of the staff at the senior level joined this college as Lecturers.

The Department of Mechanical Engineering has some research projects in the field of solar Energy, financed by the Department of Science & Technology. A TDC 316 computer acquired by the University with the financial assistance provided by the U.G.C. is being installed in the Department of Electrical Engineering.

The proposals of the University for the development of various departments and the recommendations of the committee are as follows:

General Remarks:

In this era of Science and Technology, it looks a little odd to designate well-established disciplines like Civil, Mechanical, Electrical and Electronics Engineering as more sections and club them together into a Department of Engineering. It is time that the University reorganized these disciplines into separate Departments, each Department being headed by a Professor. The headship may also go by rotation among the Professors of the Department. It is also anomalous to designate the Department giving degrees in Chemical Engineering as Department of Technology. The Department may more appropriately be redesignated as Department of Chemical Engineering and Technology, which will be in conformity with the practice in other universities.

The Department of Engineering and the Department of Technology have their own independent facilities of staff and laboratories etc. for the teaching of the ancillary

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subjects. This leads to duplication of facilities and wastage of funds. It is suggested that the staff attached to the Department of Technology in Mathematics, Physics, Chemistry Mechanical and Electrical Engineering, be transferred to the corresponding sections in the Department of Engineering. Such a step will not only provide better opportunities of promotion for the staff but also help in raising the standard of teaching.

Intake:

It is seen that the intake of Undergraduate students has been fluctuating between 133 to 192. The postgraduate strength is very poor. Looking to the present position as well the facilities available in the Departments and hostels the committee is of the opinion that the total intake of undergraduate students should be 180, 45 in each of the four disciplines viz. Civil, Mechanical, Electrical and Chemical Engineering and they should be given their branches at the time of admission. This would enable the teachers to devote more attention to the development of postgraduate . . . courses and research while at the same time removing the imbalances in teaching load. Special efforts have to be made to make postgraduate courses more attractive. If the number of students in P.G. courses is less than five, advisability of running such courses should be considered by the University. It is possible that other specialisations in the subject may attract students.

Research Activity:

The research activity is hampered and has not attained significant stage primarily due to the heavy teaching load and the essential pre-requisite for the departments to get seriously involved in research is to bring about a drastic reduction in teaching load by filling up a pp. existing vacancies and by recruiting a few more talented academic staff trained in identified research at the frontiers of knowledge. This is highly desirable in order to tone up the quality of teaching as well as to make the departments research centres capable of developing technology appropriate to improving the material well-being of the backward rural environs in which the University is situated. It is also felt that the departments will then be in a position to meet the requirements of the region through sponsored research and consultancy.

It is suggested that U.G.C. scales of pay in keeping with the recommended high academic norms should be implemented at the earliest in order to attract qualified competent faculty. Further the creation of modern facilities with the

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financial inputs of U.G.C. will go a long way in attracting and sustaining well qualified motivated and competent faculty.

Department of Civil Engineering:

Academic Courses:

The Department of Civil Engineering was the largest department for a long time from inception, 1945. The intake of undergraduate students in Civil Engg. in 1945 was 57 out of 100 for all the three branches of engineering, whereas currently it is 45 out of the total intake of 180. It was the first introduction postgraduate course in structural Engineering in 1953 though it was discontinued soon. In addition to reviving the postgraduate programme in structural engineering in 1964 in accordance with AICTE recommendations, three more programmes, namely (i) Soil Mechanics and Foundation Engineering, (ii) Hydraulic Engineering and (iii) Public Health Engineering were also started. But these three programmes were discontinued at different stages (7 batches in soil Mechanics and Foundation Engineering, 2 batches in Hydraulic Engineering and 1 batch in Public Health Engineering) and the intake in structural Engineering was one student per batch owing to the decline in admission to postgraduate programmes in Civil Engineering probably because of greater employment opportunities relative to the smaller numbers graduating in Civil Engineering those days. However, since this general trend is already reversed all over the country, every effort should be made to revive and reinvigorate these programmes introducing innovative modifications relevant to the regional and national needs.

Research Work:

The Department of Civil Engineering had undertaken research studies in both basic and applied fields. The major field of research in Structural Engineering centres round concrete-concrete technology, reinforced concrete shell structures and prestressed concrete beams. Adequate experimental facilities have been established for static tests of concrete structures/structural elements such as pre-stressing bed, self-straining loading frame, load and strain measuring devices. There is, however, no facility whatsoever for dynamic tests. The research work in Hydraulic Engineering is in the field of Water Resources (surface and ground water) and some of the studies conducted are stochastic models for multistar flows, stage-discharge relations in reservoirs and rivers, and Marker's approach for wet and dry days in Annamalai Nagar. Soil stabilization using fly ash from

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Neyveli Lignite Thermal Station and foundations in expansive solids are two research studies in the field of soil Engineering which became relevant to the region.

2. Staff:

The staff position in the Department of Civil Engineering is as follows:-

<u>Designation</u>	<u>Post sanctioned</u>	<u>Staff position</u>	<u>Existing vacancies</u>
Professor	6	3	3
Reader	6	5	1
Lecturer	15	8	7

Among the sanctioned strength of 6 Professors, there had always been some vacancy or other in the last decade and the present three vacancies are there for over three years. In order to bring this department to a pre-eminent position, it is highly desirable to get these vacancies filled up with very competent and well qualified academics with doctorate degree and reputed research experience. The fields of specialisation could be among the following:
(i) Soil Mechanics and Foundation Engineering, (ii) Building Science and Housing Systems (iii) Water Resource Engineering (iv) Structural Dynamics (v) Environmental Engineering.

Among the posts of Readers, there is one vacancy. Since the strength of an essentially teaching department lies in the quality of men in this middle level, there is justified need to raise the strength of Readers to a minimum of 9 by sanctioning three additional posts. Efforts are to be made to recruit four more energetic (enthusiastic) and bright academics with doctorate degree and research publications.

Based on the specialisations of the existing professors and Readers, the existing one vacancy of Reader is identified for Soil Mechanics and Foundation Engineering. Among the three additional posts of Readers, one is identified for strengthening structural Engineering, another for Planning and Architecture and the third post is to be filled up from among the following areas of specialisation: Surveying, Estimating and Technological Forecasting, Construction Technology, Civil Engineering system.

Seven post of Lecturers remain vacant over appreciable period causing heavy overload on the staff and hence the first commitment should be to get these vacancies filled up

to reduce the workload of the academic staff. Then it will be possible to create the conducive atmosphere for research work besides enabling some to be spared under quality Improvement Programme for acquiring doctoral degrees at Higher Institutes of Technology and Science. While filling up the existing seven vacancies, attention may be given to recruit younger faculty trained in the following modern areas; System Engineering; Transportation Engineering; Rock Mechanics; Water Resources Engineering; Environmental Engineering including Ecology; Industrial Structures; Building Science and Technology.

Four staff members are registered for Ph.D. degree of the University. With the addition of modern facilities and recruitment of well qualified senior faculty with reputed research experience, many more could be encouraged to do research leading to Ph.D. conferments. To ensure positive success of this programme, work load on a couple of staff members registered for Ph.D. could be taken off completely so as to allow them full time for research. By activating this programme, the research tempo of the department will also grow fast in addition to helping the faculty to grow.

3. Laboratory Space:

The Committee felt that the laboratories are widely scattered and hence there should be rational regrouping of laboratories to make them more compact for efficient use and management. This process in itself will warrant additional space. Further the hydraulics laboratory is highly congested. Hence additional space of about 10,000 sq. ft. would be needed to achieve the above stated needs as well as to house new equipments. The additional space envisaged should include improved facilities such as store rooms, laboratory instruction, class rooms and toilets.

The drawing halls in the second floor of the main engineering college building have asbestos roofing which have very poor thermal properties. These halls also serve as examination halls. Hence there is imperative need to replace them with flat roofs of adequate quality and thickness. To make the engineering college library serve effectively the present and projected needs of all the engineering departments, additional space contiguous to the existing becomes necessary. (Incidentally this library needs to be better managed with well qualified/trained library assistants and helpers). There is also identified need to have at least one modern (well designed) lecture hall fitted with projection and other facilities to serve the needs of special lectures and symposia that will get organised in the engineering college.

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4. Equipments:

The laboratories are equipped adequately for undergraduate instruction though additions and replacements are essential to up-date the graduate teaching, to keep pace with the modern technology and to serve the needs of research. Important among the additional equipments needed are those for dynamic testing of structures and soils - pulsator, oscillator, vibration pick-ups, multichannel recorders, oscilloscopes etc. In the field of hydraulics, modern equipments such as pressure probes, sediment sampler, tilting flumes, electrical point gauges etc. are needed. A small wind tunnel will be useful in studies of fluid mechanics and wind effects of housing systems. Modern testing mechanics (UTM, Hardness and Impact Testing machines) and sophisticated survey instruments are needed as replacements of their older counterparts. Adequate financial support is to be made available to develop and fabricate necessary experimental set-ups.

5. Laboratory Supporting Staff:

The present level of technical support being grossly inadequate, eight additional positions (draughtsman-1, skilled mechanics-3, laboratory technician-1, laboratory helpers-3) are to be created. These positions are to be filled by open advertisement with personnel having ITI qualifications and adequate skill and experience. Without this support it will be difficult to improve the quality of experimental work (instructional and research work). Their services become necessary also to commission and maintain modern test facilities/equipments proposed for addition.

6. Starting New Courses - B.E. (Civil) - Structural Engineering

The unanimous view of the Committee is to strengthen and consolidate the existing B.E. programmes in Civil, Mechanical and Electrical Engineering and not to start new programmes as this may be unnecessary duplication of courses already started elsewhere in the country with no established national need. But specialisation/diversification within the three existing branches could be made possible by offering suitably planned electives in the prefinal and final years. If, however, for any reason, any exception for this unanimous view is to be made, there is considerable force and justification in the arguments presented for starting the B.E. programme in Structural Engineering. The specific reason, that the trained Civil Engineering graduates (with specialisation in Structural Engineering) will get better employed in modern civil Engineering Industries, is quite valid. It is also to be pointed out that the programme envisages to better train them for Central Engineering service examinations. Hence the modified programme is recommended for serious trial.

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The following assistance would be required for the development of this department during the fifth plan:

	<u>I Priority</u>	<u>II Priority</u>
(i) Additional Buildings including replacement of roofs of drawing halls.	3,00,000 (as UGC share)	
(ii) Equipment	3,50,000	1,50,000
(iii) Library Books & Journals	75,000	25,000
(iv) Additional staff		
Readers - 2	65,000	35,000
Laboratory Staff - 4		
v) Seminar, Symposia etc. (to enable the teachers go to other places and to organise symposium, seminar etc.)	10,000	Nil

Department of Electrical Engineering:

General:

The Department runs a Bachelor Degree course in Electrical Engineering with an annual average intake of about 30 to 40 students. It also runs a M. Sc. course in Power Systems with an annual average intake of 5. The staff position is as follows:-

<u>Designation</u>	<u>Sanctioned Staff</u>	<u>Staff in position</u>
Professor	2	1
Reader	5	1
Lecturer	8	11

The Department has a laboratory space of 16,700 sq. ft. of which nearly 25% is varandah space not functionally useful.

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Almost all the eleven lecturers in position at the moment have taken their degrees either at Master's level or at Bachelor's level in Annamalai University itself. The only Reader has also had his degree from this University and had been promoted from Lecturership. It can, therefore, be seen that there is considerable amount of inbreeding in the Department. The Bachelor course in Electrical and Electronic Engineering contains traditional subjects in Machines and Power systems besides electronics and circuits. The Master's Degree course is oriented towards power system.

Staff:

The Department has one Professor's post and four Reader's posts lying vacant for more than 12 years. It has been unable to attract people with Doctoral qualifications mainly on account of the low remuneration and non-implementation of the University Grants Commission's scale of pay to the teachers of this University. Very few of the staff members have registered for Doctoral Degree on account of heavy academic load and lack of facilities. The publications-record of the academic staff is also poor.

It is suggested that the University Grants Commission's scale of pay be implemented immediately and all vacant posts be filled up by recruiting highly qualified people with Doctorate Degree from outside the University. Enough facilities and opportunities should also be provided to the existing Faculty for obtaining their Doctoral Degrees.

Equipments and Laboratory Facilities:

The Committee felt that the existing laboratory facilities of the Department are very much inadequate to cope up with the demands imposed by the rapidly changing technology in the field of Electrical and Electronics Engineering. While the equipments in the machines laboratory may be considered adequate and do not require supplementing, the facilities for the measurements laboratory, Electronics Laboratory, Microwave laboratory and control laboratory need to be very much augmented. While the department has asked for a grant of Rs. 5/- lakhs, the committee feels that this grant should be increased to Rs. 10/- lakhs, out of which Rs. 7½ lakhs be allotted to First Priority items and 2½ lakhs for second priority items.

(a) Starting of New Courses:

The Department has already started, pending University Grants Commission's approval, Bachelor's Degree courses in

Electronics and Instrumentation with an annual intake of 30 students. The committee feels that the starting of such a course is desirable from the point of view of meeting the country's requirements of instrumentation engineers. While the importance of starting this new discipline from the point of view of the country's requirements is being recognised the committee feels that there should not be any narrow specialisation at the undergraduate level and hence the students graduating in this course should be given a degree in Electrical and Electronic Engineering with the name of specialisation viz., Electronic Instrumentation being mentioned in the degree certificate. The committee also feels that the existing academic staff and the laboratory facilities are totally inadequate to meet the additional burden of this new course unless the following staff having Doctoral qualifications and experience in Electronics and Instrumentation area is sanctioned and filled up.

Professor	1
Readers	2
Lecturers	3

The syllabi for the subjects of this new programme should be drawn up by an expert committee involving persons from industries and other academic institutions of national importance.

To cater effectively to the needs of the students in this programme it was felt that additional floor space to the extent of 5000 sq. ft - be sanctioned so that the Instrumentation Laboratory be located in it. It is also recommended that a non-recurring grant of Rs. 5 lakhs in first priority be made available for buying new equipments for this laboratory.

(b) M. Sc. Course in Control and Instrumentation:

The Committee feels that the starting of this course with emphasis on control systems is not desirable since a large number of other institutions are already turning out graduates in this area and employment opportunities of these graduates are not very satisfactory.

However, the committee felt that the Department should start building the necessary infrastructure required for starting an M. Sc. level course in "Digital Electronics and Instrumentation". The experience gained at the B. E. level by the starting of the course in Electronic Instrumentation can be used for this purpose. After acquiring the necessary expertise a proposal can be made by the Department for inclusion in the VI th Five Year Plan.

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Laboratory Space:

The Department has a total laboratory space of 16,700 sq. ft. out of which nearly 25% are varandah space and hence functionally useless. This leaves effectively a laboratory space of nearly 12,000 sq. ft. which is considered insufficient for adequately accommodating even the existing laboratories. An additional floor-space of 5000 sq. ft. to accommodate suitably the existing laboratories is, therefore, recommended. It is also felt that the entire laboratory space should be under one roof to provide for optimum utilisation of available equipments and also to cater for effective supervision and control of other supporting technical staff.

Summary of Recommendations:

- | | | |
|------|---|--|
| I. | Additional Staff | 1. Professor
2 Reader
3 Lecturer |
| II. | Additional Laboratory
<u>Floor-space</u> | 10,000 sq. ft. (5000 for existing
+ 5000 for
Instrumentation
Laboratory)

P. 2,50 Lakhs as UGC above. |
| III. | Equipments Grant
(15 lakhs) | a) P. 10 lakhs (7½ in the first
priority + 2½ in the second
priority for the existing
labs.

b) P. 5 lakhs (first priority)
for Instrumentation Lab. |
| IV. | Seminars, Symposia,
Conferences etc. | P. 15,000/- |

Department of Mechanical Engineering & Technology:

This department has a sanctioned strength of 3 Professors, 8 readers and 12 lecturers. Against these, posts of 1 Professor, 3 readers and 4 lecturers are vacant. It is necessary to fill up these posts in order to ease the load of the present staff, so that they can concentrate on research and do justice with the teaching also.

The department feels several sister departments and it has itself 83 students in final year, 80 in pre-final and 111 in the third year. The out turn in B.E. courses has been 6,4,4 and 2 students in 1973, 1974, 1975 and 1976 respectively.

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The response to P.G. classes has not been enough. But this reflects on the job potentialities of the undergraduate students. The department is doing a good work with respect to research. It has produced a number of good papers in the field of solar energy utilisation and production engineering. It has also projects from D.S.T. and Ministry of Food and Agriculture and some private firms also. In order to do full justice to the undergraduate students, not only the 8 vacant posts should be filled in but to give them a specialised training in Production Engineering. It is suggested that at least 3 posts of teaching staff i.e., 1 professor in Machine Design and another Reader in Production Engineering and 1 Lecturer in Industrial Engineering be sanctioned.

The Department has got good laboratory but some sections do not have even the standard equipment needed for common use/research like I.C. Engines Laboratory, Metrology lab. and Turbine machines lab. etc. The workshop has good equipment but lacks modern facilities. The postgraduate laboratory for Heat Power students is not equipped with modern equipment and instruments.

I.C. Engines Laboratory:

The equipment like Gas Chromatograph and a variable compression engine with electronic engine indicators and also some instrumentation facilities are absolutely essential. Hence a laboratory grant of Rs. 3 lakhs may be sanctioned in order to fulfil the above needs.

Production Laboratory/Workshop:

This has got adequate facilities, yet, special modern machine like spark erosion machine, gear hobbing, centreless grinder, welding equipment and necessary measuring instruments are very essential. The Foundry also needs renovation. In order to have minimum facilities in this new field of present day importance a sum of Rs. 5 lakhs is recommended.

Turbomachines Laboratory:

It is desirable to have at least a wind tunnel with necessary equipment which may need about Rs. 2 lakhs. It should be used by Civil Engineering department also.

Metrology Laboratory:

This is one of the most essential laboratories in these days. It has hardly any equipment worth mentioning, and needs completely to be rigged up. Airconditioning of this

lab. will also be essential, and as such a grant of Rs. 2.5 lakhs will be sufficient to bring this in orders. Other laboratories like Refrigeration and Airconditioning, steam laboratory mechanical control laboratory, Heat transfer and solar Energy laboratory and Metallurgical laboratory may be granted a sum of about Rs. 50,000 each, thus bringing a total of Rs. 2.5 lakhs for these five laboratories.

The Department of Mechanical Engineering does not have a Store-keeper (except for workshop). It is absolutely necessary to sanction at least one Assistant Store-keeper for the department in a Junior grade with a helping hand in the grade of a literate peon.

It is essential to have good Technicians in the various fields. As such the following Technicians may be sanctioned in the Junior grades only.

Technicians:

IC Engines Laboratories	2
Production Laboratory/Workshop	2
Metrology Laboratory	1
Refrigeration and Airconditioning and Heat Transfer	1
Solar Energy Laboratory	1

7 Nos.

Drawing Halls:

They are in a very bad situation on the first floor with asbestos roofing without ceiling fans. It is really a very troublesome affair for the students especially in summer. It is extremely felt that before any new building is sanctioned at all for the college it must be renovated first with a pucca roof and the ceiling fans must be provided.

Post-graduate Courses:

Four candidates are registered for Ph.D. in Heat Power Engineering and Production Engineering. Intake strength of Mechanical Engineering Postgraduate is about 10-12 against which only 6 or less students are being admitted. The Department may start a Postgraduate course in Production Engineering in addition to Heat Power Engineering with an intake of 5 students in each course.

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Books:

A sum of Rs.1.5 lakhs in 1st Priority and Rs.0.5 lakhs in the 2nd Priority may be sanctioned as this department feeds several sister departments.

The grants recommended for this department are as follows:

	<u>I Priority</u>	<u>II Priority</u>
(i) Re-roofing of Drawing Halls	Rs.1.60 lakh	-
(ii) Equipment	Rs.1.50 lakhs	Rs. 3.50 lakhs
(iii) Library Books & Journals	Rs.1.50 lakhs	Rs. 0.50 lakhs

Additional Staff:

Professor (Machine Design)	-	One
Reader (Production Engineering)	One	-
Lecturer (Industrial Engg.)	One	-
Technicians	Five (Rs.65,000)	Two (45,000)
Seminars, symposia, etc.	Rs.15,000	-
	<u>Rs.14,00,000</u>	<u>Rs.4,45,000</u>

Department of Technology

While the Department of Engineering forms one part of the Faculty of Engineering & Technology, the Department of Technology forms the second part. Both the departments of Engineering and Technology have separate sections in Mathematics, Physics, Chemistry and English.

The Department of Technology whose main section is Chemical Engineering conducts courses for the B.E. and M.E. degrees in Chemical Engineering.

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The undergraduate course in Chemical Engineering, which was originally a four year course was changed into the five year Integrated course in 1961. The semester system was introduced in 1970.

Faculty:

The department of Technology has a sanctioned faculty strength of 3 Professors, 5 Readers and 7 Lecturers in Chemical Engineering. However, the present working strength is 2 Professors, 3 Readers and 5 Lecturers. It is also found that none of the Readers holds a Ph.D. degree. Two of the Readers and all the five Lecturers are from the Annamalai University holding M.Tech. degree. It is also observed that the posts of Reader in Mechanical Engineering and Mathematics have not been filled. Out of the two posts of Reader in Chemistry, only one has been filled. The teaching is being carried on by Lecturers in these subjects. In Physics, even the Lecturer's post has not been filled. The Physics and Chemistry Sections have also one Demonstrator each. The total strength of teaching staff is 18 and that of the students is 329. The number of staff and students registered for Ph.D. is eight (8), of whom one is due to submit his thesis. It is observed that for the last three years no student has got Ph.D. in Engineering and Technology Faculty.

The faculty members are also engaged in consultancy work and have taken up a number of industrial projects.

Current areas of research are Vapour-Liquid equilibria, Heat Transfer, Reaction Kinetics and Thermodynamics.

Courses:

The under-graduate syllabus mentions four electives, namely Petroleum Engineering, Fertilizer Technology, Nuclear Engineering, and Electro-Chemical Technology. But the department has developed facilities only in Petroleum Engineering and Fertilizer Technology. However, the elective in Fertilizer Technology has been discontinued. Thus there is only one elective subject, Petroleum Engineering that is available at present. At the postgraduate level, the courses framed do not conform to the AICTE pattern, which provides for core and specialization. In place of specialization electives have been prescribed. Only elective namely, Petroleum Engineering is available at present.

Building:

Some of the laboratories of the Department of Technology are located at some distance from the main building. It will be desirable to have these laboratories within the main building. The department also requires additional building space for establishing laboratories in Process Dynamics and Control, Thermodynamics and Kinetics, Petroleum Engineering etc. Keeping all these requirements in view an additional building space of 10,000 sq.ft. is recommended.

Staff:

The faculty position in the Department is not very happy. One post of Professor; two posts of Reader and two posts of Lecturer have been lying vacant. Immediate steps should be taken by the University to fill these posts. In recruiting staff for the vacant posts, suitability of the candidates for teaching the core subjects should be the guiding principle. Transport phenomena is an important area of study in Chemical Engineering and should be given due emphasis in the curriculum. One of the vacant posts of Reader may be earmarked for this subject.

None of the Readers has a Research degree. Further all the Readers except one as well as all the Lecturers are M.Tech. degree holders of the Annamalai University. It would be desirable to avoid such a large scale in-breeding. Further, Readership is a senior post and the incumbent is expected to guide research work and projects at the postgraduate and doctorate level. The minimum essential qualification, therefore, for a Reader's post should be the Ph.D. degree.

The department has put up a demand for additional faculty position, viz. i) Reader in Petrochemical Engineering, ii) Lecturer in Environmental Engineering, iii) Lecturer in Nuclear Engineering. To start a course in Nuclear Engineering with appropriate facilities of laboratory etc. will require the permission of the Bhabha Atomic Research Centre. Environmental Engineering at present is too nebulous a subject to be included, in the curriculum at the cost of more important subjects.

The department had been running an elective for five years in Fertilizer Technology at post-graduate level which has been discontinued now. Development of facilities for electives takes time, money and effort and once developed, should not be given up easily.

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The Department will do well to concentrate on the conduct of not more than two electives. Petroleum Engineering is already being offered as an elective. The other elective may very well be Process Dynamics and control and system simulation and optimization techniques.

The Committee hence feels that teaching in i) Petroleum Engineering, ii) Process Dynamics and Control and iii) Reaction Engineering and Thermodynamics and Transport Phenomena should be strengthened and so recommends the sanction of three posts of Readers namely:

- i) Reader in Petroleum Engineering
- ii) Reader in Process Dynamics and Control with Specialization in simulation and system analysis computer aided design and optimization.
- iii) Reader in Reaction Engineering and Thermodynamics.

One of the vacant Reader's post may be advertised for specialization in Transport Phenomena. The readers must be well versed with recent advances in the subject and modern trends of research activities in the respective areas and must have Ph.D. degree and research publication. Desirable qualification may be Industrial experience.

These new posts should, however, be released only after the University has filled all the vacant posts in the Department. The two posts of Demonstrator in Physics and Chemistry look anachronistic in a University nowadays and may be upgraded to those of Lecturers and the present, incumbents, if appropriately qualified, may be considered for the lecturers posts.

The Committee also recommends the following posts for the Process Control Laboratory.

1. Instrument Technicians (Two)
2. Lab. Attendant (One)

Laboratory Equipment:

In order to strengthen the existing laboratories through replacement of old and obsolete equipment as well as purchase of additional equipment and also for establishing laboratories in Process Dynamics and Control, Instrumental Analysis, Petroleum and Petro-Chemicals and Thermodynamics and Kinetics, a sum of Rs.12 lakhs is recommended.

The committee feels that the department should develop and consolidate its laboratory facilities for the existing core courses and electives before considering the introduction of new electives like Biochemical Engineering. Efforts should be made to fabricate as many equipments as possible.

The following grants are recommended for this department:

	<u>I Priority</u>	<u>II Priority</u>
1. Laboratory Equipment	7.00	2.50
2. Library (Books & Journals)	1.50	0.50
3. Building Including furniture & fittings	2.50	-
	'UGC share'	
4. Repairs & Maintenance of class rooms, workshops etc.	0.30	-
5. Faculty : 1 Professor 3 Readers	0.60	0.30
6. Technical: Instrument Technicians-3	0.30	-
7. Seminars, Symposia, conferences etc.	0.15	-
	<hr/>	<hr/>
	12.35 Lakhs	3.30 lakhs
	<hr/>	<hr/>

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Science and Humanities Departments:

The University has asked for grants for the development of Science Departments both in the department of Engineering and the Department of Technology. The Department of Mathematics in the College of Engineering and the Department of Technology. The Department of Mathematics in the College of Engineering has submitted a proposal for starting a M.Sc. course in Applied Mathematics. It looks odd that in the same faculty separate science and humanities departments should have to be maintained for Engineering and Technology particularly when the two departments are less than 1 km. away from each other. The committee suggests that immediate steps should be taken to provide common facilities for these subjects to the students of Engineering and Technology. It would also be advantageous if the staff in these subjects is borne on the strength of the parent departments in the University which are also nearby. This would ensure facilities for teachers in these subjects to do research and postgraduate teaching. Most of the sophisticated items and equipment asked for by Physics and Chemistry departments would be really useful in the parent science departments and not in the faculty of Engineering and Technology. For strengthening undergraduate teaching of students of the faculty of Engineering and Technology in Science and Humanities subjects, the committee recommends the following assistance:

	<u>I Priority</u>	<u>II Priority</u>
<u>1. Department of Chemistry</u>		
Equipment	75,000	15,000
Books & Journals	15,000	5,000
<u>2. Department of Physics</u>		
Equipment	75,000	25,000
Books & Journals	15,000	5,000
<u>3. Department of Mathematics</u>		
Books & Journals	15,000	5,000
<u>4. Department of English</u>		
Books	5,000	-

The above assistance may be used for science and humanities departments of both Engineering and Technology.

Muthiah Polytechnic:

The University has neither asked for nor the Committee recommends any grants for the Muthiah Polytechnic.

Library:

The Library of the faculty of engineering and technology is neither well equipped nor well staffed with books and journals. However, the central library which is also nearby is being used by the students of faculty of engineering and technology. This library provides 100 reading seats and 24 research cubicals. The library remains open from 10.00 a.m. to 5.00 p.m. for 363 days in a year. On an average 230 students visit the library daily and about 30 to 100 books are issued everyday. Annual budget of the library is Rs.82,500. It has a staff strength of Librarian 1, Deputy Librarian 1, Assistant Librarian 1, and other 31. 11,167 books are available in the central library for engineering and technology.

With the grants recommended for library books and journals it is expected that a large number of copies of text books would be purchased and loaned to the students on long term basis. The central library would also be in a position to send one of the trained persons to work in the faculty library, the salary being met from within the provision of 5% allowed by the U.G.C. with the library grants.

Meeting with the Teachers:

A majority of the teachers complained that there are practically no facilities for faculty improvement programme. This is particularly so because of the vacant posts in the university and the resultant extra workload of the teachers. With the implementation of recommendations of this committee it is hoped that the workload of the teachers would be brought to an optimum level and they would be able to go for quality improvement programmes. There is also need for exposure of teachers to the latest developments in each field because Annamalai Nagar is a cut off place and the teachers do not get facilities to go to other places for attending seminars, symposia, etc. Grants are being recommended for this purpose and it is hoped that the teachers will not only be able to go to other places but it would be possible for the departments to organise seminars, symposia, etc. by inviting experts from other places.

The UGC scales have not been fully implemented in Tamil Nadu so far. This is a consistent dis-

satisfaction among the teachers. However, it is understood that the Tamil Nadu Government has already taken a decision to implement the U.G.C. scales and necessary orders would be issued shortly.

Meeting with students:

The members of the Committee also met students of the faculty of Engineering and Technology. The students put forth the following demands:

1. Lack of practical training facilities
2. Transport for going to industry
3. Non-Resident Student Centre
4. Acute shortage of hostel accommodation
5. Living room, furniture in hostels
6. Lack of funds in the drawing halls
7. Need of changing the roofs of drawing halls
8. Educational tours.

The committee feels that most of these demands are reasonable and justified and, therefore, efforts should be made to provide necessary facilities. Grants have been recommended separately for provision of funds and changing the roofs of drawing halls. For providing necessary furniture in the students' hostels, the committee recommends an amount of Rs.1 lakh. An amount of Rs.75,000 is also recommended as Commission's 50% share for the purchase of a bus and salary of driver during the Fifth Five Year Plan. Since some rooms of the students hostels are occupied by as many as 8 students and there is acute shortage of accommodation even in Chidambaran Town, there is urgent need for the construction of an additional hostel for students. The Committee recommends a grant of Rs.5 lakhs as UGC share for this purpose.

General Observations/Recommendations

1. The University has a great handicap in getting matching funds to implement the schemes sanctioned by the UGC.
2. Against the approved intake of 180 students at the degree level (60 each in civil, Electrical and Mechanical Engineering), the college has been admitting more than 200 students every year during the last three years. In the department of Technology, more than 60 students are being admitted as against 45 recommended by the AICTE. Moreover, instead of assigning a specific branch to students at the very time of admission, students

are branched out into three fields in the third year only. This has resulted in pressures being put on the university for more employment oriented branches and imbalances in the student teacher ratio of various departments.

3. The committee is of the opinion that the total intake of students should be 180, 45 in each of the four disciplines viz., Civil, Electrical, Mechanical and Chemical Engineering and the students should be assigned their branches at the time of admission.
4. There are a number of posts lying vacant for a period of more than five years, with the result that only about 5% of the sanctioned strength has to carry the entire workload. Immediate steps should, therefore, be taken to fill up the vacant posts.
5. There is a lot of inbreeding as more than 90% of the faculty are either students of this faculty or joined this faculty as lecturers and then become Readers and Professors.
6. Degree course in Electronics which has already been started may be approved with an intake of 30 students.
7. The postgraduate course in Production engineering in the Department of Mechanical Engineering may be started but without any addition of intake. Instead of the present postgraduate course in Heat Power Engineering admitting 10 students, the department should admit 5 students to each of the two postgraduate courses.
8. Faculty improvement programme introduced by the UGC should be extended to teachers of Engineering and Technology.
9. There is an acute shortage of water supply on the campus.
10. Science teaching of undergraduate students of Engineering & Technology needs complete reorganisation.
11. The University should frame a comprehensive proposal for students welfare programmes and apply to the UGC for necessary assistance.

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12. The maintenance of the buildings is very poor and needs urgent attention.
13. The department of Technology should be redesignated as department of Chemical Engineering & Technology and the Sections in Engg Dept. be designated as depts of Civil, Mech. Electrical and Electronic Engg,. This would be in conformity with the practice in other universities.

GRANTS RECOMMENDED (in lacs of Rs.)

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Head	Civil		Electrical		Mechanical		Chemical	
	I	II	I	II	I	II	I	II
10,000 ft ² + Repairs	-	-	10,000 ft ²	-	Re-roofing	-	10,000 ft ²	-
Addl. Building	3.00	-	2.50	-	1.00	-	2.50	-
			7.50	2.50				
Equipment	3.50	1.50	5.00 (Instr.Lab.)		1.50	3.50	2.00	2.50
Staff	2R) 4T) 0.65	1R) 1T)	1 P) 2 R) 3 L)	-	1P) 1L) 5T)	1 P) 2 T)	3R) 3T)	1P
Books & Journals	0.75	0.25			1.50	0.50	1.50	0.50
Seminar etc.	0.10	-	0.15	-	0.15	-	0.15	-
Repairs & Maintenance							0.30	-
Total	8.00	2.10	15.90	2.50	14.80	4.45	14.35	3.30
Grand Total: (Engg. & Tech.)					51.05	12.35		
Science & Humanities					2.00	0.65		
Bus & Driver					.75	-		
Furniture for hostels					1.00	-		
New hostel					5.00	-		
					<u>59.80</u>	<u>13.00</u>		

The grants recommended for equipment and books are inclusive of the basic and ad hoc grants already approved/paid by the Commission during the Fifth Five Year Plan.

The Committee is thankful to the Vice-Chancellor, the Registrar, the Dean, and other staff members of the faculty of Engineering & Technology, Annamalai University for their hospitality and cooperation extended in its work.

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|-------------------------------|------|
| 1. Professor B.V. Ranganathan | Sd/- |
| 2. Professor V.S. Rajamani | Sd/- |
| 3. Professor L.R. Govil | Sd/- |
| 4. Professor Gopal Tripathi | Sd/- |
| 5. Shri B.R. Kwatra | Sd/- |

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : December 19, 1977.

Item No. 1 To consider the report of the Visiting Committee appointed by the Commission for assessing the developmental needs of the Faculty of Engineering & Technology, Aligarh Muslim University, during the Fifth Five Year Plan.

The Commission constituted a Visiting Committee to examine the needs for development of teaching and research in Engineering & Technology at the Zakir Hussain College of Engineering & Technology as also the University Polytechnic and Women's Polytechnic, Aligarh Muslim University during the Fifth Five Year Plan. This Committee visited the University during 14th - 16th July, 1977 and held discussions with the staff, students, Vice-Chancellor, Pro-Vice-Chancellor, Dean and Principals of the College and Polytechnic. The Vice-Chancellor presented before the Committee some of the urgent problems of these institutions.

The report of the Visiting Committee prepared in conformity with the Commission's guidelines is given in Annexure. The main recommendations of the Committee department-wise in particular reference to the urgent needs for improving the functioning of the various departments are as below:

1. Department of Civil Engineering:

(1) The Department has proposed diversification at undergraduate level which have not been clearly identified. These should be Structural Engineering, Hydraulic Engineering, Soil Mechanics and Foundation Engineering, Public Health, Engineering and Advanced Surveying and Photogrammetry. Subjects, 3 in each group, should be selected for diversification.

(2) The proposal of the University to bring about rationalisation and consolidation of courses has been welcomed but subjects like Architecture and Town Planning, Building Planning should be dropped in order to accommodate more relevant subjects as indicated by the Committee. The Committee has not supported postgraduate courses in underground structures including ground-water hydrology and oil

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field development as there are several subjects proposed by the university which can adequately take care of these activities in the fields of Structural Engineering, Hydraulic Engineering, Soil Mechanics and Foundation Engineering. These fields should be the major fields of activities at the postgraduate level for the university for several years to come.

(3) The existing postgraduate courses of building engineering should be re-organised by offering courses coming within the ambit of Structural Engineering, Soil Mechanics and Foundation Engineering.

2. Department of Mechanical Engineering:

(1) In order to rationalise and consolidate the teaching, the heat power and industrial engineering postgraduate courses should be bifurcated and postgraduate courses may be offered in 4 streams - Heat Power (Thermal), Heat Power (Turbo matter), Industrial Engineering and Machine Design. The changes can be offered with least expenditure. The undergraduate laboratories need renovation and many obsolete and archaic pieces of equipment need to be discarded and new equipment substituted.

(2) The workshop which is a central facility is in a very poor shape and has to be re-organised by attaching to the Mechanical Engineering Department which will also help the Industrial Engineering course.

(3) There is not much research or development work in this department except in Fluid Mechanics and Design and Dynamics. These areas need strengthening. In order to bring real life experience to the students, the department may invite experts in industry to lecture to the students on the problems of production. The design and development cell, fluid mechanics laboratory and the design and dynamics area needs strengthening.

3. Department of Electrical Engineering:

It is essential to bear in mind that proliferation of courses are detrimental to the interests of both students and teachers. Fewer courses covering basic material with typical modern applications must be planned. A heartening feature of the department is the absence of infighting or rancour amongst the colleagues and inputs given will, therefore, achieve better results. Though the original undergraduate programme was biased heavily for electrical power engineering, the present programme has a fair content of light current engineering and the postgraduate programmes are in 3 areas of control, instrumentation and power systems.

4. Department of Chemical Engineering:

(1) The Committee supports the new broad-based undergraduate programme in Chemical Engineering introduced by the university but the annual intake should be restricted to 30 to begin with. Professor Guha of the IIT, Kharagpur has drawn up a model syllabus, with course schedule and also norms for staff requirements and space requirements for consideration of the university authorities (the Vice-Chancellor had made a specific request to the Committee to help the university by doing this). The relevant details are given in Appendix-III to V.

(2) The Committee has welcomed the proposal to start Petroleum Technology course with financial support from the U.A.E. However, the Committee has suggested that the starting of such courses should be deferred till such time when the funds are actually received by the university authorities and the programmes in this sector should be directed more towards Petroleum Refining and Petrochemicals production than to Petroleum Reservoir Engineering. Proposals of the university should be scrutinized by a Committee including the organisations in the field like Indian Institute of Petroleum, Dehra Dun, Indian School of Mines, Dhanbad, Indian Petrochemicals Corporation Ltd., Fertiliser Corporation of India, Bharat Refineries, Representatives of Chemical Engineering Departments of two of the IITs and representative of the Ministry of Petroleum and Chemicals as proper co-ordination is very much required while launching such a programme which should be related to the national needs.

(3) The modernisation of the workshop of the Engineering Colleges has to be completed expeditiously. The Committee noted that this work has been taken on hand by the university authorities.

(4) Since the programmes drawn up for the Women's Polytechnical were considered inadequate by the Committee, it was suggested to the university that a programme within Rs.5.00 lakhs may be drawn up for consideration of the Commission.

(5) The Committee has brought to the notice of the university authorities the functioning of the Principal of the College of Engineering and the Dean of the Faculty of Engineering & Technology. It was indicated that the present practice was not considered a good arrangement and the Committee felt that it would be useful if the university authorities could review the position which will help in implementing the programmes suggested more expeditiously.

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The financial implications of the recommendations are as below:

		<u>Ist Phase</u>	<u>2nd Phase</u>
		(Rupees in lakhs)	
1.	Spill over programmes	... 19.33	- -
2.	Department of Civil Engineering	... 19.30	6.10
3.	Department of Mechanical Engineering	... 25.87	7.50
4.	Department of Electrical Engineering	... 19.60	2.90
5.	Department of Chemical Engineering	... 13.28	3.22
6.	Department of Applied Sciences - Physics Section	... 2.38	0.50
7.	Mathematics Section	... 3.27	0.30
8.	Chemistry Section	... 3.37	0.30
9.	Central Facilities	... 7.70	2.30
10.	Hostel Facilities	... 10.00	- -
11.	Polytechnic (University)	... 16.01	8.00
12.	Women's Polytechnic	... 5.00	- -
		<hr/>	<hr/>
		Total: ... 145.11	31.12

Including spill over, the first phase of the programme without taking into account the fellowships and postgraduate scholarships would cost Rs.145.11 lakhs and the second phase Rs.31.12 lakhs against the total allocation of Rs.150.00 lakhs.

The matter is placed before the Commission for consideration.

UNIVERSITY GRANTS COMMISSION

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Report of the Visiting Committee appointed by the University Grants Commission for examining the development needs of the Zakir Hussain College of Engineering & Technology along with the needs of the University Polytechnic and Polytechnic for Women during the Fifth Five Year Plan.

The University Grants Commission appointed a Visiting Committee for examination and assessment of the requirements for development of teaching and research in Engineering & Technology at the Aligarh Muslim University for the Fifth Five Year Plan with the following members:

1. Professor D.K. Guha,
Department of Chemical Engineering,
Indian Institute of Technology,
Kharagpur.
2. Professor S. Venkateswaran,
Department of Electrical Engineering,
Indian Institute of Technology,
Kanpur.
3. Professor P.K. Som,
Department of Civil Engineering,
Jadavpur University,
Calcutta-32.
4. Professor P. Srinivasan,
Department of Mechanical Engineering,
Indian Institute of Science,
Bangalore.

Officers of the Commission:

5. Dr. S.K. Dasgupta,
Joint Secretary.
6. Shri M.P. Balakrishnan,
Deputy Secretary.

2. The Commission had invited proposals from the university within an allocation of Rs.150.00 lakhs excluding postgraduate scholarships. In its letter No.F.30-4/76(T) dated 15th June, 1976, the Commission requested the University authorities to prepare its Fifth Plan proposals for development of teaching and research in Engineering and Technology covering undergraduate and postgraduate courses within an allocation of Rs.150.00 lakhs keeping the following guidelines:

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2.1 "The main thrust for the development of the undergraduate courses in the plan should be on consolidation and development of the existing courses including improvement of laboratory facilities and faculty development. Within the total sanctioned intake, there should be flexibility for introducing diversified courses provided necessary facilities are available and no major appointment of additional teachers is involved. New courses should be provided only after taking into consideration the need for such a course, the training facilities already available and the employment potential. No provision may be made for additional intake."

2.2 "As regards postgraduate courses, fuller utilisation of the existing facilities has to be ensured. If a particular course is not attracting the students; such courses may be recommended to be discontinued. The requirement of introducing postgraduate courses should be determined on the basis of national needs and special needs of the region. An attempt should be made to see that courses on the same specialisation are not repeated by all the Engineering Institutions of the universities within the same State."

2.3 "While suggesting appointment of new teaching staff, a clear indication of area of specialisation needs to be given."

2.4 It should be the general approach of institutions to create central facilities in collaboration with Science Departments so that costly and sophisticated instruments and equipment are fully utilised by all the departments of the Institute and are properly maintained with the help of suitably trained personnel. For this, it would be necessary for the universities to take an integrated view of the undergraduate and postgraduate courses as well as of the facilities available in other Science Departments while preparing the development plans."

2.5 "The requirements and facilities for part-time diploma course for diploma holders in engineering and technology may also be examined on the merits of such cases."

2.6 The university was further advised to send its proposals within Rs.150.00 lakhs in two priorities - 75% under the first priority and 25% under the second priority. The university was also advised that the programmes to be covered within Rs.150.00 lakhs may not include the funds to be provided for award of postgraduate scholarships against approved intake for which funds would be provided separately.

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2.7 The university was also required to send a statement indicating the amount payable to it by the Commission for the schemes sanctioned in the earlier plans, the funds for the completion of which could not be paid or drawn before 1st April, 1974.

3. The University accordingly drew up its proposals for development during the Fifth Five Year Plan covering the Zakir Hussain College of Engineering & Technology, the University Polytechnic and the Women's Polytechnic. In the case of Zakir Hussain College of Engineering & Technology, the proposals of the University included those of the Departments of Civil, Engineering, Electrical Engineering, Mechanical Engineering and Chemical Engineering as also the science departments and for other facilities.

3.1 The development proposals of the university polytechnic covered the needs of Civil, Electrical, Mechanical, Electronics and Tele-communication Engineering Departments as also the development of its workshops and tools.

In the case of the Women's Polytechnic the development proposals submitted by the University included all the programmes for developing its various departments with a view to consolidating them and also modernising the existing facilities and for development/certain new courses. It was noted that the programmes of the Women's Polytechnic were also receiving assistance from the Government of India separately.

3.2 A summary of the proposals received from the university for consideration of the Commission is given in Appendix-I.

4. The Committee which visited the university during 14th - 16th July, 1977 visited all the departments, held discussions with the staff, students, Vice-Chancellor, Pro-Vice-Chancellor, Dean and Principals of the College and Polytechnic before undertaking the visits and after completing the discussions and visits to the departments, the Committee had also a final round of talks with the Vice-Chancellor, Pro-Vice-Chancellor as also the Principals Dean of the Engineering College as well as the Polytechnic.

5. The university authorities wanted the Committee to particularly take note of the difficulties faced by the university and the past neglect in respect of the development of engineering and technology sectors of the university in the Third and Fourth Five Year Plans. While noting that the ceiling allocations for engineering and

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technology would be only Rs.150.00 lakhs it was suggested by the university authorities that the entire programme that would be recommended need not be shown as first and second priority as suggested by the UGC and the university may be sanctioned a programme at least for Rs.150.00 lakhs excluding spill over in an attempt to telescope its development needs, which were not fully taken into account in the earlier plans. The Vice-Chancellor particularly invited the attention of the Committee to the fact that for the development of engineering and technology, the assistance received from the UGC during 1957-71 had been very meagre. According to the figures quoted by the university authorities, only a sum of Rs.18.00 lakhs were paid to the university during the 14 years intervening between 1957 and 1971. The University authorities and the Vice-Chancellor in particular wanted the Committee to take note of this, while making allocations for the various programmes.

5.1 The university authorities further requested the Committee to make its recommendations regarding development of courses in Petroleum Technology for which some foreign assistance has also been committed and in this connection a suggestion was made that the assistance from the UGC may be for the undergraduate courses of Chemical Engineering and the development of postgraduate courses in Chemical Engineering in the Petroleum Technology area could be expected from the U.A.E. Some uncertainty was, however, expressed in getting the same level of assistance which was previously expected for this purpose. It was further suggested that some assistance would be required from the UGC for this sector, too by way of seed provision for the development of Petroleum Technology course.

6. The Committee had a meeting among the members themselves to decide how it would assess the work and allocate the available resources among the various departments and units. It was noted that the spill over amount as indicated by the university came to Rs.19,415 lakhs. (Appendix-II). The university subsequently has informed that the actual spill over would work out only to Rs.14.40 lakhs and a sum of Rs.4.93 lakhs incurred by the university for purchase of imported equipment may be adjusted against Fifth Five Year Plan grant of UGC and the same may be paid to the Ministry of Education. With this, the total spill over amount would come to Rs.14.40 lakhs plus Rs.4.93 lakhs amounting to Rs.19.33 lakhs. The Committee, however, suggests that the figures supplied by the university may be reconciled by the UGC while making the financial sanction to the university.

6.1 The Committee thereafter considered the development requirements of various departments for the current plan after detailed discussions with the faculty members.

7. Department of Civil Engineering:

7.1 Present Status: Intake:

It was noted that at the undergraduate level the department has a sanctioned intake of 60 students. The average for the last four years show that the actual intake has been to the tune of 100. At the master's level in the field of Hydraulic structure as against a sanctioned intake of 6, the actual intake has been 11 and for building engineering against a sanctioned intake of 10 the average intake has been 17.

7.2 Faculty:

The Committee further noted that against the sanctioned posts of teachers, the teachers in position have been as below:

Category	Sanctioned	Actual in position	Remarks
Professor	3	2	Out of 2 one is on lien.
Reader 6 + 1	Personal Promotion	6	One is on leave without pay working in Libya.
Lecturer 20-1	Personal Promotion	15+4*	*on study leave

7.3 Accommodation:

Regarding accommodation, the Committee noted that the Department had an aggregate building space of about 19,700 sq.ft. for laboratories, class rooms, teachers' rooms. For the various activities of the Department, space was inadequate for laboratories as well as class rooms.

7.4 Equipment:

In the case of equipment, it was noted that the Department had mostly old items of equipment which needed

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replacement. A sum of Rs.3.00 lakhs was put as the value of the items of equipment which needed immediate replacement.

The Committee noted that the undergraduate curriculum provides contact periods of 31-32 periods a week.

7.5 Postgraduate Research:

The main postgraduate activity of the Department has been concentrated at the master's level. A postgraduate programme is carried on with the member of the staff only. There is evidence of fair amount of industrial/sponsored research activities in structural engineering, soil mechanics and foundation engineering, public health engineering and hydraulic engineering. Research activities at M.Sc. level and Ph.D. level are distributed as follows:

M.Sc.

Structures	18	thesis
Hydraulic Engineering	12	"
Soil Mechanics and Foundation Engineering	5	"

Ph.D. (in progress):

Structures	3	"
Hydraulic Engineering	2	"

7.6 Departmental Library:

The departmental library has just a collection of 3,000 books. The Committee noted that adequate space had been allotted for students by way of reading room facilities to utilise the departmental library. However, the number of text-books kept in the library needed to be increased.

7.7 Recommendations of the Committee:

The Department has proposed some diversifications at undergraduate level which are, by and large, welcome. But the main fields of diversification are not reasonably identified. These should be:

Structural Engineering

Hydraulic Engineering

Soil Mechanics and Foundation Engineering

Public Health Engineering

Advanced Surveying and Photogrammetry

Subjects 3 in each group, should be selected for diversification.

7.8 Tutorials and Project Work:

Tutorial classes, at least upto pre-final year stage should be conducted by dividing the students into small groups of say 15.

Project work for final year students should be carried out with a view to preparing the students to make engineering design and detail, to take off quantities and draft specifications. They should be given 10 periods per week for their project work under able guidance.

7.9 Rationalisation and Consolidation of Courses:

(a) Subjects like Architecture and Town Planning, "Building Planning" should be dropped in order to accommodate more relevant subjects in the aforementioned fields.

(b) Proposed postgraduate courses in:
Underground structures including
groundwater hydrology and oil field
development are not recommended at
this stage.

(c) But there are several subjects
proposed in the first course of study
which can be adequately taken care of if
the activities are developed in the
following fields:

Structural Engineering

Hydraulic Engineering

Soil Mechanics and Foundation Engineering.
And these fields should be the major fields of activity
at post graduate level for several years to come.

(d) No new courses are recommended now.

(e) In this connection, it is recommended
that the existing postgraduate courses of
"Building Engineering" should be re-organised
by offering courses which will come within
the ambit of:

(89)

Structural Engineering

Soil Mechanics and Foundation Engineering

7.10 Financial Implications:

In the above context, a total non-recurring grant of Rs.21.00 lakhs and recurring grant of Rs.4,40,800/- as detailed below are recommended for the development needs of Civil Engineering.

(a) Non-Recurring:

1.	Building Structural Testing floor 4,000 sq.ft.	Rs. 2,00,000/-
2.	Equipment:	
i.	Strength of Materials Laboratory.	Rs. 75,000/-
ii.	Hydraulics Laboratory	Rs. 2,00,000/-
iii.	Concrete Laboratory	Rs. 1,00,000/-
iv.	Stress analysis laboratory.	Rs. 4,75,000/-
v.	Structures laboratory.	Rs. 4,00,000/-
vi.	Public Health Engineering Laboratory.	Rs. 50,000/-
vii.	Highway Engineering Laboratory.	Rs. 30,000/-
viii.	Soil Mechanics Laboratory.	Rs. 1,70,000/-
ix.	Survey equipment and drawing equipment.	Rs. 3,00,000/-
		<hr/>
		Rs.18,00,000/-
3.	Books and Journals	Rs. 1,00,000/-
		<hr/>
	Total:	Rs.21,00,000/-

(b) Recurring (2 years):

p. t. o.

(a) Professors (4x2x23000)	Rs. 1,84,000/-
2. Structural Engineering)	
1. Hydraulic Engineering)	
1. Soil Mechanics & Foundation Engineering)	
 (b) Readers	
2- Structural Engineering 6x2x19000	Rs. 2,28,000/-
2- Hydraulics Engineering	
1- Soil Mechanics &	
1- Foundation Engineering	
1- Public Health Engineering	Rs. 4,12,000/-
2- Technical Assistants 2x2	Rs. 28,800/-
1- Survey Instrument Mechanic) 7,200	
1- Senior Mechanic with Workshop experience	Rs. 4,40,800 or
	say Rs.4.4 lakhs

	<u>Ist Phase</u> Rs	<u>2nd Phase</u> Rs
Non-recurring	16,00,000/-	5,00,000/-
Recurring	3,30,000/-	1,10,000/-
	19,30,000/-	6,10,000/-

Grand Total: Rs.25.40 lakhs

7.11 R search Fellowships/Seminars etc:

In order to accelerate the postgraduate research activity for proper utilisation of infra-structural facilities to be created with the new fund the Committee recommends 4 Senior Research Fellowships at Ph.D. level.

p. t. o.

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Reasonable grants for attending seminars and conferences (at least Rs.10,000/-p.a.) should be sanctioned.

7.12 Construction of class rooms and teachers' sitting rooms are recommended as follows but the fund provision has been made under central facilities:

Postgraduate class rooms	2
Undergraduate class rooms	3
Tutorial class rooms	3
Drawing hall	1

Staff members' sitting room may be so designed as to accommodate small size tutorial class rooms. This will economise space.

8. Department of Mechanical Engineering:

The Mechanical Engineering Department is permanently engaged in undergraduate teaching with an estimated intake of 400 students for undergraduate and 42 students for the postgraduate courses with a staff of 43.

8.1 It is running two postgraduate courses in Heat Power and Industrial Engineering. In order to rationalise and consolidate the teaching, it is proposed that these two courses be bifurcated and postgraduate courses may be offered in 4 streams as follows:

1. Heat Power (Thermal)
2. Heat Power (Turbo matter)
3. Industrial Engineering
4. Machine Design

These changes can be offered with least expenditure and effort. The funds required are indicated at the end of this section.

8.2 There is not much research or development work going on in this department except in some isolated pockets like fluid mechanics and dynamics. These potential areas need strengthening and recommendations made are in this direction.

8.3 The undergraduate laboratories need renovation and many obsolete and archaic pieces of equipment need to be discarded and new equipment substituted.

8.4 The workshop which is a central facility is in very poor shape. If it is attached to the Mechanical Engineering Department it might help the industrial engineering courses they are offering and also the apparatus, design and development cell, will be in a much better position to deliver the goods. The proposals in this connection are set out in the end.

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8.5 Space Requirements:

The existing overall accommodation of 17,736/- sq.ft. is detailed as follows:

Laboratories	15,289 sq.ft.
Store rooms	831 sq.ft.
Office	545 sq.ft.
Teaching staff space	1,071 sq.ft.

No new buildings are proposed. The 10,000 sq.ft. of floor area, the Electrical Engineering Department, will release. . . when they move out to their new location may be allocated as follows:

Staff:	3,300 sq.ft.
Store rooms	1,600 sq.ft.
Office	1,000 sq.ft.
Laboratories	4,100 sq.ft.

8.6 Basis for the above allocations:

75% of the staff at present have no place to sit which means: 33 staff members have to be provided some place to sit. Assuming that 100 sq.ft. is provided for each staff member, the total requirement comes to 3,300 sq.ft. The accommodation for the store and the office has been doubled within the available released space.

Since the buildings are very old (42 years) they require renovation and repair. Taking the repairs at Rs.10/- sq.ft., a sum of Rs.1.00 lakh needs to be provided. Providing every staff member with a table, a chair and a cup-board (table with a cum-board) and taking Rs.400/- as the cost, the total expenditure would come to Rs.400x33 or Rs.1.32 lakhs. Furniture and fittings for office and store would cost Rs.50,000/-. In summary the requirement recommended is as below:

(1) Renovation/repairs to the building	Rs. 1,00,000
Furniture (staff)	Rs. 1,32,000
Furniture and fitting for the office and store.	Rs. 50,000

Total: Rs. 2,82,000

Non-Recurring: Rs.2,82,000/-.

O. t. o.

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(a) Staff : (Teaching) Post-graduate courses

Total number of teachers		<u>43</u>
Professors		4
Readers		9
Lecturers		29
Associate Lecturer		<u>1</u>
	Total :	<u>43</u>
Total number of students		448
B.Sc. (Engg.)	80 x 5	400
M.Sc. (Engg)	21 x 2	42
Ph.D.	6	<u>6</u>
		<u>448</u>

The teacher-student ratio is 1 : 10 while it is adequate for undergraduate courses, it is proposed to provide 6 more staff members for the postgraduate courses (Professors 2) one in the area of fluid mechanics and one in combustion Engineering and Readers 4 also in the area of fluid mechanics, machinery and combustion engineering which according to the norms laid down, would cost Rs. 2.44 lakhs (Rs. 23,000/- per annum for Professor and Rs. 19,000/- per annum for Reader).

8.7 Supporting staff (Technical)

Since the faculty members are expected to be involved in research projects, in their areas, it is proposed to provide one Senior Research Assistant and one Laboratory Attendant to each staff members :

Senior Research Assistants	6
Laboratory Attendants	6

The expenditure involved is Rs. 90,000/.

(Rs. 500/- per month for Senior Research Assistant and Rs. 150/- per month for Laboratory Attendant)

Recurring expenditure recommended as above comes to :

Teaching	Rs. 2.44 lakhs
Supporting	<u>Rs. 0.90 "</u>
Total (R)	<u>Rs. 3.34 "</u>

Besides

It is proposed to sanction 3 posts as follows :

Accountant	..	1	
Typists	..	2	as supporting

staff for administrative purposes at the rate of Rs. 500/- per month per post.

8.8 Library and Seminars : Costing Rs. 36,000/- for few years. The total recurring expenditure thus works out to Rs. 3.7 lakhs.

Books :

The total number of books in the departmental library is only 1200. In order to strengthen the undergraduate teaching and post-graduate courses, it is proposed to add the holdings by at least another 1200 books. These books should be apportioned between undergraduate and postgraduate courses in the ratio of 4 : 6. Besides for procuring 26 journals indicated by the Committee and for having the required furniture and fittings, a provision of Rs. 2 lakhs is recommended by the Committee. Further the library may also be sanctioned 2 Research assistants to help in the proper utilisation of books and journals by students (Rs. 24,000) at the rate of Rs. 500/- per month per Research assistant. The Committee also recommended Rs. 26,000/- for purchase of audio-visual aids like overhead projector and micro-film reels etc. making a total provision of Rs. 2.5 lakhs.

8.9. Visiting Professor's for Industrial Engineering Design :

In order to bring real life experience to the students, the department may invite experts in industry to lecture to the students on the problems of production. Assuming that each expert spends one afternoon per week (3 hrs. per week) for two years, a provision for Rs. one lakh is recommended for arranging such lectures at the rate of Rs. 50 per lecture. A sum of Rs. 30,000/- will also be required by way of T.A. to the guest lecturer from outside.



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8-10 Apparatus : Design and development cell for research and development work :

To provide facilities for developing instruments and apparatus required for various experiments pertaining to research and developments. Equipment proposed by the university in the development proposals to the tune of Rs.3 lakhs is recommended.

8.11 Fluid Mechanics Laboratory :

The research potential of the department seems to be in this areas, judging from the output indicated. In order to strengthen this activity, a sum of Rs.1.25 lakhs is recommended for equipment.

8.12 Design and Dynamics :

Another area where research potential exists is one of design and dynamics. In order to strengthen the research activities in the above area, a sum of Rs.1 lakh may be sanctioned for equipment.

8.13 Postgraduate courses :

In order to acquire equipment for the two new postgraduate courses in machine design and heat power (Thermal) and to strengthen the existing postgraduate courses, the following allocation is suggested.

1.	Industrial Engineering	Rs. 1.25 lakhs
2.	M/C Design	Rs. 1.25 lakhs
3.	Heat Power (Thermal)	Rs. 1.25 lakhs
4.	Heat Power (Turbo-matter)	Rs. 1.25 lakhs
		<hr/>
		Rs. 5.00 lakhs

8.14 Replacement of obsolete equipment (undergraduate) :

The department has got equipments to the tune of Rs.4 lakhs which are old and obsolete. A sum of Rs.4 lakhs is recommended to replace at least 50% of them which are

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to be immediately replaced taking into account the present cost. The equipment to be replaced may be identified by a Committee of experts.

8.15 Second Phase :

After the complete utilisation of the 1st phase programmes, the following may be sanctioned to the university in the second phase.

Apparatus design and development cell . .	Rs. 1.00 lakh
Thermal turbo machine	Rs. 1.00 lakh
Fluid mechanics	Rs. 1.00 lakh
Mechanism and Dynamics	Rs. 0.50 lakh
M/C tools metal cutting lab.	Rs. 1.00 lakh
Heat transfer. Refrigeration thermo-dynamics	Rs. 2.00 lakhs
Working expenses	Rs. 1.00 lakh
	<hr/>
	Rs. 7.50 lakhs
	<hr/>

A sum of Rs.25.87 lakhs has thus been recommended for the first phase and Rs.7.50 lakhs for the second phase for the Department.

Department of Electrical Engineering

9.00 The Electrical Engineering Department has a sanctioned capacity of 90 undergraduate and 25 postgraduate students every year. The original under-graduate programme was biased heavily on Electrical Power Engineering but the present programme has a fair content of Light Current Engineering. There are postgraduate programmes in the three areas of Control, Instrumentation and Power Systems.

9.01 An A.I.C.T.E. Visting Committee had recommended an intake of 30 students every year for an electronics/stream and made suitable additional assessment for space equipment and staff. The department has 15,000 sq.ft. of area in a new building, and on the ground floor, and

10,000 sq.ft. in the old building. It was to have acquired additional 20,647 sq.ft. by way of first floor and second floor in the new building but this did not happen owing to a drop of intake in the III Five Year Plan. Space in the old building was then to be used by others.

9.02 The department has at present a strength of 4 professors (one of whom is yet to join) in the areas of control/computers, Power Systems/Electrical Machines, Instrumental (and Devices). 8 Readers cover further specialisations as well except Power Electronics/Bio-Electronics. There are 21 Lecturers.

9.03 The Department has introduced some new courses and listed several elective courses based on University of Roorkee Curriculum Model and Faculty interest.

9.04 It is essential to bear in mind that proliferation of courses including laboratory courses are detrimental to the interests of both students and teachers. Fewer, more appealing laboratory courses that cover basic material with typical modern applications must be planned. This will give more free time to the students to study on his own and to the faculty to pursue consultation/project/research/book writing.

9.05 The strength of faculty for Electrical Engineering Department for its intake of Undergraduate and Postgraduate students works out as $\frac{90}{10} \times 3$ or 27 for undergraduate and $\frac{25}{7} \times 2$ or 7 for postgraduate programme.

With a Professor : Reader : Lecturer ratio of 1:2:4 this yields a total of 5 professors, 10 readers and 19 lecturers

9.06 Comparison with existing strength gives the additional requirement of 1 professor (area communication and 2 readers (in areas of communication : Power Electronics/Bio-Electronics). In the area of Bio-electronics there is already 1 lecturer and a Project with the Faculty of Medicine of the University. Several faculty members who completed research work elsewhere continue to pursue their work here because of not meeting specialized equipment. The laboratories and library facilities as they exist are woefully inadequate for the M.Sc. Engineering programme, not to mention about more serious research programmes.

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9.07 A heartening feature about the department is the absence of infighting or rencour amongst colleagues. Inputs given to the department will, therefore, achieve better results.

9.08 In addition to the 1 professor, 2 readers, 2 Sr. Technical Assistants and 3 Instrument Mechanics are recommended. Rupees 2 lacs are due on loan equipment. obsolete equipment need replacing especially in the Power Laboratory. A generalised electrical machine for teaching purposes may be acquired for which Rs.2 lacs are recommended.

9.09 Faculty exchange programme needs a small input of 0.30 lacs. Research fellowships may be obtained separately.

9.10 Major equipment for Signal Processing Laboratory includes a Process Control Computer for ECIL. Com. and Digital Laboratory equipment include minimal content of equipment for Bioelectronics.

9.11 Building first floor on top of ground floor in new building with a floor area of 15,000 and is to be taken in 2 phases of 7,500 sq.ft. each. Additional requirements include furniture, library capital expenditure and recurring expenditure on journals, books and stores.

9.12 The total non-recurring expenditure for first phase is 19.60 lacs and for second phase is 7.55 lacs. The recurring expenditure for first phase (for 18 months) is Rs.2.90 lacs and nil in second phase. The total requirements is 22.50 lacs in first phase and 7.55 lacs in second phase. Details of recommendations are provided in the Tabular form given below :

9.13

Proposal	Non-recurring Lacs	Recurring (for 18 months) Lacs	Total Lacs
1	2	3	4

Ist Phase

Building 7,500 sq.ft.	4.50	-	4.50
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(99)

1	2	3	4
Loan equipment	2.00	-	2.00
Obs. Equipment replacement	2.00	-	2.00
Addl. Faculty (1F, 2R and Staff (2 Sr. Tech.Asstt.) 3 Instrument Mechanics	-	1.60	1.60
Faculty Exchange	-	0.30	0.30
Furniture	0.25	-	0.25
Library	0.75	-	0.75
Maintenance (Journals, Stores etc.)	-	1.00	1.00
Comm. Laboratory	1.90	-	1.90
Digital Laboratory	1.70	-	1.70
Signal Processing	6.50	-	6.50
All in First Phase	19.60	2.90	22.50

IIInd Phase

Building 7,500 sq.ft.	4.50	-	4.50
Furniture	0.25	-	0.25
Comm. Laboratory	2.20	-	2.20
Digital Lab.	0.60	-	0.60
All in Priority II	7.55	-	7.55

Total NR expenditure in I and II	Rs. 27.15 lacs
Total R expenditure in I and II	Rs. 02.90 lacs
Total NR and R expenditure in I and II	<u>Rs. 30.05 lacs</u>

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Chemical Engineering

10.00 A. Introduction

The Academic Council of the University approved the establishment of a separate Department of Chemical Engineering under the Faculty of Engineering. A committee constituted by the Northern Regional Centre of Technical Education went through the proposal and suggested that a broad based undergraduate programme in Chemical Engineering at Z.H. College of Engineering be started during the middle of the Fifth Plan period. Thus initiated, the University on its own admitted students to B.Sc. (Engg.) Course in Chemical Engineering from the Session 1976-77.

10.01 B. Academic Assessment

With the emphasis given on the development and growth of Chemical Industries during the Fifth Plan period, the employment potential of chemical engineering is now among the highest in the country. Hence, there is good justification in starting the undergraduate course in Chemical Engineering at the Z.H. College of Engineering and Technology. This course will be a broad-based one without any specialisation and of five years duration in line with other B.Sc.(Engg.) courses. The annual admission to this course should be restricted to 30 to start with. Admission qualifications will be the same as prescribed for other disciplines in engineering.

10.02 Some relevant details with regard to this course are given in Appendix III-V.

- i) Model syllabus (course schedule) - Appendix III.
- ii) Space requirements(Laboratorywise) - Appendix IV.
- iii) Staff requirements (teaching and non-teaching) - Appendix V.

10.03 C. Recommendations

The following financial recommendations are made so as to enable the University to take appropriate action for initiating the Course.

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I. Non-recurring

	Rupees in lakhs	
	Ist Phase	2nd Phase
a) Building (1st phase, 12,000 ft ²)	6.00	-
b) Furniture, 10% of above	0.60	-
c) Equipment	5.00	1.40
d) Installation of equipment including freight, etc. (8% of C)	0.40	-
e) Books, furniture for departmental library	-	0.50
	<hr/> 12.00	<hr/> 1.90

Total N.R. : Rs.13.90 lakhs

2. Recurring (per annum basis)

a) Teaching Staff

i) Professor - one	0.23	-
Specialisation-Chem.Engg. Plant Design Or Petroleum Refinery Engg. Qualifications: Ph.D. in Chem. Engineering with 10 years teaching experience in a University.		
ii) Readers - Three (1 + 2)	0.19	0.38
Specialisations-(Ph.D. in Chemical Engineering with teaching experience in 2 or more of the topics following)		

.../-

(1/22)

- 1) Mass Transfer
- 2) Heat Transfer
- 3) Fluid Mechanics
- 4) Reaction Engg./Transport Phenomena/Petroleum Technology

iii) Lecturers - Four (2 + 2) 0.20 0.20

Specialisation -(M.Tech./M.E. in Chemical Engineering with teaching or research experience)

- 1) Fuel Technology
- 2) Chemical Technology
- 3) Transport Phenomena/Transfer Operations.
- 4) Chemical Engineering Design.

o) Non-Teaching staff

Supporting staff 50% of the above. 0.31 0.29

- i) Foreman
- ii) Clerks/Typists
- iii) Tech. Asstts/Mechanics/Bowler Attendants.
- iv) Draftsman/Store-keeper
- v) Attendants

c) Library expenditure 0.10 0.05

d) Working expenses 0.25 0.40

Total : 1.28 1.32

Total Recurring : Rs.2.60

10.04 Finally Non-recurring 12.00 1.90

Recurring 1.28 1.32

13.28 3.22

Grand Total : Rs.16.50 lakhs.

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10.05 Petroleum Technology

A proposal to start an Institute of Petroleum Technology at the Aligarh Muslim University was drawn up at the instance of the President of United Arab Emirates during His Excellency's visit to Z.H. College. Proposals worth Rs.1 crore have been submitted to the Government of India for onward transmission to the President of U.A.E. A cheque for U.S. \$ 2,00,000 seems to be ready for despatch as a first instalment payment which the University has come to know from the good offices of the Indian Ambassador at U.A.E. No fund, however, has been received so far by the Aligarh Muslim University.

10.06 Observation and Recommendations

This proposal should be deferred till such time when the fund support for its initiation and growth is made available to the Z.H. College from the U.A.E. The proposed activities of this Institute/School should then be directed more towards, the 'Petroleum Refining' and 'Petrochemicals production' than to 'Petroleum Reservoir Engineering'.

It is suggested that a Committee consisting of members from the following organisations should scrutinise the proposals after the necessary funds have been released:

1. Indian Institute of Petroleum, Dehradun.
2. Indian School of Mines, Dhanbad.
3. Indian Petrochemicals Corporation Ltd.
4. Fertiliser Corporation of India.
5. Bharat Refineries Ltd.
6. Representatives from I.I.Ts. (2 Members).
- Chemical Engineering Department.
7. Ministry of Petroleum and Chemicals and Fertilisers.

11.00 Department of Applied Sciences

The Department of Applied Sciences of the Z.H. College of Engineering and Technology was started in 1956. During the Fourth Plan period the Department was bifurcated into three independent sections as :

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- i) Physics Section
- ii) Mathematics Section
- iii) Chemistry Section

All the three sections have their own Board of Studies.

11.01 Section of Physics

A. Introduction

The Section handles first and second year undergraduates of all the engineering disciplines. In addition, third year Electrical Engineering students compulsorily take physics courses. Fifth year Mechanical and Electrical Engineering students also take some optional papers of the Department. In all, the teachers are engaged in 169 hours/week of teaching load. The total faculty strength being 10 (1P + 2R + 7L), this amounts to about 17 teaching hours per week. Some teachers of the Department are also engaged in research.

B. Academic Assessment

The Department has necessary facilities for carrying out undergraduate teaching programme for engineering students for the B.Sc. level. The teaching load as it stands now is not low and will be increased further due to the introduction of new Chemical Engineering course. Thus, there is some genuine shortage of faculty positions.

C. Recommendations

1. Non-recurring

	<u>Rs. in lakhs</u>	
	I Phase	II Phase
1. Equipment		
a) Consolidation of U.G. Lab. (1st and 2nd years)	0.25	-
b) 3rd year B.Sc.(Engg.)Lab.	0.80	-
2. Building (Spaces) for 3rd year Lab. (70m ²)	-	0.50
3. Furniture	0.05	-
	<hr/>	<hr/>
	1.10	0.50
	<hr/>	
Total Rs.1.60 lakhs		

.../-

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2. Recurring Rs. in lakhs
1st phase 2nd phase

For 1.5 years

a) Teaching Staff

i) Readers - 3 Nos. $0.19 \times 3 \times 1.5 = 0.86$

Specialisation:

- 1. Theo-Physics
- 2. Nuclear Physics
- 3. Solid State-Physics.

b) Non-teaching Staff

Asstt. (Lab) - 1 No. $0.06 \times 1.5 = 0.09$

c) UGC Fellowships (Jr) 2 Nos.
with Rs. 1500/- yr. for each.
 $0.03 \times 2 = 0.06$

d) Books and Journals $0.10 \times 1.5 = 0.15$

e) Grant for attending seminars. $0.01 \times 2 = 0.02$

f) Working expenses $0.05 \times 2 = 0.10$

1.28

Total N.R. and R. = Rs. 2.88 lakhs.

10.02 Section of Mathematics

A. Introduction:

With a faculty strength of 13 (1P + 3R +9L) this section offers 9 courses for the undergraduate students and 7 courses for the postgraduates. The total teaching load is 238 (201 + 37) hours per week which come to about 18.3 hours/week. The section is very active in the pursuit of research and has produced 8 Ph.D.s during the last five years. The section is keen on starting practice - oriented "Computer Programming and Methods" course for the engineering students under its own supervision as the Computer Centre of the University is already overloaded with their own schedule.

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B. Academic assessment:

The teaching loads of the Section is on the highside and will be further increased after the introduction of new chemical Engineering course. The Section has undertaken a number of research programmes and it would be desirable to provide fund support to enable the Section to plan its research and academic programmes (particularly in Computer and Statistical Labs.) in this important section of the Z.H.College.

C. Recommendations:

1. Non-Recurring:

Rs. in lakhs
1st phase 2nd phase

1. Equipment

a)	Card Punching Machines -- 2 Nos.	0.70	--
b)	Electronic Calculators 6 Nos.	0.05	--
2. <u>Building</u>			
a)	Computer Lab. 700 ft ²	0.40	--
b)	4 Cubicles for tutorial class 480 ft	0.30	--
c)	seminar, Library 500 ft ²	--	0.30
3.	Furniture (10% above)	0.10	--
4.	Books and Journals (Back Volumes)	0.24	--
		<u>1.80</u>	<u>0.30</u>

Total Rs. 2.10 lakhs.

2. Recurring

For 1½ years 1st phase 2nd phase

a) Teaching staff

i) Professor - 1 No. 0.23 x 1.5 0.35 --

Specialisation : Numerical analysis.

ii) Reader - 2 Nos. 0.19 x 2 x 1.5 0.57 --

Specialisation : Fluid Mechanics

or
Elasticity
Statistical Quality control.

contd....

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	<u>1st phase</u>	<u>2nd phase</u>
b) Non-teaching staff		
i) Technical Asstt. 1 No. 0.07 x 2 x 1.5	0.21	---
Experienced in Computer Lab., Card punching machine and Electronic Calculators.		
ii) Lab. Attendant - 1 No. 0.04 x 2 x 1.5	0.12	--
c) UGC Fellowships - 4 Nos. 0.06 x 1.5 with Rs. 1,500/- yr for each.	0.09	--
d) Grant for attending seminars 0.15 x 2	0.03	--
e) Working expenses .0.05 x 2	0.10	
Total	1.47	

Grand Total : N.R. + R = 2.10 + 1.47 = Rs. 3.57 lakhs.

10.03 Section of Chemistry

A. Introduction:

The Section of Chemistry as a part of the Applied Science Department was established in 1958. The Section has a total staff strength of 14 (1P+4R+ 9L) and is concerned with the teaching of Chemistry to first two years of general engineering students. In addition, it offers courses on "Material Science" and "Chemical Instrumentation" to both undergraduate and postgraduate Engineering students. Main research fields in which the Section is very active are (i) soil Chemistry, (ii) Ion Exchange and (iii) Organic Solid State Chemistry.

The average teaching load of the Section varies between 10 to 17 hours per week. The section has received equipment (mostly instruments) worth Rs. 2.5 lakhs from 12 million Dollar loan grant.

B. Academic Assessment.

The Section offers well balanced courses and has introduced new concepts in the assessment of Sessional tests and university examinations which includes setting up of objective type of questions.

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This Section has made commendable work and progress in research activities on soil chemistry particularly. With the introduction of Chemical Engineering as a separate discipline in the Z.H.College, this section should need augmentation in all its programmes both research and academic.

C. Recommendations:

1. Non-recurring Grants.	<u>(Rs. in lakhs)</u>	
	<u>Ist Phase</u>	<u>2nd Phase</u>
i. <u>Equipment</u>		
a) Consolidation of existing laboratories.	1.50	-
b) Replacement of obsolete items.	0.25	-
ii. Building, 500 sq.ft.	-	0.30
iii. Furniture.	0.05	-
	<hr/>	<hr/>
	1.80	0.30

Total N.R. = Rs. 2.10 lakhs

2. <u>Recurring grants</u>	<u>(Rs. in lakhs)</u>	
	<u>Ist phase</u>	<u>2nd Phase</u>
a) <u>Teaching Staff:</u>		
i. Professor 1 No. 0.23x1.5 Specialisation: Soil Chemistry or Physical Chemistry.	0.35	-
ii. Reader 2 Nos. 2x0.19x1.5 Specialisations: Analytical/Physical/Organic Chemistry of Inorganic Chemistry/ Material Science.	0.57	-

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	(Rs. in lakhs)	
	<u>Ist Phase</u>	<u>2nd Phase</u>
b) Non-teaching staff.		
i. Technical Assistant 1 No. 0.07 x 2 x 1.5 Qualifications: Diploma in Engg. or B.Sc. with experience.	0.21	-
ii. Lab.Attendant 1 No. 0.04x2x1.5	0.12	-
c) U.G.C.Fellowships 4 Nos. with Rs.1500/- per year for each fellow 0.06x1.5	0.09	-
d) Grant for attending Seminars 0.15x2	0.03	-
e) Working expenses 0.10x2	0.20	-
	<hr/>	<hr/>
Total Recurring:	1.57	-

Grand Total : N.R. + R

= 2.10 + 1.57 = Rs.3.67 lakhs

Grant for 3 Science Sections

	(Rs. in lakhs)	
	<u>Ist Phase</u>	<u>2nd Phase</u>
Physics	2.38	0.50
Mathematics	3.27	0.30
Chemistry	3.37	0.30
	<hr/>	<hr/>
	9.02	1.10
	<hr/>	<hr/>

Total: 9.02 + 1.10 = Rs.10.12 lakhs

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11.00 Central Facilities

The development proposals of the Zakir Hussain College of Engineering and Technology have been submitted under the constituent Departments, Sections and Polytechnics. In addition, the Committee received the following proposals from the Dean's and Principal's Offices of the College, majority of which may be considered under central facilities.

1. Library.
2. Workshop.
3. Class rooms.
4. Staff and miscellaneous.
5. Training and Placement and Consultancy Cell.
6. Transport.
7. Students Hostel and amenities.
8. Humanities and Social Sciences.
9. Chemical Engineering and Petroleum Technology Courses.

The proposals regarding fund support for initiation and development of a new undergraduate course in Chemical Engineering and Post-graduate section on 'Petroleum Technology have been dealt with separately.

11.01 Library:

The Engineering College Library caters to the need of about 1200 students and 150 staff members. It is at present looked after by a teacher designated as Hony. Librarian. It has a stock of 39225 books and is subscribing a large number of journals. The Library is kept open for 13 hours in two shifts between 9.00 A.M. to 10.00 P.M. by a skeleton staff sanctioned quite sometime back.

11.02 Observations and recommendations:

The space requirements for the library have already been sanctioned by U.G.C. There is some need of furniture for the sanctioned area of 470 sq.metre. A Zerox machine and a fire fighting equipment will also be necessary acquisitions. There is some justification in the demand for additional staff strength. The need for a full time Librarian cannot be over-looked.

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Financial recommendations:

	<u>Non-recurring</u>	<u>(Rs. in lakhs)</u>	
		<u>Ist Phase</u>	<u>2nd Phase</u>
1.	Furniture	0.75	-
2.	Zerox machine	1.00	-
3.	Fire Fighting Equipment	0.05	-
	Total N.R.	<u>1.80</u>	<u>-</u>

Recurring

Staff

1.	Librarian 1 No. 0.12 x 1.5		0.18
2.	Professional Assistant (6 Nos.) 0.08 x 1.5 x 6		0.72
3.	Library Attendants (2 Nos.) 0.04 x 2 x 1.5		0.12
	Total R =		<u>1.02</u>

Total NR + R = 1.80 + 1.02 = Rs.2.82 lakhs

11.03 Workshop:

Modernisation of the Engineering College Workshop has been taken on hand as per the P.E.C. letter No.D-1272 dated 21.7.76 under which a lump sum grant of Rs.5.0 lakhs have been made available. Additional fund of Rs.1.5 lakhs is provided under the present estimates.

N.R. grant = Rs.1.5 lakhs.

11.04 Z.H.College Class Rooms:

The main college is housed in a building which has once a market both class room and laboratories of this building are lacking in modern amenities.

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4 Class rooms and lecture theatre with 1200 sq.ft. space for each are urgently needed.

	<u>(Rs. in lakhs)</u>
	<u>1st Phase</u>
N.R. Grant: Space 4800 sqft.	2.40
Furniture	0.30
Replacement of furniture in old class rooms.	0.30
Total NR . . .	<u>3.00</u>

Financial requirements for Principal's and Dean's Offices.

The Principal draws the same salary as any Professor of the College. The question of providing a separate scale to the Principal of the College and additional emoluments to the Dean of the Engineering Faculty may be considered by the University and the U.G.C.

Net Recurring Grant: (covering working expenses in two Offices, creation of new posts of Cyclostyling Operator, Assistants, in the Training and Placement Section and Examination Cell).

- Rs.0.50 x 1.5 = Rs.0.75 lakhs

11.05 Humanities Section:

The following recurring grants are recommended in order that this section may work smoothly.

1. Reader in English 0.19 x 1.5	Rs.0.38
2. Lecturer in Arabic 0.10 x 1.5	Rs.0.15
Total:	<u>Rs.C.53</u>

11.06: Student Amenities:

A canteen is under construction for the Engineering College students. A lump sum grant of Rs.30,000/- is recommended for furnishing this canteen. A grant of Rs.1.1 lakh is also provided for purchase of a mini bus.

N.R. grant : Rs.1.40 lakhs.

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Recommendations (1st Priority) Rs. in lakhs.

	<u>N.R.</u>	<u>Recurring</u>
1. Library.	1.80	1.02
2. Workshops.	1.50	-
3. Class rooms	3.00	-
4. Principal or Dean's Office	-	0.75
5. Humanities.	-	0.53
6. Students' amenities	1.40	-
	<u>7.70</u>	<u>2.30</u>
Total:		

Total NR + R = 7.70 + 2.30 = Rs.10 lakhs.

11.07 Hostel facilities:

Accommodation to students of the Z.H.College are provided in different hostel of the University. There is a need for a separate hostel, with 200 rooms particularly for the senior students of this college. This is estimated to cost Rs.10 lakhs which may be provided from funds made available by the University to the College.

UNIVERSITY POLYTECHNIC

11.08 In view of the present day trend in vocational education, the Committee recommends that the University Polytechnic activities may be sustained and expanded on the lines proposed by the university for which a sum of Rs.24 lakhs is recommended. Rs.16 lakhs in the first priority and Rs.8 lakhs in the second priority. The Committee observed that at present the Polytechnic is offering the traditional courses in Civil, mechanical and electrical engineering areas and there is need for the Polytechnic to take up diversification of courses so that new courses could be started by it. The abstract given by the University indicated an estimated cost of Rs.28.18 lakhs as in the Appendix-I. The Committee recommends that a sum of Rs.24 lakhs as below may be allocated to the University.

11.09 Staff:

On account of the stagnation in the staff, the Committee agrees that 9 posts of Readers may be created out of which one of them may be designated as Placement-cum-Employment Officer. In addition post of Lecturer may also be agreed. A sum of Rs.2.01 lakhs has thus been recommended for this purpose. The Committee is of the view that the 9 posts of Readers recommended may be filled up by upgrading the existing posts of lecturers and the Polytechnic may have two Readers each in the Mechanical Engineering Section, Civil Engineering Section, Electrical Engineering Section and Applied Science Section. The ninth post which may belong to the Civil Engineering Section could be utilised as a p Placement-cum-Employment Officer for the entire Polytechnic. The Committee has not recommended any other posts for the Polytechnic. It has also not recommended separately any provision for Students' amenities as this may be found from the general allocation the university has for students welfare programmes. The proposals made by the Polytechnic for consolidation of the existing facilities and the need for equipment and the accommodation requirement for the the Job Simulation Centre and for starting new courses the sum of Rs.14 lakhs allocated for equipment in the first priority and Rs.8 lakhs in the second priority may be utilised. While starting new courses and while taking of modernisation of existing facilities and the main requirement for diversification would be on the equipment side. Hence the Committee has specifically recommended Rs.14 lakhs for this purpose in the first priority and Rs.8 lakhs in the second priority.

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11.10 Women's Polytechnic

The Committee noted that in the abstract of development proposals for the Women's Polytechnic the university authorities had only proposed a sum of Rs.1.67 lakhs. This was considered totally inadequate for

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the development of women polytechnic. The university authorities agreed with the Committee and accordingly on the basis of the discussions a proposal for consolidating and diversifying the courses of the Women's Polytechnic was sought to be forwarded to the Commission within an allocation of Rs.5 lakhs. The Committee recommends that on the basis of such a proposal, the UGC may sanction Rs.5 lakhs for the development of Women's Polytechnic.

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Summary

In the discussions which the Committee had with the Faculty and the Vice-Chancellor, the functions of the Principal of the College of Engineering and the Dean were briefly discussed. It was suggested that the present practice, was not considered a good arrangement and the Committee felt that it would be useful if the University authorities could review the position. This will help very much in implementing the programmes suggested by the Committee more expeditiously. In summary, the financial recommendations of the Committee are as below:

	<u>Ist Phase</u>	<u>2nd Phase</u>
	(Rs. in lakhs)	
1. Spill over programmes.	19.33	-
2. Department of Civil Engineering.	19.30	6.10
3. Department of Mechanical Engineering.	25.87	7.50
4. Department of Electrical Engineering.	19.60	2.90
5. Department of Chemical Engineering.	13.28	3.22
6. Department of Applied Sciences - Physics Section.	2.38	0.50
7. Mathematics Section	3.27	0.30
8. Chemistry Section	3.37	0.30
9. Central Facilities	7.70	2.30
10. Hostel facilities	10.00	-
11. Polytechnic	16.01	8.00
12. Women's Polytechnics	5.00	-
Total:	<u>145.11</u>	<u>31.12</u>

APPENDIX-I

Proposals made by the University

DEPARTMENT OF ELECTRICAL ENGINEERING

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The Department of Electrical Engineering was established in 1940 with an intake of 25 students to the B.Sc. Engg.(Elect.) courses. The intake was subsequently increased to 30 in 1958. Major development activities in the Department started during the 3rd Five Year Plan when the intake was raised from 30 to 90. The instructions, during that time, were mainly in the high current area. Postgraduate courses in Instrumentation and Control Systems with an intake of 10, were introduced in 1964. An additional intake of 15 students at the postgraduate level in Systems Engineering, was approved during the IV Plan period.

Over the last five years, the Department has constantly been making efforts to improve the quality of its staff. At present there are 10 staff members with Doctoral qualification and 22 with Master's degree as compared to the position in 1972 when there were 2 with Doctoral degree, 17 with Master's degree and 7 with Bachelor's degree.

Efforts have been made to improve the syllabi and methods of instruction, feasible within the present resources of the Department. The syllabi of the undergraduate programme have been radically revised.

Students both at the undergraduate and postgraduate levels are encouraged to take up project work on individual basis, which is selected in consultation with the members of the staff.

Research and development activities in the Department have also been expanded considerably during the last five years. A number of staff members are actively engaged in their Ph.D. programme.

Inter-disciplinary research and development work particularly in the area of Bio-Electronics, is also being carried out. Department of Medicine and Surgery are working with the Department of Electrical Engineering in area of mutual research and development.

Many deficiencies and short comings are to be overcome, if the Department is to continue further with its developments. Additional

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laboratories are needed to strengthen the theory courses and to carry in research and development activities. There is a shortage of staff in the senior cadre, in various fields of specialization. Library facilities are inadequate and the Department is hardly able to subscribe for the important periodicals. Obsolete and unserviceable equipment which was purchased long time back needs replacement.

Teaching Staff as on July, 1976:

<u>Designation</u>		<u>No. of posts</u>
Professors	..	4
Readers	..	9
Lecturers	..	19
Demonstrators/ Associate Lecturers	..	1
	Total:	<u>33</u>

Specialization of existing staff:

Professors:

1. Control Systems and Computer Technology
2. Power Systems & Electrical Machines
3. Instrumentation
4. Devices.

Readers:

1. Electronics
2. Electrical Machines & E.M. Theory
3. Control Systems
4. Electrical Machines
5. Power Systems

- 6. Circuits & Systems
- 7. Instrumentation
- 8. Communication Systems & Signal Processing
- 9. Circuits & Systems

Non-Teaching staff as on July, 1976:

<u>Designation</u>	<u>No. of posts</u>
1. Draughtsman ..	1
2. Foreman ..	1
3. Instrument Mechanic ..	1
4. Mechanic ..	1
5. Radio Mechanic ..	1
6. Head Mechanic ..	1
7. Electricians ..	3
8. Wireman ..	1
9. Fitter ..	1
10. Tuner ..	1
11. Laboratory Assistant	3
12. Mechanic Helper ..	1
13. Laboratory Attendants ..	9
14. Instrument Technician ..	1

Non-technical staff:

<u>Designation</u>	<u>No. of posts</u>
1. Clerk Grade I ..	1
2. Clerk Grade II ..	2
3. Stenographer ..	1
4. Store-Keeper ..	1
5. Asstt. Accountant ..	1
6. Peons ..	1

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Intake and Outturn B.Sc. Engg. (Elect.):

	No. of students enrolled in 1976	No. of students graduated in 1972
III Year	62	
IV Year	55	
Final Year	52	
Total:	169	72

Intake and Outturn M.Sc. Engg. (Elect.):

No. of students enrolled in 1972	No. of students who obtained M.Sc. Engg. Degree in 1976
26	18

List of projects at the
Postgraduate level 1975-76:

1. Digital Indicator for the speed of Rotating machine.
2. Pulse Rate Motor
3. Transistorized Power Factor Motor
4. Measurement of Load Angle
5. Realization of Active Filters
6. State -variable Realization of General Second Order Active R.C. Filters
7. Design and study of Symmetric active R.C. Notch Filter
8. Karanaugh Map Display
9. Electrical Impedance Plethysmograph
10. Abrolute Determination of Dh_m by Lorenz's Method
11. Recurrent Sweep Generator

12. AJ-K.V.T. Flip Flop Using NAND Gates as the Determination Frequency Limitations
13. Variable Frequency P.W.M. Invertor for Induction Motor Speed Control
14. Design Fabrication Testing of Active Impedance Transformer for Optimum Performance Using (a) Transistor, (b) JFET
15. Computer Control of a Power Generation Plant.

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Laboratories:

At present the Department has five different laboratories for undergraduate and postgraduate studies e.g:

1. Applied Electronics
2. Electrical Machines and Power System
3. Measurement and Circuits
4. Control Systems
5. Advance Measurement

Departmental Workshop:

The Department has its own workshop for the repair and maintenance of equipment for fabrication of undergraduate and postgraduate projects and research etc.

The Department is burdened with obsolete and unserviceable equipment costing about Rs.2 lakhs.

Seminar Library:

Seminar Library is intended mainly for postgraduate and final year of the undergraduate students. It also caters for the needs of research scholars and staff members. Following are the details regarding the library:

Total Number of books	..	1604
Number of Bound Journals	..	492
Average Daily Attendance	..	40
Number of periodicals subscribed	..	16

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Timings : (Week days) 7.30 to 14.00 hrs. and
16.00 to 22.00 hrs.

Staff: 1 (Clerk Grade II).

Allocation of Budget

1975-76 Rs.15,500/- (recurring)
Rs.10,000/- (UGC non-
recurring)

Research and Development:

Research and development activities in the Department have been started recently. The use of Department facilities has been optimized as far as possible in order to carry out the research and development work. Use has also been made of research facilities from outside the Department wherever possible.

Major Research Projects in the Department

Ph.D. Projects:

1. Development of Electronic Circuits for digital transduction of variables senses by physical quantity sensors.

Note: The project has been completed and thesis submitted:

2. The Stage Inductive Voltage Divider
3. Online System Identification Techniques
4. Theory and Design of Electronic Circuits using practical Op. Amps. and suitable for hybrid, IC implementation.
5. Application of transformer bridges in biomedical systems.

Development Projects:

1. Design and fabrication of Electrical Impedance Pneumograph
2. Design and fabrication of linear transversal digital filters for pulse compression

(Note: Supported by CSIR Junior Fellowship)

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Fabrication of Equipment:

Following is the list of major equipments fabricated during the last two years:

1. Solid State Temperature Controller
(Note: Knowhow taken over by the Hicks Thermometers Ltd., India)
- 2.. Linear Sweep Generator
3. Remote Electronic Pressure indicator with ferromagnetic Transducer
(Note: The above project was awarded the Invention Promotion Boards' National Award of 1976).

Inter-disciplinary and Collaboration work:

Inter-disciplinary work:

The Department is emphasizing on inter-disciplinary courses, research and development programmes. The activities in this area have considerably increased during the recent past. Courses on Biomedical Engineering have been introduced at the postgraduate level. The Department is conducting joint research with the Departments of Medicine and Surgery. One of the staff members from Electrical Engineering Department is acting as Co-guide for the M.D. Degree in Medicine. Some of the Electrical Engineering students are working in the area of Biomedical Engineering.

Considerable emphasis is being given to the development of new instruments as well as import substitutes with almost 100% indigenous technology. An instrument for the measurement of blood flow and respiration is already at an advanced stage of completion.

Collaboration work:

The Department is trying to collaborate and help as many industries and organizations as possible. At present the Department is collaborating with U.P. State Electricity Board and Atomic Power Plant at Narora. It has also been approached by Electra Ltd. Meerut for help in testing of High Voltage transformers. Small scale industries in and around Aligarh are also being helped in solving their technical

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problems. The Department has started Instrument Servicing Centre to cater for the needs of local and regional industries and institutions.

Research Publications:

Papers published/accepted from 1973 till date number 59.

Steps taken to improve teaching and examinations:

Teaching:

1. Semester system introduced at the undergraduate and postgraduate level
2. Syllabi revised and brought upto date
3. Emphasis laid on conceptual rather than descriptive teaching
4. Introduction of seminar lectures by postgraduate students
5. Home assignments and tutorials
6. Individual projects rather than collective projects.

Examination:

1. Sessional Tests
2. Objective type of questions
3. Internal assessment
4. UGC circular "Examination Reforms - A Plan of action" implemented.

Difficulties faced by the Department

Following are the major difficulties which the Department faces in carrying out the teaching, research and other development activities:

1. Non-availability of funds
2. Non-availability of equipment

- 3. Non-availability of proper library facilities
- 4. Difficulties in typing and reproduction work
- 5. Non-availability of foreign exchange

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A. Formal (existing) Developments:

1. Carry over plans:

These proposals include those developments for which grants were approved in the earlier plans but were not made available to the Department for one reason or the other.

- 1. An area of 20647 sq.ft. out of that sanctioned during the Third Five Year Plan has not been constructed due to the non-availability of funds. The financial estimate for the construction at the rate of Rs.60/- per sq.ft. comes out to be Rs.12,38,820/- and is included under the head "Proposals for Head Quater".

2. Staff

	Non-recurring	Recurring for two years
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One post of Senior Technical Assistant sanctioned in the 4th Five Year Plan.		Rs.21,368-00
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3. Maintenance

Grant sanctioned for postgraduate courses in the 4th Five Year Plan		Rs.42,000-00
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Total:		Rs.63,368-00
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Total of Recurring and non-recurring		Rs.63,368-00
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II. Diversification and modernization of undergraduate and postgraduate courses:

The Department has already taken some steps feasible within its present resources, to introduce additional courses in the area of light current

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engineering both at the undergraduate and postgraduate levels. Following are the additional requirements to cover up for the deficiencies being encountered to achieve complete diversification and modernisation of courses and laboratories:

	<u>Non-Recurring</u>	<u>Recurring for two years</u>
<u>1. Equipment:</u>		
(i) Line Communication Laboratory	Rs2,00,000-00	-
(ii) Radio Communication	Rs. 3,00,000-00	-
(iii) Signal Processing Lab.	Rs.8,50,000-00	-
(iv) Bio-Electronic Lab.	Rs.3,00,000-00	-
(v) Digital Electronic Lab.	Rs.2,00,000-00	-
<u>2. Furniture:</u>		
	Rs. 50,000-00	-
<u>3. Teaching Staff:</u>		
(i) Professors: Two (one Prof. in Comm. Systems and one in Power Systems)		4,23,000-00
(ii) Readers: Five		
<u>4. Technical Staff:</u>		
(i) Senior Tech. Assistant -5		2,09,000-00
(ii) Lab.Assistants-5		
<u>5. Non-Technical Staff:</u>		
(i) Office Supdt.-1		45,360-00
(ii) P.A. to Head -1		
<u>6. Maintenance:</u>		
		2,00,000-00

p.t.o.

7. <u>Library:</u>	1,00,000-00	1,00,000-00
Total:	<u>Rs. 21,00,000-00</u>	<u>9,78,060-00</u>

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Total of Non-recurring
& recurring: Rs. 30,78,060-00

III. Replacement of Obsolete and
unserviceable equipment:

	<u>Non-Recurring</u>	<u>Recurring for two years</u>
	Rs.	Rs.
The equipment which has either become obsolete or is unserviceable needs replacement.	2,00,000-00	
Total of Non-recurring & Recurring:	<u>Rs. 2,00,000-00</u>	

IV. Grant for the equipment
already purchased:

Grant is needed for the 2,00,000-00 payment of equipment purchased under \$ 12 million Loan Scheme

Total of Non-Recurring & Recurring: Rs. 2,00,000-00

V. Additional grant for
the completion of
high voltage laboratory

Some equipment has already been purchased for the high voltage laboratory. Following are the additional requirements in order to complete the High Voltage Laboratory:

1. Equipment	2,30,000-00	-
2. Furniture	5,000-00	-

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3. Staff

One post of Senior Technical Assistant	-	21,368-00
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4. Maintenance:	-	20,000-00
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Total:	2,35,000-00	41,368-00
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Total of Non-recurring & recurring: Rs.2,76,368-00

B. New Developments

1. Establishment of Instrumentation Centre:

The Centre is meant for the repair of Electrical & Electronic Instruments in various departments of the university. Following are the requirements:

1. Equipment	1,45,000-00	--
2. Furniture	5,000-00	-
3. <u>Staff</u>		
Sr. Technical Asstts-2	-	52,200-00

	1,50,000-00	52,200-00
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Total of NR & R: Rs.2,02,200-00

II. Ph.D. Programme:

Four Ph.D. scholarships, 2 under QIP scheme and 2 as university scholarships

Estimate for 4 scholarships and maintenance grant	-	76,800-00
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Total:	-	76,800-00
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Total of Non-Recurring & Recurring: Rs.76,800-00

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III. Faculty Development:

For the exchange of staff from other institutions on a reciprocal basis:	-	30,000-00-
Total of non-recurring & recurring:	<u>Rs. 30,000-00</u>	
Financial estimate of existing developments:	27,35,000-00	10,82,796-00
Total of non-recurring & recurring:	<u>Rs. 38,17,196-00</u>	
Financial estimate of new developments	1,50,000-00	1,59,000-00
Total of non-recurring:	<u>Rs. 3,09,000-00</u>	
Total financial estimate	28,85,000-00	12,41,796-00
Total of non-recurring & recurring:	<u>Rs. 41,26,796-00</u>	
Total estimate including the constructional cost of the building (Item A, 1 above)	<u>Rs. 53,65,616-00</u>	

DEPARTMENT OF CIVIL ENGINEERING

1.1. Existing facilities

The Department of Civil Engineering was established in 1943 with an intake of 40 students. The intake since 1973 has increased to about 100 students due to the continued bright employment position. In addition to the undergraduate course the Department also gives postgraduate courses in hydraulic structures which was instituted in 1965 and building engineering which was started in 1970. So far about thirty students have received M.Sc. engineering degrees. The department has fairly developed training facilities in structural engineering, hydraulics, soil mechanics and surveying. The laboratory facilities include those in strength of materials, structural engineering, concrete technology, soil mechanics, hydraulics, public health engineering and surveying. To date research has been carried out on thirty M.Sc. engineering projects.

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Research is also being carried out on seven doctorate level research programmes.

The department also provides assistance and collaboration in the design and development programmes to industry and field organisations.

The department has the benefit of well qualified staff in different specializations. It has three professors, 7 readers and 20 lecturers. The research experience of the existing staff has helped in the growth of the research activities at the M.Sc. and Ph.D. levels. In recent years atleast six staff members have improved their qualifications under the QIP (Quality Improvement Programme).

As pointed out earlier the department offers the following two postgraduate courses:

1. Hydraulic structures
2. Building engineering

The structures of these courses are given in Chapter IV. The sanctioned intake for these courses postgraduate scholarship of Rs.400/- per month is -

Hydraulic structures: 6
 Building engineering: 10

The information about the number of students admitted to these courses over a period of last ten years is given in Table 1.1.

Table: 1.1. : Postgraduate intake position since 1965-69

COURSE	YEAR									
	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	
Hydraulic	10	9	12	7	9	-	10	9	14	
Building engineering	-	-	-	11	9	3	14	15	21	

In recent years, there has been a steady growth in research, in curriculum development and in collaborative design and development work. Undergraduate course has been diversified by the introduction of electives at the final year level. These electives

provide distinct strengthening in the streams of water resources engineering, structural analysis, building design and transportation engineering.

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1.2 Past Financial Allocations:

The total non-recurring grant to Z.H. College of Engineering & Technology for the purchase of equipment for undergraduate courses in all discipline since 1945 comes out to be about 28.02 lakhs. This includes the grant given for the 5 year integrated course (0.09) in 1969, and the grant for double intake (6.85 lakhs) given 1963. Out of this amount the entitlement of the Department of Civil Engineering on the basis of the AICTE norms comes out to be 9.16 lakhs. However, out of this grant the actual allocation to the Department of Civil Engineering is only 6.06 lakhs i.e. about 3.10 lakhs short of its due share. In 1965 a grant of 3 lakhs was sanctioned to consolidate the postgraduate courses. Out of this amount only a small sum of Rs.0.50 lakhs was allocated to the Department of Civil Engineering. This allocation was too inadequate to establish any worthwhile facilities in the Department. However, unlike this position some of the departments in the faculty have been getting non-recurring grants which are more than their due entitlements.

1.3 DEVELOPMENT PROPOSALS:

1.31 Undergraduate Courses:

a) Double Intake:

The Department of Civil Engineering was established in 1943 with an intake of 40 students. In 1961 this intake was increased to 60 and since 1973 it has bulged to 100 students per year. This intake is almost double the number adopted by the AICTE Committee 1964. The trend of pressure for increased seats in Civil Engineering has been sustained by a continuation of bright employment prospects in the Civil Engineering disciplines. It seems the university has accepted this enhanced increase in Civil Engineering intake as a matter of policy in view of the trend which, it seems, has come to stay.

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Undergraduate intake position since 1969-70

Year	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77
Number of Students	27	43	51	83*	109*	110*	97*	89*

* Two sections.

One of the main difficulties faced by the Civil Engineering Department in the recent years has been the problem of coping with this increased intake position without any matching increase in the staff and the equipment facilities. All the existing facilities of staff and equipment were geared to an intake of about 60 students each year. In simple terms this meant providing teaching, laboratory and design facilities for one group of 50-60 students. This position has now been changed to providing the aforesaid training facilities to two groups of 50 students each.

This has resulted in exactly Doubling the work load on the Department without providing the much needed additional staff and equipment facilities. A fairly reasonable estimate of the additional work load due to the double intake is about 160 hours/week. On the basis of accepted norms of teaching load this additional work load commends the additional staff tabulated below:

Additional teaching staff required to meet the double intake

Designation	Additional teaching load	Additional posts
Professor	16	2
Reader	48	4
Lecturer	96	6

This increased intake also requires suitable augmentation in the laboratory/design office facilities of the department.

contd.....

(b) Diversification:

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The Department of Civil Engineering strongly feels that in order to cover a broad spectrum of vocational needs the undergraduate course should be broadly based. One effective and acceptable method to cater for varied interest, talents and vocational needs is to induct a range of electives at the final year level. A careful selection by the student on the basis of advisement by the Department would strengthen one of the vocational streams. A student can choose three full unit courses to strengthen his base in either of the streams such as structural engineering, water resources engineering, soil mechanics and foundation engineering, public health engineering, surveying..

(c) Modernisation of equipment:

Most of the equipment installed in the laboratories was purchased as far back as 1950. During the last 20 years the Department has been given a non-recurring grant of only about Rs.3.0 lakhs for the purchase of equipment for both the undergraduate and postgraduate programmes. As a result most of the equipment is old and obsolete and has lost its utility. The Department urgently needs such basic equipment as listed below because either it is not there at all or if it is there it is unserviceable:

Universal testing machine
strain measuring equipment
Vibration table
Hydraulic jacks
Loading frame
Curing chamber
Non-destructive testing equipment
Overhaul tank together with sump and pump sets
Beam balance for wind tunnel
Electronic equipment for recording pressure and velocity
Large diameter permeameter with accessories
Triaxial shear apparatus
Consolidation apparatus
CBR test apparatus
Plate load test apparatus
Theodolites
Level.

contd.....

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(d) Additional Space:

The space entitlement of the civil engineering department is based on the recommendation of the Northern Regional Committee of the AICTE held in Delhi in 1962 on the basis of single intake of 60 students. As pointed out earlier this intake has almost doubled in the last five years. This necessitates additional space for providing facilities connected with the students viz. class rooms, laboratories etc. Presently there is a shortage of three class rooms for the undergraduate course. Additional space for laboratories and for the additional staff will also have to be provided.

1.32 PROPOSED POSTGRADUATE COURSES

(a) Proposed Postgraduate Courses:

The department has proposed the following two new post-graduate courses:

1. Underground structures including ground-water hydrology
2. Oil field development.

The M.Sc. course on "Underground Structures" has been proposed in view of the increasing potential for expertise in this area. The work of planning, design and construction of underground structures can only be based on relevant specialised technical knowledge which is not imparted in an undergraduate programmes. The utility and employment potential in this area are rated to be quite high in view of the proposals for the construction of subways in metropolitan cities, frequent positioning of power houses and water reservoirs below the ground level. Groundwater Hydrology, in view of its importance, has been included in the course structure to broaden its vocational applicability as well as to make full use of the existing resources and to further strengthen this area in the department.

The M.Sc. course on "Oil Field Development" has been proposed, again keeping in view the need for the essentially specialised technical know-how as well as the National need being felt due to a quick growth of oil exploration efforts. Further, this course hitches up very well with the proposals for the establishment of a centre of Chemical Engineering and Petroleum Technology in the Faculty with the assistance of the Government of UAE. This course also makes full joint use of the three fairly developed areas in the Department viz. structural engineering, hydraulics and surveying.

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(b) Additional Staff, Laboratory equipment,
library and building facilities:

The additional staff (one Professor, one Reader and two technical assistants) required for each postgraduate course is based on the well-established practice of the University Grants Commission. Minimum possible laboratory equipment for the proposed postgraduate courses has been included in the Phase I and Phase II programmes of the financial estimates.

The space provided to the Civil Engineering Department is entirely based on the requirement of the undergraduate course with an intake of 60 students. Additional space has not been provided even for the two existing postgraduate courses. This has created considerable difficulties in the provision of class rooms for the existing postgraduate courses and for staff. Presently postgraduate classes are held in the laboratories and at least ten staff members have no accommodation of any kind.

1.33 Research and Development:

The growth of research in the Department during the last ten years has been quite satisfactory. In structural engineering, research is being carried out by several research groups and the area presently under investigation are:

- (i) stress distribution in joints;
- (ii) stress distribution in anchorage blocks
- (iii) structural analysis of slabs and shear
- (iv) Deformation and failure mechanism of concrete - a material and structures oriented approach;
- (v) Accelerated testing of concrete and study of mix design approaches in Indian conditions including those for light weight concrete.

In hydraulics, research groups are carrying out work in the following topics:

- (i) Flow through alluvial, open and expanding channels
- (ii) Flow through porous media

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(iii) Sedimentation in reservoirs

(iv) study of drag and lift - forces on various hydraulic models

(v) Effect of variables on the coefficient of permeability

(vi) Laws of governing flow through circular pipes of different curvature.

The soil mechanics research work is being carried out on the behaviour of anchor plates buried in sand.

This research activity is being carried out with considerable difficulty due to lack of suitable equipment. These efforts will be suitably strengthened if the additional equipment listed for various laboratories is made available.

The department is also very keen to establish an adequately furnished stress analysis laboratory having an inter-disciplinary character. Such a laboratory will be an excellent and a very useful base for carrying out research in the different areas and sections of the Civil Engineering discipline.

With the addition of this new equipment the collaborative development and consultancy work will also receive an impetus.

1.4

SUMMARY OF OBJECTIVES

The department's immediate objectives are:-

- i) additional staff, laboratory and space facilities to cope with the Double Intake at undergraduate level;
- ii) diversification of undergraduate courses to cater for varied talent and to broaden vocational applicability;
- iii) modernisation of laboratory equipment in order to consolidate undergraduate and postgraduate courses and to strengthen research in the department;
- iv) establishment of an adequately furnished stress analysis laboratory;
- v) additional postgraduate courses which provide specialised technical knowhow in the context of National needs.
- vi) strengthening of library facilities;

vii) minimum possible additional space for double intake, postgraduate courses and staff rooms.

2.1 Financial Estimates for Phase-I programmes

A - Non-recurring

I - Building

Testing floor for structures lab. 100 x 50 ft. 5000 ft.

Cost of construction @ Rs. 40/+ per sft. Rs. 2,00,000

II - Equipment

i) Hydraulics laboratory	5,00,000
ii) Structures laboratory	1,90,000
iii) Structural dynamics laboratory	80,000
iv) Concrete laboratory	1,20,000
v) Stress analysis laboratory	3,20,000
vi) Survey laboratory	1,50,000
vii) Soil mechanics & highways lab.	1,50,000
viii) Public health engg. laboratory	40,000
ix) Civil Engineering yard	40,000
x) Design and drawing section	30,000

III - Furniture 20,000

IV - Library 1,25,000

Total of I, II, III & IV 19,65,000

B - Recurring

I - Staff

i) Teaching

Professor	2	1500-2500	72,000
Reader	4	1200-1900	<u>1,08,000</u>
			1,80,000
Expenditure for two years			3,60,000

ii) Non-teaching

Senior Tech. Asstt.	2	550-900	25,320
Technical Asstt.	2	425-700	19,728

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Non-teaching contd.,

Draftsman	1	330-560	16,020
Tubewell operator	1	380-600	5,340
Plumber	1	260-400	5,840
Library Clerk	1	330-560	16,020
Lab. Asstt.	3	210-270	12,960
Helper to Mason	1	196-232	3,850

1,05,578

Say

1,05,600

II-Maintenance

20,000

III - Library

22,000

Expenditure for II & III
for one year

42,000

Total of non-recurring and recurring
expenditure for Phase I

Rs. 24,72,600

2.2 Financial estimate for Phase II programme

A -- Non-recurring

Equipment

Hydraulics laboratory	4,30,000
Structures laboratory	1,40,000
Concrete laboratory	1,10,000
Stress analysis laboratory	2,80,000
Survey laboratory	1,50,000
Soil mechanics & highways lab.	40,000

13,00,000

B - Recurring

I - Staff

Teaching

Professor	3	1500-2500	
		@ 27,000/-	1,08,000
Reader	5	1200-1900	
		@ 27,000/-	1,35,000
Lecturer	6	700-1600	
		@ 20,700/-	1,24,000

3,67,200 p.a.

II - Scholarships

43,200 p.a.

Total of I & II

4,10,400 p.a.

Department of Mechanical Engineering Z.H.College
of Engineering & Technology, AMU, Aligarh.

BRIEF OUTLINE:

The development of Mechanical Engineering imparts Institution at Postgraduate and Undergraduate levels for B.Sc.Engg.(Mechanical) and M.Sc.Engg. degrees in the following disciplines.

B.Sc.Engg.(Mechanical)

M.Sc.Engg.(Heat Power)

M.Sc.Engg.(Industrial Engg.& Design).

Post-Graduate course was introduced in the year 1966 in Heat Power Engineering with a total intake of 6 students. In the year 1971 another course in Industrial Engg. and Design was started and the total intake capacity of the two streams (Heat Power and Industrial Engg. and Design) was enhanced to 21.

Till late sixties the departmental activities were mainly concerned with the instructions and laboratory works for undergraduate courses. After the introduction of Post-Graduate course the department tried to reorganise its existing laboratories and other facilities through the meagre financial aids received from time to time. However, no organised effort could be undertaken for consolidation of the existing laboratories and instructional facilities due to the paucity of funds. The laboratory equipments, engines, instu instruments earlier meant for under-graduate instructions were some how or the other supplemented and remodelled for use of P.G. experimentation also. It is hightime for a suitable grant for the modernisation of laboratories to enable the department to come at par with other National Institutions of advanced studies and research in the field of ~~Ma~~ Mechanical Engineering.

Existing Staff:

The present strength of the teaching staff is detailed below:

Professors	5
Readers	9
Lecturers	29
Associate Lecturers	1

contd....2

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RESEARCH ACTIVITIES

The major areas in which research is being carried out are Laminar and turbulent boundary layer studies, I.C.Engines, Fluid Mechanics, Machine Tools and Metal Cutting, Human factors Engineering, Vibrations and tribology.

Four students are working for Ph.D. in the following areas:

1. I.C.Engines.
2. Tribology.
3. Boundary Layer Studies.

TEACHING AND RESEARCH FACILITIES

Most of the a laboratory equipments and facilities have become old and obsolete and need immediate replacements.

SEMINAR LIBRARY:

Departmental Seminar was organised in 1966. At present there are 1200 volumes on various topics connected with the Post-Graduate courses. Currently department subscribes to some 36 National and International Journals. Due to lack of space and storing facility, it is felt that the students could not avail the seminar facilities fully. Extension of seminar Library building and procurement of old volumes of journals is being proposed herewith.

PROJECTS UNDERTAKEN:

In view of the national policy the department has undertaken a programme for Inculcating amongst the students a first hand experience in various Industrial operations. This is to employment schemes of Government of India, Mechanical Engineering students take active interest in such project works and a number of them have been benefitted by starting their own ventures in the near vicinity.

The projects listed give the line in which the department is paying much stress in order to make the self-employment scheme a success.

contd.....3

1. I.C.ENGINE LABORATORY

Most of the present equipments are old and obsolete. Therefore it is necessary to replace these equipments. Further it is also necessary to modernise the laboratory in view of the research activities in this area both for M.Sc. and Ph.D.level. The research work at present in progress is greatly handicapped for want of some pre-essential measuring equipments.

2. HEAT TRANSFER LABORATORY

There is no separate laboratory for heat transfer studies. Though there are some facilities under different laboratories. In view of the importance of the subject it is proposed to have a separate well-equipped laboratory. This will provide experimental facilities to undergraduate and postgraduate students in a better way and will also enhance the experimental research in this area.

3. STEAM LABORATORY

The simple vertical boiler meant for the study of properties of steam, heat transfer and running of small steam engines, is very old. The running and maintenance cost of this boiler is very high and therefore its immediate replacement is not only desirable but absolutely essential.

4. THERMAL TURBOMACHINE LABORATORY

It is not possible to carry out experimental studies of thermal turbomachines in our present laboratories. Therefore, a separate laboratory for the studies connected with turbomachines has been proposed.

This laboratory can be main fully utilised both by undergraduate and post-graduate level and will improve the quality of teaching and research. Some of the teaching staff members have already been sponsored for research in this area and will join the department after a short period and therefore they ne will need this facility to continue their research activities in this area.

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	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
(iv) Work Measurement Lab.	50,000	2,000	3,000	10,000	60,000	-	-	-	-	-
(v) Human Factors Engg.	-	-	-	-	-	82,500	2,000	-	4,000	86,500
					<u>1,43,800</u>					<u>6,22,500</u>
III. FLUID MECHANICS	1,79,000	5,000	6,600	23,200	2,02,200	-	-	-	-	-
IV. DESIGN & DRAWING SECTION										
(i) Mechanism & Dynamics Lab.	63,000	5,000	-	10,000	73,000	-	-	-	-	-
	-	-	-	-	-	1,06,000	5,000	9,600	29,200	1,35,200
V. APP. DESIGN & DEV. CELL.	-	-	-	-	-	3,65,000	10,000	28,200	76,400	4,41,400
VI. DEVELOPMENT OF SEMINAR	53,000	9,000	7,000	32,000	85,000	-	-	-	-	-
VII. EXCHANGE OF TEACHERS AND INVITED LECTURES.	-	-	-	-	-	30,000	-	-	-	30,000
VIII. OFFICE & MISCELLANEOUS	97,000	-	15,400	30,800	1,27,800	-	-	-	-	-
					<u>9,52,800</u>					<u>16,21,100</u>

Ist Priority Total: $9,52,800 + 16,21,100 = 25,73,900$

FIFTH FIVE YEAR PLAN PROPOSALS (II PRIORITY)

PART IX

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	Consolidation of Existing Facilities					Development of new Facilities				
	Non- Recu- rring	Recu- rring & Mainten- ance	Suppor- ting Staff	Total for 2 years.	Total	Non-recu- rring	Recu- rring & Mainten- ance.	Support- ing Staff.	Total for 2 years.	Total
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
<u>I. THERMAL SCIENCE</u>										
(i) I.C.Engines Lab.	3,50,000	-	12,000	24,000	3,74,000	-	-	-	-	-
(ii) Thermal Turbo M/c.	-	-	-	-	-	1,20,000	-	3,000	6,000	1,26,000
(iii) Thermodynamics Prop.	-	-	-	-	-	15,000	-	11,4000	22,800	37,800
<u>II. INDUSTRIAL & PRODUCTION:</u>										
(i) M/c Tool & Metal Cutting.	1,00,000	-	-	-	1,00,000	-	-	-	-	-
(ii) Metal Forming Lab.	-	-	-	-	-	50,000	-	5,000	11,200	61,200
(iii) Metrology	-	-	-	-	-	2,36,000	-	-	-	2,36,000
(iv) Work Measurement Lab.	55,000	-	-	-	55,000	-	-	-	-	-
(v) Human Factors Engg.	-	-	-	-	-	57,000	-	8,600	17,200	74,200

3.	4.	5.	6.	7.	8.	9.	10.
3,000	6,000	1,25,000	-	-	-	-	-
-	-	-	90,000	-	8,600	17,200	1,07,200
-	-	-	2,20,000	-	3,000	6,000	2,26,000
-	-	-	3,000	-	-	6,000	6,000
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
		<u>6,54,000</u>					<u>8,74,400</u>

II Priority Total: $6,54,000 + 8,74,400 = 15,28,400$

The present equipment in most of our laboratories is quite old and obsolete. It is, therefore, proposed not only to replace the old equipment but also to modernise the laboratories. We feel greatly handicapped the research and development work which is so essential for our post-graduate studies. Therefore a separate design and development cell has been proposed. It will greatly help the experimental research work. Further some development programme connected with our research work have also been proposed. The extension of the seminar facility has also been included.

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UNIVERSITY POLYTECHNIC

ALIGARH MUSLIM UNIVERSITY
ALIGARH

ABSTRACT OF REVISED REQUIREMENTS AT A GLANCE OF THE
UNIVERSITY POLYTECHNIC, AMU, ALIGARH UNDER THE FIFTH FIVE
YEAR PLAN.

A. CONSOLIDATION OF EXISTING FACILITIES - Rs.8,07,750/-

(a) Building Rs.1,86,750

- | | (Rs) |
|---|----------|
| 1. Additional space for existing Library - (2,501 sq.ft. & @ Rs.50/- per sq.ft) - see for details p.8-9 of the plan. | 1,25,000 |
| 2. Additions to existing Workshop (Toilet Block/Office, W/Shop Sup. dt.-571 sq.ft @ Rs.50/- per sq.ft) -For details see page 9 of the plan. | 28,550 |
| 3. Ramp for Work on Automobile - L.S.) (see page 8 of the plan). | 5,000 |
| 4. Coal shed for storing coal (515 sq.ft. @ Rs.16/- per sq.ft). | 8,200 |
| 5. Development of land adjoining Workshops and Lab. (L.S.) (See page 9). | 20,000 |

Total: 1,86,750

(b) Equipment Rs.1,75,000

(For details see page 12-14).

- | | |
|---------------------------------|--------|
| 1. For Labs. of Civil Engg.Sec. | 58,000 |
|---------------------------------|--------|

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2. For Labs. of Mech.Engg. Sec.	22,000
3. For Labs. of Elect.Engg. Sec.	34,000
4. Tools/Measuring instru- ment for Workshop-(for details see "IV-Workshop" on page 14 of the plan).	37,000
5. Electronic stencil cutting Machine Gestetner complete with steel table for the printing of teaching material inclu- ding drawings and dia- grams-One No.	24,000
Total:	<u>1,75,000</u>

(c) Racks of Library Rs. 25,000

(d) Furniture for New Labs.
and Workshop/Staff Room/
Assembly Hall of University
Polytechnic/Depar Rs. 50,000
Replacement of existing
worn-out furniture.

(e) STAFF AMENITIES

Water evaporative cooler for
Staff Room. Rs. 4,000 Rs. 4,000

(f) STUDENTS AMENITIES

1. Water Cooler for Univ.
Poly.2 Nos. Rs. 10,000 Rs.1,51,000

2. Water evaporative coolers
for Library at Univ.Poly.
2 Nos. Rs. 8,000

3. Bus 1½ Ton capacity-One No. Rs.1,25,000

4. Maintenance of bus-
(recurring) - for re-
maining 2 yrs. of
plan. Rs. 8,000

Rs.1,51,000

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(g) Maintenance Expenditure. Rs.2,16,000
(see page 10-11)

Additional maintenance grant
at Rs.150/- each for 720
students of the University
Polytechnic for remaining
2 years of the plan .

Grand total of A - (a)+(b)
+(c)+(d)+(e)+(f)+(g) Rs.8,07,750

B.-MODERNISATION OF EXISTING FACILITIES Rs.1,30,300

(a) Job-Simulation Centre for Civil .
Engg.Students.

1. Cost of equipment/non-consumable building materials/
building and fencing-(non-recurring). Rs. 69,500

2. Cost of staff for 2 years (recurring). Rs. 4,800

(For details see Appendix I)

(b) Job-Simulation Centre for
Elect.Engg.Students:

1. Cost of equipment-(UP State Electricity Board has kindly promised to supply free of cost materials needed for running the Centre from their junk stores) nil

2. Building & Fencing. Rs.252,000

3. Cost of staff for 2 years (recurring). Rs. 4,000

Total: Rs.1,30,000

(For details see Appendix-II)

C. DEVELOPMENT OF C FACULTY Rs.10,05,228

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RECURRING

(a) STAFF (for details see pages 10(a) and 10(b) of the plan).

(1) <u>Readers: 9 Nos. Scale of pay - Rs.1200-1900</u>	<u>Rs.5,02,200</u>
(i) Reader Mech.Engg.Sec.-2 Nos. - Rs.1,11,600	(For 2 yrs of plan period including allowances).
(ii) Reader Civil Engg.Sec.-3Nos. Rs.1,67,400	
(iii) Reader Elect.Engg.Sec.-2 Nos. Rs.1,11,600	
(iv) Reader Applied Sc.Sec.-2 Nos. Rs.1,11,600	
Total of (1): 9 No.s.	<u>Rs.5,02,200</u>
(2) <u>Lecturers-6Nos. Scale of pay -Rs.700-1600</u>	<u>Rs.2,48,400</u>
(i) Mech.Engg.Section-1 No. - Rs. 41,400	(For 2 yrs. of plan period including allowances).
(ii) Civil Engg.Sec. - 2 Nos. Rs. 82,800	
(iii) Elect.Engg.Sec.-1 Nos. Rs. .41,400	
(iv) Applied Sc.Sec. 2 Nos. Rs. 82,800	
Total of (2) 6 Nos.	<u>Rs.2,48,400</u>
(3) <u>Provision for training placement (See page 10)</u>	<u>Rs.1,80,000</u>
(i) Lecturers as training reserves 3 Nos-Scale of pay Rs.700-1600 (for 2 yrs. of remaining plan period including allowances).	Rs.1,24,200
(ii) Training and Placement Officer One No. - scale of pay Rs.1200-1900 (for 2 yrs of remaining plan period including allowances).	Rs. 55,800
Total of (3)	<u>Rs.1,80,000</u>
(4) Ministerial & Subordinate Staff:(see p.10(b))	<u>Rs. 74,628</u>
(For 2 yrs. of plan period including allowances).	

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(i) Care-taker - 1 No. 425-700	Rs. 20,268
(ii) Record-Keeper - 1 No. 425-700	Rs. 20,268
(iii) Machine Operator (Cyclostyling). 1 No. 260-350	Rs. 10,980
(iv) Mali (for new labs. and Workshop). 1 No. 196-232	Rs. 7,704
(v) Watchman (for new labs. and Workshop. 2 Nos. 196-232	Rs. 15,408
Total of (4)	<u>Rs. 74,628</u>

Total of (a) (1+2+3+4)

Rs. 10,05,228

D-EXPANSION - NEW COURSES

Rs. 8,75,000

Subject to discussion with the Committee of the proposals submitted by the Sections of Studies for introducing New Courses.

GRAND TOTAL OF A + B + C + D
WITH THE FOLLOWING BREAKDOWN:

Rs. 28,18,278

A - Consolidation of Existing facilities	=	Rs. 8,07,750
B - Modernisation of Existing facilities	=	Rs. 1,30,300
C - Development of Faculty	=	Rs. 10,05,228
D - Expansion (New courses)(L.S.)	=	Rs. 8,75,000
Total:	=	<u>Rs. 28,18,278</u>

GIRLS' POLYTECHNIC

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The Girls'

The Girls' Polytechnic was established in 1966, as an adjunct to the University Polytechnic, Aligarh Muslim University, Aligarh.

Courses offered:

The following three Diploma Courses are offered. These are open only to the women.

1. 3-Year Diploma Course in Electronics Engineering.
2. 3-Year Diploma Course in Costume Design and Dress making.
3. 2-Year Diploma course in Office assistantship and Secretarial Practice.

Present intake:

The University Grants Commission has approved an intake of 20 for each course desiring the University to explore the possibility of increasing the intake to 60 students in each course by utilising fully the facilities made available.

Minimum qualifications

- | | |
|---|--|
| 1. For Electronics Engg. Course. | Pass at High School Examination with Maths. and Science as two of the subjects. |
| 2. For Costume Design and Dress Making Course. | Pass at the High School Exam. with drawing/Fine Arts/ Domestic Science as one of the subjects. |
| 3. For Office Assistantship and Secretarial Practice. | Pass at the High School Exam. with good marks in English language. |

Physical facilities: (Already approved by the Govt. of India for courses mentioned above).

Non-recurring (Instructional)

a) Building	Rs. 3,52,800
b) Equipment	Rs. 4,93,900
c) Furniture	Rs. 30,000
d) Library	Rs. 20,000
Total:	<u>Rs. 8,96,700</u>

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RECURRING

Staff sanctioned category-wise.

Readers	3
Lecturers	7
Associate Lecturers	8
Instructors	6
Studio Assistants	3
Skilled Assistants	2
Draftsman	1
Total:	<u>30</u>

Facilities created by the institution against the sanction mentioned under Physical facilities.

Non-recurring (Instructional)

Building	Grants fully utilised
Equipment	Grants utilised almost in full
Furniture	-do-
Library	-do-

Recurring (Staff)

Appointments on all the sanctioned posts have made excepting the three posts of Readers.

WOMEN'S POLYTECHNIC
ALIGARH MUSLIM UNIVERSITY
ALIGARH

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ABSTRACT OF REVISED REQUIREMENTS AT A GLANCE OF THE WOMEN'S POLYTECHNIC,
ALIGARH MUSLIM UNIVERSITY, ALIGARH, UNDER THE FIFTH FIVE YEAR PLAN.

A.	<u>CONSOLIDATION OF EXISTING FACILITIES:</u>	<u>Rs.</u>	Rs. 1,45,500
	(a) BUILDING	nil	
	(b) EQUIPMENT FOR ELECTRONICS ENGG. COURSE- (FOR DETAILS SEE PAGE 4 of th OF THE PLAN).	64,500	
	(c) FURNITURE FOR STAFF ROOM AND ASSEMBLY HALL.	10,000	
	(d) <u>STAFF AMENITIES</u>		
	1. Water evaporative cooler for staff room - 1 No.	4,000	
	(e) <u>STUDENTS' AMENITIES</u>		
	1. Water cooler - 1 No.	5,000	
	2. Water evaporative cooler for Library - 1 No.	4,000	
	(f) ADDITIONAL MAINTENANCE EXPEN- DITURE FOR THE 3 COURSES AT THE WOMEN'S POLYTECHNIC FOR THE REMAINING 2 YEARS OF THE PLAN. (For details see page 3 or the Plan of the Women's Polytechnic).	58,000	
	Total:	1,45,500	
B.	<u>MODERNISATION OF EXISTING FACILITIES</u>		Rs. 21,000
	(a) Modern equipment for the Costume Design Course.	10,000	
	(b) Modern equipment for Office- Assistantship & Secretarial Practice Course - "GESTETNER DUPLICATING MACHINE MODEL-32".	11,000	

P.T.O.

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2 -

- C. DEVELOPMENT OF FACULTY Nil
- D. EXPANSION - NEW COURSES nil

GRAND TOTAL OF A + B + C + D
with the following breakdown:-

Rs.1,66,500

- A. CONSOLIDATION OF EXISTING FACILITIES Rs.1,45,500
- B. MODERNISATION OF EXISTING FACILITIES Rs. 21,000
- C. DEVELOPMENT OF FACULTY. Rs. nil
- D. EXPANSION - NEW COURSES Rs. nil

Total: Rs.1,66,500

PHYSICS SECTION

Z.H. COLLEGE OF ENGG. & TECH. A.M.U.? ALIGARH

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SUMMARY OF

FIFTH FIVE YEAR PLAN PROPOSALS

	<u>Total</u> <u>Estimated Amount</u>	<u>Priority</u>
A. Non-recurring:	Rs.	
i) Equipments	1,78,500.00	I
ii) Furniture:	7,000.00	I
iii) Building	<u>63,000.00</u>	II
Total:	<u>2,48,500.00</u>	
B: Recurring:(for two years)		
i. Salaries & Allowances:	74,000.00	I
ii. Contingency	1,000.00	I
iii. Lab. Expenses:	<u>10,000.00</u>	I
Total:	<u>85,000.00</u>	
Grand Total:		
A. Non-recurring	2,48,500.00	
B. Recurring	<u>85,000.00</u>	
	<u>3,33,500.00</u>	

Approx 3.34 lacs.

(Tausif H. Naqvi)

P.T.O.

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CHEMISTRY SECTION

ZAKIR HUSAIN COLLEGE OF ENGINEERING & TECHNOLOGY
A.M. ALIGARH

1. Abstract of proposals for the Fifth Five Year Plan
(FIRST PRIORITY)

PROPOSALS	NON-RECURRING RS-	RECURRING RS.
1. Consolidation of Semi-Micro Analysis.	20,000	
2. Consolidation of Materials Science Lab.	1,53,600	
3. Consolidation of the Existing courses in chemistry.	48,340	
4. Replacement of Obsolete Equipment	25,000	
5. Repairing of repairable equipment	10,000	
6. Preparation of eight wooden cubicles for teaching staff and their furnishing	10,000	
7. Repairs of Labs. and some minor alterations in the section.	31,400	
8. Office	2,850	
9. Contingency	-	8,000
10. Laboratory expenses	-	66,000
11. Staff	-	50,760
Total:	<u>3,26,048</u>	<u>1,24,760</u>
	GRAND TOTAL	<u>4,50,760</u>

2. Abstract of proposals for the Fifth Five Year Plan
SECOND PRIORITY

Proposals	Non-Recurring Rs	Recurring Rs
1. Space	60,000/-	-
2. Equipment	15,400	-
3. Staff	-	55,800
4. Miscellaneous	6,200	-
5. New Developments	-	25,000
		<u>80,800</u>

MATHS-V YEAR PLAN PROPOSALS

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PROPOSALS FOR CONSOLIDATION OF THE EXISTING FACILITIES IN THE MATHEMATICS SECTION OF THE ZH COLLEGE OF ENGINEERING AND TECHNOLOGY, AMU DURING THE V PLAN PERIOD, WE GIVE HEREBY THE ESTIMATED EXPENDITURE ENVISAGED.

ESTIMATED EXPENDITURE

	<u>Non-Recurring</u>	<u>Recurring</u>
1. IBM Punching Machines(two)	90,000	4,000
2. Electronic Calculators(two)	5,000	(maintenance)
3. Staff Cubicles(Four)	76,800	
4. Tutorial Rooms(four)		
5. Books and Journals	50,000	
6. Reader-I	-	18,616
7. Lecturer-1	-	13,000
8. Tutorial Assistant-1	-	6,000
9. Stationery	-	2,000
Totals	<u>Rs 2,21,800</u>	<u>Rs 43,616 p.a.</u>

Recurring Expenditure for two years -
 $= 43,616 \times 2 = \text{Rs. } 87,232$

The following is the priorities break up of both the recurring and non-recurring expenditure as detailed.

FIRST PRIORITY

<u>Non-Recurring</u>	<u>Recurring</u>
i) Machines = 95,000	i) Maintenance = Rs. 4,000
ii) Accommodation 43,200	ii) Staff 24,616
11,000	iii) Stationery = 2,000
<u>Rs. 1,49,200</u>	for one year <u>30,616</u>
	for two years =
	$30,616 \times 2 = \underline{61,232}$

SECOND PRIORITY

<u>Non-Recurring</u>	<u>Recurring</u>
Books: Rs. 39,000	Staff: 13,000
Accommodation Rs. 14,400	(Teat. in
<u>53,400</u>	Statistics) <u>13,000</u>
	for one year 13,000
	for two years
	$13,000 \times 2 = \underline{26,000}$

GRAND TOTALS:

PRIORITY I.	Rs. 1,49,200 (NR)
	Rs. 61,232 (R)
	<u>Rs. 2,10,432</u>
Priority II	Rs. 53,400 (NR)
	26,000 (R)
	<u>Rs. 79,400</u>
Nett expenditure =	Rs. 2,10,432 (I)
	79,400 (II)
	<u>Rs. 2,89,832</u>

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WORKSHOP

Proposals for the purchase of 60% equipment for the Workshop ZH College of Engg. & Tech., against the allotted grant to the Workshop out of the UGC Grant of Rs.2,50,000=00 under the Fifth Five Year Plan under P.E.C. letter No.D-1272 dated 21.7.76.

Sr.No.	Name of Equipments	No.:	Estimated Cost
1.	Welding Transformers	2	20,000
2.	Hydraulic shaper 12" storke	1	16,745=00
3.	Packing, Forwarding, Rly. freight cartage & Octroi & Insurance charges		3,255=00
			40,000
4.	Lathe Machines	12	120,000
5.	Spot Welding Machine	1	7,000
6.	Seam Welding Machine	1	7,000
7.	Automatic Circular gas x cutting machine	1	4,000
8.	Tool Post Grinder	1	12,000
9.	Hydraulic Power Hammer	1	80,000
10.	Wood Working Tools Iron Jack plane	1	8,000
11.	Nickle Brite Equipment	1	31,000
12.	Empty Gas Cylinder	3	32,250
13.	Packing, Forwarding, Rly. freight		30,140
			3,31,400=00
	Total		3,71,400= 3,71,400=00

PROPOSALS FOR THE PURCHASE OF 40% EQUIPMENT FOR THE WORKSHOP
 ZH COLLEGE OF ENGG & TECH.? AGAINST THE ALLOTTED GRANT TO THE
 WORKSHOP OUT OF THE UGC GRANT OF Rs.2,50,000 under the FIFTH
 FIVE YEARS PLAN. UNDER PEC LETTER NO.D.-1272 DATED 21.7.1976

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S.No.	Name of Equipments	No:	Estimated cost
A. EQUIPMENT			
1.	Power Hacksaw Machine	1	11,900=00
2.	Spray Painting Machine	1	15,000
3.	Precision Lathe	1	55,000
4.	Slotting Machine	1	41,000
5.	Typewriter Godrej	1	4,000
6.	Packing, Forwarding, Rly-Freight Insurance, Octroi & Cartage etc.		12,700 1,39,600
B. BUILDING			
1.	Bus Garrage Automobile Shop		10,8000 1,08,000
Total:			<u>2,47,600=00</u> <u>2,47,600=00</u>

ABSTRACT

1.	1st. Priority 40% of Rs. 6,19,000=00 including adhoc grant of Rs.40,000=00	3,71,400=00
2.	2nd priority 40% of Rs.6,19,000=00 equipment & Building	2,47,600=00
	Total Rs.	<u>6,19,000=00</u>

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CHEMISTRY SECTION

ZAKIR HUSAIN COLLEGE OF ENGINEERING & TECHNOLOGY
A.M. ALIGARH

1. Abstract of proposals for the Fifth Five Year Plan
(FIRST PRIORITY)

PROPOSALS	NON-RECURRING RS-	RECURRING RS.
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9. Contingency	-	8,000
10. Laboratory expenses	-	66,000
11. Staff	-	50,760
Total:	<u>3,26,048</u>	<u>1,24,760</u>
	GRAND TOTAL	<u>4,50,760</u>

2. Abstract of proposals for the Fifth Five Year Plan
SECOND PRIORITY

Proposals	Non-Recurring Rs	Recurring Rs
1. Space	60,000/-	-
2. Equipment	15,400	-
3. Staff	-	55,800
4. Miscellaneous	6,200	-
5. New Developments	-	25,000
		<u>1,40,800</u>

MATHS-V YEAR PLAN PROPOSALS

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7. Lecturer-1	-	13,000
8. Tutorial Assistant-1	-	6,000
9. Stationery	-	2,000
Totals	<u>Rs 2,21,800</u>	<u>Rs 43,616 p.a.</u>

Recurring Expenditure for two years -
= 43,616x2 = Rs.87,232

The following is the priorities break up of both the recurring and non-recurring expenditure as detailed.

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<u>Non-Recurring</u>	<u>Recurring</u>
i) Machines = 95,000	i) Maintenance = Rs. 4,000
ii) Accommodation 43,200	ii) Staff 24,616
11,000	iii) Stationery = 2,000
<u>Rs. 1,49,200</u>	<u>30,616</u>
	for one year
	for two years =
	<u>30,616x2 = 61,232</u>

SECOND PRIORITY

<u>Non-Recurring</u>	<u>Recurring</u>
Books: Rs.39,000	Staff:13,000
Accommodation Rs.14,400	(Iect. in
<u>53,400</u>	<u>Statistics)13,000</u>
	for one year 13,000
	for two years
	<u>13,000x2 = 26,000</u>

GRAND TOTALS:

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	Rs. 61,232 (R)
	<u>Rs. 2,10,432</u>
Priority II	Rs. 53,400(NR)
	26,000(R)
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	Total		3,71,400= 3,71,400=00

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B. BUILDING			
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Total:			<u>2,47,600=00</u> <u>2,47,600=00</u>

ABSTRACT

1.	1st. Priority 40% of Rs. 6,19,000=00 including adhoc grant of Rs.40,000=00	3,71,400=00
2.	2nd priority 40% of Rs.6,19,000=00 equipment & Building	2,47,600=00
Total Rs.		<u>6,19,000=00</u>

English Section

There is an English Section in the Engineering College which has not been provided funds for the purchase of furniture, teaching aid materials etc. This Section badly stands in need of one typewriter, book shelves, tables, one dozen chairs etc. etc. A sum of Rs.10,000/- is needed to equip this Section.

Geology Section

This Section also needs to be fully equipped and the minimum requirements of funds will be Rs.20,000/- during the next two years of the Fifth Five Year Plan Period.

Contingency, Principal's Office: Recurring

To meet the day to day expenditure on the new activities of the college and to cover up the unforeseen expenses it is necessary that a sum of Rs.20,000/- for two years be provided during the remaining part of the 5th five year plan.

Requirement of staff

The present strength of administrative, ministerial, and subordinate staff in Principal's and Dean's Offices is the same which was 15 years back while due to extension of the College, the work and responsibilities have considerably increased. The activities of the college will increase further by the opening of the Chemical Engineering Course, Petroleum Engg. Course, B.E. Courses, Electronics Engg. Course etc. etc. Besides, the work relating to the Regional Committee of the Industrial Liaison Board attached to the Engineering College has further increased the volume of this office work. The present staff will not be able to cope up with the increased work because of their pre-occupations with the existing work. It is, therefore, necessary that the strength of the staff be raised. Besides this the Chairman of the Northern Regional Committee which visited this college in 1974 had remarked that all those who had completed five years of satisfactory service or had reached at the top of the grade in the respective order should be assessed for promotion by appropriate Committee, whose services are found satisfactory should be promoted to the next cadre. The lower positions from which they were promoted will be held in abeyance. Such a procedure should be adopted also for supporting staff, technical and administrative staff. The person concerned who is holding this post for the last more than ten years and whose work and conduct is extremely satisfactory fully justify his promotion to next cadre. At present there is no post in the next cadre. Hence upgradation of the existing post has been suggested. In view of the recommendations of the chairman of the Northern Regional Committee it is proposed that the existing post of Administrative Assistant in the scale of Rs.700-1300 plus allowances be upgraded in the prescribed scale of Rs.1100-1600. There is every justification that this post should be redesignated as Administrative Officer on the lines of similar posts in Delhi University and other Engg. Colleges.

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This would involve only a small expenditure for the remaining two years of the Fifth Five Year Plan. A sum of Rs.13,000/-for two years has been provided for this purpose.

Similarly a post of lecturer held by the incumbant for over ten years is also proposed to be upgraded to Readers scale of pay. The expenditure will be Rs.14,500/-

CARETAKER

There is a post of Caretaker in the College in scale of Rs. 425-700. The importance of this post needs no emphasis. The person holding this post has also to look after the lawns and gardens etc.etc. of the college which are spread in vast areas. It is considered essential that the scale of this post be revised to Rs.650-960. The expenditure for the remaining two years of the Fifth Five Year Plan due to revision of the scale will be Rs.9,000/-.

Humanities and Social Sciences

English is being taught to I year & II year B.Sc. Engineering students during the first 3 semesters. Two lecturers have been catering to the needs of about 200 students, with the result that tutorials and continuous internal assessment, which required more teachers, has not been as effective as is necessary for any foreign language teaching. It requires creation of the post of a lecturer in English and upgradation of one of the existing lecturership to Readership in English. The latter needs to be given priority as in the absence of any senior post in the subject, the two lecturers in English who have been working for more than 12 years have no incentive. To organise the teaching of English as well as other foreign languages on sound scientific lines we propose to have a language laboratory of about 15 booths.

Besides English, we give 3 courses in various subjects of social sciences to our students. The college has no teaching staff to teach these subjects to the students. The services of some teachers are requisitioned from respective departments. This arrangement has not proved to be a successful one.

It has been therefore decided to create two lecturerships in social sciences.

It is also proposed to create a section of Humanities in the college on the pattern of our selections in Physics, Chemistry and Maths. This will be a composite section, comprising English and other languages e.g. Arabic and Persian and Social Sciences. The Academic Council has taken a decision in this regard and necessary ordinances are being framed. The following will be the minimum requirement of staff etc.

for two years

- | | |
|--|---------------|
| 1) Upgrading of the post of Lecturer in English to Reader in English | Rs. 14,500/- |
| 2) Three lecturers(1 in Eng.& 2 in Social Sciences) | Rs 1,24,000/- |
| 3) Running & Maintenance of Humanities Section Language Lab. | Rs. 20,000/- |
| | Rs. 20,000/- |

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Principal's Office

Proposals for Fifth Five Year Plan arranged in order of priority and included in the First Phase.

	Rs.	
1. Construction of carry-over building projects from previous plan.	21,55,000	
2. Construction of 4 class-rooms of theatre type and their furnishing-40x30' each 1200 sq.ft. i.e. 4800 sq.ft. at the rate of Rs.60 per sq.ft.	2,88,000	
3. Furnishing	60,000	
3. Store-room Principal's Office 1200 sq.ft. @ Rs.60/- per sq.ft.	72,000	
4. Cyclostyling Room Principal's Office 20x20'	24,000	
5. College bus, mini bus and staff car	3,30,000	
Recurring per annum for 2 drivers, 2 cleaners, petrol, oil, lubricants, maintenance and repairs at 10% of capital expenditure	74,000	
Garrage for bus, mini bus and staff car 1100 sq.ft.	66,000	
6. Class-room furniture for existing classes 1200 students at Rs.80/-per sq.ft.	96,000	
7. Equipment needed for Principal's Office-latest models of typewriters, with scientific and mathematical keys, calculating machines, racks, almirahs, air-conditioners or cooling arrangement, tables, chairs, rotating shelves etc.	20,000	
8. Requirement of English Section-furniture, teaching aid materials etc., typewriter, book xxx shelves, tables, chairs etc.	10,000	
9. Geology Section-Equipment, furniture etc	20,000	
10. Contingencies for Principal's office(Only a sum of Rs.13,000 is being provided for the last 13 years for this office. During this period the cost of living index has shown a very high increase and the prices of almost all commodities as well as railway fares etc. have increased atleast 4 or 5 times. Further, the members of the staff are generally sent to other institutions to attend seminars, summer schools and distinguished academicians are invited from other institutions to deliver lecture.	50,000	
11. Revision of grade or upgradation of certain posts:		
i) The Principal should be the member of the Department in the field of his specialization. He should either be paid 20% allowance or his scale of pay be revised keeping in view his seniority and experience. Prior to 1973 the scale of pay of this post was 1800-200+allowances when the scale of pay of Professor was Rs.1100-1500. As no revision of scale of this post has taken place so far, it seems justified to give the present incumbent an allowance at 20% of his basic pay in the scale of Rs.1500-2500. If somehow this proposition could not push through		

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the scale of Principal be revised to Rs. 2500-100-3000 and the Principal be redesignated as Director. He should, however, continue to be the Professor and member of the Department in his field of specialisation.

The proposals will involve a very small amount of Rs. 3,000 per annum if the post is up-graded in the scale of Rs. 2500-3000 per annum because the present incumbent is already getting Rs. 2250 plus allowances. The total expenditure for two years of the plan period would be

Rs. 6,000

ii) There is a post of Administrative Assistant in the scale of Rs. 700-1300 in the Principal's office. This post is in existence for the last about 15 years. There is no avenue of promotion on this post in the college. The Chairman of the Northern Regional Committee who visited this college in '74' had recommended that all those who had completed 5 years of satisfactory service or had reached at the top of the grade in the respective area, should be assessed for promotion and whose services are found satisfactory should be promoted to the next cadre. This recommendation was equally applicable for supporting, technical and administrative staff. The present incumbent is holding this post for about 12 years and his work and conduct has been extremely satisfactory. At present there is no post in the next cadre hence upgradation of the existing post in the scale of Rs. 1100-1600, which is the next higher grade is strongly recommended. This post be redesignated as Administrative Officer on the lines of similar posts in the Delhi University. This will involve only a small expenditure for the remaining two years of the Fifth Plan

Rs. 13,000

iii) Care-Taker. There is a post of Care-Taker in the college and the person holding this post has multifarious duties in the college. He looks after the entire college buildings, stock of furniture, land and gardens, sanitary arrangements etc. etc. The college is ~~xxxxxx~~ spread in a huge area. Upgradation of this post in the scale of Rs. 650-960 is recommended. The expenditure for the two years will be

Rs. 2,400

iv) Record Keeper. There is no post of Record Keeper in the college. Hence there is full justification for creation of a post of Record Keeper in the scale of Rs. 550-900. The expenditure for the two years will be

Rs. 20,000

v) Cyclostyling Operator. There is no such post in the college. For the present a peon looks after this work. It is necessary to create a post in the scale of Rs. 260-400. The expenditure for the two years will be

Rs. 12,000

vi) Technician: For day-to-day repair work in the offices of the college, a technician is essentially needed. At present there is no such post. Creation of this post in the scale of Rs. 425-700 will involve an expenditure for the two years

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Rs. 21,000/-

Exnd. on staff Total=Rs.74,400/-

12. Fire-fighting equipments. There is no arrangement for the equipments in the college which is most essential

Rs. 10,000/-

13. Engg. College Library: This library caters to the need of about 1200 students and 150 staff members. It is looked after by a teacher in honorary capacity and a skeleton staff sanctioned some 15 yrs. ago. It has 30,000 books and subscribing to 240 journals. The detailed proposals are attached herewith.

Rs.3,71,000/-

14. Training and Placement Cell and Consultancy Services. There is no such cell. In these days of industrialization and when the college has switched over to industrially oriented courses in engineering, it is highly necessary that provision for this purpose be made. The requirement of funds is:

Non-recurring (furniture, office equipment library books and related literature)

Recurring (T.A. & D.A. and Contingencies

Rs. 30,000Rs-

15. Students Amenities : There is at present no place for organizing students amenities. For this purpose space will also be needed but in case the required proposal for space is sanctioned, some space for this purpose may be provided from the same. The other expenditure will be

Rs. 30,000

16. Humanities and Social Sciences Section: Detailed proposals are enclosed.

Rs.1,78,500

17. Chemical Engineering Deptt. Based on the recommendations of the last visiting committee, a sum of Rs. is needed

Recurring:	3,18,000
Non-Recurring:	<u>13,37,000</u>
Total:	<u>16,55,000</u>

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Second Phase

	Rs.
Recurring: 1. Clerks for examination cell and Training and Placement Cell for 2 years.	44,000
2. Asstt. Workshop Supdt.	35,500
3. Projector Operator	17,000
Non-Recurring: Construction of carry-over building projects which includes space for Humanities Section.	6,95,000
Construction of Committee Room	72,000
Training Placement and Examination Cells	48,000
Examination Hall	96,000
Lavatory for staff	18,000
4 theatre type lecture rooms for M.Sc. Engg. classes, B.E. classes etc. and their furnishing.	1,50,000
Tubewell with over-head tank, channels and sanitary fittings	1,00,000
Roads in the Engg. College	1,00,000
Cupboards, tutorial rooms for teachers	3,00,000
Students Amenity Block	2,36,000
Equipment, Water coolers	40,000
Room Coolers	20,000
Implements for land and gardens and staff	50,000
Science and Electrical accessories	20,000
Audio-visual instruments	35,000
Electrical fittings and re-wiring of college building	1,00,000
Xerox photo-copy machine	50,000
Furniture for Examination Hall	30,000

HOSTEL FACILITIES

At present accommodation is provided to engineering students in different hostels of the university in which students from different faculties also reside. It is felt that the students of pre-final and final year engineering be provided separate rooms, if a hostel with 200 rooms, common room, dinning room, warden's residence, kitchen, pantry etc. etc. is constructed, it will greatly improve the efficiency of the engineering students as well as provide better facilities and convenience to them.

The approximate expenditure per room will be Rs.5000x 200 = Rs. 10,00,000

Another sum of Rs.150 per room for furnishing will be 150x200= Rs. 30,000
10,30,000/-

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SUMMARISED STATEMENT OF FACILITIES IN COLLEGE
LIBRARY, Z.H. COLLEGE OF ENGG. & TECHNOLOGY,
ALIGARH MUSLIM UNIVERSITY, ALIGARH AND ITS REQUIREMENTS

1. No. of Books and Periodicals:

a Library	28,100 nos.
b Book Bank	14,400 nos.
Total.....	42,500 nos.

2. No. of users.....

1,500 Nos.

3. Opening hours.....

9 a.m. to 10 p.m.

Total 13 hours in 2 shifts

4. Recurring Grant for books and periodicals: Rs. 70,000/-

5. Non-Recurring Grant: Sanctioned by UGC

under Fifth Five Year Plan..... College	Rs. 6,84,000/-
Polytechnic	1,42,000/-

Total: Rs. 8.26 lacs

Grant utilised since Jan. 1977..... Rs. 2,94,171.84

6. Space.....a. Required 780 sq. meter

b. Existing 310 sq. meter

c. Sanctioned by UGC 470 sq. meter

No grant is needed

7. Staff Existing Prof. Asstt. 2

Semi-Prof. 1

Lib. Clerk

Gr. II 1

Attendants 5

Total..... 9 Nos.

Immediate additional Requirement.

1 Librarian Rs. 700-1300

6 Asstt. Librarian 650-950

6 Prof. Asstt. 425-700

1 Lib. Clerk 260-400

2 Lib. Attendants 210-270

Total: 11

1,34,000/- per year. Total for 2 years Rs. 2,68,000/-. The above includes staff for Book Bank services.

8. Furniture..... Requirement..... Rs. 1,03,000/-

(As per details given in the revised proposals 3,71,000)

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SUMMARISED STATEMENT OF FACILITIES IN COLLEGE
LIBRARY, Z.H. COLLEGE OF ENGG. & TECHNOLOGY,
ALIGARH MUSLIM UNIVERSITY, ALIGARH AND ITS REQUIREMENTS

1. No. of Books and Periodicals:

a Library	28,100 nos.	
b Book Bank	14,400 nos.	
Total.....	42,500 nos.	

2. No. of users..... 1,500 Nos.

3. Opening hours..... 9 a.m. to 10 p.m.

Total 13 hours in 2 shifts

4. Recurring Grant for books and periodicals: Rs. 70,000/-

5. Non-Recurring Grant: Sanctioned by UGC
under Fifth Five Year Plan..... College Rs. 6,84,000/-
Polytechnic 1,42,000/-

Total: Rs. 8.26 lacs

Grant utilised since Jan. 1977..... Rs. 2,94,171.84

6. Space..... a, Required 780 sq. meter
b, Existing 310 sq. meter
c, Sanctioned by UGC 470 sq. meter

No grant is needed

7. Staff Existing Prof. Asstt. 2
Semi-Prof. 1
Lib. Clerk
Gr. II 1
Attendants 5
Total..... 9 Nos.

Immediate additional Requirement.

1	Librarian	Rs. 700-	1300
6	Asstt. Librarian	650-	950
6	Prof. Asstt.	425-	700
1	Lib. Clerk	260-	400
2	Lib. Attendants	210-	270

Total:

1,34,000/- per year. Total for 2 years Rs. 2,68,000/-. The above includes staff for Book Bank services.

8. Furniture..... Requirement..... Rs. 1,03,000/-
(As per details given in the revised proposals 3,71,000)

Course Schedule

The following course schedule is proposed assuming each year consisting of two terms. Periods per week are shown under two columns. The first column refers to lecture hours and the second to contact hours in respect of tutorial and sessionals.

FIRST YEAR

<u>Dept.</u>	<u>Subject</u>	<u>1st Semester</u>	<u>2nd Semester</u>
Hu	English I & II	3-2	3-2
Ph	Physics I & II	3-1	3-1
Ch	Chemistry I & II	3-1	3-1
Ma	Mathematics I & II	3-1	3-1
ME/	Mechanics I & II	3-1	3-1
CE	Drawing & Descriptive Geometry	0-4	0-4
ME	Workshop Practice I & II	0-3	0-3
Ph	Physics Lab.	0-3	0-3
Ch	Chemistry Lab.	0-3	0-3
	N.C.C./N.S.S.	0-3	0-3
		<u>15-22</u>	<u>15-22</u>

Second Year

		<u>3rd Semester</u>
Ph.	Physics III	3-1
Ch.	Chemistry III	3-0
Ma.	Mathematics III	3-2
<u>Common.</u>	Mechanics III	3-2
<u>EE</u>	Electrical Tech.	3-1
<u>CE</u>	Engg. Drawing I	0-4
<u>ME</u>	Workshop Practice III	0-3
Ph	Physics Lab.	0-3
<u>EE</u>	Electrical Tech. Lab., I	0-3
	N.C.C./N.S.S.	0-3
		<u>15-22</u>

Second Yr. 4th Semester

Hu	Humanities(History & Constitution)	3-1
Ph	Physics-IV	3-1
Ma	Mathematics-IV	3-1
EE	Electrical Tech. II	3-1
ME/CE	Strength of Materials	3-2
CE	Engg. Drawing-II	0-4
ME	Workshop Practice	0-3
Ph	Physics Lab.	0-3
EE	Electrical Tech.Lab. II	0-3
	N.C.C./N.S.S.	0-3
		<u>15-22</u>

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Third Year

5th Semester

Hu	Humanities(Psychology)	3-0
Ma	Mathematics I	3-1
Common	Fluid Mechanics	3-1
ECE	Basic Electronics	3-1
ME	Engg. Science Lab.	0-3
ChE	Chemical Engg. Drawing	0-3
Ch	Physical Chem.Lab.	0-3
ECE	Electronics Lab.	0-3
	N.C.C./N.S.S.	0-3

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6th Semester

ME	Applied Thermodynamics	3-1
Ma	Probability & Statistics	3-0
ME	Machine Component	3-0
ECE	Computing & Programming	3-2
ChE	Chem Engg. Stoichiometry	3-1
ChE	Chem. Engg. Equip. Drawing	0-3
ME	Heat Engines Lab.	0-3
ME	Machine Design	0-3
	NCC/NSS	0-3

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Fourth Year

7th Semester

HU	Economics	3-0
Ch	Org. Chemistry	3-0
ChE	Unit Operation I (Fluid Mech. and Mixing)	3-1
ChE	Unit Operation II (Heat Transfer)	3-1
ChE	Unit Operation III (Mech. Operations)	3-1
ChE	Process Equip. Design-I	0-6
ChE	Unit Opern. Lab. I	0-6
Ch	Organic Chem. Lab.	0-3
	N.C.C./N.S.S.	0-3

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8th Semester

ChE	Inorg. Tech.	3-1
ChE	Chem. Engg. Termo.	3-1
ChE	Fueled Tech.	3-0
ChE	Mathematical Method in Chem. Engg.	3-1
ChE	Unit Oper. Lab. II	0-6
ChE	Fueled Tech. Lab.	0-3
ChE	Process Equipm. Design-II	0-6
ChE	Process Dynamics & Control ExExEx	0-3
	NCC/NSS	0-3

15-21

<u>Fifth Year</u>		<u>9th Semester</u>
Hu	Industrial Relations	3-0
ChE	Diffusional Operations-I	3-1
ChE	Org. Tech.	3-1
ChE	Reaction Engg.	3-1
ChE	Instrumentation & Process Control Lab.	0-3
ME	Industrial Engg.	3-0
ChE	Unit Oper. Lab. III	0-6
ChE	Process Equip. Design-III	0-6
	N.C.C./N.S.S.	0-3
		<u>15-21</u>

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		<u>10th Semester</u>
ChE	Diffusional Operations-II	3-1
ChE	Transport Phenomena	3-1
ChE	Project Engg.	3-6
ChE	Computer Methods in Chem. Engg.	3-0
ChE	Process Equipment. Design-IV	0-6
Elective		3-0
Thesis		0-6
		<u>15-20</u>

Viva-Voce Thesis

- Electives
(Any one)
1. Petroleum Technology
 2. Systems Engg.
 3. Nuclear Engg.
 4. Biochemical Engg.
 5. Fertiliser Technology

Space requirements

		Sq.M.	
1. <u>General</u>	Head of the Deptt.	20	
	Office	30	
	Conference & Seminar rooms	50	
	Departmental Library	50	
	Toilets	30	
		<hr style="width: 50%; margin-left: auto; margin-right: 0;"/> 180	
2. <u>Class Rooms</u>	Lecture Hall(Gallery)	100	
	Class rooms(2x50)	100	
	Tutorial rooms(2x15)	30	
	Drawing & Design Hall	120	
		<hr style="width: 50%; margin-left: auto; margin-right: 0;"/> 350	
3. Laboratories etc.	Fluid flow, Heat transfer, mass transfer, Mechanical Operations, Chem. Reaction Engg., Instrumentation & Process Control, Technical & Instrumental Analysis Lab.	1,500	
	Department Workshop	150	
	Staff rooms	150	
	Utilities & services(steam, compressed air, gas, etc.)	100	
	Stores(chemicals, glass-ware, raw materials, pipes & fittings, instruments, waste materials)	200	
		<hr style="width: 50%; margin-left: auto; margin-right: 0;"/> 2,100	

Total: 2630 sq.m.
 Add 30% for walls 880 "
 passages
 Total: 3510 sq.m. = 3,500 sq.m.

APPENDIX -V

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Staff

1. Faculty

	<u>No.</u>
a) Professor & Head of the Deptt.	1
b) Professor	1
c) Readers	5
d) Lecturers	7
	<u>14</u>

2. Supporting Staff

i) Foreman	1
ii) Clerks and typists	2
iii) Stenographer	1
iv) Tech. Asstt./Mechanics (including Draftsman, Electrician and Boiler Attendant)	10
v) Lab. helpers	8
Total:	<u>22</u>

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 19th December, 1977

Item No. 12 To consider the report of the Visiting Committee appointed by the University Grants Commission to examine the proposal of Aligarh Muslim University for staff for the library.

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The University Grants Commission at its meeting held on 18th April, 1977 (Item No: 13) considered the report of the committee constituted by the Commission to examine the proposals of the University for additional staff and desired that the matter may be brought up before the Commission after the information required by the Committee is made available by the Aligarh Muslim University and considered by it. A copy of Item No.13 alongwith its -180 enclosures is attached (Annexure-I)

In pursuance of the above decision, the information furnished by the Librarian, Aligarh Muslim University was sent to the members of the committee and they were requested to review and the position and indicate specific recommendations regarding the additional staff proposed by the University for its library. The Committee has submitted its supplementary report which is attached Annexure-II. The main recommendations made by the committee are indicated below:-

- a) Some of the departmental libraries may be merged into a inter-disciplinary unit. The existing manpower could then be fruitfully utilised for introducing services like S.D.I., and other documentation services.
- b) Multiple collections of old editions of textbooks could be weeded out. The University may take steps to formulate a weeding out policy.
- c) If a controlled open-access system is introduced in the text-book section, the staff required to man the section could be reduced.
- d) An 'assembly line' planning in the processing section, would increase the output of work even with the present quantum of staff.

p.t.o.

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- (e) The posts of One Curator (Dy. Librarian), 1 Deputy Librarian, 5 Assistant, Librarians-cum-Documentation Officers, 5 Professional Assistants, One Computer Programmer-cum-Analysist, Two Punchers may be approved.

With the addition of the above staff, some of the professional staff would be relieved of their work and can be utilised at the new service point the Librarian plans to introduce.

5 percent of the University Grants Commission Development grant may be utilised for additional work on adhoc basis during the plan period for acquisition and processing of books. This facility may be availed of to supplement the staff, the library already has in addition to the recommendations made by the committee.

The details of posts, asked for by the University, recommended by the Committee and already approved by the University Grants Commission are given below :-

S.No.	Designation	No of posts asked for.	No of posts recommended by the committee	No of Pos already approved
1.	Deputy Librarian	3	1	1
2.	Assistant Librarian*	11	5	3
3.	Professional Assistant	10	5	-
4.	Foreman Binder	1	-	-
5.	Personal Assistant (Sr.)	1	-	-
6.	Tooling Assistant	2	-	-
7.	Stenographer	1	-	-
8.	Clerk Grade I	10	-	-
9.	Clerk Grade II	5	-	-
10.	Attendant	5	-	-
11.	Daftri	1	-	-
12.	Computer Programmer-cum System Analysist.	-	1	-
13.	Puncher	-	2	-
14.	Curator in the grade of (Deputy Librarian)	-	1	-

The matter is placed before the Commission for consideration.

*Assistant Librarians-cum-Documentation Officers.

AS (D-2b) / DS (D-2)

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Copy of Note No. 13 placed before the Commission on 18th April, 1977.

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:To consider the report of the visiting Committee appointed by the University Grants Commission to examine the proposal of Aligarh Muslim University for Staff for the Library.

The University Grants Commission at its meeting held on 19th July, 1976 (Item No. 19) considered the proposal of the Aligarh Muslim University for additional staff for the library. The Commission agreed that pending the detailed examination of the proposal with the help of a Committee, the University may be assisted to provide for a post of Deputy Librarian and 3 Assistant Librarians.

In pursuance of the above decision, a Committee consisting of : (1) Professor B. Andersen, Head of Library Science Department, University of Bombay, Bombay, and (2) Shri N.N. Gidwani, Librarian, Rajasthan University, Jaipur was constituted by the Commission to examine the proposal of the University for additional Library staff. The Committee visited the University on 14th December, 1976. Shri P.L. Chopra, Assistant Secretary, University Grants Commission accompanied the Committee. The report of the Committee is attached (Appendix-I). The main recommendations made by the Committee are indicated below :-

- a) Some of the departmental libraries may be merged into a inter-disciplinary unit. The existing manpower could then be fruitfully utilised for introducing services like S.D.I., and other documentation services.
- b) Multiple collections of old editions of text-books could be weeded out. The University may take steps to formulate a weeding out policy.
- c) If a controlled open-access system is introduced in the text-book section, the staff required to man the section could be reduced.
- d) An 'assembly line' planning in the processing section, would increase the output of work even with the present quantum of staff.
- e) The following additional staff may be approved.
 - i) One Curator in the grade of Deputy Librarian with a Master's Degree in Persian and or Arabic languages, with knowledge of Archival maintenance & Library Science as desirable.

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- ii. 1 Deputy Librarian.
- iii. 5 Assistant Librarians-cum-Documentation Officers. One post be reserved for Hindi and Sanskrit section of the Library.
- iv. 5 Professional Assistants.

The above posts are inclusive of whatever posts that have already been sanctioned by the Commission on ad-hoc basis pending if the submission of the present report.

- ii. The supporting administrative staff at lower level may be provided if justification exists.

The details of Library staff required by the Aligarh Muslim University and staff in position are given in Appendix.II

The recommendations made by the Library Committee for Aligarh Muslim University are placed before the Commission for consideration.

Appendix I

REPORT OF THE ALIGARH MUSLIM UNIVERSITY LIBRARY
COMMITTEE APPOINTED BY THE UNIVERSITY GRANTS
COMMISSION.

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As agreed upon previously we, the members of the Aligarh Muslim University Library Committee spend one full day, Decr. 14, 1976 at the Aligarh Muslim University Library. We arrived at Aligarh on the previous evening and were received by the Dy. Librarian since the Librarian was out of station.

Since the Librarian was due only at 10.30 a.m. on the 14th we began with an observation tour of the Library. This was followed by discussion with the Librarian and his colleagues. After lunch we met the Vice-Chancellor and visited some of the department Libraries followed by further discussion with Library staff right upto about 7 p.m.

The Committee had made a special request to the Librarian to provide some specific information & data and we were assured that the same would be provided within a fortnight. More than three months have elapsed and inspite of reminders both by the members of the committee and the University Grants Commission Assistant Secretary, Mr. Chopra, the information asked for has not been received. The Committee wishes to place on record its thanks for the kindness and courtesy extended to them by the authorities of the University.

We enclose herewith our observations & recommendations.

OBSERVATIONS

- 1) Proliferation of departmental libraries: This has resulted in (a) additional service points, (b) duplication of books and (c) duplication of periodicals. Some of these departmental libraries could be conveniently merged into a inter disciplinary unit, thereby the existing manpower could be fruitfully utilised for introducing services like S.D.I., and other documentation/services.
- 2) Multiple collection, of old editions of text-books have just cluttered the stacks with dead stock materials and thereby increasing the maintenance work. These could be weeded out. The University may take steps to formulate a weeding out policy.
- 3) The text-Book sections do not function on the open-access policy at present. If a controlled open-access system is introduced in these sections, the staff required to man these sections could be reduced.
- 4) We are of the opinion that an 'assembly line' planning in the processing section, would increase the output of work even with the present quantum of staff.

RECOMMENDATIONS:

In view of the rich collection of manuscripts, rare paintings etc., a post under the designation of 'Curator' is recommended in the grade of a Dy. Librarian. The Curator should be an expert with a Master's degree in Persian and or Arabic languages. Knowledge of Archival maintenance and Library Science may be deemed as desirable.

We also recommend the following additional professional staff:

- | | | |
|---|---|------|
| (a) Deputy Librarian | - | One |
| (b) Assistant Librarian-cum
Documentation Officers. | - | Five |
| (c) (One of these posts may be
reserved for Hindi & Sanskrit
Section of the Library). | | |
| (c) Professional Assistants. | | Five |

(a), (b) & (c)

Note: The above posts are inclusive of whatever posts that have already been sanctioned by the Commission on ad-hoc basis pending the submission of the present report.

- (d) The supporting administrative staff may be provided if justification exists.

Appendix II

Note on Item No.19 placed before the Commission on 19th July, 1976.

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To consider the proposal of the Aligarh Muslim University for additional staff for the Library.

XI XXX XXX XX

The details of the staff required by the University are as under :-

Post	Scale	No of Existing posts	No of additional required
1. Deputy Librarian.	Rs.700-50-1250 (Pre-revised grade)	1	3
2. Assistant Librarian.	Rs.400-40-950 (Pre-revised grade)	5	11
3. Professional Assistant.	Rs.250-15-400 (Pre-revised grade)	15	10
4. Foreman Binder	Rs.550-25-750EB-30-900 (Proposed grade)	-	1
5. Personal Assistant (Senior)	Rs.650-30-740-35-880-EB-40-960 (Proposed grade)	-	1
6. Tolling Assistant	Rs.330-10-380-EB-12-500-EB-15-560 (Proposed grade)	-	2
7. Stenographer	Rs.330-10-380-EB-12-500-EB-15-560 (Revised grade)	-	1
8. Clerk Gr. I.	Rs.330-10-380-EB-12-500-EB-15-560 (Revised grade)	22	10
9. Clerk Grade.II.	Rs. 260-6-290-EB-5-326-8-366-EB-8-390-10-400 (Revised grade)	10	5
10. Attendant	Rs.260-6-326-EB-8-350 (Revised grade)	32	5
11. Daftri	Rs. 210-4-250-EB-5-270	-	1
		<u>85</u>	<u>50</u>

Existing posts do not include posts of one Deputy Librarian 3. Assistant Librarian approved pending Committee visit.

SUPPLEMENTARY REPORT OF THE ALIGARH MUSLIM UNIVERSITY
LIBRARY COMMITTEE APPOINTED BY THE UNIVERSITY
GRANTS COMMISSION.

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We invite your attention to the U.G.C.'s letter D.O. No.F.21-1/76(D-2b) dated the 5th July 1977.

We have carefully gone through the documents submitted by the Librarian, Maulana Azad Library, Aligarh Muslim University, Aligarh(U.P.) received through the Commission and we have to make the following recommendations as a supplement to our Observations & Recommendations dated 28th March, 1977.

1. We are glad to know that Computer facilities are available on the campus and that the Library will have access to it. In view of this we recommend the following staff for the Computer Unit of the Library:

- (a) Computer Programmer-cum-System Analyst - One
- (b) Puncher (to punch electrically the cards) - Two

2. Arising out of the above, some of the professional staff would be relieved of their work and they can be utilised at the new service points the Librarian plans to introduce.

We presume that 5 percent of the U.G.C. Development Grant can be utilised for additional staff on an adhoc basis during the plan period for acquisition & processing of books. This facility may be availed of to supplement the staff the Library already has in addition to the recommendations made by this Committee.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 19th December, 1977.

Item No. 13 To consider a proposal of Shivaji University,
Kolhapur, for additional grants during 5th Plan.

...

The Commission on the recommendations of a Visiting Committee accepted various proposals of Shivaji University for implementation during 5th plan and agreed to provide a total amount of Rs. 68.86 lakhs. Later on, a proposal of the Shivaji University for the establishment of the Department of education at a cost of Rs. 7,01,000/- was approved by the Commission. The total amount ear-marked for this university during Fifth Plan is Rs. 100 lakhs. A statement indicating the action taken by the University against the various proposals approved by the Commission is enclosed in the Annexure-I. * It may be seen from the statement that the University has already taken positive steps towards implementation of the approval already conveyed and utilised major portion of the grant approved for purchase of books and equipment. The University has now requested to sanction additional grant for purchase of books and equipment and extension of library and Zoology building and building for Geography and staffquarters including shifting of priority of the aforesaid building projects. A comparative statement of the amount approved by the University Grants Commission and additional requirement is given below :-

S. No.	Name of and Scheme	Grants approved by U.G.C.	Additional requirements	Remarks
--------	--------------------	---------------------------	-------------------------	---------

I. Books & Journals

i)	Science	5,56,000	2,00,000	Additional amount is required to meet the needs of increasing strength of students.
ii)	Humanities	3,63,000	1,00,000	

p. t. o.

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II. Equipment

i) Botany	2,55,000	1,00,000	Additional amount is required to meet the need of increasing strength of students.
ii) Physics	4,00,000	3,50,000	
iii) Zoology	2,45,000	1,00,000	
iv) Economics		1,00,000	

The University has requested for the building grants as recommended by the Visiting Committee in II & III priority and an additional amount of Rs. 3.00 lakhs for library extension.

III. Building:

i) Geography	1,00,000	II Priority
ii) Library (extension)	2,00,000 + 3,00,000	additional
iii) Staff quarters	2,00,000	II Priority
iv) Zoology (extension)	50,000	"
v) Botanical Garden	50,000	"

The University has also requested to sanction staff equipment, books and journals for starting of the new departments/sections of statistics, Marathi, Commerce and Bio-chemistry. A sum of Rs. 61,800 (UGC share) is also required for starting of degree course in Journalism. The position of the requirement on account of the new departments/sections is indicated below:-

Statistical

Staff	1 Reader, 2 Lecturers	Rs. 39,000/- for one year
Equipment		Rs. 1,50,000/-
Books		Rs. 1,40,000/-
		<hr/>
		Rs. 3,29,000

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Marathi:

Staff: 1 Prof., 1 Reader, 2 Lecturers.	Rs.	52,000/- for one year
Equipment	Rs.	10,000/-
Books	Rs.	75,000/-
	Rs.	<u>1,37,000/-</u>

Commerce:

Staff: 1 Prof., 1 Reader, 2 Lecturers	Rs.	52,000/- for one year
Equipment	Rs.	20,000/-
Library books	Rs.	75,000/-
Building	Rs.	2,50,000
	Rs.	<u>3,97,000</u>

Bio-Chemistry:

Staff: 1 Prof., 1 Reader, 2 Lecturers.	Rs.	52,000/-
Equipment	Rs.	2,50,000/-
Books	Rs.	50,000/-
Building	Rs.	1,00,000/-
	Rs.	<u>4,52,000/-</u>

Degree Course in
Journalism

Staff: 1 Reader, 2 Lecturers 1 Tech. Asstt.	Rs.	46,000/-
Equipment	Rs.	10,000/-
Books	Rs.	10,000/-
contingency	Rs.	5,000/-
	Rs.	<u>71,000/-</u>

The Shivaji University has also sent a proposal for financial assistance for the establishment of Anthropological Museum. The museum will be in direct

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control of the Department of Sociology, Shivaji University. The University has informed that the above museum will be special type of folk museum which does not exist in any University of the Maharashtra State. In the initial stage the University will require the following assistance to equip the section of the museum:

Non-recurring	Rs.	30,000/-
Recurring	Rs.	20,000/-
Summary of the additional financial requirement:		
Books & Journals	Rs.	3,00,000
Equipment	Rs.	5,60,000
Building	Rs.	3,00,000
New Departments	Rs.	13,86,000
Museum	Rs.	50,000
		<hr/>
		Rs. 25,96,000
		<hr/>

In this connection a copy each of the letters received from the University bearing No. SU/STAT/F.101/610 and No. SU/STAT/F.101/1050 dated 11th April, 1977 and 15th July, 1977 respectively are attached as Annexure II & III*. A detailed proposal for Anthropological Museum is also attached as Annexure IV@

The matter is placed before Commission for consideration.

.AS(D-4)/D.S.(D.4)

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SHIVAJI UNIVERSITY, KOLHAPUR

Present stage of Implementation of the Vth Plan Schemes
by the University

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Recommendation/Observations of the visiting committee as accepted by the Commission.	Action taken by the University																								
1	2																								
1 Spill-over Scheme: Rs. 3,09,246-97 (Reference UGC Ann-exure-I attached to UGC letter No.F.6-1/76(D-4a) dated 25.3.76.	All the Schemes referred to under spill-over schemes (i.e. Annexure-I) have been completed and the required completion (except women's Hostel) documents have also been furnished to the Commission.																								
2 Basic grants: Rs. 5,00,000-00 (Equip.) -do- II + Rs. 3,00,000-00 (Library)	The grants sanctioned under this scheme have been fully utilised by the concerned departments.																								
3 Schemes recommended by the visiting committee and accepted by the UGC Rs. 33,40,000-00 (UGC share) -do- III	i) <u>Allocation for Equipment:</u> The University has incurred the expenditure under the scheme as under:																								
	<table border="1"><thead><tr><th><u>Department</u></th><th><u>Grant actually sanctioned by the UGC including basic grant</u></th><th><u>Expenditure incurred (including orders placed).</u></th></tr></thead><tbody><tr><td>1 Chemistry</td><td>3,00,000/-</td><td>2,15,616/-</td></tr><tr><td>2 Botany</td><td>2,15,000/-</td><td>1,92,803/-</td></tr><tr><td>3 Physics</td><td>3,50,000/-</td><td>3,49,486/-</td></tr><tr><td>4 Geography</td><td>40,000/-</td><td>28,622/-</td></tr><tr><td>5 Zoology</td><td>2,10,000/-</td><td>1,45,812/-</td></tr><tr><td>6 Economics</td><td>10,000/-</td><td>9,607/-</td></tr><tr><td>7 Mathematics</td><td>25,000/-</td><td>9,964/-</td></tr></tbody></table>	<u>Department</u>	<u>Grant actually sanctioned by the UGC including basic grant</u>	<u>Expenditure incurred (including orders placed).</u>	1 Chemistry	3,00,000/-	2,15,616/-	2 Botany	2,15,000/-	1,92,803/-	3 Physics	3,50,000/-	3,49,486/-	4 Geography	40,000/-	28,622/-	5 Zoology	2,10,000/-	1,45,812/-	6 Economics	10,000/-	9,607/-	7 Mathematics	25,000/-	9,964/-
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extensions are quite essential. The justifications received in this behalf from the Heads of the concerned Departments are attached separately wherever necessary. I am to further say that the grant of Rs. 50,000/- made available for Botanical Garden is not sufficient and

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In addition to above the Commission has sanctioned the grant of Rs. 8,00,000/- for central workshop and the orders are being placed very shortly.

ii) Allocation for Books:

The University has incurred the expenditure under the scheme as under:-

<u>Department</u>	<u>Grant actually sanctioned by the UGC including basic grant</u>	<u>Expenditure incurred (including orders placed)</u>
	<u>RS.</u>	<u>RS.</u>
1 Science	4,66,000/-	3,27,900/-
2 Humanities	3,09,000/-	2,16,100/-

iii) Allocation for Buildings:

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> 1) The extension to Chemistry 2) The extension to Botany 3) The extension to Zoology 4) Construction of Mathematics 5) Animal House 6) Humanities 7) Teacher's Hostel 8) Central Work-shop Building: | } | <p>The plans and estimates have been finalised and would be sent to the Commission for approval very soon.</p> <p>The UGC has approved the plans and estimates recently and the work is being taken in hand very soon.</p> |
| <ul style="list-style-type: none"> 9) Botanical Garden: | | <p style="text-align: right;">-do-</p> |

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iv) Others:

- i) English Language Laboratory: The order for material for Rs. 95000 is being placed with the concerned company
- ii) Visiting Professorship: The allocation of Rs. 50,000/- sanctioned by the UGC has been distributed among the postgraduate departments and nearabout Rs. 5,000/- have been spent actually. The remaining amount would be spent by 31.3.78 positively.

Additional posts sanctioned by the U.G.C. (Reference Annexure-IV attached to U.G.C. letter No.F.6-1/76(D-4a) dated 25.3.1976)

Out of twenty one posts the State Government, has not cleared the following posts as yet:-

1)	Botany	2 Readers
2)	Mathematics	1 Reader
3)	Politics	1 Lecturer
4)	Economics	1 Lecturer
	.. Total	<u>5</u>

Therefore the remaining sixteen posts were advertised and also the interviews were held.

The Selection Committee has selected the candidates for the following posts approved by the UGC under fifth plan as under:-

- 1) Zoology Prof. one
- 2) Geography Prof. one

extensions are quite essential. The justifications received in this behalf from the U.G.C. are as follows:-

- | | |
|----------------|--------------|
| 3) Mathematics | Prof. one |
| 4) Sociology | Lecturer one |

It has been further decided by the Selection Committee that the remaining approved posts (Vth Plan) may be re-advertised again as no candidates were found suitable to them. The posts of a Reader sanctioned for Physics is fill-up from the existing staff.

Fifth Plan Junior Research Fellowships - 20
Reference UGC Annexure-IV, letter No.F. 6-1/
6(D-4a) dated 25.3.1976).

During the year 1976-77 nine fellowships were awarded (five Science + four Humanities and Social Sciences). The University proposes to allot six to seven fellowships during 1977-78 and the remaining fellowships would be awarded during the year 1978-79.

Reference Annexure-V: letter No.F. 6-1/76(D.4a)
dated 25.3.1976).

The University is placing this issue for consideration before the J.B.V.C. of Maharashtra State.

a) 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.

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b) 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.

The issue is under consideration.

7) General Observations and Recommendations:

i) The teaching load of the university teachers is generally 4-6 periods per week. In some cases, the senior teacher takes only one period in a week and the rest of the time is spent on administrative work and in guiding research work etc. Lecturers also do not generally take more than 6 periods per week. The Committee feels that the University should recast the timetable in such a way that there is fair distribution between teaching and other responsibilities of the teachers.

We are trying to maintain the workload prescribed by the University for its teachers.

ii) The Shivaji University being an affiliating-cum-residential University can maintain-raise standards only if the standards of teaching at the degree level are improved. It has 61 affiliated colleges, but the leadership require to be provided to the colleges by the university departments requires to be given greater stress and importance. There should be interchange in a way that the university teachers go to the colleges occasionally and college teachers come to the university for exchange of ideas through discussions etc.

The suggestion is under active consideration.

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ANNEXURE-II to Item No. 13

Copy of letter No. SU/STAT/F.101/610 dated 11th April, 1977 from the Registrar, Shivaji University, Kolhapur, addressed to The Secretary, U.G.C.

Sub: Submission of proposals for additional grant under Fifth Five Year Plan (1974-75 to 1978-79).

Ref: Your D.O. No.F. 27-7/73(CP) dated 8th January, 1977-from Secretary, UGC to Vice-Chancellor.

I am directed by the Vice-Chancellor to express our thanks for the letter noted above and the opportunity to forward our proposals in the light of the recommendations of the visiting committee. I am glad to state that the position of expenditure against the allocations made so far is quite good and most of the grants on books and journals is confident to utilise the balance by 30th September, 1977 positively.

equipment
been
financially
used. The
University

In submitting the proposals now the Commission may observe slight change in some cases than the recommendations of the visiting committee. This has happened only because of existing essential requirements of the concerned departments. In each case, where necessary, the justifications received from the concerned departments are appended separately.

As regards the building constructions I am to state that the visiting committee was kind enough to recommend the grants for construction of (i) staff quarters and (ii) Geography Department building. It had also recommended the grants for extension of (i) Library Building and (ii) Department of Zoology Building. However, the Commission has not sanctioned any amount on the said constructions except on extension of Zoology Building. Even for this extension of Commission has not sanctioned the grant in full as recommended by the visiting committee. All these constructions/ extensions are quite essential. The justifications received in this behalf from the Heads of the concerned Departments are attached separately wherever necessary. I am to further say that the grant of Rs. 50,000/- made available for Botanical Garden is not sufficient and therefore the request of Head of Botany Department as justified in the enclosed note for additional grant of Rs. 50,000/- may please be considered.

As regards the staff the UGC has not sanctioned one Research Assistant each for Department of Botany and Zoology. As recommended by the visiting committee

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the above staff may also be sanctioned. The Head of the Botany Department has asked for additional posts of 1 Reader and 1 Lecturer for the specialisation referred to in the enclosed justification note- His request may also please be considered sympathetically (pl. see Appendix-IV).

The Commission was kind enough to sanction the grant of Rs. 50,000/- for Language Laboratory on 50:50 sharing basis. Accordingly the State Govt. has also sanctioned its matching share of Rs. 50,000/- under the scheme. However, I am to point out to you that according to the proposal submitted under the said scheme the grant was asked for equipment, Air-conditioning, sound proofing etc. and not for building construction as presumed by the Commission while compiling the Annexure-III attached with its letter No.F. 6-1/76(D.4a) dated 25th March, 1976. Taking into consideration the State Government share the total grant of Rs. 1,00,000/- is made available under the scheme. However, in setting-up the Language Laboratory this amount is quite inadequate to the University. I, therefore, request you to sanction an additional share of Rs. 50,000/- on 50:50 sharing basis to fulfil the requirement under the scheme.

The detailed statement showing the factual position on books, equipment and building and the grants asked for under the scheme is appended herewith.

I am, therefore, directed to request you to sanction the grants as asked for by the University.

SHIVAJI UNIVERSITY, KOLHAPUR

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Statement showing the grants recommended by the Visiting Committee, grants actually sanctioned by the UGC. Actual expenditure including orders placed, grants required to be released by the UGC on the recommendations of the visiting committee and grants actually asked for by us now.

Sl. No.	Name of the Scheme.	Grants recommended by the visiting committee.	Grants actually sanctioned by the U.G.C.	Expenditure incurred including orders passed.	Grants required to be released on the basis of column No. 3 & 4.	Grants actually asked for (as U.G.C. share) by us now.	Remarks/Justification
1	2	3	4	5	6	7	8
I) Books & Journals							
1	Science	5,56,000	4,66,000	3,27,900	90,000	2,90,000	Taking into consideration the present strength of the students and the research scholars the amount of Rs. 1,44,000/- referred to in column No. 6 will not be sufficient. It is, therefore requested that an amount of Rs. 4,44,000/- may please be made available
2	Humanities	3,63,000	3,09,000	2,16,100	54,000	1,54,000	
				Total....	1,44,000	4,44,000	
II) Scientific Equipment:							
1	Chemistry	3,50,000	3,00,000	2,10,656	50,000	50,000	The justifications received from the Heads of Botany and Physics Departments for sanctioning additional grants over and above the grants recommended by the Visiting Committee are enclosed separately (Please refer Appendix No. 1 & 2)
2	Botany	2,55,000	2,15,000	1,52,237	40,000	1,40,000	
3	Physics	4,00,000	3,50,000	3,49,399	50,000	4,00,000	
4	Geography	45,000	40,000	28,622	5,000	5,000	
5	Zoology	2,45,000	2,10,000	1,45,812	35,000	1,35,000	
6	Economics	10,000	-	-	10,000	10,000	
					1,90,000	7,40,000	

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2 3 4 5 6 7 8

) Buildings:

*1 Geography	1,00,000	-	-	1,00,000	1,00,000
*2 Library (Extension)	2,00,000	-	-	2,00,000	5,00,000
*3 Staff Quarters.	2,00,000	-	-	2,00,000	2,00,000
*4 Zoology (Extension)	1,00,000	50,000	-	50,000	50,000

*(Sharing basis 50:50)

Total - 5,50,000 8,50,000

- 1) Justification for Ge-ography Department enclosed (Appendix-III).
- 2) The justification regarding sanctioning the grant of Rs. 5,00,000/- as UGC share on Library Building (extension is attached herewith separately. (pl. refer Appendix-IV).
- 3) The justification for sanctioning the grant of Rs. 50,000/- referred to in to in column No. 6 is also attached herewith separately (pl. refer Appendix-V).

) Botanical Garden

50,000	50,000	-	-	50,000
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Please refer to Appendix-VI

SHIVAJI UNIVERSITY, KOLHAPUR

DEPARTMENT OF PHYSICS

Appendix I

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Proposal for additional fund for equipment for Physics Department to be considered by U.G.C.-V Plan.

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- 1) Department and the University. Physics Department, Shivaji University, Kolhapur.

- 2) Allocation Position:
Basic I & II Priority III Priority

Rs. 1,50,000 Rs. 3,50,000 (at present being regarded inclusive of basic grants). Rs. 50,000/-

- 3) Present position regarding utilisation of the grant:

<u>Actual expenditure incurred so far.</u>	<u>Bills in Hand</u>	<u>Orders placed but not materialised</u>
Rs. 2,48,206-17	Rs. 51,936-28	Rs. 49,257-00

Thus according to the present interpretation all the amount of Rs. 3,50,000/- is committed and our requirements during the next two years need to be considered afresh. Because with the amount of Rs. 50,000/- in the III priority we will not be able to meet any requirements:

- 4) Additional requirements for the equipment:

i) Honeywell temperature controller and programmer.	Rs. 50,000
ii) Pyrotube heating element crystal growth furnace (Metals research)	1,00,000
iii) Electron beam zone melting equipment for zone refining and crystal growth (Metals research)	2,00,000
iv) Capacitance bridge (Marconi)	50,000
	<hr/> 4,00,000 <hr/>

5) Justification of the additional demand;

i) The department is pulling on with the meagre grants from UGC and has received a paltry sum of less than two lakhs from the University during its existence for 12 years.. Therefore, it has not been possible to establish optimum working conditions even in the realms of solid state physics and materials science, leaving aside the capital intensive branch of nuclear physics. We have made a start in the direction of crystal growth and have established some infra-structure for this area of activity. If we get the above-mentioned equipment, we shall be in a position to undertake an up-to-date training programme and the researches that may be of interest to the agencies like CSIR, AEC, NCST etc.

ii) The annual salary bill of the department is 4 lakhs and it seems odd to receive an amount of only Rs. 4,00,000 for equipment for the capital intensive subject like physics for five years. It is the responsibility of the policy makers to provide us the working conditions and avoid the loss to the public exchequer. To take care of the circularity of the **argument**, it must be pointed out here that the workers in the department certainly seem to be aware of their responsibility of carrying out work that is relevant.

iii) Sometimes, it is argued that we in India seem to desire to work on push-button experiments, which is far-fetched in the context of the conditions in India. While it is agreed that physicists have to exert ingenuity in fabricating the designing their own experiments, it is also true that no meaningful experiment can be planned in Physics without certain degree of sophistication. Therefore, it is painful to point out here that, as per the definition of sophisticated equipment i.e. costing more than 1 lakh rupees there is no sophisticated measurement technique available in the department at present.

APPENDIX-II

Department of Botany

Proposal for additional funds for equipment

The department wants additional grant of Rs. 1,00,000/- for equipment. This is because the department specialises in radio-active work and wants to purchase liquid Scintillation counter from Electronic

Corporation of India. The major field of research of the department is path of carbon in photosynthesis and for this the above equipment is essential.

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APPENDIX-III

Department of Geography

Proposal for separate building for Geography Department Vth Plan.

i) At present the Department of Geography is housed in the Humanities Building although it belongs to the Science Faculty. The U.G.C. Visiting Committee has realised the limitation imposed on development due to the present situation. Hence it recommended a separate building.

ii) Presently Geography is a major-Post-graduate department of the University and has over one hundred students. It has to have separate laboratories (Air-Photo Interpretation Lab. Cartographic Lab. and a Geography Museum) for itself. The costly material and equipment is also to be properly stored. The secret maps of the S.O.I. are also in the possession of the Department.

iii) There is a certain research going on and the Department has plans for its further development.

All these can be followed well if the Department has its own separate building, as it will not only give a separate entity to the Department, but also plan for further development. Considering all these aspects a separate building for the Department is a must.

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APPENDIX-IV

Department of Library

Proposal for additional grants for extension to Library Building.

The University Library during the last decade has been able to acquire a sizable collection of books and back-volumes of about one lakh through purchases and

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donations and in the years to come on an average 8-10 thousand books will be added to the collection every year. At present, the collection of books is accommodated on the ground floor and part of the basement of the Library Wing (Stack Room No. I & II). To shelve properly the growing collection of books and the periodicals section which is housed temporarily in the basement (Stack Room No. II) will have to be shifted to a new convenient and suitable place. There is absolutely no room now to house the periodicals section and to display the current numbers of journals.

The University library receives approximately 720 learned journals and a large collection of back-volumes to meet the increasing demand of research community. Hence an additional areas has to be made available to house periodicals section i.e. for display of current issues of journals and for sitting accommodation. The present library building was completed in 1957. During the last 10 years, the number of students, staff members and book collection have grown considerably as per the details in the accompanying statement. The existing space is quite inadequate for the growing library needs. It is, therefore, proposed to extend the IInd floor of the South Wing and the rear side of the entrance hall and the expenditure in this behalf may be in the neighbourhood of Rs. 10 lakhs.

I would like to bring to your kind notice that the U.G.C. visiting committee having been convinced of the dire necessity of the extension, had recommended a grant of Rs. 4 lakhs for this purpose, but unfortunately nothing is sanctioned by the UGC in its final approval of the 5th F.Y.P. programme.

I would therefore, request you to move the UGC to make available of about 10 lakhs for extension of the library building.

Appendix-V

Department of Zoology

UGC grants for Building Construction - Vth Plan.

The building of Zoology Department as provided today is tremendously small and most inadequate. It was meant for about 32 M.Sc. students, 4/5 Ph.D. students (working in a research room of the size of 20' x 20') and 3 staff members. In recent years we have 64 M.Sc. students

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25 Ph.D. students, 8 M.Sc. research students and 11 staff members (+ 2 staff members to be appointed this year).

We have only three staff rooms for eleven teachers (two teachers will be added shortly) and one research room (20'x20') for 25 Ph.D. + 8 M.Sc. research students. There is considerable pressure on the department for further admission to Ph.D. classes and to M.Sc. (partly by papers and partly by Research). Further, the necessary space for preparation rooms for laboratories retiring rooms for lower staff and those for students are not provided. It is no wonder that the building is woefully insufficient.

We in Zoology Department have tried to utilize every nook and corner of our building. Thus this department is using the museum as a tea room, ladies retiring room as an animal house, Boys' retiring room as a laboratory, the landing place as the office, the projection room as a laboratory and staff room and a tin shed as a room for storing preserved animals.

The above mentioned two point clearly show that Zoology Department has been sanctioned inadequate grants especially in comparision to other Departments though this department is doing extensive research work, no way less than other department s.

In these circumstances, I would like the U.G.C. to appreciate our difficulties and provide my department the necessary funds (Rs. 50,000 + Govt. matching grant) for extension of my department building suitably so that my difficulties will at least be partly solved.

All the difficulties due to insufficient space could be overcome to some extent if a south wing consisting of a ground floor is built parallel to the present north wing (see accompanying map). It would be 100 ft. long and 35-40 ft. broad. By the presence of a corridor, 5 ft. wide, the floor would be divided into two portions, north portion, 18-20 ft. wide, and a south portion, 12-15 ft. wide. South portion will house to rooms (12-15 ft. long and 10 ft. wide) while there will be five rooms (Laboratories) (18-20 ft. wide and 20 ft. long) which will be barely sufficient for 13 staff members and 25-30 Ph.D. students. This will provide a total area of 4000 sq. ft. at a cost of about Rs. 2,00,000 at the flat rate of Rs. 50/- per sq. ft.

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With the provision of this north wing, more rooms will be available in the present south wing for laboratories (one for Endocrinology and one for Marine Biology), preparation rooms and retiring rooms for students and lower staff.

Finally I must point out that the visiting committee on the basis of on-the-spot-study had appreciated our difficulties and recommended a grant of Rs. 1,00,000/- (plus Rs. 1,00,000/- matching grant from the State Govt.) I therefore, urge the UGC to give a most sympathetic consideration to these minimum needs of our department and sanction the additional grant of Rs. 50,000/- (plus a state Govt. matching grant of Rs. 50,000/-).

-.-.-.-..

APPENDIX - VI

Department of Botany

Proposal for Botanical Garden

The Department has been sanctioned Rs. 50,000/- for the Botanical Garden. This amount will be utilised for the construction of glass house and hence no money is available for the development of Botanical Garden. It is essential to have additional sum of Rs. 50,000/- for the development of the garden.

Proposal for Teaching Posts

The Department is at present having four specialisations. It is essential to have for each subject one reader. The total sanctioned strength is 3 and hence one more reader is asked. The department wants to start interdisciplinary subject like Microbiology and hence one more lecturer is asked for. These teaching posts are essential for the development of the department.

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ANNEXURE-III to Item No.13

Copy of letter No. SU/Stat/F.101/1050 dated 15th July, 1977 from the Registrar, Shivaji University, Kolhapur addressed to Dr. S.P. Gupta, Deputy Secretary, U.G.C.

Sub: Development schemes to be taken up during the remaining Fifth Five Year Plan Period-

Ref: Discussion with Dr. S.P. Gupta on 24/25th May, 1977.

.....

The University Grants Commission had allocated an amount of Rs. 100 lakh for this university for the Fifth Five Year Plan Period. The Commission has so far sanctioned the development proposals to the tune of Rs. 57,36,500/- both on recurring and non-recurring scheme. This figure also includes the Department of Education. Your visit during last week of May, 1977 was most useful and particularly valuable in the context of utilising the balance amount from the above allocation by us. As per the Expert guidance given by you the university has recasted the proposals for new Departments to be started with on top priority basis. As agreed to these Departments are (i) Statistics, (ii) Marathi, (iii) Commerce, (iv) Bio-Chemistry.

I give below a brief note for each Department:

- i) Statistics :- As agreed to in the discussion between the Vice-Chancellor and the Chairman, U.G.C. on 28.1.1976 the proposal for the said Department has been suitably modified to give instructions in M.Sc. course in Statistics through the Department of Mathematics. The total UGC share for this purpose would Rs. 3,20,300/-. A copy of the detailed proposal is enclosed.

- ii) Marathi:- Marathi language is the regional language both for State of Maharashtra and also of this University area. Moreover, the University has also provided facilities for writing answer books in Marathi in various examinations. The total UGC share for starting of Marathi Department is Rs. 1,32,300/-. A copy of the detailed proposal is appended herewith.

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- iii) Commerce:- The original proposal submitted to the UGC was for starting the Department of Business Administration and Commerce. In the light of the discussion with you it is now proposed to start the Department of Commerce only. The total UGC share for this Department will be Rs. 3,92,300/-. A copy of detailed proposal is enclosed herewith.
- iv) Bio-Chemistry:- As discussed with you it is now proposed to start Bio-Chemistry as one of the wing of the existing Chemistry Department of this University. The proposal is prepared accordingly and the University will require the total amount of Rs. 4,54,800/- as U.G.C. share. A copy of the proposal is appended herewith.

In addition to above the University desires to seek UGC's assistance on following two additional schemes. The detailed proposals are appended herewith.

	<u>UGC share</u> Rs.
i) Additional space required for the Botany Department.	1,00,000.00
ii) Assistance for starting of Degree course in Journalism.	61,800.00
Total...	1,61,800.00

Thus the efforts have been made to accommodate the Department proposals of this University within the UGC share of Rs. 100 lakhs sanctioned for the Fifth Plan Period. The position demands at this stage is as under:-

- i) The proposal already sanctioned including Department of Education. 57,36,500.00
- ii) Proposals for additional grants submitted vide this office letter No. SU/STAT/F.101/610 dated 11.4.1977 as per UGC letter No.F. 27-1/73(CP) dated 8.1.1977 (copy enclosed) 20,84,000.00

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iii) The proposal for new Department etc. as above. 14,61,500.00

Total 92,82,000.00

Kindly therefore, move the Commission to accord the sanction at an very early date.

SHIVAJI UNIVERSITY, KOLHAPUR

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SCHEME FOR TEACHING M.A./M.Sc, COURSE IN STATISTICS
UNDER THE AUSPICES OF THE POST-GRADUATE DEPARTMENT
OF MATHEMATICS, IN THE VTH FIVE YEAR PLAN.

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Necessity:- Shivaji University was founded in the year 1962. Post-graduate Department of Mathematics in Shivaji University was started in 1964. So far there is no post-graduate Department of Statistics in Shivaji University, nor is the subject taught in any affiliated colleges at the post-graduate level. However, at present the subject of Statistics is taught at the B.Sc. (Principal) level and at the B.A. (Special) level in two of the affiliated colleges and this year 1977, 17 students have passed the B.Sc./B.A. examination with Statistics as Principal/Special subject. These students have pressed the authorities of Shivaji University to provide immediately facilities for teaching of Statistics for the M.A./M.Sc. course, since they find it difficult to get admission to M.A./M.Sc. statistics course in other universities. Moreover it involves financial hardship as well as difficulties in getting residential accommodation, even for those few students of Shivaji University who succeed in getting admission to M.A./M.Sc. Statistics Courses in other universities. As such it is proposed to start M.A./M.Sc. course in Statistics under the auspices of the Deptt. of Mathematics as a prelude to a full-fledged post-graduate department of Statistics during the Vth Five Year Plan.

In addition to teaching of Statistics as a Principal/Special subject. It is also taught as a subsidiary/general level subject in the B.Sc./B.A. course in 16 colleges affiliated to Shivaji University and the total number of these students is about 135. Several of these students, especially those who have taken principal/special Mathematics are very keen to join the M.A./M.Sc. course in Statistics. It may also be mentioned here that compulsory/optional papers in Statistics are taught in the Faculties of Social Sciences, Commerce and Engineering Faculties in Shivaji University. Further two compulsory and two optional papers in Statistics are also provided in the M.A./M.Sc. Mathematics course in Shivaji University. Considering all this, there is an urgent need to start a post-graduate course of Statistics in Shivaji University admitting about

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25 students every year. It may be emphasized here that Shivaji University is now the only University in Maharashtra State without facilities for teaching Statistics at the M.A./M.Sc. level. Aware of this deficiency, recently the Shivaji University took steps to frame syllabi for the full-fledged M.A./M.Sc. courses in Statistics in the hope of starting a post-graduate course in statistics.

We give below the requirements for starting a post-graduate course in Statistics.

1 Staff: Since the proposed M.A./M.Sc. courses in Statistics consist of four semesters with four theory papers and one practical in every semester (i.e. in all 16 theory papers and four practicals), and since in addition some optional papers are also provided in the third and fourth semesters, it will be necessary to appoint the following teaching staff:

- i) One Reader in Statistics; (ii) Two Lecturers in Statistics.

Estimates for staff:

Reader 1 1-4-78 to 31-3-79 Rs. 13,500/-
(U.G.C. share)

Lecturers 2 1-4-78 to 31-3-79 Rs. 15,800/-
(U.G.C. share)

2 Accommodation : Two Departments will be located in the proposed building of Department of Mathematics at this stage.

3 Equipment: Approximate cost Rs. 1,51,000/-

4 Books, Journals and Statistical Tables: Approximate cost Rs. 1,40,000/-
Total Estimates (UGC share)

Staff Rs. 29,300

Equipments Rs. 1,51,000

Books Rs. 1,40,000

Total Rs. 3,20,000

SHIVAJI UNIVERSITY, KOLHAPUR

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Proposal for opening the Department of
Marathi in Shivaji University during the
Vth Plan Period.

Need and Justification for opening the Department:

In re-establishing Shivaji University in South Maharashtra one of the major tasks set for the University was a systematic and in-depth study of Maratha History and Marathi language and literature. The Department of Marathi could not be opened so far for various reasons. However, without any further delay the department should be opened now. There is a persistent demand to start the department. The number of students offering Marathi at Graduate and Post-graduate level is ever increasing as can be seen from the figures given below:-

	<u>1973</u>	<u>1974</u>	<u>1975</u>
B.A. (Special) Marathi	635	668	822
M.A. Marathi	203	291	490

Marathi being the State language and also the medium of instructions in schools and colleges. Its propagation and study is a felt need of the region.

South Maharashtra (the jurisdiction of Shivaji University) which has a long and distinguished tradition of Marathi Literature. Persons such as Ramdas, Mukteshwar and Morepant belong to this part of Maharashtra and they had a unique position in the history of Marathi literature. This entire region is neglected so far by scholars. A large number of valuable manuscripts can be collected from this region. If a department of Marathi is opened in the University, all the scattered and neglected manuscripts could be provided with a home and scholars would have easy access to them. The area being a border area, between Maharashtra and Karnatak is rich in folk-lore and folk literature. A comparative study would help in the study of linguistics and also of the culture of the State.

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SHIVAJI UNIVERSITY, KOLHAPUR

The proposal for starting Department of Commerce during the 5th Plan Period.

In Shivaji University area, there are 51 colleges educating students in Commerce. During the last 4 years the number of students passing the first degree in Commerce has increased from 1650 to 2711. In every district the number of industries is increasing at a rapid rate. To give an example in 1960, in Kolhapur District there were in all 201 industrial units of which 5 were large scale and 5 were medium scale. Their investment amounted to Rs. 8.09 crores and annual production was worth Rs. 11.87 crores. They provided employment to almost 12,000 persons. As in 1972 the total number of industrial unit increased to 686 of which 12 were large scale and 15 were medium scale. Investment increased to Rs. 37.14 crores and production to Rs. 76.38 crores. They employed more than 53,000 persons. The growth in trade has been from Rs. 18.38 crores (1971) to Rs. 24.64 crores (1975).

There appears to be an increasing tendency among the students to take post-graduate degree so as to satisfy the demand from the increasing trade and commerce for specialised job. This would be evident from the number of students taking the M.Com. degree. The industrial and trading units also find it suitable and profitable to appoint the right person in the right job so as to take more work in less time.

Therefore the committee feels that there is a craving need for establishing a Department of Commerce in the University.

The rapid development of the region has brought up a number of problems before the enterpreneurial class. It is necessary that the university undertakes research in these problems and provides solution to them so that the economic activities in the region may thrive.

51 Commerce College functioning in this area with about 3,000 students taking their first degree in Commerce would provide a continuous and sufficient flow of students for various courses that are contemplated to be started in the department.

The Committee proposes that there should be a full-fledged Department of Commerce established in the

University with the provision for the following courses:

- 1 Master of Commerce
- 2 Diploma in Co-operative Management
- 3 Diploma in Marketing Management
- 4 Diploma in Taxation
- 5 Diploma in Secretarial Practice.

Of these the first would be of two years duration and the remaining 4 being of one years duration can be conducted at alternate years so as to ensure maximum and continuous utilisation of Physical as well as teaching facilities in the department. There can be an exhaustive list of research projects that can be undertaken. To suggest a few:

- i) The working of Co-operative Sugar Factories and Co-operative Textile Mills in the region.
- ii) Spread and success of Co-operative Movement.
- iii) Changing patterns of Management in small scale industries in the region.

With these activities to be undertaken by the Department the committee feels that the department should be as far as possible self-sufficient in respect of teaching staff. At present there are only 2 research guides in the university area in this faculty. The staff pattern suggested below considers the needs of the provision of research guides to the students.

The committee suggested the following staff:

<u>P E R I O D</u>			
Professor	One	1-4-78 to 31-3-79	Rs. 18,000/- (UGC share)
Readers	One	-do-	Rs. 13,500/- (UGC share)
Lecturers	Two	-do-	Rs. 15,800/- (UGC share)
			Rs. 47,300

The nature of the courses to be conducted in this department being professional, the Committee feels that more emphasis be given on building up a good and upto date library with as many journals as possible from within the country and also from outside. Therefore, an amount of Rs. 75,000/- should be proper for the purchase of books and journals.

These courses do not need much equipment. Even then considering the importance of the visual aids and availability of film strips on these subjects, the Committee feels that a 16 M.M. projector would be very much necessary. The proposal for establishing a commerce museum may also be considered. The initial expenditure would not be more than Rs. 20,000/-.

Such a well thought out project does need a good building to house the department. The committee suggests that a small building of an area of about 10,000 sq. ft. would be enough to accommodate the department and the departmental library with 2 seminar halls and some lecture and tutorial rooms and facilities for the lecturing classes. The approximate expenditure would be Rs. 5,00,000.

The financial implications of the suggestions can be put as below:-

	<u>UGC share</u>
	<u>Rs.</u>
1 Library Books	75,000/-
2 Equipment	20,000/-
3 Building	2,50,000/-
4 Staff	47,300/-
	3,92,300

The estimates given above are a minimum necessity for starting a Department of Commerce in the university.

PROPOSAL FOR STARTING BIOCHEMISTRY AS ONE OF THE
SPECIALIZED BRANCH OF CHEMISTRY IN THE SHIVAJI
UNIVERSITY, KOLHAPUR DURING VTH PLAN PERIOD
FROM JUNE, 1978

1) Need and justifications for the starting of the
Department:-

The explosive development of biochemistry and the remarkable advances in biochemical knowledge and expertise have resulted in an ever widening field of interest and endeavour for the biochemist. Problems cover vast and diverse areas closely linked with other biological sciences.

In the field of agriculture, the biochemistry is concerned with the fundamental biochemistry of plants and animals and with the application of findings to various agricultural problems. Interests range from the study of soils, insecticides, plant and animal nutrition and disease to repining of fruits and the preservation of animal and plant products. In the related area of environmental biochemistry the biochemist may study for example, marine and fresh-water organisms, aspects of pollution and the treatment of industrial waste products.

Biochemistry in industry is very diverse depending, of course, on the nature of the industry. About half the industrial biochemists are found in industries and substantial numbers are in industries producing good, drinks and agricultural chemicals. It is worth noting that interchange between industrial and university biochemists is increasing at all levels and there is no really sharp distinction in the type of work carried out. However, in industry there are outlets for the more technically minded biochemists on the production side, especially in industries concerned viz. pharmaceuticals, foods and other biological products.

The study of biochemistry is an intellectual challenge and a career as a biochemist is equally challenging. The opportunities for creative thinking and experimentation offered by the numerous facts of the subject provide almost unlimited opportunities for the scientists.

Kolhapur is one of the Agriculturally and Industrially better developed town of Maharashtra. But, the development has been one sided and only engineering industry has grown

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in this town. However, with the advent of Cooperative Sugar Factories, a number of distilleries have come up and now there is a good scope for the development of Sugar Bye Products and of the small chemical units in this area involving different biochemical processes. As mentioned earlier, with the starting of the biochemistry department, some of the problems of the agriculturists, and industrialists can be undertaken which would give them some relief and would also encourage them in raising some small chemical units in this area. This would in turn may partly help in solving the present problems of employment. Kolhapur people and industrialists have approached the Head of Chemistry Department and have shown their keen interest in starting of a Biochemistry subject which is considered to be the most-useful and applied branch of Chemistry.

The Chemistry should therefore have four branches to be a complete department viz. (i) Organic (ii) Inorganic (iii) Physical and (iv) Biochemistry.

2) Student that are likely to be available for starting the Department.

We propose to start Biochemistry subject as one of the specialization in Chemistry alongwith the existing specializations in Organic, Inorganic and Physical Chemistry at M.Sc. level. To start with about 8 students from M.Sc. part-I will be admitted to M.Sc. part-II Biochemistry. The number of seats in Biochemistry section may be increased in future with the increase in facilities such as staff, building, equipment etc. after a period of five years.

3) Scope and level of the Department (i.e. courses to be taught, research to be taken up etc.).

Biochemistry will be taught over a period of 1 year (M.Sc. Biochemistry-Semester III and IV) covering all the important aspects of Biochemistry. The details such as scope and the level of the courses to be taught already been worked out by the University Committee appointed in this connection in the year 1975.

4) Staff pattern (Number of Professor, Readers, Lecturers, Teachers others).

Biochemistry teaching involves specializations and the existing teachers in the Chemistry Department may not be of any help in teaching Biochemistry courses.

Biochemistry as a vast scattered subject and in order to make a meaningful impact with limited resources a specialized area in Biochemistry like immunology, enzymes, lipids, clinical biochemistry, fermentation technology, plant biochemistry, plant or animal nutrition microbiology, etc. can be chosen for research and teaching taking into consideration regional requirement and personal available.

Staff Requirement

			<u>P E R I O D</u>	<u>ESTIMATES</u>
i)	Professor	1	1-4-78 to 31-3-79	Rs. 18,000/- (UGC share)
ii)	Reader	1	-do-	Rs. 13,500/- (UGC share)
iii)	Lecturers	2	-do-	Rs. 15,800/- (UGC share)
iv)	Research Assistant	1	-do-	Rs. 7,500/- (UGC share)

(To look after instrumentation laboratory).

Total estimates for one year Rs. 54,800/-

5) Requirement for Library Books:

Atleast Rs. 50,000/- will be required as the initial expensed for the library with a provision for journals and books.

Rs. 50,000/-

6) Equipments Needs:

The total equipment requirements for Spectrophotometers, Incubators, etc. will be at least Rs. 5.00 lakhs. However, in the initial stage atleast Rs. 2.5 lakhs be provided. A list of the equipment is attached separately.

Total Estimates for Equipments.... Rs. 2,50,000/-

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- 7) Building requirements with built-up area and its cost.
- i) General laboratory for M.Sc. students (2 labs). 1200 sq. ft.
 - ii) Instrument cum-balance room for M.Sc. students. 200 sq. ft.
 - iii) The laboratory for staff members, research students and for keeping special equipments. 800 sq. ft.
 - iv) A lecture room 400 sq. ft.
 - v) A office room cum partial laboratory for the Head of Biochemistry Section 400 sq. ft.
 - vi) Small Store Room 200 sq. ft.
 - vii) Specialized rooms like cold rooms, Dark Rooms, Animal House, Laboratory for handling isotopes will to be built up in future

Total estimates for Building Rs. 2,00,000/-

Total Amount Required as University Grants Commission's Share:

1	Staff	Rs.	54,800.00
2	Books	Rs.	50,000.00
3	Equipment	Rs.	2,50,000.00
4	Building	Rs.	1,00,000.00

Rs. 4,54,800.00

List of Equipment required for the set up of Biochemistry Laboratory

- 1 Electrical Balance single Pan semimicro
- 2 Top Pan Balance
- 3 Refrigerator 3 Nos. Deep Freeze one
- 4 H meter
- 5 Spectrophotometer DU or DB
- 6 Cold Centrifuge

- 7 Colorimeters
- 8 Table Contrifuges
- 9 Incubator
- 10 Ovon
- 11 Water Distillations App.
- 12 Autoclave-sterilizer
- 13 Electrophoresis Appt.
- 14 Thermometer
- 15 Flame photometer
- 16 Microscopes-monocular
- 17 Microscopes-Binocular
- 18 Chromatography Glass Chambers
- 19 T.L.C. Sets.
- 20 Warburg Appt.
- 21 Gas Flow counter G.M. set up
- 22 Shaking incubator
- 23 Homogenizer glass
- 24 Waring Blender Mixer
- 25 Water Baths
- 26 Gas Cylinders
- 27 Paraffin baths
- 28 Microtomes
- 29 Kymographs
- 30 Oil baths
- 31 Rotary accum evaporator
- 32 Van Slyke Appt.
- 33 Vortex Mixer
- 34 Magnetic Shaker Stirrer
- 35 High Vacuum pump
- 36 Rotation Shakers
- 37 Bacteriological filter
- 38 Density meter
- 39 Potentiometer
- 40 Tracer studies equipment.

SHIVAJI UNIVERSITY, KOLHAPUR

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Proposal for additional space required for Botany Department.

The Department of Botany has been given only Rs. 2,00,000/- (1 + 1) for the extension of the building in V plan period. This can provide area of 4,000 sq. ft. It will be just adequate for the store and 4 additional laboratories for the special papers. At present there are no laboratories for these papers. The need for the research development is not met by this extension. The Department has 16 Ph.D. students and 10 Teacher Fellows working in only one Research laboratory and corridor. The department has been asked to submit research proposal by Department of Science and Technology. The scheme involving Rs. 3,00,000/- is under consideration. ICAR is considering to give advance center in Crop Physiology in the near future. Both these schemes can give equipments and personnel but basic need of space is to be provided by the University. The problem of shortage of space has been seen in person by Dr. S.P. Gupta, Deputy Secretary of the University Grants Commission, when he visited the Department on 25.5.1977. It is requested that additional sum of Rs. 2,00,000/- be provided by the University Grants Commission in the current plan period.

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SHIVAJI UNIVERSITY, KOLHAPUR

A proposal for U.G.C. assistance for starting
Degree Course in Journalism (B.J.)

ORIGIN OF THE COURSE: For nine years, from 1968 to 1977, Shivaji University ran a one year certificate course in Journalism. 20 candidates completed this course each year, many of them to make careers in Maharashtra State. About 80% students have already been absorbed in regional language papers, state publicity department, tourism department, and in private industries in the capacity of public Relations Officer. Moreover, about 15 have gone back to their own publications with renewed vigour and added qualifications.

Experience gained in running this course, coupled with the growing demand for its upgrading led in January, 1977 to the preparation of an outline for a new, one year course leading to a University degree to replace the existing Journalism course. In planning this course, the University authorities, sought the advice and guidance of the communications industry in general and active journalism in particular through a Syllabus Committee drawn from senior practitioners and experts in the field.

As a result, the University is now possessed of a neatly drawn course which could start functioning from July, 1977 provided the U.G.C. considers the following proposal for additional grant with regard to Fifth Plan allotments.

Kolhapur city is having a total population of about 4 lakhs a sound background in Journalism. The Shivaji University area consists of 4 districts viz. Kolhapur, Sholapur, Sangli, Satara. Each of the centres publishes Nine, three, three and two Marathi dailies respectively. Besides, this a number of weeklies periodicals and magazines are published. Kolhapur has a highest number of dailies in regional language perhaps in the entire country. Moreover, Sangli is having All India Radio Station and Panhala (Kolhapur) is likely to be a Relay Station of T.V. Thus there is a vital scope for the growth of mass communication as such in the area.

Kolhapur is also a wellknown city for Engineering industries Co-operative factories and well developed

agricultural and industrial complex. The agriculture in Kolhapur has always shown the new high in productivity and with the development of Sugar Cane production it has achieved green revolution.

With the establishment of Shivaji University fifteen years ago these activities have achieved a new dimension. The number of literate persons, graduates have gone up. With the innovations and achievements in all these sectors, a hunger for communication in each field is keenly felt.

By 1973, the University felt that the certificate course needs revision to meet the growing needs of the students and the sectors in which they are placed. As such the University instituted a Diploma Course in Journalism. (Dip. J).

THE PROGRAMME: The Shivaji University Graduate programme in journalism seeks to develop dedicated professional journalists and communicators who have learned how to work under the intense pressures of the Communication industry and news profession without deserting the great traditional of seeking truth and maintaining a responsible self-critical, truly independent press in Maharashtra State.

The role of news media as a watch dog of the Nation's ideals has never been more clearly dramatised than with events of recent years. But that role will not be sustained if Indian Journalism is staffed by people who think little about the depth and substance of what is reported and who cannot cope with criticism or change.

In making this submission to the U.G.C. special attention has been paid to rethinking the central focus of the course and therefore the kinds of study that should contribute to it; that close attention should be given to the linkage of academic studies and practice, and that consideration should be given to the need to introduce some special science studies as a basis as well as Agricultural and Industrial journalism according to the growing need of the region.

The proposed Degree course will be of one year duration and the medium of instruction will be the regional language of the area, i.e. Marathi.

The University has decided to start this Degree Course as early as possible, preferably from June, 1977 but now it would be necessary to obtain U.G.C. assistance. I am confident that the U.G.C. will contribute its share for the purpose.

STUDENTS THAT ARE LIKELY TO BE AVAILABLE FOR STARTING THE DEPARTMENT.

It is expected that about 100 students will seek admission for the said course. However, the university propose to admit 30 students. Their selection will be made as per their performance at an aptitude test.

SCOPE AND LEVEL OF THE DEPARTMENT:

The Degree Course in Journalism will facilitate teaching facilities in subjects like Agricultural Journalism, Development Journalism, Radio and T.V. and Newspaper Production etc.

This will equip a student to familiarise with his duties in the field of Radio, T.V. Film, Agri. publications and Reporting.

STAFF

Period

Amount
UGC share

The staff required would be as under:-

Reader	One	1-4-1978	Rs.	13,500/-
Lecturers	Two	to	Rs.	15,800/-
Technical Assistant	One	31-3-1979	Rs.	7,500/-
			Rs.	<u>36,800/-</u>

LIBRARY: The University is having a moderate collection of books on Journalism, however for the proposed Degree Course an amount of Rs. 10,000/- would be required during fifth plan period. This will enable the University to equip the library up-to-date.

EQUIPMENT: It is proposed to have audio-visual aids like Tape Recorder, opidioscope etc. This will cost about Rs. 10,000/-.

BUILDING: A department will be housed in the Humanities building as such no new additional building construction is required.

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Thus, the total needs of the Department are as under:-

1	Staff	Rs.	36,800.00
2	Library	Rs.	10,000.00
3	Equipment	Rs.	10,000.00
4	Contingency	Rs.	5,000.00
		Rs.	<u>61,800.00</u>

(This will be total starting expenditure of one year)

Since there is a great demand from the student community and the public to introduce the Degree course in Journalism it is requested that the U.G.C. may kindly be moved to sanction the necessary funds and to allow the University to start the course early.

Copy of letter No. SJ/STAT/F.101/916 dated June 17, 1977 from the Registrar, Shivaji University, Kolhapur addressed to the Secretary, U.G.C.

Sub: Fifth Five Year Plan Scheme-

I am directed to invite your attention to the D.O. letter No.F. 12-19/76(CP) dated 11th March, 1977 addressed to our Vice-Chancellor by the Chairman, UGC in which it has been mentioned that the Commission urging upon the State Government to give their approval in to the Schemes recommended by the Visiting Committee.

I am, therefore, directed to inform you that the Government of Maharashtra has not sanctioned the following posts approved by the Commission on the recommendations of visiting committee under the Fifth Five Year Plan Scheme.

- i) Botany Department: Two posts of Readers.
- ii) Politics Department: One post of Lecturer.
- iii) Economic Department: One post of Lecturer.

We have already approached to the Secretary, Education Department, Government of Maharashtra to sanction the above posts also as approved by the UGC however, there is no response to the said request from the Government.

You are, therefore, requested to please insist upon our State Government to approve the above posts as asked for by the University and recommended by the visiting committee of the University Grants Commission.

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A. Proposal for Anthropological Museum in the University

1. Name of the Museum:

Anthropological Museum (Lokjeevan Vastusangrahalaya)

2. Name of the Controlling Department of Museum

Department of sociology, Shivaji University, Kolhapur-416 004

3. Establishment of the Museum:

The department of sociology proposes to establish a new educational Museum, viz. Anthropological Museum, i.e. Lokjeevan vastusangrahalaya, on the University Campus from June, 1977.

The Museum will try to procure, through gifts or purchase all traditional articles of daily life which depict the life and culture of people in Maharashtra in general and of people from southern Maharashtra regions in particular. In the initial stages efforts would be made to equip the following sections of the Museum:

1. Religious articles,
2. Folk Musical Instruments,
3. Costumes of Folk Dramas,
4. Traditional Garments.
5. Traditional Ornaments,
6. Folk Paintings,
7. Basketry,
8. Metal Ware,
9. Earthen Ware.

N.B. : For the purchase of these articles a minimum amount of Rs. 30,000/- per year would be required for a period of five years in the first instance. Hence a sanction for Rs. 1,50,000/- to be spent in 5 years may please be given.

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4. Utility of the Museum:

This museum will be a special type of Folklore Museum because such a kind of Museum does not exist in any

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University in the State of Maharashtra. This Museum would not only serve as a place of special attraction both to the tourists and to common people but would also prove greatly useful to foreign and Indian research scholars in the fields of literature Anthropology and Sociology. Thus the Museum will have a high educational value. The rare collections of the Museum will be of immense help in preserving the traditional articles of culture not easily traceable elsewhere and in promoting research studies in future in the subjects of Marathi literature, Anthropology and Sociology.

5. Staff for the Museum

For a well-equipped and spacious Museum the following staff would be required:-

1. Curator- 1
2. Field Assistant- 1
3. Folk Modeler- 1
4. Photographer - 1
5. Gallery Guards - 2 or 3
6. Field Man - 1
7. Clerk - cum- Typist - 1
8. Watchman or Peon - 1

This type of staff pattern has been followed in the Folk-lore Museum, University of Mysore, Mysore (vide the statement of the present staff (Appendix-I) of the Folklore Museum, their Grades and the present basic pay, for reference). But for our Anthropological Museum in the initial stages the Head of the Sociology Department would work as the Curator of the Museum. Similarly, the initial work of the Museum would be carried out with the help (i) one Clerk-cum- Typist, (ii) one Fieldman, and (iii) one Peon, Hence, in the initial stages the additional services of these 3 persons of full-time basis would be required.

For this recurring type of expenditure, a sanction for recurring grants at the rate of Rs. 20,000/- per year may be obtained for a period of 5 years in the first instance.

6. Cooperation for the Museum.

In equipping the Museum, active cooperation of the people in the region would be solicited by encouraging them to donate the requisite articles and curios for permanent use in the Museum. If needs be, they would be requested to sell the articles at normal prices to the Museum.

Similarly, efforts would be made to secure the constant-co-operation from various Government Departments, Universities, other Museums, and religious and Philanthropic bodies.

Further, in equipping and running the Museum, active cooperation of the Geography, Zoology, Library and other Departments of the University would be secured.

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APPENDIX-I

FOLK - LORE MUSEUM

Institute of Kannada Studies, Manasagongotri,
Mysore-6.

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Sr.No.	NAME	Designation & Grade	Present Basic pay. Rs.
1.	P.R. Thippeswamy	Curetor-400-30-640-40- 800-50-950	490/-
2.	U.S. Ramanna	Field Asstt. 275-20-375-EB- 25-500	295/-
3.	Arakāḷaṅgaḷaḷi	Photo-grapher 200-10-230-15- 350-EB-25-450	210/-
4.	Alagechar	Folk-Modeller 160-10-260-EB- 15-350	192/-
5.	M. Deverdar	Driver 80-3-110-4-130- 5-145	89/-
6.	R.Baravalingaish	Field-man 80-3-110-4-130- 5-145	92/-
7.	M.N.Divakar	Gallery-Guard 65-2-95	73/-
8.	K.Ranga Rajan	-do- -do-	71/-
9.	M.Kumaraswamy	-do- -do-	67/-
10.	Raju	Waterman -do-	73/-

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