

UNIVERSITY GRANTS COMMISSION

AGENDA AND PROCEEDINGS

NO-173

27-28TH OCTOBER 1975

PART-I

UNIVERSITY GRANTS COMMISSION

Minutes of the 173rd meeting of the University Grants Commission held on October 27 - 28, 1975.

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The following were present:

Professor Satish Chandra	- Vice-Chairman (In the Chair)
Shri K.N. Channa	- Member
Dr. Ajit Mozoondar	- Member
Professor R.S. Sharma	- Member
Professor Rais Ahmed	- Member
Professor S. Gopal	- Member
Professor M. Sentappa	- Member
Shri K.T. Chandy	- Member
Professor B.M. Udgaonkar	- Member
Shri R.K. Chhabra	- Secretary

SECRETARIAT

Dr. D. Shankar Narayan	- Addl. Secretary
Dr. S.K. Dasgupta	- Joint Secretary
Shri S. Viswanath	- Deputy Secretary
Shri I.C. Menon	- Deputy Secretary
Dr. S.C. Goel	- Deputy Secretary
Shri S.P. Gupta	- Deputy Secretary
Dr. H.L. Mehta	- Deputy Secretary
Shri Y.D. Sharma	- Deputy Secretary
Shri A.D. Gupta	- Deputy Secretary
Shri R.P. Bhattacharjee	- Finance Officer

PART - I

Item No. 1 : To receive the minutes of the meeting of the Commission held on 29th September, 1975.

The minutes of the 172nd meeting of the Commission held on 29th September 1975 were confirmed.

Arising out of the minutes (Item No.45), it was agreed that while obtaining equipment under foreign assistance, it may be ensured that adequate provision is made for purchase of essential spare parts. The institution concerned should also ensure that necessary technical support is available for putting such equipment into effective use.

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

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

(b) --

(c) This was noted.

Item No. 3 : To approve the statement of grants released after the last meeting of the Commission held on 29th September, 1975.

The Commission approved the grants released after the last meeting of the Commission held on 29th September, 1975 (Appendix II*).

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

This was noted.

Item No. 5 : To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of the Andhra University for financial assistance towards the introduction of correspondence courses at the postgraduate level.

The Commission desired that the proposal of the Andhra University for introduction of correspondence courses at the postgraduate level may be considered in the light of the working of the correspondence courses at the undergraduate level with reference to the guidelines formulated by the U.G.C.

The Commission was further of the view that with the starting of the correspondence courses, opportunities for students to appear privately in the university examinations need not be restricted.

Item No. 6 : To consider the recommendations made by the Expert Committee constituted by the Commission to evaluate work done by various University Leadership Projects under COSIP during the first phase and to consider further proposals for undertaking follow-up activities during the next two years.

The Commission accepted the recommendations of the committees which evaluated the work done by the different University Leadership Projects in the College Science Improvement Programme during the first phase and agreed to provide grants as indicated in Appendix III to enable them to take up the follow-up activities during the next two years.

* Not enclosed.

The important recommendations arising out of these evaluation reports may be brought to the notice of the universities and also considered by the COSIP Standing Committee. The requirements of the COSIP/COHSIP Colleges could be partly met by the Colleges obtaining assistance under the general five lakh scheme.

The Commission accepted in principle the suggestion that some national awards may be instituted to recognise the outstanding contributions made by the teachers in the implementation of the activities of COSIP.

Item No. 7 : To consider the recommendations of the Science Research Council with regard to the departmental support for research activities in the Departments of Physics of Aligarh Muslim University, Panjab and Poona Universities.

The Commission agreed with the view that it was desirable to provide support to different universities at multiple levels and related to the stage of development of different departments. Accordingly, the recommendations made by the Physics Panel to provide support to some departments to enable them to build up the necessary infra-structure facilities for development of their research potential and to take up worthwhile research programmes in some prime areas of importance was accepted. The Commission therefore agreed that besides the programmes of Centres of Advanced Study and Special Assistance to Selected Departments, a few Departments so identified by the Panels concerned could be provided assistance for development of research facilities and such assistance during a Plan period may be about Rs. 10 lakhs per department. The Commission desired that the reports made by the expert committees appointed by the Physics Panel in respect of the Departments of Physics in Aligarh, Panjab and Poona Universities may be accepted in that context.

Similar programme of assistance be initiated in the case of humanities and social science subjects also in consultation with the concerned panels.

The Commission noted that generally the provision made by the universities for maintenance of scientific equipment was inadequate and desired that the Committee which is looking into the determination of the block grant for the Central Universities may be requested to examine this question and make adequate provision in the maintenance grants payable to these universities.

Item No. 8 : To consider the recommendations of the Committee appointed to examine the proposal of the Banaras Hindu University for setting up a Computer Centre during the Fifth Plan period.

The Commission accepted the report of the committee which examined the proposal of Banaras Hindu University for setting up a

Computer Centre during the V Plan and agreed to provide assistance of upto Rs.50 to 55 lakhs for the purchase of computer in the first phase,, and an additional sum upto Rs.5 lakhs for building, air-conditioning and installation of the computer. The personnel requirements for maintenance and operation of the computer centre could be worked out on the basis of the computer system to be obtained and in consultation with the Standing Committee for Computers. The Commission also agreed that until such time the University obtains the computer and establishes the computer centre, the Commission may provide a sum not exceeding Rs.50,000 per annum for enabling the University to purchase computer time from other computer centre for its research programmes only.

The Commission noted that the Standing Committee for computers development had under consideration the question of development of computer science programmes in relation to the manpower needs at different levels during the next 5 to 10 years. The other points under consideration of the Committee would include (a) the management of computer centres, (b) student training and building up computer capability of students, and (c) the extent of effective utilisation of computer systems for different purposes.

The academic staff requirements for starting a computer science course should be included within the overall V Plan allocation of the universities concerned and should be considered by the Visiting Committee.

Item No. 9 : To consider the recommendations of the Committee appointed to examine the computer requirements of Panjab University during the Fifth Plan period.

The Commission accepted the recommendations of the Committee appointed to examine the computer requirements of the Panjab University during the V Plan period and agreed to provide assistance of upto Rs.40 to Rs.42 lakhs for the purchase of a computer in the first phase, and an additional sum of Rs. 2 lakhs for building (additions/alterations) and installation of the computer. The Commission further agreed that as and when the new computer is installed in the Panjab University, the existing IBM 1620 computer may be transferred to some other university where such system is required.

Item No.10: To consider the proposals regarding implementation of University Leadership Projects in Physics, Chemistry, Biological Sciences and Mathematics under College Science Improvement Programme (COSIP).

The Commission accepted the proposals for implementation of the University Leadership Projects in Physics, Chemistry and Biological Sciences under the COSIP and agreed to provide grants to the different Universities as indicated in Appendix IV.

In this connection, the Commission felt that some of the Departments of the Universities which may not have affiliated colleges

but have requisite facilities and competence may also be invited to take up University Leadership Projects on an inter-university basis for the benefit of the colleges of the neighbouring affiliating Universities which may not have appropriate university teaching departments.

The proposals from other universities suggested by the COSIP Standing Committee may be examined and brought up before the Commission.

The basic list of equipment and library books required for undergraduate instruction in science subjects and prepared by the U.L.P. may be circulated to other universities for their guidance. The Commission further desired that suitable machinery for coordination of efforts by subjects U.L.P. within the State and in the country may be evolved. Since the department undertaking the U.L.Ps. would have taken up appropriate faculty improvement programmes in the subjects concerned, it may not be necessary for such departments to organise short-term institutes or summer institutes separately in the Faculty Improvement Programme as now envisaged.

The Commission further desired that the programme of University Leadership Projects may also be taken up for implementation under COSIP.

Item No. 11: To consider the question of raising the amount of honorarium and contingency paid to teachers selected under the scheme of 'USRT'.

The Commission agreed that honorarium to teachers selected under the scheme of utilization of the services of retired teachers be raised from Rs.500 per month to Rs.750 per month (as in the case of ICAR) with effect from 1.11.1975. The Commission also agreed that the contingent grant available to the teachers may be enhanced from Rs.1000 to Rs.2000 per annum. The Commission further agreed that the teachers under the programme may be eligible to submit specific research projects for consideration by the Panels.

Item No. 12: To consider the question of raising the limit of Rs.750/- for the protection of salary of teachers selected for the award of Senior Research Fellowships consequent upon the revision of salary scales of teachers.

The Commission agreed that in the case of College/University teachers selected by the U.G.C. for the award of senior research fellowships, protection of salary upto Rs.1100 per month plus usual allowances, in addition to any contribution to be made for provident fund/pensionary benefits may be provided.

Item No. 13: To consider the question of revision of Pay Scales of Academic posts other than Professors, Readers and Lecturers in Central Universities.

The Commission considered the question of revision of pay scales of academic posts other than Professors, Readers and Lecturers in Central Universities. It was noted that a variety of posts with different designations had been created and it was therefore essential to bring about some rationalisation in this regard. It was agreed that wherever the posts of Research Assistant, Research Reference Assistant, Research Officers (senior and junior), Senior Research Fellows and Investigator fall vacant, these vacancies should not be filled up till a decision has been taken on the rationalisation of their designation and the tenure of appointment. Pending such rationalisation, it was agreed that -

(1) the scales of the categories of posts indicated in Appendix V may be revised by the corresponding replacement pay scales as recommended by the Third Pay Commission with effect from 1.1.1973 as personal to the existing incumbents;

(2) ~~the~~ scale of pay of research associates may be revised from Rs.400-950 to Rs.700-1300 w.e.f. 1.1.1973. Wherever selections have been made on a permanent basis through properly constituted committees like those of Lecturers, such research associates may be considered for appointment as Lecturers as and when posts of Lecturers are available;

(3) the scale of pay of Vice-Principals of evening classes in Delhi Colleges may be revised from Rs.700-1250 to Rs.700-1600. In addition, they may be paid an allowance of Rs.150 per month;

(4) the emoluments of the senior research fellowship in Banaras Hindu University may be revised to Rs.600 as for the senior research fellowship awarded by the U.G.C.;

(5) the post of research assistant in Aligarh Muslim University at Rs.250/- p.m. fixed may be converted into that of a Junior Research Fellow of the U.G.C.

The Commission felt that it may not be necessary to create such categories of posts as that of research officers in Central Universities.

The Commission was further of the view that no permanent appointment should be made against the post of Research Associates but all appointments should be initially for a 3-year period and extended for another two years only.

Item No. 14: To consider the recommendation made by the Panel on Economics regarding the use of books purchased by the teachers under short-term projects after completion of the projects.

The Commission desired that as at present, the teachers who are assisted under the scheme of "support for short term projects" may be allowed to retain books/journals obtained under the scheme.

Item No. 15: To consider the decision of the University of Mysore to relax the condition of eligibility of admission to courses run by the Institute of Correspondence Courses and Continuing Education in respect of candidates over 50 years of age.

In this connection, the Commission also noted the recent decision of the Andhra University to admit students to correspondence courses under certain conditions without expecting the students to have the minimum qualifications prescribed for different university courses. The Commission desired that this question, along with the proposal of the Mysore University, may be referred to the joint meeting of the UGC and the Standing Committee of the Association of Indian Universities scheduled to be held on October 29, 1975.

Item No. 16: To further consider the proposal of the Roorkee University for enhancement of the value of stipend paid by the University to the students selected for training at the Water Resources Development Training Centre.

The Commission accepted the proposal of the Roorkee University and agreed to the enhancement of the value of the stipend to the non-sponsored students selected for training at the Water Resources Development Training Centre from Rs.250 to Rs.400 per month (category IV) and from Rs.100 to Rs.200 per month (category III) with effect from the current academic year.

Item No. 17: To consider further the proposal regarding taking over of the Dayal Singh College by the University of Delhi - Transfer of assets and liabilities to the University.

The Commission noted that the Delhi University had intimated that it would not be possible to reimburse to the Commission the amount due from the College as excess maintenance grant paid by the Commission during 1968-75. The Commission further noted that no compensation was being paid to the Trust towards its share for land and the construction of the buildings.

The Commission agreed that the Delhi University may take over Dayal Singh College and meet the cash liability of Rs.1,27,646.14 out of the endowment fund to be transferred to the University and the balance may be refunded to the U.G.C.

It was further noted that no assistance would be payable to the Delhi University for the use of the students' fund in the earlier years which had been used for other purposes by the College.

Item No. 18: To further consider a reference from Berhampur University regarding relaxation in minimum enrolment in colleges to be eligible to receive grants from the University Grants Commission under the Rs.5 lakhs scheme.


The Commission was not in favour of further general relaxation regarding enrolment and faculty strength, beyond what has already been agreed to. However, keeping in view the special position of Orissa and some other similar States, the Commission desired that the question of development of few selected colleges may be discussed with the State Government with a view to involving the University and the State Government to do planning at district level and indicate which of the Colleges should be developed from the point of view of meeting the needs of students in the backward areas and tribal areas.

Item No. 19: To consider the question of eligibility of Law Colleges, Colleges of Physical Education and similar other institutions for assistance under Rs. 5 lakhs scheme.


The Commission agreed that the assistance to law colleges, colleges of physical education, home science colleges, schools of social work and colleges of fine arts and music etc., in the V Plan may be provided on the same basis as for teachers' training colleges, i.e. with an upper limit of Rs.1.5 lakhs as UGC share.

Item No. 20: To consider the recommendations of the Committee appointed by the Commission to examine the proposal to declare Gandhi Gram Institute of Rural Higher Education as a deemed to be University under Section 3 of the UGC Act.

Consideration of this item was postponed.

Item No. 21: 

Item No. 22 : (See Part II of the Minutes)

Item No. 23 : 

Item No.24: 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 November 24-25, 1975 at New Delhi.

Item No.25: To consider the recommendations of the Visiting Committee appointed by the University Grants Commission to review the working of the School of Correspondence Courses and Continuing Education, University of Delhi.

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The Commission accepted the recommendations of the Committee appointed to review the working of the School of Correspondence Courses and Continuing Education, University of Delhi, subject to the following:

(1) The University may not restrict admission to correspondence courses to students residing in the Union Territory of Delhi, as suggested by the Committee;

(2) In view of the fact that the teaching departments in the University of Delhi are mainly concerned with postgraduate teaching and research, the teachers appointed in the School of Correspondence Courses and Continuing Education may not be borne on the strength of the respective teaching department as in the case of other colleges, but may be considered eligible for participating in the postgraduate teaching as in the case of teachers from other colleges;

(3) It was agreed that after taking into account the requirements of two additional posts of Lecturers in Commerce, as recommended by the Committee, the remaining 15 posts lying vacant should not be filled without the prior concurrence of the University Grants Commission. This would also be applicable to any other post falling vacant during the current plan period;

(4) The scale of pay of the Book Producer may be Rs.700-1300;

(5) The Commission also agreed that after taking into account the accumulated opening balance with the School, the maintenance grant to cover the net approved deficit may be paid to the School from non-plan funds as in the case of other colleges of Delhi University, keeping in view the recommendations made by the Committee.

Item No.26: To consider the proposal of Pratap College, Amalner, for naming the Men's Hostel constructed with the Commission's assistance after late M.H. Premji.

The Commission regretted its inability to accept the proposal of Pratap College, Amalner, for naming the men's hostel constructed with the Commission's assistance after late Shri M.H. Premji.

Item No. 27: To consider a proposal from the Banaras Hindu University for subsidy to run the University Cafeteria/Canteens.

The Commission considered the proposal from the Banaras Hindu University for subsidy to run the university cafeteria/canteens and desired that the Banaras Hindu University be requested to indicate the financial implications involved in providing subsidy for the cafeteria/canteens on the basis of the norms laid down by the Government of India for providing such subsidy for departmental canteens.

Item No. 28: To consider the Revised Estimates for 1975-76 and Budget Estimates for 1976-77 (Plan and Non-Plan).

The Commission noted that the revised estimates for 1975-76 and budget estimates for 1976-77 (plan and non-plan) of the UGC were being finalised by the office and desired that this may be referred to, as in the past, to a Committee consisting of the Vice-Chairman, Education Secretary and the Finance Secretary, and the estimates as finally prepared be placed before the Commission.

Item No. 29: To consider certain establishment matters of the University Grants Commission.

The Commission accepted the recommendations of the Departmental Promotion Committee for Class I posts made at its meeting held on 24th October 1975 and approved that the following may be promoted against regular vacancies in the respective cadres from the dates of their availability in the order of merit indicated below :

Education Officer

1. Shri R.C. Banerji

Assistant Secretary

1. Shri P.L. Chopra
2. Shri K.N. Haldar

Item No. 30: To consider the question of payment of remuneration to contributors to the Journal of Higher Education brought out by the University Grants Commission and its supply to individual students and teachers at concessional rate.

The Commission accepted the following recommendations made by the Editorial Board of the Journal of Higher Education :

- (1) 25 off prints may be provided to the contributors to the journal and payment of remuneration as below :

for articles over 3000 words or over printed 6 pages.	- Rs.150
for articles under 3000 words or under 6 printed pages.	- Rs. 75
for notes and comments	- Rs. 25
for book reviews	- Rs. 50 plus book or Rs. 75

- (2) Subscription rates for the Journal be as follows :

annual	Rs.20 or £5 or \$9.
single copy	Rs. 8 or £1 or \$3.

- (3) Journal be made available at 50% concession to individual students and teachers.

Item No. 31: X

Item No. 32: X (See Part II of the Minutes)

Item No. 33: X

Item No. 34: To consider the recommendations made by the Jury appointed by the Commission for selection of scientists for Sir J.C. Bose Award in Life Sciences, instituted with the help of endowment made available by Hari On Ashram Trust, Nadiad, Gujarat.

The Commission accepted the recommendations made by the Jury for the J.C. Bose Award in Life Sciences for 1974 and agreed that the award may be shared by the following :

1. Prof. A.K.Sharma and Dr.(Mrs.) A. Sharma.
2. Prof. G.N. Ramachandran.

The Commission further agreed to increase the amount of this Award from Rs.10,000 to Rs.15,000 and to give to each of the above two awardees a sum of Rs.7,500.

R.K. Chhabra
Secretary.

Satish Chandra
Vice-Chairman.

PART II

Item No.21: To consider the reports of the Visiting Committees which assessed the V Plan needs of universities in Maharashtra and Postgraduate Centre, Panaji (Goa).

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(I) BOMBAY UNIVERSITY

The Commission considered the report of the Visiting Committee to the Bombay University and desired that the report may be discussed with the Vice-Chancellor by the Vice Chairman alongwith some members of the Visiting Committee, especially with reference to the following:-

- (a) Provision of facilities and buildings at the new campus and old campus.
- (b) Contributory system of teaching in the postgraduate departments.
- (c) Additional staff for the Humanities and Social Science departments and also for the proposed Department of Commerce.
- (d) Examination reforms.
- (e) Needs of the Department of Computer Science.

(II) NAGPUR UNIVERSITY:

The Commission considered the report of the UGC Visiting Committee to the Nagpur University and generally accepted the recommendations. The Commission noted that the Central Library of the Nagpur University is located in the city campus and felt that a small library should also be set up at the new campus in order to meet the needs of the postgraduate departments and research. The Commission desired that the Nagpur University may be requested to send a phased programme for development of such a functional library at the new campus.

The financial implications of the schemes approved by the Commission are given in Appendix A.

(III) SNDT WOMEN'S UNIVERSITY:

The Commission considered the report of the Visiting Committee to the SNDT Women's University, Bombay and generally accepted the recommendations of the Visiting Committee. The financial implications of the schemes accepted by the Commission are given in Appendix B.

(IV) TATA INSTITUTE OF SOCIAL SCIENCES:

The Commission considered the report of the Visiting Committee to the Tata Institute of Social Sciences, Bombay and generally accepted the recommendations of the Visiting Committee. It was noted that under the revised procedure the assistance to the Institute

would be on 100% basis for the development proposals accepted. The financial implications of the schemes accepted by the Commission are given in Appendix C.

(V) POONA UNIVERSITY

The Commission considered the report of the Visiting Committee for the Poona University and generally accepted the recommendations subject to the following:-

- (a) The requirements of the Department of Defence Studies may be examined again by an expert committee.
- (b) In the Department of History, stress should be laid on the History of Western India rather than on Maratha History.
- (c) The question of development of Bio Sciences may be further examined.

The financial implications of the schemes approved by the Commission are given in Appendix D.

(VI) SHIVAJI UNIVERSITY AND MARATHWADA UNIVERSITY

The consideration of the reports of the UGC Visiting Committee to the Shivaji University and Marathwada University was postponed. The Commission desired that the reports may be in the first instance discussed with the Vice-Chancellors by the Vice-Chairman alongwith some members of the Visiting Committee, especially with reference to the following:

- (a) Consolidation of the existing departments.
- (b) New departments and courses particularly the proposed professional courses.
- (c) Contributory system of teaching and teaching load of university teachers.
- (d) Study of the History of Maharashtra or Western India vis-a-vis Maratha History.
- (e) Vacant posts of teaching staff.

The Commission desired that the proposal for a Postgraduate Centre at Manded may be examined by the Committee on New Universities and Postgraduate Centres.

(VII) POSTGRADUATE CENTRE, PANAJI (GOA).

The Commission considered the report of the Visiting Committee for the Postgraduate Centre at Panjim (Goa) and desired that since a new university is to come up soon in Goa, the requirements of the university as a whole may be examined. Meanwhile, the Commission agreed to provide assistance to the Postgraduate Centre to enable it to meet the urgent requirements for books and equipment.

Item No.22: To consider the reports of the Vth Plan Visiting Committee for South Gujarat, M.S. University of Baroda, Gujarat and Sardar Patel University.

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(I) SOUTH GUJARAT UNIVERSITY.

The Commission considered the report of the UGC Visiting Committee to South Gujarat University (Surat) and generally accepted the recommendations.

The financial implications of the schemes approved by the Commission are given in Appendix A.

(II) M.S. UNIVERSITY OF BARODA.

The Commission considered the report of the UGC Visiting Committee to M.S. University of Baroda, and generally accepted the recommendations.

The financial implications of the schemes approved by the Commission are given in Appendix B.

(III) SARDAR PATEL UNIVERSITY.

The Commission considered the report of the UGC Visiting Committee to Sardar Patel University and generally accepted the recommendations.

The financial implications of the schemes accepted by the Commission are given in Appendix C.

(IV) GUJARAT UNIVERSITY

The Commission considered the report of the Visiting Committee to Gujarat University and generally accepted the recommendations subject to the following:

- (a) The Gujarat University may conduct a survey of the existing facilities available at the Postgraduate Centres in affiliated colleges vis-a-vis the norms prescribed by the Commission.
- (b) The Gujarat University may send detailed proposals for starting courses in Pharmaceutical Chemistry, Textile Chemistry etc. and also for improvement of postgraduate centres in affiliated colleges.
- (c) The Commission also accepted the proposal of the Gujarat University for starting a Certificate/Diploma course in Tamil and agreed to provide for a post of a Lecturer and Rs.5,000/- for books.

The financial implications of the schemes accepted by the Commission are given in Appendix D.

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Item No.23 : To consider the reports of the Visiting Committees which assessed the Fifth Plan needs of the universities in Bihar.

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The Commission noted that the State of Bihar is perhaps the only State in the country where appointments to the teaching posts in the universities are made by the Public Service Commission and that appointments to the senior posts are made by the universities on the basis of promotion and through open selection. It was also noted that the role of experts who are invited to attend the meetings of the committees for selection of university teachers are only advisory and that many a time experts do not find it possible to attend such meetings.

The Commission felt concerned with the procedure for selection of teachers in the university of Bihar since it was not conducive to the maintenance of academic standards. The Commission decided as under :-

- a) Appointments to all plan and non-plan teaching posts in the universities of Bihar be made through open selection by inviting applications through advertisements in all the leading newspapers of the country, and in accordance with the guidelines laid down by the University Grants Commission.
- b) It would be helpful if the experts on the selection committees are actively associated in the recruitment of teachers. Three outside experts (of whom at least two should be present) may be nominated on the committees for selection of Professors and two outside experts (of whom at least one should be present) on the committees for selection of Readers and Lecturers.
- c) No appointment be made by promotion.
- d) Necessary grants for the teaching posts approved by the University Grants Commission during the Fifth Plan period may be released to a university only after it has agreed to follow the selection procedure suggested by the Commission and the post for which grant is to be released, has been filled in accordance with the procedure outlined above.

The Commission considered the reports of the Fifth Plan Visiting Committees on the universities of Magadh, Ranchi, Patna, Bihar and Bhagalpur. The Commission generally accepted the recommendations made by the Visiting Committees in their reports subject to the following :

- 1) The universities be requested to give high priority

to the programme of faculty improvement. Each university should plan suitable programmes for faculty improvement not only for the university departments but also for the colleges affiliated to it in accordance with the UGC guidelines.

- 2) In such cases, where any post of Professor or Reader has been recommended by the Visiting Committee with specialisation in research methodology, the post may remain open and the university concerned be requested to indicate the area/field of specialisation in which they would like to earmark the approved post before filling up the post through open selection.
- 3) The Universities may first take up construction of quarters for lecturers on a priority basis in such cases where the Commission has approved grants for staff quarters during the Fifth Plan period.

(A) MAGADH UNIVERSITY :

- 1) The Commission could not agree with the recommendation for establishment of School of Foreign Languages and the Department of Sociology and Anthropology. The University may be advised to send a detailed proposal for setting up of a Centre for developmental studies for consideration by the Commission and seed money to the extent of Rs. 25,000/- may be provided to the university for formulating the proposal.
- II) The Commission approved one post of Professor instead of Reader for the department of Urdu.
- III) The specialisation of one Professor's post and one Reader's post approved for the department of History may be Medieval History and Historiography/Modern History respectively.
- IV) The specialisation of Reader's post in the department of Philosophy may be "Indian Philosophy."
- V) The specialisation of Professor's post in the department of Political Science may be normative political theory.
- VI) The financial implications of the schemes approved by the Commission are given in Appendix-I

(B) RANCHI UNIVERSITY :

- I) The Commission noted that a new Vice-Chancellor is shortly joining the University. The report of the Visiting Committee may be sent to him for his comments in the first instance.

- II) The Commission could not, however, agree with the recommendation for setting up of a Centre of Tribal Studies and desired that tribal studies may be developed in the department of Anthropology. The amount recommended by the Committee for books, journals and equipments for Centre for Tribal Studies may be made available to the department of Anthropology for specifically developing tribal studies.
- III) The Commission could not agree with the recommendation for setting up of a Centre for Geo-physics and Geo-Chemistry. The Geology department concerned could send a project for inter-disciplinary research for consideration by the concerned panel and the SRC.
- IV) The Commission agreed with the recommendation of the Committee for setting up of a department of Commerce. The Commission, however, felt that it would not be advisable at the initial stages to include business management in the programme of studies in the department of Commerce. The department should concentrate on developing teaching and research in the field of Commerce only.

(C) PATNA UNIVERSITY :

- 1) The Commission desired that University be requested to send a detailed proposal for establishing a Centre for developmental studies for consideration by the Commission. Seed money to the extent of Rs.25,000/- may be provided to the University for formulating the proposal.
- II) The department of English may develop reading courses in German and Russian and not in Chinese and Spanish and post of one Lecturer in each of the two languages may be provided to the department.
- III) One post of Reader with specialisation in South Indian History may be provided to the department of History in place of two Lecturers recommended by the Committee.
- IV) The specialisation for post of Professor in the department of Ancient Indian History may be kept open. The specialisation of the Reader's post may be numismatics. A post of Lecturer in Epigraphy may be provided to the department in place of one Epigraphist.
- v) The department of Hindi may be provided with two Readerships in place of one Reader and one Lecturer recommended by the Committee.
- VI) The specialisation of two posts of Professors in Botany may be (i) Mycology and Plant Pathology & (ii) Cyto-genetics, and molecular genetics/ experimental taxonomy and that of two Readers (i) experimental Psychology/Cyto-genetics and

- VII) The University may take immediate steps to assign the hostel at present being occupied by the students of the Medical College to the students of other faculties (It was noted that this hostel had been constructed with the assistance from the UGC).
- VIII) The financial implications of the schemes approved by the Commission are given in Appendix-II
- D) BIHAR UNIVERSITY :
- I) The Commission was not in favour of establishment of a department of Home Science and a Centre for Research in Community Development.
- II) The specialisation for post of Professor in Hindi may be kept open. The department should send its proposal for undertaking "linguistics studies of the dialects of Bihar" under the scheme of support for advanced research for consideration by the concerned panel.
- III) The specialisation of the post of two Readers approved for the department of History may be Russian History and Economic History.
- IV) The University may look into the working of the Zoology Department.
- V) The financial implications of the schemes approved by the Commission are given in Appendix III.

(F) BHAGALPUR UNIVERSITY :

- I) The University may send a detailed proposal for establishment of a Centre of Regional Studies for consideration by the Commission. Seed money to the extent of Rs. 25,000/- may be provided to the University for formulating the proposal.
- II) The specialisation of the Professor's Post approved for the department of Sociology may be Urban Sociology/Social Anthropology/Social Pathology.
- III) The financial implications of the schemes approved by the Commission are given in Appendix-IV.

The Commission desired that the Government of India be requested to take an early decision on the proposal for instituting personal promotion scheme in the universities consequent upon revision of pay scale of the university/college teachers.

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Item No.31: To consider the report of the Visiting Committee to the Centre of Postgraduate Studies, Imphal, Jawaharlal Nehru University.

.....

The Commission generally accepted the recommendations of the UGC Visiting Committee to the P.G. Centre of Jawaharlal Nehru University at Imphal subject to the following:

- i) While the State Government may constitute a group of experts to formulate plans for higher education in the State, no commitment could be made that the State may have a University in 1979. The proposal for a University would be considered on merits as and when received by the Commission.
- ii) The question of starting M.Sc. Agriculture course may be considered in consultation with ICAR.
- iii) A provision of Rs.3.50 lakhs be made for equipment in Physics division and Rs.3.00 lakhs for Chemistry division, in addition to the running expenses for these two divisions. Assistance for instituting courses in Physics and Chemistry will be subject to the condition that a suitable building is made available by the State Government for this.
- iv) The Centre may be provided a teachers hostel instead of a teachers hostel-cum-Guest House.
- v) Adequate number of fellowships may be made available for the teachers of the Departments to improve their qualifications either at Jawaharlal Nehru University or any other University

Financial implications of the schemes accepted by the Commission are given in Appendix .

Item No.32 : To consider the report of the Visiting Committee to Aligarh Muslim University.

.....

The Commission considered the report of the Visiting Committee to Aligarh Muslim University and generally accepted the recommendations of the Visiting Committee subject to the following

- (i) The University may be assisted to award 40 fellowships at any time for pursuing research in the University departments.

The awards may be made as follows:

- (a) 10 fellowships be reserved for candidates belonging to scheduled castes and scheduled tribes.
- (b) 10 fellowships be reserved for candidates belonging to the backward and weaker section of society and students from States such as Manipur, Nagaland and other backward and under-developed states of the country.
- (c) 2 fellowships be reserved for non-muslims for pursuing research in Islamic Philosophy.
- (d) 2 fellowships be reserved for muslims for pursuing research in Sanskrit;
- (e) 16 fellowships be awarded on an all India basis for pursuing research in other disciplines ensuring that at least 50% of fellowships are awarded to candidates from Universities in States other than U.P.

The financial implication of schemes approved by the Commission are given in Appendix

It was noted that AMU, BHU and Visva Bharati run schools of their own. The Government of India may be approached to provide additional funds to the UGC over and above the normal allocation of the UGC for the implementation of 10+2+3 pattern in the Central Universities. It was also noted that the Government of India would provide separate funds to the State Governments for the implementation of 10+2+3 pattern.

Item No.33 : To consider the report of the Visiting Committee to Delhi University.

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The Commission considered the report of the UGC Visiting Committee to Delhi University and generally accepted the recommendations of the Visiting Committee subject to the following:

1. It could not agree to the specialisation in translation and journalism for a Reader in Hindi and as such the additional

post recommended be omitted.

2. The University may set up a manuscript section in the Central Library and that Sanskrit manuscripts be also provided there.

3. The readership in History under first priority be with specialisation in Archaeology and not in historical methods.

4. One post of Professor in Physics be earmarked for 'Ionospheric' studies. The field of specialisation of the 2nd Professorship be kept open.

5. The University may be assisted to award 40 fellowships at a time for pursuing research in university departments. The awards may be distributed as under:

- i) 10 fellowships for candidates belonging to scheduled castes and scheduled tribes.
- ii) 10 fellowships reserved for candidates belonging to weaker and backward sections of society, students belonging to Manipur, Nagaland and other backward and under-developed regions of the country.
- .iii) 20 fellowships to be awarded on all-India basis. At least 50% of which are awarded to candidates from the Universities in States other than the Union Territory of Delhi.

The financial implications of the scheme accepted by the Commission are given in Appendix

R.K. Chhabra,
Secretary

'Satish Chandra'
Vice-Chairman

Appendix III of the
minutes of the UGC meeting held on
27-28th October, 1975. (Item No. 6)

The Grants approved to universities for taking up follow-up activities under COSIP - ULP for two years in addition to the balance grants available from first phase allocation.

1. <u>University Leadership Project in Physics, Andhra University</u>		
i)	Curriculum development(book writing)	Rs. 25,000/-
ii)	For demonstration apparatus-fabrication, special apparatus and cost of materials.	Rs. 30,000/-
iii)	Academic Year teacher fellowships (5 per year) for 3 years.	Rs. 50,000/-
iv)	Teacher research participants, short visits by teachers for consultations.	Rs. 15,000/-
v)	a) Teaching Staff (1 Reader)	Rs. 30,000/-
	b) Workshop Staff	Rs. 20,000/-
vi)	Contingencies.	Rs. 10,000/-
	Total	Rs. 1,80,000/-
2. <u>University Leadership Project in Chemistry, Panjab University</u>		
i)	Staff (teaching & supporting)	Rs. 50,000/-
ii)	Organisation of Refresher Course for college teachers.	Rs. 50,000/-
iii)	Curriculum development-writing text books Lab. manuals, lecture notes etc.	Rs. 80,000/-
iv)	Contingencies	Rs. 20,000/-
	Total	Rs. 2,00,000/-
3. <u>University Leadership Project in Chemistry, Osmania University</u>		
i)	Staff (teaching & supporting)	Rs. 75,000/-
ii)	Contingencies (typing and printing materials etc.)	Rs. 20,000/-
iii)	Publication of books etc.	Rs. 35,000/-
iv)	Teaching aids & preparation of models etc.	Rs. 50,000/-
v)	Other needs	Rs. 20,000/-
	Total	Rs. 2,00,000/-

4. University Leadership Project in Chemistry, Poona University

i)	Writing of text books	Rs. 15,000/-
ii)	Equipment fabrication	Rs. 3 0,000/-
iii)	Visits by University teachers to the colleges for delivering lectures.	Rs. 4,000/-
iv)	Preparation of teaching aid, self learning and lab. materials etc. in collaboration with the Physics Deptt., as proposed.	Rs. 20,000/-
v)	Curriculum discussion groups for object analysis of theory, and lab. courses.	Rs. 20,000
vi)	Organisation of workshop for teachers for glass blowing, workshop practice and instrument repairs.	Rs. 20,000/-
vii)	Part-time technicians and stencil operator.	Rs. 4,000/-
viii)	Contingencies.	Rs. 3,000/-
Total:		Rs. 1,16,000/-

5. University Leadership Project in Biological Sciences,

i)	Production of Laboratory manuals 6 Nos.	Rs. 60,000/-
ii)	Curriculum discussion group meetings	Rs. 10,000/-
iii)	Development of Prototypes of equipt. experimental/spare parts and service facilities and other audiotutorial aids.	Rs. 1,00,000/-
iv)	Environmental Biology Course	Rs. 25,000/-
v)	Continuation of Teacher-Research Participation Programme for 2 years.	Rs. 20,000/-
vi)	Continuation of the existing Biology supply Centre.	
	a) Plant Breeding Centre	Rs. 40,000/-
	b) Drosophila Genetic Centre	Rs. 40,000/-

vii) Biology News-Publication	Rs. 15,000/-
viii) Maintenance and Continuation of existing staff.	Rs. 50,000/-
ix) Spare parts and service facility	Rs. 25,000/-
	<hr/>
	Rs. 3,85,000/-
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6. University Leadership Project in Mathematics, Madurai University

i) Continuation of the existing programme of short-term courses as well as one year academic programme for college in Mathematics.	Rs. 1,00,000/-
ii) University departmental requirements for continuation of staff recruited.	Rs. 1,00,000/-
iii) Mathematics Workshops on specialised topics.	50,000/-
iv) Curriculum discussion group	Rs. 10,000/-
v) Printing of educational material	Rs. 5,000/-
vi) Contingencies etc.	Rs. 10,000/-
vii) Supply of books to the 20 colleges yet to be covered.	Rs. 60,000/-
	<hr/>
	Rs. 3,35,000/-
	<hr/>

Appendix IV to the minutes of
the URC meeting held on
27-28 October, 1975 (Item No.10)

The Grants approved to universities for taking up
University Leadership Project under COSIP over a
period of 3 years.

1) University Leadership Project in Physics, Bangalore University.

<u>S.No.</u>	<u>Item</u>	<u>Amount approved</u> Rs.
(a)	<u>Colleges Requirements</u>	Rs.
1.	Laboratory Equipment	2,50,000
2.	Books & Charts	85,000
3.	Stationary for problem sheets, Laboratory instrumentations etc.	10,200
4.	Workshop tools	68,000
	Total :	<u>4,13,200</u>
(b)	<u>Departmental requirements</u>	
1.	Staff (3 Profs. 1 typist One Asstt. Projectionist)	1,00,000
2.	Honoraria for staff for Summer Programmes.	-
3.	Conveyance charges for inservice programme	51,120
4.	Conveyance charges for Summer Programme	40,320
5.	Visit to scientific establishments & industries	3,600
6.	Demonstration equipt. film projector etc.	50,000
7.	Stationary, office equipt. and publication cost.	50,000
2.	contingencies.	30,000
		<u>3,25,040</u>
	Grand Total (A + B)	<u>7,38,240</u>

2) University Leadership Project in Physics, Bombay University

(a)	<u>Colleges requirements :</u>	Rs.
1.	Laboratory improvement	4,00,000
2.	Organization of group meeting for study of special subject	45,000
3.	Visit of university teachers to colleges.	15,000
4.	Development of colleges libraries.	1,25,000

p.t.o.

<u>S.No.</u>	<u>Item</u>	<u>Amount approved</u>
5.	To bring out COSIP Bulletin	15,000
		6,00,000
 (b) <u>Departmental requirements</u>		
1.	Staff (1 Reader, 1 Typist 1 Workshop mechanic, 1 laboratory Technical Assistant)	1,25,000
2.	1 Metal Sheet bending machine	5,000
3.	One almonia printing machine	6,000
4.	Workshop tools	4,000
5.	Workshop materials	15,000
6.	Stationary and Sundry items	15,000
7.	Contingency	30,000
	Total :	2,00,000
	Grand Total of (A+B)	3,00,000
 3) <u>University Leadership Project in Physics, Madurai University</u>		
a) <u>College requirements</u>		
1)	Appointment of substitute lecturers in colleges	(
2)	Distribution of Lab. Kits demonstration equipment, models etc.	0 0 0
3.	Distribution of books teaching manuals etc.	0 (
4.	Bulletin	0
5	Films for distribution	0 0
6.	Payments to college teachers participating in courses.	0 1,50,000
7.	Courses for Technicians	0
b) <u>University requirements</u>		
1.	Publication of equipments Films etc.	1,00,000
2.	Additional teaching and Non-teaching staff.	1,05,000
3.	Visiting lecturers, materials components, contingencies etc.	30,000
	Total :	7,35,000

4) University Leadership Project in Physics, Ranchi University.

<u>Sl.No.</u>	<u>Item</u>	<u>Amount approved</u>
a)	<u>College requirements</u>	
1.	Providing workshop facilities and training of workshop personnel.	1,21,200
2.	Workshop to discuss curriculum reforms, instructional methods & evaluation of answer script of the examinee.	1,20,000
3.	Bringing out of information bulletin.	8,000
4.	Arranging mobile exhibitions of instructional materials demonstration kits books etc. in selected colleges.	10,000
5.	To provide to colleges books audiovisual eqipt. and specialised equipment.	1,53,600
		4,18,800
b)	<u>Departmental requirements</u>	
1.	Providing a bank for different types of instructional material.	60,000
2.	Inviting teachers from participating colleges to spend a period of 3-6 months for research orientation/ or for developing instructional materials.	15,000
3.	Improvisation of suitable instructional kits for undergraduate teaching.	1,10,000
4.(i)	Honoraria to Project Coordinator	-
(ii)	Tr/D for visiting other UIPS.	6,000
(iii)	Tr for inviting distinguished persons from outside to participate in the workshop discussions.	9,000
	Total :	2,00,000
	Grand Total of (A+B)	6,18,800

5. University Leadership Project in Physics, Coimbatore University.

- a) Colleges requirements :
1. Laboratory equipment.
 2. Books
 3. Workshop tools
 4. Stationery for problems sheets, lab. instructions.

contd..... p.t.o.

<u>S.No.</u>	<u>Item</u>	<u>Amount approved</u>
5.	Purchase of scientific films	
6.	Demonstration equipments models charts for colleges.	
b) Departmental requirements		
1.	Salary of Coordinator +20% deputation allowance.	
2.	Salary of 4 Teachers.	
3.	Administrative and technical staff.	3,00,000
4.	Stationary, office equipment and publication cost.	
5.	Contingency.	
6.	Honoraria for staff for conducting workshop and refresher courses etc.	
7.	Conveyance charges etc. (TA/DA).	
Grand Total of (A+B)		3,00,000

6. University Leadership Project in Physics, Calicut University

<u>S.No.</u>	<u>Items</u>	<u>Amount approved</u>
a) <u>College requirements</u>		
i)	Improvement of laboratory facilities	1,50,000
ii)	Improvement of Library facilities.	1,00,000
iii)	Laboratory consumables & fabrication supplies	35,000
iv)	Miscellaneous	-
		2,85,000
b) <u>Departmental requirements</u>		
1) <u>Teachers training</u>		
i)	Salary of 3 additional teachers at the University Department.	1,00,000
ii)	Salary of substitute teachers in colleges.	2,00,000
iii)	Travel and living costs of teachers on training	45,000
iv)	Salary of one machinist one clerk and one typist	30,000
v)	Laboratory Workshop consumables (University Deptt.)	30,000

<u>S.No.</u>	<u>Items</u>	<u>Amount approved</u>
1)	Miscellaneous	15,000
2)	<u>Research participation by selected college teachers</u>	
i)	Salary of substitute teachers in colleges	20,000
ii)	Travel and living costs of participating teachers.	2,000
iii)	Computer costs	nil
3.	<u>Curriculum Development & Examination Reform</u>	
1)	Salary of one additional teacher at the University Deptt.	nil
ii)	Two workshops on curriculum development and examination reforms. (Travel of College teachers & Miscellaneous)	20,000
iii)	Miscellaneous	10,000
4.	<u>Preparation of teaching aids and materials</u>	
i)	Salary of one additional teachers of the University Deptt.	nil
ii)	Cost of preparing aids and distribution:	75,000
	Total :	5,53,000
	Grand total of (a+b)	2,33,000
7.	<u>University Leadership Project in Chemistry, Bangalore University.</u>	
a)	Colleges requirements	
1)	Curriculum construction including writing up of text books, teachers guide and lab. manuals.	70,330
2)	Faculty Improvement Programme	1,99,030
3)	Improvement of laboratories and workshops of the participating colleges.	3,60,000
		6,29,960

p.t.o.

<u>S.No.</u>	<u>Particulars</u>	<u>Approved amount</u>
b)	<u>Departmental requirements</u>	Rs.
1)	Equipment	45,000
2)	Books	15,000
3)	Technical Staff	12,240
4)	Administrative Staff	15,520
5)	Contingencies	6,000
	Total :	<u>91,920</u>
	Grand total of (a+b)	7,21,230
3.	<u>University Leadership Project in Chemistry, Kamatak University</u>	
7.	<u>Colleges requirements</u>	
1)	4 short term courses per year for 30 teachers for 6 days each.	36,100
2)	Short term research projects for 4 college teachers per year	6,000
3)	Special lectures at colleges (6 teachers)	3,510
4)	Improvement of Laboratories, workshops and teaching aid in colleges	5,00,000
5)	Improvement of college libraries.	73,500
6)	Imparting of instruction materials, laboratory manuals, model questions and question bank.	75,000
	Total :	<u>7,44,110</u>
b)	<u>Departmental requirements</u>	
1)	Equipment & Books	60,000
b)	Academic staff (one Reader, one Lecturer, 8 part-time lecturers)	75,000
c)	Adm. staff & Tech. Staff	32,400
d)	Contingencies	12,000
		<u>2,79,400</u>
	Grand Total (a+b)	9,23,510

<u>S.No.</u>	<u>Item</u>	<u>Amount approved per annum</u>
9.	<u>University Leadership Project in Chemistry, Gujarat University</u>	
a)	<u>College requirements</u>	
1)	Improvement of Laboratory facilities (per 10 colleges each year)	30,000
ii)	Library improvement	20,000
		1,00,000
b)	<u>Departmental requirements</u>	
1)	Remuneration to non-teaching staff (one Secretary-cum-Clerk, one Lib. Asstt., one Lab. Attendant)	15,300
2)	Honorarium to Project Coordinator	-
3)	Intensive training	41,550
4)	Inservice training	13,975
5)	Seminars-cum-workshops	3,400
6)	Laboratory expenditure	20,000
7)	Books for departmental staff	3,000
8)	Visit by Universities teachers to colleges.	1,000
9)	Preparation of monographs, teachers guide, laboratory manuals etc.	10,000
10)	Lecture services by eminent scientists	3,000
11)	Visit to other ULP's	2,000
12)	Teaching aids, films and tapes	3,000
13)	Research project training to participants (6 teachers per year)	9,000
		1,31,725
	Grand total of (a + b)	2,31,725 per annum

Or Rs. 2,31,725/- for three years.

10.	<u>University Leadership Project in Biological Sciences, Marathwada University.</u>	
a)	<u>College requirements</u>	
1)	Preparation of text material	50,000
2)	Supply of text books	1,00,000
3)	Assistance to teaching & Research	50,000
4)	ICMR News Letter	10,000
5)	Supply of equipment	2,00,000
	Total (a)	4,10,000

p.t.o.

<u>S.No.</u>	<u>Item</u>	<u>Amount approved</u>
b)	<u>University Requirements</u>	
1)	Conferences, refresher courses, seminars etc.	1,00,000
2)	Visiting Lecturers	40,000
3)	Teaching and Administrative staff.	1,00,000
4)	Contingencies	60,000
	Total (b)	<u>3,00,000</u>
	Grand Total (a+b)	7,10,000

11. University Leadership Project in Biological Sciences, Gorakhpur University

1)(a)	<u>University Departments needs</u>	
i)	Academic adm. & supporting staff	1,05,000
ii)	Equipment and Library requirements required for CCSP activities.	45,000
	Sub-Total	<u>1,50,000</u>
b)	<u>College requirements</u>	
2)	Short-term courses etc.	1,50,000
3)	College-University contact programmes.	30,000
4)	Research participation by college teachers.	30,000
5)	Preparation & distribution of curriculum materials, demonstration equipment etc.	15,000
6)	Improvement of college (i) laboratories and (ii) libraries in Botany and Zoology Departments.	3,00,000
7)	Other expenses	25,000
	Grand total :	<u>5,50,000</u>
	(a + b)	<u>7,00,000</u>

Appendix V to Item No. 13 of minutes
of the UGC meeting held on 27-28th
October, 1975.

	<u>Post</u>	<u>University</u>	<u>Existing scale of pay</u>	<u>Revised scale of pay</u>
1.	Research Assistant	AMU JNU BHU	300-350	550-750
2.	Research and Reference Assistants in the Deptts. of Human Geography, Urdu, Arabic, Persian Sociology and Management Studies	Delhi	325-575	550-900
3.	Research Officer	AMU	400-950	700-1300
4.	Sr. Research Officer	BHU	700-1250	1100-1600
5.	Jr. Research Officer	BHU	400-950	700-1300
6.	Associate Lecturers	AMU	350-650	650-960
7.	Sr. Res. Fellow	AMU	250-500	400-750
8.	Investigator	BHU	250-300	425-600
9.	Coordinator NSS Studies	Delhi	700-1250	1100-1600
10.	Case Analyst	Delhi	400-950	700-1300
11.	Editor Publication	JNU	700-1250	1100-1600
12.	Musician	Delhi	400-950	700-1300
13.	Sarangi Player Tabla Accompanist Violin " Mirdhangun "	Delhi	200-280	330-560

p.t.o.

<u>Post</u>	<u>University</u>	<u>Existing scale of pay</u>	<u>Revised scale of pay</u>
14. Ta mpura Player	Delhi	110-180	260-400
15. Instructor/Music & Dance	AMU	250-450	425-700
16. Instructor Table/ Sitar	AMU	130-256	330-400
17. Instructor in Music (Vocal/Instrumental) Accompanist	BHU	300-600	550-900
18. Artist	VB	275-650	550-900
19. Accompanists	VB	175-4 25	440-750

Appendix A to Part II of the minutes
of the UCC meeting held on 27th and
28th October, 1975 (Item No. 21).

NAGPUR UNIVERSITY

Fifth Plan allocation approved (UGC share)

Spill-over = Rs. 4.54 lakhs

Basic grants:

Books = Rs. 3.00 lakhs

Equipment = Rs. 5.00 lakhs

New allocations:

Non-Recurring

Books = Rs. 17.00 lakhs

Equipment = Rs. 13.70 lakhs

Building = Rs. 17.00 lakhs

Others = Rs. 0.50 lakh

Recurring

Staff:

Professors - 13

Readers - 10

Lecturers - 7

Others - 4

Junior Research Fellowships - 25 (Twentyfive) at any given time to be utilised according to the guidelines to be indicated by the Commission for the purpose.

Annexure-1

Allocation for Equipment

Departments

Humanities & Social Sciences: Amount (Rs. in lakh)

Public Administration = 0.05

Political Science = 0.05

Economics = 0.10

Sociology = 0.10

Psychology = 0.30

Ancient History & Culture = 0.30

Journalism = 0.20

Linguistics = 0.30

Sciences:

Chemistry = 2.00

Physics = 2.00

Central Workshop = 1.00

Botany = 1.50

Mathematics = 0.30

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Zoology	=	1.50
Geology	=	2.00
Biochemistry	=	2.00
Home science	=	0.50
Central Instrumentation	=	5.00

Rs. 18.70 lakhs (including basic grant of Rs. 5 lakhs)

Annexure-II

Books	=	Rs. 20.00 lakhs (including basic grant of Rs. 3 lakhs)
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Annexure-III

Allocation for Building

<u>Department/Item</u>	<u>Amount (Rs. in lakhs)</u>
Chemistry (5000 sq.ft.)	= 2.00
Physics	= 2.00
Botany	= 0.50
Mathematics	= -
Zoology	= 0.50
Biochemistry	= 0.50
Central Instrumentation	= 4.00
Law	= 1.50
Teachers Hostel	= 3.00
Staff Quarters	= -
Students Hostel	= 3.00
Rs.	<u>17.00</u> lakhs

Annexure-IV

Others:

Visiting Professorship	= Rs. 0.50 lakhs
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Annexure-V

Details of Staff approved

<u>Department</u>	<u>Post</u>	<u>Remarks</u>
Sanskrit	L-1	
Political Science	R-1	
Public Administration	P-1	
Economics	R-2	Econometrics and Statistics
Sociology	P-1	
Psychology	P-1	Tech. Asstt.
History	P-1	
Journalism	R-1	
Foreign Languages & Linguistics	R-1, L-2	Reader in German
Chemistry	P-1	Theoretical/Inorganic/Quantum Chemistry
Physics	P-1	Theoretical Physics

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Central Workshop Engineer
& other technical staff

Mathematics	P-1, R-1 Operational research and Modern Applied Mathematics
Zoology	P-1, L-1 Ichthyology
Geology	R-1, L-1 Mineral prospecting/Geo- Chemistry
Biochemistry	P-1 Meta Bolism
Home science	P-1 Meta Bolism
Law	P-1, R-2, L-1
Education	P-1, R-1, L-1 Teaching of New Mathematic.
Philosophy	P-1 Modern Logic
Central Instrumentation :	Centre Engineer and other teaching staff.

Appendix B to Part II of the minutes of the
UCC meeting held on 27th and 28th October,
1975 (Item No.21)

S.N.D.T.WOMEN'S UNIVERSITY

Fifth Plan allocation approved (UGC share)

Spill-over = Rs. 88.45 lakhs

Basic Grant:

Books = Rs. 3.00 lakhs

Equipment = Rs. 67,742.22

New Allocations:

Non-Recurring

Books = Rs. 4.65 lakhs

Equipment = Rs. 3.25 lakhs

Building = Rs. 1.12 lakhs

Others = Rs. 0.50 lakh

Recurring

Staff : = -

Annexure-I

Allocation for Equipment

Department

Humanities & Social Sciences Amount (Rs.in lakhs)

Education = 1.00

Home Science:

Bombay Campus = 1.50

Poona Campus = 0.75

Rs. 3.25 lakhs (including basic
grant of Rs.0.50 lakh)

Annexure-II

Allocation for Books

Humanities & Social Sciences Rs.

Economics = 10,000

Education = 20,000

English = 10,000

Fine Arts = 10,000

Geography = 5,000

Gujarati = 10,000

Hindi = 10,000

History = 10,000

Political Science = 10,000

Psychology = 10,000

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Sociology & Social Work = 10,000
Library Science = 10,000

Home Science

Bombay Campus = 50,000
Poona Campus = 40,000
Central Library = 2,50,000

Rs. 4,65,000

Annexure-III

Building:

Composite Building = 1,12,000 (Hostel)

Annexure-IV

Others:

Visiting Professorship = Rs. 0.50 lakh

Junior Research Fellowships = 10 (Ten) at any given time to be utilised according to the guidelines to be indicated by the Commission for the purp

TATA INSTITUTE OF SOCIAL SCIENCES

Fifth Plan allocation approved

Spill-over = Rs.4.48 lakhs

Basic grants

Books = Rs.1.70 lakhs

Equipment = -

New Allocations:

Non-recurring

Books = Rs.3.00 lakhs (including a basic grant of Rs.1.7 lakh)

Equipment = Rs.2.55 lakhs

Building = Rs.12.32 lakhs

Others = Rs.1.10 lakh

Recurring Staff

Professors - 3

Readers - 4

Lecturers - 5

Librarian - 1 (In the scale of Deputy Librarian in universities)

Others - 9

Research Fellowships - 10 (Ten) at any given time to be utilised according to the guidelines to be indicated by the Commission for the purpose.

Annexure-I

Allocation for Equipment

<u>Item</u>	<u>Amount</u>
a) Data Processing (including air-conditioning)	= Rs.2.05 lakhs
b) Teaching Departments	= Rs.0.50 lakh

Annexure-II

Books & Journals = Rs.3.00 lakhs (including basic grant of Rs.1.70 lakh).

Annexure-III

Building = Rs.6.16 lakhs

Additional amount for teaching block	=	Rs. 0.62 lakh
Library extension	=	Rs. 2.70 lakhs
Teachers' Hostel	=	Rs. 9.00 lakhs

Annexure-IV

Others

Field work & contingency	=	Rs. 0.50 lakh
Visiting Professorship	=	Rs. 0.50 lakhs
Publications	=	Rs. 0.10 lakh

Annexure-V

Details of Staff

<u>Department/Item</u>	<u>Post</u>
1. Social work (including Social Sciences) Combined for all Departments.	= 2 Professors
2. Urban & Rural Community Development	= 1 Lecturer
3. Social Welfare Administration	= 1 Faculty Assistant
4. Family & Child Welfare Medical & Psychiatric Social Work Research Methodology Personnel Management	= 1 Faculty Assistant
5. Research Units	= 1P, 1R, 2L, 2FA
6. New Research Units	= 2R, 2L
7. Short-term and Part-time courses	= 1R
8. Data Processing Staff	= Technical Staff
9. Cartographer	= 1 Tech.Asstt.
10. Unit for study of Urban child & youth	=
11. Librarian	= 1

Appendix D to Part II of the minutes of the UGC meeting held on 27th and 28th October, 1975 (Item No. 21).

POONA UNIVERSITY

Fifth Plan allocation approved (UGC share)

Spill-over	=	Rs. 6.95 lakhs
<u>Basic grants:</u>		
Books	=	Rs. 3.00 lakhs
Equipment	=	Rs. 5.00 lakhs
<u>New Allocations:</u>		
<u>Non-Recurring</u>		
Books	=	Rs. 7.08 lakhs
Equipment	=	Rs. 24.03 lakhs
Building	=	Rs. 15.78 lakhs
Others	=	Rs. 1.35 lakh
<u>Recurring</u>		
<u>Staff:</u>		
Professors	=	12
Readers	=	17
Lecturers	=	13
Others	=	3
Junior Research Fellowships	=	20 (Twenty) at any given time to be utilised according to the guidelines to be indicated by the Commission for the purpose.

Annexure-I

Allocation for Equipment

<u>Department</u>	<u>Amount (Rs.)</u>
Marathi	10,000
Experimental	50,000
Psychology	..
Philosophy	8,000
Journalism	20,000
Archaeology	20,000 (Exploration & Excavation)
Chemistry	5,00,000
Physics	3,00,000
Botany	2,00,000
Zoology	1,00,000
Mathematics & Statistics	50,000
Geology	2,00,000
Geography	40,000
Central Hobby-workshop & Common facilities Centre.	9,00,000
Extra Mural studies (T.A. & D.A.)	5,000
	<u>24,03,000</u>

pto.

Annexure-IIAllocation for Books

<u>Department</u>		<u>Amount (Rs.)</u>
Marathi	=	10,000
Hindi	=	30,000
English	=	30,000
Experimental		
Psychology	=	50,000
Politics & Public	=	20,000
Administration		
Philosophy	=	10,000
Law	=	23,000
History	=	10,000
Linguistics	=	10,000
Modern European	=	15,000
Languages		
Journalism	=	20,000
Sociology &		
Anthropology	=	20,000
Sanskrit and	=	15,000
Prakrit Language		
Library Science	=	5,000
Chemistry	=	30,000
Physics	=	50,000
Botany	=	35,000
Zoology	=	30,000
Mathematics &	=	1,00,000
Statistics		
Geology	=	25,000
Geography	=	30,000
Central Library	=	1,50,000
		<u>7,08,000</u>

Annexure-IIIAllocation for Building

<u>Item</u>		<u>Amount (Rs.)</u>
Extension to Humanities	=	1,25,000
building		
Extension to Arts	=	1,25,000
Faculty building		
Library Science	=	34,000
Chemistry	=	1,25,000
Physics	=	1,25,000
Botany	=	93,000 (including Rs.38,000
		for cold room).
Zoology	=	76,000 (Rs.26,000/- for
		furniture for museum

Mathematics & Statistics	=	1,00,000	
Geology	=	1,50,000	
Central Library	=	75,000	
Central & Hobby Workshop & Common Facilities	=	1,00,000	(include Rs.50,000/- for air-conditioning).
Men's Hostel	=	75,000	
Women's Hostel	=	1,00,000	
Teachers Quarters	=	2,25,000	
Extension of Guest House	=	50,000	
		<u>15,78,000</u>	

Annexure-IV

Others

Central and Hobby Workshop & Common facilities centre	=Rs. 0.70 lakh
Extra mural studies	=Rs.0.15 lakh
Visiting Professorship	= Rs.0.50 lakh

Annexure-V

Details of Staff approved

<u>Department</u>	<u>Staff</u>	<u>Remarks</u>
Marathi	1R	
Hindi	1R	
English	1P	(English language teaching)
Experimental Psychology	1R	(in Applied Psychology)
	1L	(in measurement)
Politics & Public Administration	1L	
Philosophy	1R, 1L	
Law	1R, 1L	
History	1R	(History of Western India)
	1L	
Linguistics	1R	
Western European Languages	1P	(in German)
	1R	(in Russian)
	1P	
	1R	(in Research Methodology)
	1 Tech.Asstt.	(for Anthropology).
Sanskrit & Prakrit Language	2R	

pto.

South Gujarat University

V Plan Allocation Approved (UGC share)

Spill over = 16.00 lakhs

Basic grants.

i) Books = 3,00 lakhs.

ii) Equipment = 5,00 lakhs.

New Allocation

(i) NR

Books = 7.00 lakhs

Equipment = 3.00 lakhs

Building = 5,50 lakhs

Others. = 0.90 lakhs

Total NR = Rs. 16.40 lakhs.

ii) RECURRING.

Staff.

Professor - 9

Readers -12

Lecturers -15

Research Assistants.-3

Junior Research Fellowships = 10 (Ten) at any given time
@ Rs.400/- p.m. to be operated
according to UGC Fellowship
rules.

Details are given in Annexure I to V.

Annexure I

South Gujarat University

Allocation approved for equipment.

<u>Department.</u>		<u>Amount.</u>
Workshop (including shed)	=	1.75 lakhs
Physics.	=	3.00 lakhs
Chemistry	=	3.00 lakhs
Math & Statistics.	=	0.25 lakhs
		8.00 lakhs
		Including basic grant of Rs.5 lakhs.

Annexure II.

<u>Building.</u>	<u>Amount.</u>
Staff Quarters.	
N.R.S.C. & Canteen.	Rs. 5.50 lakhs.
Health Centre.	

Annexure III.

<u>OTHERS.</u>	<u>Amount.</u>
Visiting Professorship	= Rs. 0.50 lakhs
Furniture. (Canteen)	= Rs. 0.40 lakhs.

Annexure .IV.

Details of Staff approved.

<u>S.No.</u>	<u>Department.</u>	<u>Staff.</u>	<u>Remarks.</u>
1.	<u>School of Social Change.</u>		
	(a) Public Administration	1P 1R 1L	
	(b) Economics.	1R, 1L.	
	(c) Sociology	1P, 1R, 1L	
	(d) Inter disciplinary	1P, 1 Research Assistant (Statistics)	
			The Professor should be a specialist in Research Methodology.
2.	<u>Education.</u>	1R	

Contd.../

Contd..

1	2	3	4
3. English		1R, 1L	
4. Physics.		1P, 2R, 2L	1 Reader in solid state Physics 1 Reader with Technology qualifications.
5. Chemistry		1P, 2R, 4L	Reader in Theoretical Chemistry, Physical Organic/Physical Organic Chemistry/Solid State Chemistry.
6. Maths & Statistics.	2P, 2R, 2L, 2 R.A.		1 Professor and 1 Reader each in Mathematics and Statistics.
7. Bio-Sciences.		1P, 1R, 3L.	Professor and Reader in Marine Biology/Algology/Fishery/ Morphology/Econology.
		8P, 12R, 15L, 3 Others.	

P = Professor.
R = Reader.
L = Lecturer.
R.A. = Research Assistant.

Appendix B to Part II of the minutes of the
UGC meeting held on 27th and 28th October,
1975 (Item No.22).

M.S. UNIVERSITY OF BARODA.

Fifth Plan allocation approved. (UGC share)

Spill-over = Rs. 9.19 lakh

Basic grants =

- i) Books. = Rs. 5.00 lakh
- ii) Equipment = Rs. 7.50 lakh

New allocation:

I. Non-Recurring:

- Books. = Rs. 15.00 lakh
- Equipment. = Rs. 15.50 lakhs.
- Building = Rs. 16.00 lakh
- Others. = Rs. 10.00 lakhs.

Total NR = Rs. 56.50 lakhs.

II. Staff.

- Professor - 10
- Readers. - 21
- Lecturers - 19
- Others. - 5

Junior Research Fellowships. = 25 (Twenty five) at any given time
@ Rs.400/- p.m. to be operated according
to the UGC Fellowships rules.

Details are given in Annexures I to V.

Annexure I

M.S. UNIVERSITY OF BARODA.

Allocation for Equipment.

<u>Department.</u>	<u>Amount. (Rs. in lakhs)</u>
Repair & maintenance of existing equipment	1.00
Workshop	1.00
Foreign languages	0.75
Economics.	0.10
Archaeology & Ancient History	0.40
Social Work	0.25
College & Indian Music, Dance & Dramatics.	0.35
Fine Arts.	0.50
Geography	0.20
Statistics.	0.75
Sociology	1.40
Biochemistry	0.50
Microbiology	0.50
Botany	1.00
Zoology	1.50
Geology	1.00
Chemistry	1.00
Physics.	2.00
Home Science.	0.25
Central Instrumentation	7.50
Misc.	1.05
Total:	<u>23.00</u> (including a basic grant of Rs.7.50 lakhs)

Annexure II.

Books = Rs.20.00 lakhs (including a basic grant or Rs.5.00 lakh).

Annexure III.

Buildings:

Department of Economics	}	Rs.16.00 lakhs.
Department of Foreign Languages		
Department of History		
Department of Law		
Modernisation of Play Box		
Quarters for Class IV staff.		
N.R.S.C.		
Teachers Hostel.		

Annexure IV.

Faculty Development	= Rs.2.00 lakh
Research Fund	= Rs.2.00 lakh
Visiting Professorship	= Rs.1.00 lakh
Publication	= Rs.1.00 lakh
Misc.	= Rs.4.00 lakh.

Annexure V

M.S. UNIVERSITY OF BARODA.

Details of Staff approved.

<u>Faculty</u>	<u>Post</u>	<u>Remarks.</u>
<u>Faculty of Arts.</u>		
Archaeology & Ancient History	2L, 2T**	**1Tech. Asstt. & 1 Library Asstt.
History	2R	
Sanskrit	1L	
English	2R, 1L	
French	1L	
Russian	1L	
Gujarati	1L	
Hindi	1L	
Marathi	1L	
Linguistics	1L	
Economics.	1R, 1 R.A.	Reader in Economics of Education
Political Science & Administration.	2R.A.	
Sociology.	1L	
Library Science.	1R, 1L (Dy. Librarian)	
<u>Faculty of Science:</u>		
Botany.	2P	
Zoology.	2R	
Chemistry.	1P, 2R	Theoretical Chemistry/ Physical Organic. and Solid State Chemistry.
Physics.	2R*1L	*Solid State and experimental Physics.
Geology	3R, 1L++	++ Curator-cum-Technician.
Mathematics.	1L	
Statistics.	1P, 1R	Professor in operation Research/ Econometrics, Reader Statistical Services Unit.
<u>Faculty of Education.</u>		
Psychology.	1R+	+ Clinical Psychology or Industrial Psychology.
<u>Faculty of Commerce:</u>		
Banking & Business Finance.	1P	
Accounts.	1R	
<u>Faculty of Law:</u>		
Law	1R, 1L.	

Contd.. 2/-

Faculty of Fine Arts:

Applied Arts.	2L	1 (Attendant in Graphic art)
Museology.	1P	

Faculty of Home Science:

Foods & Nutrition.	1P	
Home Science Education & Extension.	1L	(Supervisor)

College of Indian Music, Dance & Dramatics.

Music (Vocal)	1P	
Instrumental Music.	1R, 1L	Reader in table.
Dance.	1P	
Dramatics.	1P	Lecturer in Sitar.

Oriental Institute.

All temporary staff
on Ramayana Project.

Professor = P
Reader = R
Lecturer = L
Research Assistant = R.A..

Appendix C to Part II of the minutes of the UGC meeting held on 27th and 28th October, 1975 (Item No.22).

SARDAR PATEL UNIVERSITY.

Fifth Plan allocation approved (UGC share)

Spill over = Rs. 1.72 lakhs

Basic grants:

Books = Rs. 3.00 lakh

Equipment = Rs. 5.00 lakh

New allocations:

N.R. Books = Rs. 7.00 lakh
Equipment = Rs. 14.65 lakhs
Buildings = Rs. 12.00 lakhs
Others = Rs. 1.00 lakh

Total NR = Rs. 34.65 lakhs.

R. Staff:

Professors - 6
Readers - 18
Lecturers - 19
Others. - 7

Junior Research Fellowships = 15 (Fifteen) at any given time,
@ Rs.400/- p.m. to be operated
according to the UGC fellowship rules.

Annexure I.

Allocation approved for equipment

<u>Department.</u>	<u>Amount (Rs. in lakh)</u>
Physics & Chemistry	= 10.5
Instrumentation Workshop	= 1.5
Life Sciences	= 5.5*
Mathematics & Statistics.	= 1.0
Humanities & Social Sciences	= 1.0
Teacher Education.	= 0.15

19.65 (including a basic grant of
Rs.5.00 lakh).

*Includes needs of Garden and Animal House.

Annexure II

Sardar Patel University

Books -- Rs. 10.00 lakhs
(including basic grant of
Rs.3 lakh).

Annexure III.

Buildings.

- | | | |
|--|---|-----------------|
| 1. Building for deptts. of
Humanities and Social Sciences. | } | Rs.12.00 lakhs. |
| 2. Additional floor for Botany. | | |
| 3. Animal House. | | |
| 4. Building for the deptts. of Maths.,
Statistics, Home Sciences. | | |
| 5. Building for Instrumentation
workshop. | | |

Annexure IV

Others.

Visiting professorships.	0.50 lakhs
General Schemes.	0.50 lakhs.

SARDAR PATEL UNIVERSITYAnnexure VDetails of Staff approved.

<u>Department.</u>		<u>Posts.</u>	<u>Remarks.</u>
Physics.	=	2P,2R,1L,1T.	2 Professors and 1 Reader in the field of solid state theory, Solid State Electronics 1 Reader in X-ray Crystallography/Spectroscopy.
Chemistry.	=	1P,3R,2L,1T.	1 Professor in Petro-Chemicals/Polymer Technology, 1 Reader in Physical Organic Chemistry/x-Ray crystallography, 1 Reader in Industrial Chemistry and 1 Reader in Theoretical Chemistry.
Mathematics and Statistics.		1P,2R,1L,1 Research Assistant.	1 Professor and 1 Reader in Statistics, 1 Reader in Mathematics.
Life Sciences.	=	3R,4L,2T /Biology	1 Reader each in Cell/Bio-chemistry and Plant Physiology.
Economics.	=	1P,1R,2L,1R.A.	
Sociology	=	1P,1R,1L,1R.A.	
Commerce.	=	1P,2R,2L	
Hindi.	=	1R	
English	=	1P, 1L	One Professor in Literature.
Gujarati	=	1P,1L	
Sanskrit.	=	1L	
History	=	1L	
Political Science.	=	1L	
Home Science.	=	1R,1L	1 Reader in Food & Nutrition.
Education	=	2R,1L	

9P,18R,19L,7 others.

P = Professor.
R = Reader
L = Lecturer.
R.A. = Research Assistant.
T = Technicians.

Appendix D to Part II of the minutes of the
UGC meeting held on 27th and 28th October,
1975 (Item No.22).

GUJARAT UNIVERSITY:

Fifth Plan allocation approved (UGC share)

Spill-over = 16.60 lakhs

Basic grants

Books = 3.00 lakh

Equipment = 5.00 lakh

New allocations:

N.R.	Books	=	7.00 lakh
	Equipment	=	15.00 lakh
	Buildings	=	9.20 lakh
	Others	=	12.50 lakh
			Total NR=Rs. 43.70 lakhs

R Staff:

Professors - 6

Readers - 19

Lecturers - 15

Others - 7

Junior Research Fellowships 25 (Twenty five) at any given time.

@ Rs.400/- p.m. to be operated according to the UGC Fellowships rules.

Details are given in Annexures I to V.

GUJARAT UNIVERSITY

Annexure .I

Allocation approved for Equipment

<u>Department</u>	<u>Amount (Rs. in lakh)</u>
Economics.	0.30
Other depts. in Humanities & Social Sciences.	0.20
Botany.	1.00
Zoology.	1.50
Mathematics & Statistics.	0.50
Physics*	3.00
Chemistry	2.00
Workshop.	1.00
Major Equipment/ Central Instrumentation Facility.	
(a) Life Sciences.	3.00
(b) Physical Sciences.	7.50
	<hr/>
	20.00
	<hr/>
	(including basic grant of Rs. 5 lakhs).

P.T.O.

Annexure.II

GUJARAT UNIVERSITY

Books = Rs.10 lakhs (including basic grant of Rs.3 lakhs)

Buildings: Annexure III

Item. Amount (Rs. in lakh)

Physics Department = Rs. 1.50

(including Field Station for ionospheric work).

Mathematics/Statistics. = Rs. ~~1.50~~

Students Centre & Canteen. = Rs. ~~2.00~~

Non-teaching staff qrs. = Rs. 1.20

Extension of Library. = Rs. 1.00

Extension of Laboratory space. = Rs. 1.00

Rs. 9.20

Annexure IV

Others: Amount (Rs. in lakh)

Faculty Improvement. = Rs. 1.00

Research by individual teachers = Rs. 1.00

Youth programmes. = Rs. 0.50

Reorganisation of P.G. Education in colleges. = Rs. 10.00 lakhs.

P.T.O.

Annexure VDetails of Staff approved

<u>Department.</u>	<u>Post</u>	<u>Specialisation</u>
<u>School of Sciences.</u>		
Chemistry.	1R*	*Theoretical Chemistry/ Physical inorganic chemistry solid state chemistry.
Physics (including space Science)	1P**, 1R, 2T.A.*	** Ionosphere, *Theoretical Solid State Physics
Botany.	1R@, 1L++	@ Microbiology. ++ Ecology.
Zoology.	2R@@	@@Reproductive Physiology, cytogenetics.
Mathematics.	1R, 1L	
Statistics,	2R ^o , 1Stat. Asstt.	o Applied Statistics, Operations research.
<u>School of Social Sciences:</u>		
Economics.	2R*, 1L	*Econometrics/Quantitative Methods.
Sociology.	1P*, 1R	* Research Methodology.
Political Science.	1P, 1R.A.	Regional Politics.
Labour Welfare.	1R, 1L	
History.	1P, 1R, 1L	
<u>School of Psychology, Philosophy & Education:</u>		
Psychology.	1R	
Philosophy.	1R	
<u>School of Languages.</u>		
Gujarati	1R, 2L	
Linguistics.	1L	
English	*R, 2L	
Hindi	1R, 2L	
Sanskrit	1P, 1L	
Language Laboratory for English and Foreign Languages.	1R, 1L, 3 Asstts.	
Centre for Management & Professional Training	1R	
Tamil	1L	

P = Professor
R = Reader
L = Lecturer
T.A. = Technical Assistant.

Appendix - I to Part II of the minutes
of the UGC meeting held on 27th & 28th
October, 1975 (Item No. 23).

Magadh University

Allocation approved during the V Plan period
(All figures are in lakhs of rupees)

...

A.	Spill over	9.96
B.	Basic Grants	
	a) Books	3.00
	b) Equipment	5.00

C. New Allocation

Non-recurring

1.	Books	10.35
2.	Equipment	7.95
3.	Buildings	19.41
4.	Other schemes.	6.42

62.09

D. Recurring:

1. Staff - 13 Professors, 18 Readers, 3 Lecturers and 9 other staff.
2. Junior Fellowship: 20 Junior Fellowships of the value of Rs.400/- p.m. at any given time to be operated in accordance with the UGC guidelines.

Details are given in the Annexures I to IV.

.....

Annexure-I

MAGADH UNIVERSITY

Financial implications of non-recurring items
(all figures are in lakhs of rupees).

.....

.....
S.No. Name of the Department Books & Journals 100% Equipment 100%
.....

A. Faculty of Science

1.	Physics	0.50	1.50
2.	Chemistry	0.50	2.00
3.	Botany	0.50	1.00
4.	Zeclogy	0.50	1.00
5.	Mathematics	0.25	-
		<hr/>	<hr/>
		2.25	5.50

B. Faculty of Humanities & Social Sciences

1.	Geography	0.25	0.50
2.	English	0.37	0.13
3.	Urdu	0.10	0.05
4.	Hindi	0.30	-
5.	Sanskrit	0.15	-
6.	Philosophy	0.25	-
7.	Psychology	0.38	0.38
8.	Economics	0.25	0.08
9.	History	0.25	-
10.	Ancient Indian and Asian Studies	0.50	-
11.	Political Science	0.30	0.09
12.	Applied Economics & Commerce	0.50	0.25
		<hr/>	<hr/>
		3.60	1.48

C. Others

1.	Central Workshop	-	0.37
2.	Central Library	4.50	0.10
3.	Data Processing and Documentation Centre.	-	0.50
		<hr/>	<hr/>

Annexure-II

Magadh University

Details of allocation approved for Building and furniture during the V Plan period (figures are in lakhs of rupees).

....

<u>Department</u>	<u>UGC Share</u>	<u>State/University Share</u>
1. Urdu	0.50	0.50
2. Hindi	0.50	0.50
3. Philosophy	0.05	0.05
4. Psychology	0.75	0.75
5. History	0.06	0.06
6. Political Science	0.05	0.05
7. Central Library	5.00	5.00
8. Mens' Hostel (150 persons)	6.75	6.75
9. Women's Hostel (50 inmates)	3.75	1.25
10. Canteen Building	2.00	1.00
	<hr/>	<hr/>
Total:	19.41	15.91
	<hr/>	<hr/>

.....

Annexure III

Magadh University

Allocation approved for Misc. schemes
(figures are in lakhs of rupees).

.....

<u>Scheme</u>	<u>UGC Share</u>	<u>State/University Share</u>
1. Equipment for Health Centre	0.37	0.13
2. Seed money for preparing detailed plan for establishing centre for development studies.	0.25	-
3. Museum for Ancient History Department.	0.30	-
4. Botanical Garden	0.25	-
5. Herbarium	0.10	-
6. Inoculation Chamber	0.20	-
7. Dark room and Temperature control room (Zoology Department).	0.20	-
8. Zoology Museum	0.75	-
9. Publication of research work and theses.	2.00	-
10. Faculty Improvement Programmes	2.00	-
	<hr/>	<hr/>
	6.42	0.13
	<hr/>	<hr/>

.....

Annexure IV

Magadh University

Staff approved during the V Plan period.

<u>Department</u>	<u>Staff</u>	<u>Specialisation</u>
1. Physics	1R 1L	Nuclear Physics/Electronics
2. Chemistry	1P 1R 10 th er	Inorganic Chemistry Organic/Analytical Chemistry Micro analyst
3. Botany	2R	Plant Physiology/Bio- Chemistry/Phycology.
4. Zoology	2R	Open
5. Mathematics	1P 1R	Operational Research/ Statistics/Computer analysis Bio-Mathematics/Computer Science
6. English	1R	Open
7. Urdu	1P 1L	Open Open
8. Hindi	1P 1R 1L	Literary Criticism Specialisation may be intimated by the University to the UGC before filling up the post.
9. Sanskrit	1P	-
10. Philosophy	1R	Indian Philosophy
11. Psychology	1P 1R	Educational Psychology Social Psychology
12. Economics	1P 1R	Quantitative Economics Regional Economics/Planning
13. History	1P 1R	Medieval History Historiography/Modern History
14. Ancient History and Asian Studies.	2P 2R	1. Archeology 2. South East Asian History 1. Social & Economics History of Ancient India 2. Tibetan Studies.
15. Political Science	1P 1R	Normative Political Theory Public Administration/ International relation
16. Applied Economics & Commerce	2P 2R	1. Applied Economics 2. Cost Accountancy/Business Management Open

17. Central Workshop	30	ther 1. Workshop Supted. 2. Senior Technician 3. Junior Technician
18. Data Processing Centre	10	ther Chief Programmer
19. Central Library	20	ther 1. Professional Assistant 2. Cataloguer
20. Development officer	1	
21. Dean of Students Welfare	1	

13P, 18R, 3L and 9 others.

.....

Appendix - II to part II of the minutes of the UGC Meeting held on 27th and 28th October, 1975 (Item No. 23).

Patna University

Allocation approved during the V Plan period
(All figures are in lakhs of rupees).

.....

A. Spill over 14.86

B. Basic grants

a) Books 5.00

b) Equipment 7.50

C. New Allocation:

Non-Recurring

1. Books 12.80

2. Equipment 11.33

3. Building and furniture. 25.125

4. Other schemes. . . . 17.66

94.275

D. Recurring

1. Staff = 10 Professors, 29 Readers, 10 Lecturers and 1 Instrumentation Engineer.

2. 25 Junior Fellowships of the value of Rs.400/-p.m. at any given time to be operated according to the guidelines laid down by the University Grants Commission.

Details are given in Annexures I to IV.

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Annexure-I

Patna University

Amount approved for Books and Equipments Department wise details

<u>S.No.</u>	<u>Departments</u>	<u>Books & Journals 100%</u>	<u>Equipments 100%</u>
<u>1.</u>	<u>2.</u>	<u>3.</u>	<u>4.</u>
<u>A. Humanities & Social Sciences</u>			
1.	English	0.250	0.10
2.	Bengali	0.075	0.05
3.	Hindi	0.250	-
4.	Urdu	0.120	0.05
5.	Maithili	0.075	0.05
6.	Arabic	0.075	0.05
7.	Persian	0.075	0.05
8.	Sanskrit	0.120	-
9.	Economics	0.250	0.15
10.	History	0.250	0.20
11.	A.I.H. & Archeology	0.150	-
12.	Sociology	0.250	-
13.	Philosophy	0.150	-
14.	Labour & Social Welfare	0.150	-
15.	Political Science	0.200	-
16.	Applied Economics & Commerce	0.250	-
17.	Psychology	0.200	-
18.	Law	0.380	-
19.	Education	0.250	-
		3.520	0.70
<u>B. Science</u>			
1.	Physics	0.750	1.500
2.	Chemistry	0.500	1.750
3.	Geology	0.500	2.000
4.	Mathematics	0.380	-
5.	Statistics	0.380	0.380
6.	Sociology	0.500	1.250
7.	Botany	0.650	1.250
8.	Geography	0.500	1.120
		4.160	9.250

	1.	2.	3.	4.
C. <u>New Departments</u>				
1. Home Science			0.120	0.250
2. Central Instrumentation Laboratory			-	0.130
3. Data Processing Centre			-	0.500
			<hr/>	<hr/>
			0.120	0.880
			<hr/>	<hr/>
D. <u>Others</u>				
1. Central Workshop			-	0.500
2. Central Library			5.000	-
			<hr/>	<hr/>
Grand Total:			12.80	11.330
			<hr/>	<hr/>

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Annexure II

PATNA UNIVERSITY

Allocation approved for building and furniture during the V Plan (figures are in lakhs of rupees).

....

S.No.	Department	UGC Share	State/University Share
1.	English	0.025	0.025
2.	Bengali	0.025	0.025
3.	Hindi	0.025	0.025
4.	Urdu	0.050	0.050
5.	Maithili	0.025	0.025
6.	Arabic	0.025	0.025
7.	Economics	0.025	0.025
8.	Applied Economics & Commerce	0.060	0.060
9.	Psychology	0.025	0.025
10.	Law	0.500	0.500
11.	Physics	1.500	1.500
12.	Chemistry	0.250	0.250
13.	Home Science	0.750	0.750
14.	Data Processing Centre	0.500	0.500
15.	Language Block	1.500	1.500
16.	Social Science Block	1.250	1.250
17.	Commerce Block	1.000	1.000
18.	Men's Hostel (two) each for 100 students.	9.00	9.00
19.	Additional kitchen and Toilet Blocks in existing Hostels.	1.00	1.00
20.	Two canteen buildings	3.340	1.660
21.	New Health Centre building	1.50	0.50
22.	Guest House	1.500	1.500
23.	University Press	1.250	1.250
		<u>25.125</u>	<u>22.445</u>

.....

Annexure-III

Patna University

Allocation made for other/Misc. schemes during
the V Plan period (all figures are in lakhs of rupees).

.....

<u>Purpose</u>	<u>Amount</u> <u>UGC Share</u>	<u>State/University</u> <u>Share</u>
1. Seminar and workshop for English Department.	0.25	-
2. Jeep for Ancient History Department.	0.40	-
3. Jeep for Field Work for Sociology Department.	0.40	-
4. Field Work for Economics Department.	0.20	-
5. Field Work for Labour and Social Welfare Department.	0.15	-
6. Test materials Field work for Psychology Department.	0.12	-
7. Jeep and Field work for Geology Department.	0.50	-
8. Animal House, Field Work and Vehicle for Zoology Department.	2.10	-
9. Botanical Garden, Field Work and mobile laboratory for Botany Department.	1.10	-
10. Field Survey and Maps for Geography Department.	0.75	-
11. Seed money for formulating proposal for centre for development studies.	0.25	-
12. Publication of Research Work	2.00	-
13. Faculty Improvement Programme.	5.00	-
14. Equipment Health Centre.	1.88	0.62
15. Ambulance Van	0.56	0.19
16. Visiting Professorship	2.00	-
	<hr/> 17.66	<hr/> 0.81

Annexure IV

Patna University

Staff approved during the V Plan period.

<u>Department</u>	<u>Staff</u>	<u>Field of specialisation</u>
1. English	2R 2L	1. Comparative Literature 2. English Linguistics 1. German 2. Russian
2. Hindi	2R	Open
3. Urdu	1R	-
4. Persian	1L	-
5. Sanskrit	1L	-
6. Economics	1R	Quantitative Economics
7. History	1R	South Indian History
8. Ancient Indian History	1P 1R 1L	Open Numismatics Epigraphy
9. Sociology	1P 1R	Social Anthropology Specialisation may be indicated by the University before filling up the post.
10. Philosophy	1P 1L	Ethics Open
11. Psychology	1P 1R	Organisation Psychology Open
12. Labour & Social Welfare	1R 1L	
13. Political Science	1R 1L	International relations Open
14. Applied Economics and Commerce	2R 1R	Open "
15. Law	1R	
16. Education	1P 1R	Educational Psychology Open
17. Physics	2R	
18. Chemistry	2R	1. Analytical Chemistry 2. Pharmacy
19. Geology	1P 1R	Petrology Geomorphology and Quaternary Geology and Sedimentology.
20. Mathematics	1R	Algebraic Topology/Topology Functional analysis/Modern Algebra.

21. Statistics	1P 1R	Operational Research Open
22. Zoology	1P 1R 1L	Comparative endocrinology Entomology & Animal Ecology Embryology & Animal behavior
23. Botany	2P 2R	1. Mycology & Plant Pathology 2. Cytogenetics Molecular Genetics/Ext. Taxonomy. 1. Exp. Phycology/Cytogenetics 2. Plant Biochemistry
24. Geography	2R	1. Quantitative Geography 2. Population Geography
25. Home Science	1R 1L	Open -
26. Central Instrumentation Laboratory.	1	Instrumentation Engineer in Reader grade.

10P, 29R, 10L & 1 Other

.....

Appendix III to Part II of the minutes
of the UGC meeting held on 27th & 28th
October, 1975 (Item No. 23).

Bihar University

Allocation approved during the V Plan period
(All figures are in lakhs of rupees)

.....

A.	Spill over	19.60
B.	Basic grant	
	a) Books	3.00
	b) Equipment	5.00
C.	<u>New Allocation</u>	
	1. Books & Journals	11.19
	2. Equipment	7.92
	3. Building	5.29
	4. Other schemes	12.14
		<hr/>
		64.14
		<hr/>

D. Recurring:

1. Staff - 4 Professors, 23 Readers, 7 Lecturers and 9 others.
2. Fellowships - 20 Junior Fellowships of the value of Rs.400/- p.m. at any given time to be operated in accordance with the U.G.C. guidelines.

Details are given in the Annexures I to IV.

.....

Annexure I

BIHAR UNIVERSITY

S.No.	Name of the Department	Books & Journals	Equipment
1.	Physics	.75	1.50
2.	Chemistry	1.00	1.75
3.	Mathematics	.37	.13
4.	Botany	.50	.62
5.	Zoology	.37	.75
6.	Geography	.37	.87
7.	English & Foreign Languages	.25	
8.	Hindi	.15 (Russian) .25	0.25 (For Russian teaching)
9.	Sanskrit	.25	.10
10.	Bengali	.15	-
11.	Urdu & Persian	.15	-
12.	Philosophy	.25	-
12A.	History	.25	-
13.	Economics	.38	.10
14.	Political Science	.25	-
15.	Psychology	.25	.40
16.	Commerce	.25	.10
17.	Central Workshop	-	.50
18.	Data Processing Centre	-	.50
19.	Central Library	5.00	.10
20.	Language Laboratory	-	.25
	Total	<u>11.19</u>	<u>7.92</u>

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Annexure II
BIHAR UNIVERSITY

Allocation for Building & Furniture approved
during the V Plan Period (All figures are
in lakhs of rupees).

.....

	<u>Department</u>	<u>U.G.C. Share</u>	<u>University/State Share</u>
1.	Botany	0.25	0.25
2.	Department of English (for teaching Russian language)	0.50	0.50
3.	Psychology	0.50	0.50
4.	Language Block including Language Laboratory.	2.50	2.50
5.	University Press	0.20	0.20
6.	Canteen Building	1.34	0.66
	Total	5.29	4.61

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Annexure-III

BIHAR UNIVERSITY

Allocation approved for Other/Misc. Schemes
during the V Plan period (All figures are in
lakhs of rupees)

.....

<u>Scheme</u>	<u>UGC Share</u>	<u>State Share</u>
1. Visiting Professorship	2.00	-
2. Physics Department (Computation facilities)	0.30	-
3. Botany Department (for Botanical Garden, Museum, Mobile Laboratory, Field Work & Ecological Studies)	2.30	-
4. Zoology Department (Animal House & Fish Pond)	1.00	-
5. Geography Department (Field Trips & Jeep)	0.70	-
6. Sanskrit Department (Field work)	0.10	-
7. Philosophy Department (Field Trips & Publications)	0.30	-
8. History Department (Microfilm lib. & air conditioning)	0.38	0.38
9. Publication of theses/ research work.	2.00	-
10. Faculty Improvement	2.00	-
11. Equipment for health centre	0.50	0.17
12. Ambulance Van for Health Centre	0.56	0.19
	<hr/>	
	12.14	
	<hr/>	

Annexure-IV

Bihar University

Staff approved during the V Plan period.

<u>Department</u>	<u>Staff</u>	<u>Specialisation</u>
1. Physics	2R	
2. Chemistry	2R	1 Biochemistry 2 Analytical Chemistry.
3. Mathematics	1P 2R	Pure Mathematics 1. Statistics 2. Open
4. Botany	2R 10 others	1. Plant Ecology 2. Algalogy/Experimentation Phycology. Culture Technician.
5. Zoology	1R	Embryology/Ecology/Cytogenetics/ Endocrinology.
6. Geography	1P 2R	Land Utilisation 1. Urban Geog. 2. Agricultural Geog.
7. English & Foreign Language.	2R 1L	1. Ph.D. in English with Diploma in Teaching of English. 2. M.A. in English with Ph.D. in Linguistics. Russian Language.
8. Hindi	2R 2L	Open --
9. Sanskrit	1P 1R	Linguistics and Sanskrit grammar Linguistics with adequate qualification in Sanskrit.
10. Urdu & Persian	1P 1R	Urdu Literature especially Prose. Modern Persian Literature & Language
11. Philosophy	1R	Existentialism/Pure logic.
12. History	1R 1L	Russian History/Economic History Open
13. Economics	2R	1. Econometrics/Mathematical Econ. 2. Regional Economics.
14. Political Science	1R 1L	International relations Open
15. Psychology	1R	-
16. Commerce	2L	
17. Data Processing Centre	20 others	1. Chief Programmer 2. Asstt. Programmer.
18. Centre Library	30 others	1. Librarian. 2. Asstt. Librarian. 3. Senior Professional Asst.
19. Development Officer	1	-
20. Central Workshop	20 others	1. Work Supdt. 2. Senior Tech.

Appendix IV to Part II of the minutes
of the UGC meeting held on 27th 7 28th
October, 1975 (Item No. 23).

Bhagalpur University

Allocation approved during the V Plan period
(All figures are in lakhs of rupees)

.....

A. Spill over	19.09
B. Basic grant	
a) Books.	3.00
b) Equipment	5.00

C. New allocation

Non-Recurring.

1. Books & Journals.	9.38
2. Equipment	7.43
3. Buildings	7.59
4. Other schemes	15.95

67.44

D. Recurring:

1. Staff - 10 Professors, 18 Readers, 10 Lecturers and 8 others.
2. Fellowships : 20 Junior Research Fellowships of the value of Rs.400/- p.m. at any given time to be operated according to the guidelines laid down by the U.G.C.

Details are given in Annexure I to IV.

.....

Annexure-I
BHAGALPUR UNIVERSITY

Allocation during V Plan period

S.No.	Name of the Department	Books & Journals	Equipment
1.	Physcis	.50	1.00
2.	Chemistry	.75	1.00
3.	Mathematics	.38	.60
4.	Statistics	.25	.80
5.	Zoolbgy	.50	1.00
6.	Botary	.50	.50
7.	Geography	.30	.40
8.	English	.25	.20
9.	Hindi	.25	.10
10.	Sanskrit	.15	-
11.	History	.25	-
12.	Political Science	.25	-
13.	Psychology	.25	.38
14.	Philosophy	.20	-
15.	Sociology	.25	-
16.	Labour & Social Welfare	.20	-
17.	Economics	.25	-
18.	Rural Economics & Coop.	.20	-
19.	Commerce	.25	.25
20.	Home Science	.25	.20
21.	Central ^{workshop} and Instrumentation Lab.	-	.50
22.	Res. Service Centre.	-	.50
23.	Central Library	3.00	-
24.	Study Centre	.20	-
	Total	9.38	7.43

Annexure II

BHAGALPUR UNIVERSITY

Allocation approved for buildings and furniture during
the V Plan period (all figures are in lakhs of rupees).

.....

	<u>Department/Item</u>	<u>UGC Share</u>	<u>State/University Share</u>
1.	Political Science	0.05	0.05
2.	Home Science	0.75	0.75
3.	Two Canteens	1.34	0.66
4.	N.R.S.C.	0.35	0.35
5.	Guest House	1.50	1.50
6.	Study Centre	0.10	-
7.	Language Block	1.00	1.00
8.	Commerce Block	2.50	2.50
		<hr/>	<hr/>
		7.59	6.81
		<hr/>	

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Bhagalpur University

Allocation approved for other/Misc. schemes during the V Plan period (all figures are in lakhs of rupees).

....

	<u>Department/Item</u>	<u>UGC Share</u>	<u>State/University Share</u>
1.	Equipment for Health Centre	1.00	0.34
2.	Equipment for Printing Press.	1.25	1.25
3.	<u>Zoology Department</u>		
	1. Insulation of Cultur Room.	0.10	
	2. Animal House	0.50	
	3. Museum	0.20	
	4. Fish Pond	0.30	
	5. Faunistic Survey	0.50	
		<hr/>	
		1.60	
4.	<u>Botany Department</u>		
	1. Garden Bot.	0.30	
	2. Palaco / Laboratory Equipment.	0.25	
	3. Glass House	0.50	
	4. Herbarium	0.20	
4 76	5. Insulation and Air conditioning / culture room.	0.25	
	6. Museum	0.25	
	7. Field collections.	0.05	
		<hr/>	
		1.80	
5.	<u>English Department</u> of (for reorientation / courses)	0.25	
6.	<u>History Department</u> (for Museum and Excavation work)	0.60	
7.	<u>Sociology Department</u> (for Field work)	0.10	
8.	<u>Labour & Social Welfare Department</u> (Field Work).	0.10	
9.	Publication of Research Work.	2.00	
10.	Faculty Improvement	5.00	
11.	Visiting Professorship	2.00	
12.	Seed money for formulating a detailed proposal for establishment of centre for regional studies.	0.25	

Annexure IV

BHAGALPUR UNIVERSITY

Staff approved during the V Plan period.

	<u>Department</u>	<u>Staff</u>	<u>Field of Specialiation</u>
1.	Physics	1P 1R	Nuclear Physics Open
2.	Chemistry	2R 2L	1. Analytical Chemistry 2. Organic Chemistry 1. Biochemistry 2. Physical Chemistry
3.	Mathematics	1P 1L	Pure Mathematics Applied Mathematics
4.	Statistics	1P 1R	Open --
5.	Zoology	2R 1L 20thers	1. Corporative Endocrinology 2. Cytogenetics/Systematics Animal behaviour /Embryology/ Applied Entomology Lab. Tech. for Drosophila and Cytogenetic Lab.
6.	Potary	2R 1L	1. Cytogenetics/Systematics Bot./ Taxonomy 2. Palae Botary. Algology/Embryology/Angiospern Morphology.
7.	Geography	1P 1R	Anthropogeography/Land use/Population Geography Geomorphology
8.	English	1P 1L	Linguistics & English Language teaching Indian writing in English
9.	Hindi	1R	Open
10.	Sanskrit	1P 1L	- -
11.	History	1R	Ancient Indian History
12.	Political Science	1P 1R	Open -
13.	Psychology	1P 1R	- -
14.	Philosophy	1R	-
15.	Sociology	1P	-
16.	Labour & Social Welfare	1P	- -
17.	Economics	2R	-

- | | | | |
|-----|--|----------|--|
| 18. | Rural Economics & Cooperation. | 10 ther | Statistical Assistant |
| 19. | Commerce | 1R
1L | Open
- |
| 20. | Home Science | 1R
2L | -
- |
| 21. | Central Workshop & Mechanical Laboratory | 20 thers | 1. Laboratory Incharge
2. Senior Technician |
| 22. | Central Library | 20 thers | 1. Deputy Librarian
2. Professional Assistant Junio |
| 23. | Development Officer | 1 | |

10P, 18R, 10L and
80 thers

Appendix to UGC minutes meeting
dated 27th & 28th October, 1975 (Item No. 31)

Centre for Post Graduate Studies of J.N.U. at Imphal

(Approved allocation for the 5th plan period)

(a) Non-recurring:

Books *	Rs. 5.00 lakhs
Equipment*	Rs. 15.55 lakhs
Buildings@	Rs. 4.50 lakhs
Misc.@	Rs. 1.60 lakhs
	<hr/>
	Rs. 26.55 lakhs

(b) Recurring:

(i) Faculty and other staff:

1 Professor, 17 Associate Professors, 10 Assistant Professors,
10 Technical Staff, 1 Deputy Librarian and 1 Professional
Assistant — (Annexure-3)

(ii) Running expenses for the Physics and Chemistry Division
on 50:50 sharing basis, subject to a maximum of Rs. 10,000/-
p.a. for Physics and Rs. 15,000/- p.a for Chemistry, as the
U.G.C share.

* Annexure (1)

@ Annexure (2)

Annexure-1

Books/Journals and Equipment

(A) Non-Recurring: (figures indicate U.G.C. share only)

<u>S.No.</u>	<u>Books</u> (Rupees in lakhs)	<u>Equipment</u>
1. English	0.30	0.50
2. Manipuri	0.15	0.10
3. Hindi	0.15	
4. Economics	0.30	0.10
5. History	0.30	0.50
6. Political Science	0.30	
7. Applied Biology	1.00	6.00
8. Mathematics	0.50	0.10
9. Chemistry	0.50	3.00
10. Physics	0.50	3.50
11. Gas plant	--	1.00
12. Work shop	--	0.75
13. Central Library	1.00	--
	<hr/> 5.00 *	<hr/> 15.55*

* Basic grant of Rs. 2.50 lakhs already sanctioned to be adjusted against this.

** Basic grant of Rs. 2.00 lakhs already sanctioned to be adjusted against this.

Annexure-2

"Miscellaneous"
(U.G.C. share only)

1. Buildings	Rs. 4.50 lakhs
2. Furniture	Rs. 0.10 lakhs
3. Exchange of Teachers	Rs. 1.00 lakh
4. Publications	Rs. 0.25 lakhs
5. Field Work	Rs. 0.25 lakhs
	<hr/> Rs. 6.10 lakhs

Details of Faculty recommended(B) Recurring
(i) Staff and Others

S.No.	UGC Share —	Professor (100%)	Asso. Prof. (100%)	Asstt. Prof. (75%)	Other (100%)
<u>(a) Total needs:</u>					
1.	English	1	2	3	-
2.	Manipuri	-	1	-	-
3.	Hindi	-	1	1	-
4.	Burmese	-	1	-	-
5.	Economics	1	2	2	-
6.	History	1	3	2	2
7.	Pol. Science	1	2	4	-
8.	Applied Biology	2	6	4	2
9.	Mathematics	1	2	3	-
10.	Chemistry	1	3	4	2
11.	Physics	1	2	3	2
12.	Workshop	-	-	-	2
Total:		9	25	26	10
<u>(b) Already available positions:</u>					
		(8)	(8)	(16)	(-)
<u>(c) Additional Staff recommended:</u>					
		1	17	10	10

Specialisation of Faculty is given in Annexure(4);
Details of Technical Staff is given in Annexure (5).

Note :- Payments will be made on the basis of actual expenditure p.a. on the agreed sharing basis only in respect of posts above filled from the date of appointment upto the end of 1978-79. Wherever specialisation have been indicated against posts above, no change can be made without prior approval of the Commission.

Annexure-4

<u>S.No.</u>	<u>Division</u>	<u>Specialisation of Faculty</u>
1.	English	1 Professor in Literature & Language Studies 2 Associate (One in Literature, one in Linguistics, Professors Phonetics and English language). 3 Assistant (at least one be specialist in Professors Linguistics, Phonetics and English language).
2.	Economics	1 Professor (in Econometrics) 2 Associate (one in Econometrics and one in Professors Development Economics) 2 Assistant (one in Monetary Theory and one in Professors Economic Policy).
3.	History	1 Professor (Ancient Indian History & Archaeology) 3 Associate (one each in (i) Regional History Professors (ii) Modern Indian History and (iii) Medieval History). 2 Assistant (one in Medieval History and one in Professors Social Anthropology).
4.	Mathematics	1 Professor 2 Associate (one shall be in Statistics) Professors 3 Assistant Professors
5.	Political Science	1 Professor (Political Theory) 2 Associate (One in International Politics) Professors
6.	Manipuri Language and Literature.	1 Associate (Manipuri culture - including dance and Music forms of the region). Professor
7.	Applied Biology	2 Professors 6 Associate Professors 4 Assistant Professors
8.	<u>New Courses</u>	
	(i) Hindi	1 Associate Professor 1 Assistant Professor
	(ii) Burnese	1 Associate Professor
	(iii) Chemistry	1 Professor (Chemistry of Natural Products) *3 Associate Professors 4 Assistant (one each in (i) Inorganic Chemistry, Professors (ii) Physical (iii) Organic and (iv) Bio-Chemistry)
	(iv) Physics	1 Professor 2 Associate Professors 3 Assistant Professors

*(one each in Physical Chemistry, (ii) Organic Chemistry and (iii) Inorganic Chemistry).

Technical Staff

- | | | | |
|----|--------------------|---|------------------------------|
| 1. | History | - | 1 Photographer, 1 Draftsman |
| 2. | Applied
Biology | - | 2 Technical Assistants |
| 3. | Chemistry | - | 2 Technical Assistants |
| 4. | Physics | - | 2 Technical Assistants |
| 5. | Workshop | - | 1 Technician, 1 Glass blower |

Appendix to Part II of the minutes
of the UGC meeting held on 27th-28th
October, 1975 (Item No.32)

Aligarh Muslim University

Approved allocation Fifth Plan period

(a) Ist Charge:

Spill over	Rs. 38.42 lakhs
Basic grants	Rs. 12.50 lakhs
Schemes already approved	Rs. 14.76 lakhs
<u>Total: Rs. 65.68 lakhs</u>	

(b) New Allocations:

Books	Rs. 7.95 lakhs *
Equipment	Rs. 19.64 lakhs **
Building	Rs. 22.50 lakhs ***
Miscellaneous	Rs. 11.30 lakhs ****
<u>Total: Rs. 61.39 lakhs</u>	

(c) Recurring:

(i) Faculty and other staff (Annexure-5)

University } Professors - 16; Readers - 30;
Departments } Lecturers - 6 and Others - 13.

Women's College - Readers - 10 @* (Annexure-4)

(ii) 40 Junior Research Fellowships:

10 fellowships be reserved for candidates belonging to scheduled castes and scheduled tribes.

10 fellowships be reserved for candidates belonging to the backward and weaker sections of society and students from States such as Manipur, Nagaland and other backward and under-developed States of the country.

2 fellowships be reserved for non-muslims for pursuing research in Islamic Philosophy.

2 fellowships be reserved for muslims for pursuing research in Sanskrit.

16 fellowships be awarded on an all India basis for pursuing research in other disciplines ensuring that at least 50% of fellowships are awarded to candidates belonging to States other than U.P.

* (Annexure-1); ** (Annexure-1); *** (Annexure-2);
**** (Annexure-3).

@ Women's College - (Annexure-4).

Aligarh Muslim UniversityAllocation approved - Fifth Five Year Plan period(A) Non-Recurring:

S.N.	Department	Books	Equipment
		(Rupees in lakhs)	
1.	Arabic	0.10	0.04
2.	English	0.15	-
3.	Hindi	0.10	-
4.	Linguistics	0.10	0.15
5.	Persian	0.10	-
6.	Philosophy	0.10	-
7.	Sanskrit	0.10	-
8.	Urdu	0.10	-
9.	Economics	0.20	0.15
10.	Education	0.20	0.15
11.	History	0.20	0.30
12.	Islamic Studies	0.10	-
13.	Library Science	0.10	-
14.	Political Science	0.20	-
15.	Psychology	0.20	0.30
16.	Sociology	0.20	-
17.	Commerce	0.20	0.15
18.	Law	0.20	-
19.	Sunni Theology	0.10	-
20.	Shia Theology	0.10	-
21.	Botany	0.30	1.00
22.	Chemistry	0.30	1.00
23.	Geography*	0.50	0.50
24.	Geology	0.30	1.00
25.	Mathematics	0.30	0.50
26.	Physics	0.30	1.00
27.	Statistics	0.30	0.50
28.	Zoology	0.30	1.00
29.	Central Library	2.50	-
30.	Central Facilities**	-	11.80
		<u>Total: 7.95</u>	<u>19.64</u>

*including Maps:

**1.	Step-down Generator	Rs. 1.80 lakhs
2.	Gas and Water supply	Rs. 4.00 lakhs
3.	Liquid Nitrogen Plant	Rs. 5.00 lakhs
4.	Workshop Equipment	Rs. 1.00 lakhs

Total: Rs. 11.80 lakhs

Annexure-2

BUILDINGS

S.N.	Building	Amount
		(Rupees in lakhs)
1.	Commerce Faculty	5.00
2.	Law	1.50
3.	Geography	3.00
4.	Physics	1.00
5.	Central Science Facility	2.00
6.	Halls	10.00
	Total:	22.50

Annexure-3

MISCELLANEOUS

Rupees in lakhs

1.	Preservations of manuscripts in Central Library	1.00
2.	Publication	1.00
3.	Visiting Fellows	1.00
4.	Technician's Training Programme	0.10
5.	Women's College*	3.55
6.	Philosophy - (Exchange of Teachers)	0.10
7.	Sanskrit - (Microfilming)	0.10
8.	History - (Field Grant)	0.30
9.	Political Science - (Field Work)	0.10
10.	Sociology - (Furniture)	0.10
11.	Commerce - (Furniture)	0.20
12.	Law - (Legal Aid Clinic)	0.10
13.	Botany - (Botanical Garden, Herbarium, Experiment Station, and Renovation of Soilbaths).	1.45
14.	Chemistry - (High Pressure Water)	0.50
15.	Geography - (Field Work)	0.20
16.	Zoology - (Animal House & Field Laboratory).	1.50

Total: 11.30

* Details in Annexure-4.

(A) Women's College:

(1) Staff:

One Readership each in Political Science, Psychology, Botany, Chemistry, Home Science, Zoology, Education, English, Fine Arts and Theology. The appointments may be made in a phased manner during the Plan period.

(2) Non-Recurring:

Equipment for Fine Arts Section.	Rs. 0.15 lakhs
Equipment for Psychology Laboratory.	Rs. 0.10 lakhs
Books and Journals.	Rs. 0.30 lakhs
Furniture.	Rs. 0.10 lakhs
Buildings*	Rs. 2.90 lakhs

Total: Rs. 3.55 lakhs

-
- * (a) Two laboratories for 60 students each.
(b) One Lecture theatre for 100 students each.

Annexure-5

Recurring: Faculty & Technical Staff:

(a) University Departments:

<u>S.N.</u>	<u>Department</u>	<u>Specialisation of Faculty</u>
1.	Arabic	1 R (Modern Arabic) & 1L (Modern Arabic)
2.	Persian	1 R (Modern and spoken Persian).
3.	Hindi	1 R (Specialisation in Hindi fiction & Hindi Prose). 1 L
4.	Urdu	1 P (Indian Aesthetics & Urdu Literature) 1 R (Urdu Poetry and Prose).
5.	English	1 R (in comparative language and literature interested in the affinities between the literature of Europe and India) 1 L
6.	Linguistics	1 P (in Socio-linguistics) 1 R (in Psycholinguistics).
7.	Philosophy	1 P (in Western Philosophy preferably in analytical) - 1 R (in Muslim Philosophy with knowledge of Arabic and Persian).
8.	Economics	1 P (Mathematical Economics or Econometrics) - 1 R (Public Finance).
9.	Political Science	1 R (International Organisation) 1 R (Political Behaviour)
10.	Sociology	1 R (General Sociology)
11.	History	1 P (Archaeology & Ancient Indian History). 2 R (Modern Indian History) (European History) 1 (Archaeological Chemist).
12.	Psychology	1 P (Experimental Psychology) 1 R (Criminal Psychology).
13.	Library Science	1 R (Library Science). 1 L
14.	Law	1 P (Constitutional Law). 1 R (Mercantile Law).
15.	Theology	1 P (Sunny Theology) 1 P (Shia Theology)

<u>S.N.</u>	<u>Department</u>	<u>Specialisation of Faculty</u>
16.	Botany	1 P (Plant Physiology & Cytogenetics) 2 R (Microbiology/Algaology; Physiolo Pteridology) - 1 R (Biostatistics/Ecology) 3 Others (1 - Superintendent Botanical Garden; Plant-collector-1 & Plant Mounter-1).
17.	Zoology	1 P (Parasitology) 1 R (Ichthyology) 1 R (Animal Ecology).
18.	Chemistry	1 P (Physical Chemistry) 1 R (Bio-chemistry) 1 R (Analytical Chemistry)
19.	Physics	1 P (Experimental Nuclear Physics) 1 R (Solid State Physics)
20.	Mathematics	1 P (Applied Mathematics)
21.	Statistics	1 P (Information Theory), 1 R & 2 L Technical Assistant - 1
22.	Geology	1 P (Economic Geology) 1 R (Hydrology) 1 R (Structural Geology) Artist - 1
23.	Geography	1 R (Applied Cartography with specialisation in Air Photo Interpretation). 1 R (Quantitative Methods in Geograph)
24.	Education	1 R
25.	Technical Staff for Central Facilities:	(Engineers - 2; Technicians - 4 & Glass-blower - 1)
		<hr/> Total: 16 Professors; 30 Readers; 6 Lecturers & 13 others. <hr/>

(b) Women's College - 10 Readers.

Payment will be on the basis of actual expenditure p.a. only in respect of posts above, filled from the date of appointment upto the end of 1978-79. Wherever specialisation have been indicated against posts above, no change can be made without prior approval of the Commission.

Appendix to the minutes of UGC meeting held
on 27-28th October, 1975. (Item No.33)

DELHI UNIVERSITY

(Approved allocations, 5th plan period)

(a) 1st charge :

Spill-over	Rs. 52.83 lakhs
Basic grants	Rs. 12.50 lakhs
Schemes already approved	Rs. 3.42 lakhs
Total :	<u>Rs. 68.75 lakhs.</u>

(b) New allocations:

(i) Non-recurring and Misc.

Books (*)	Rs. 10.90 lakhs
Equipment (*)	Rs. 12.55 lakhs
Buildings (ccc)	Rs. 26.00 lakhs
Misc. (@@@)	Rs. 13.70 lakhs
Total :	<u>Rs. 63.15 lakhs.</u>

(ii) Recurring:

(a) Faculty and Technical staff:
in University departments

Annexure-4

20 Professors, 21 Readers, 1 Lecturer,
10 Tech. staff. and one Sr. Tech. Officer

(b) Other Misc. staff:
(Annexure-5)

(c) 40 JRF to be awarded at a time, in accordance
with the guidelines laid down by the Commission
and distributed as under:-

(i) 10 fellowships for candidates belonging to
scheduled castes and scheduled tribes.

(ii) 10 fellowships reserved for candidates belonging
to weaker and backward sections of society, student belonging
to Manipur, Nagaland and other backward and under-developed
regions of the country.

(iii) 20 fellowships to be awarded on all-India basis.
At least 50% of which are awarded to candidates belonging to
regions other than the Union Territory of Delhi.

(*) Annexure - I
(cc) Annexure - II
(ccc) Annexure - III

Annexure I

(i) Non-recurring :-

Sl. No.	Department/items	Books	Equipment
(rupees in lakhs)			
1.	English	0.25	-
2.	Hindi	0.25	-
3.	Urdu	0.25	-
4.	Sanskrit	0.25	-
5.	Arabic and Persian	0.25	-
6.	M. I. L.	0.25	0.20
7.	M. E. L	0.25	-
8.	Linguistics	0.25	-
9.	Philosophy	0.25	-
10.	Budhist Studies	0.15	-
11.	Psychology	0.25	0.40
12.	Library Science	0.15	-
13.	Economics	0.30	0.10
14.	Commerce	0.30	0.10
15.	Political Science	0.30	-
16.	Sociology	0.30	-
17.	History	0.30	0.10
18.	Human Geography	0.30	0.75
19.	Chemistry	0.50	2.00
20.	Physics and Astrophysics	0.50	2.00
21.	Botany	0.50	2.00
22.	Zoology	0.50	2.00
23.	Geology	0.50	2.00
24.	Anthropology	0.30	-
25.	Music	0.30	0.30
26.	Law	0.30	-
27.	Mathematics	0.30	0.20
28.	Mathematical Statistics	0.30	0.20
29.	Operational Research	0.30	0.20
30.	Central Library	2.00	-
Total:		10.90	12.55

Annexure - II

BUILDINGS
(Approved allocations)

<u>S.No.</u>	<u>Building</u>	<u>approved allocation</u> (Rs in lakhs)
1.	Rattan Tata Library Extn.	2.00
2.	Geology building Extn.	2.00
3.	Music faculty	3.00
4.	Law library extension	0.50
5.	Social science complex	2.50
6.	Central Science Library	8.00
7.	Central Science Facility	7.00
8.	Delhi University Women's Association	1.00
	Total:	<u>26.00</u>

Annexure - III

Miscellaneous
(Approved allocations)

<u>S.No.</u>	<u>Items</u>	<u>Rs. in lakhs</u>
1.	Reprographic facilities	1.00
2.	Visiting professorships and exchange of teachers	1.00
3.	Publications	1.00
4.	Organisation of seminars and Teachers' Training	1.00
5.	Zonal Libraries	5.00
6.	Manuscripts - Sanskrit	0.20
7.	Dilution refrigeration(Physics)	0.50
8.	Green House	1.50
9.	Animal House	2.50
	Total:	<u>13.70</u>

Annexure - IV

(ii) Recurring

(i) Faculty and Technical Staff:

S.No.	Department	Posts sanctioned with specialisation
1.	English	1 R (English as second language) 1R (for M.Litt. course)
2.	Hindi	- (Drama & Stage Craft)
3.	Urdu	- 1R
4.	Sanskrit	1 P 1R
5.	Arabic & Persian	1 R (Modern Arabic) -
6.	Linguistics	1 Senior Tech. Officer -
7.	Philosophy	1P (Nyaya/Mimansa or Analytic Philosophy) 1R (Philosophy of Science/Philosophical Methodology and Techniques).
8.	Buddhist Studies	1L(Pali) -
9.	Psychology	1R(Social Experimental Psychology or Experimental Psychology) 1 Technician
10.	Library Science	1 R(Library Sc. - with Ph.D. degree and experience in Research Guidance)
11.	Economics	2(One each in Monetary Economics and Public Finance) -
12.	Commerce	1P(Industrial Economics with special reference to Pricing & Costing) 1R(International Finance and Liquidity)

13. Political Science	1 R (Politics of underdeveloped countries)	1 R (Indian Government and Administration)
14. Sociology	1 P (Quantitative Method to Sociology)	-
15. History	1 R (Archaeology)	1 P (Modern Indian History)
16. Human Geography	1 R (Physical Geography)	-
17. Chemistry	1 P (Physical Chemistry) 1 R (Inorganic Chemistry)	1 P (Inorganic Chemistry with specialization in Organometallics)
18. Physics and Astrophysics	1 P (Ionospheric studies)	1 P
19. Botany	1 P (Plant Physiology) 2 Technical Assistants	1 P (Morphogenesis Plant Anatomy; Morphology and Embryology)
20. Zoology	1 P (Entomology Cytology and Cytogenetics) 2 Tech. Assts. 1 Veterinarian 2 Animal Attendants	1 R (Ecology)
21. Geology	1 R (Mining Geology, Mineral Economics, Geostatics, Geodata processing.	1 Photographer-cu Artist 1 Section Cutter
22. Anthropology	1 P (Cultural and social anthropology)	-
23. Mathematics	1 P (Combinatorial Mathematics)	1 R (Homological Algebra)
24. Mathematical Statistics	1 P (Multivariate Analysis)	1 R (Bio-Statistic)

25. Operational Research	1 P	1 R (Inventory Control)
26. Law	1 P (Labour Law)	1 P (Industrial Property Law - Patterns, Trade and copy Rights)
Total:	21	Professors
	21	Readers
	1	Lecturers
	1	Sr. Tech. Officer
	10	Others (Tech. Staff)

Payment will be on the basis of actual expenditure p.a. only in respect of posts above, filled from the date of appointment upto the end of 1968-79. Wherever specialisation have been indicated against posts above, no change can be made without prior approval of the Commission.

Annexure -V

Misc. Staff

1. Central Science Library

(i) Professional Senior	1
(ii) Professional Junior	2
(iii) Clerk	1
(iv) Unskilled staff	1

2. Central Science Facility

(i) Electronic Engineer	1
(ii) Senior Technical Assistants	3
(iii) Workshop Technicians	2

3. Reprographic Unit

(i) Reprographic Officer	1
(ii) Technical Assistant	1

(4) A sum of Rs. 15.00 lakhs has been allocated for meeting the needs of the university towards Non-academic and Library staff.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 27th & 28th October, 1975
Time : 10.00 A.M.
Place: JGC Office, New Delhi.

AGENDA

- Item No.1: To receive the minutes of the meeting of the Commission held on 29th September, 1975.
- Item No.2: (a) To approve the action taken on certain matters.
(b) To receive the items of information.
(c) To receive the statement of proposals which could not be accepted by the Commission.
- Item No.3: To approve the statement of grants released after the last meeting of the Commission held on 29th September, 1975.
- Item No.4: To receive a statement of expenditure incurred by the University Grants Commission during 1975-76 upto 30th September, 1975.
- Item No.5: To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of the Andhra University for financial assistance towards the introduction of correspondence courses at the postgraduate level.
- Item No.6: To consider the recommendations made by the Expert Committee constituted by the Commission to evaluate work done by various University Leadership Projects under COSIP during the first phase and to consider further proposals for undertaking follow-up activities during the next two years. P.1-9
P.10-89
- Item No.7: To consider the recommendations of the Science Research Council with regard to the departmental support for research activities in the Departments of Physics of Aligarh Muslim University, Panjab & Poona Universities.
P.90-91

P.T.O.

Annexure - II

BUILDINGS
(Approved allocations)

<u>S.No.</u>	<u>Building</u>	<u>approved allocation</u> (Rs in lakhs)
1.	Rattan Tata Library Extn.	2.00
2.	Geology building Extn.	2.00
3.	Music faculty	3.00
4.	Law library extension	0.50
5.	Social science complex	2.50
6.	Central Science Library	8.00
7.	Central Science Faculty	7.00
8.	Delhi University Women's Association	1.00
Total:		26.00

Annexure - III

Miscellaneous
(Approved allocations)

<u>S.No.</u>	<u>Items</u>	<u>Rs. in lakhs</u>
1.	Reprographic facilities	1.00
2.	Visiting professorships and exchange of teachers	1.00
3.	Publications	1.00
4.	Organisation of seminars and Teachers' Training	1.00
5.	Zonal Libraries	5.00
6.	Manuscripts - Sanskrit	0.20
7.	Dilution refrigeration(Physics)	0.50
8.	Green House	1.50
9.	Animal House	2.50
Total:		13.70

Annexure - IV

(ii) Recurring

(i) Faculty and Technical Staff:

S.No.	Department	Posts sanctioned with specialisation
1.	English	1 R (English second language) 1R (for M.Litt. course)
2.	Hindi	(Drama & Stage Craft) -
3.	Urdu	- 1R
4.	Sanskrit	1 P 1R
5.	Arabic & Persian	1 R (Modern Arabic) -
6.	Linguistics	1 Senior Tech. Officer -
7.	Philosophy	1P (Nyaya/Mimansa or Analytic Philosophy) 1R (Philosophy of Science/Philosophical Methodology and Techniques).
8.	Buddhist Studies	1L(Pali) -
9.	Psychology	1R(Social Experimental Psychology or Experimental Psychology) 1 Technician
10.	Library Science	1 R(Library Sc. - with Ph.D. degree and experience in Research Guidance)
11.	Economics	2(One each in - Monetary Economics and Public Finance)
12.	Commerce	1P(Industrial Economics with special reference to Pricing & Costing) 1R(International Finance and Liquidity)

13. Political Science	1 R (Politics of underdeveloped countries)	1 R (Indian Government and Administration)
14. Sociology	1 P (Quantitative Method to Sociology)	-
15. History	1 R (Archaeology)	1 P (Modern Indian History)
16. Human Geography	1 R (Physical Geography)	-
17. Chemistry	1 P (Physical Chemistry) 1 R (Inorganic Chemistry)	1 P (Inorganic Chemistry with specialization in Organometallics)
18. Physics and Astrophysics	1 P (Ionospheric studies)	1 P
19. Botany	1 P (Plant Physiology) 2 Technical Assistants	1 P (Morphogenesis) Plant Anatomy; Morphology and Embryology
20. Zoology	1 P (Entomology Cytology and Cytogenetics) 2 Tech. Assts. 1 Veterinarian 2 Animal Attendants	1 R (Ecology)
21. Geology	1 R (Mining Geology, Mineral Economics, Geostatics, Geodata processing.	1 Photographer-cum Artist 1 Section Cutter
22. Anthropology	1 P (Cultural and social anthropology)	-
23. Mathematics	1 P (Combinatorial Mathematics)	1 R (Homological Algebra)
24. Mathematical Statistics	1 P (Multivariate Analysis)	1 R (Bio-Statistics)

25. Operational Research	1 P	1 R (Inventory Control)
26. Law	1 P (Labour Law)	1 P (Industrial Property Law - Patterns, Trade and copy Rights)
Total:	21	Professors
	21	Readers
	1	Lecturers
	1	Sr. Tech. Officer
	10	Others (Tech. Staff)

Payment will be on the basis of actual expenditure p.a. only in respect of posts above, filled from the date of appointment upto the end of 1968-79.

Wherever specialisation have been indicated against posts above, no change can be made without prior approval of the Commission.

Annexure -V

Misc. Staff

1. Central Science Library

(i)	Professional Senior	1
(ii)	Professional Junior	2
(iii)	Clerk	1
(iv)	Unskilled staff	1

2. Central Science Facility

(i)	Electronic Engineer	1
(ii)	Senior Technical Assistants	3
(iii)	Workshop Technicians	2

3. Reprographic Unit

(i)	Reprographic Officer	1
(ii)	Technical Assistant	1

(4) A sum of Rs. 15.00 lakhs has been allocated for meeting the needs of the university towards Non-academic and Library staff.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 27th & 28th October, 1975

Time : 10.00 A.M.

Place: UGC Office, New Delhi.

AGENDA

- Item No.1: To receive the minutes of the meeting of the Commission held on 29th September, 1975.
- Item No.2: (a) To approve the action taken on certain matters.
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P.10-89
- Item No.7: To consider the recommendations of the Science Research Council with regard to the departmental support for research activities in the Departments of Physics of Aligarh Muslim University, Panjab & Poona Universities. P.90-91

P.T.O.

- Item No.8: To consider the recommendations of the Committee appointed to examine the proposal of the Banaras Hindu University for setting up a computer centre during the Fifth Plan period. P.92-100
- Item No.9: To consider the recommendations of the Committee appointed to examine the computer requirements of Panjab University during the Fifth Plan period. P.101-10
- Item No.10: To consider the proposals regarding implementation of University Leadership Projects in Physics, Chemistry, Biological Sciences and Mathematics under College Science Improvement Programme (COSIP). P.110-126
- Item No.11: To consider the question of raising the amount of honorarium and contingency paid to teachers selected under the scheme of 'USRT'. P.127
- Item No.12: To consider the question of raising the limit of Rs.750/- for the protection of salary of teachers selected for the award of Senior Research Fellowships consequent upon the revision of salary scales of teachers. P.128
- Item No.13: To consider the question of revision of Pay Scales of Academic posts other than Professors, Readers and Lecturers in Central Universities. P.129-135
- Item No.14: To consider the recommendation made by the Panel on Economics regarding the use of books purchased by the teachers under short-term projects after completion of the projects . P.136
- Item No.15: To consider the decision of the University of Mysore to relax the condition of eligibility for admission to courses run by the Institute of Correspondence Courses and Continuing Education in respect of candidates over 50 years of age. P.137
- Item No.16: To further consider the proposal of the Roorkee University for enhancement of the value of stipend paid by the University to the students selected for training at the Water Resources Development Training Centre. P.138-142
- Item No.17: To consider further the proposal regarding taking over of the Dayal Singh College by the University of Delhi - Transfer of assets and liability to the University. P.143-152

Item No.18: To further consider a reference from Berhampur University regarding relaxation in minimum enrolment in colleges to be eligible to receive grants from the University Grants Commission under the Rs.5 lakhs scheme. P.153

Item No.19: To consider the question of eligibility of Law Colleges, Colleges of Physical Education and similar other institutions for assistance under Rs.5 lakhs scheme. P.154

Item No.20: To consider the recommendations of the Committee appointed by the Commission to examine the proposal to declare Gandhi Gram Institute of Rural Higher Education as a deemed to be university under Section 3 of the UGC Act. P.155

Item No.21: To consider the reports of the Visiting Committees which assessed the V Plan needs of universities in Maharashtra and Postgraduate Centre, Panaji, Goa.

P.156-165

Item No.22: To consider the reports of the V Plan Visiting Committee for South Gujarat University, M.S. University of Baroda, Gujarat and Sardar Patel Universities. P.166-172

Item No.23: To consider the reports of the Visiting Committees which assessed the V Plan needs of the Universities in Bihar.

Item No.24: To note the date and place for the next meeting of the Commission.

Any other item.

.....

'CHUGH'

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 27th & 28th October, 1975
Time : 10.00 A.M.
Place: UGC Office, New Delhi.

A G E N D A

- Item No.25: To consider the recommendations of the Visiting Committee appointed by the University Grants Commission to review the working of the School of Correspondence Courses and Continuing Education, University of Delhi. P.191-205
- Item No.26: To consider the proposal of Pratap College, Amalner, for naming the Men's Hostel constructed with the Commission's assistance after late M.H. Premji. P.206-208
- Item No.27: To consider a proposal from the Banaras Hindu University for subsidy to run the University Cafeteria/Canteens. P.209-210
- Item No.28: To consider the Revised Estimates for 1975-76 and Budget Estimates for 1976-77 (Plan and Non-Plan). P.211

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'CHUGH'

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 27th & 28th October, 1975
Time : 10.00 A.M.
Place: New Delhi.

A G E N D A

- Item No.29: To consider certain establishment matters of the University Grants Commission.
- Item No.30: To consider the question of payment of remuneration to contributors to the Journal of Higher Education brought out by the University Grants Commission and its supply to individual students and teachers at concessional rate. p 211-221
- Item No.31: To consider the report of the Visiting Committee to the Centre of Postgraduate Studies, Imphal, Jawaharlal Nehru University. p 222-226
- Item No.32: To consider the report of the Visiting Committee to Aligarh Muslim University. p 227-232
- Item No.33: To consider the report of the Visiting Committee to Delhi University. p 233-245
- Item No.34: To consider the recommendations made by the Jury appointed by the Commission for selection of scientists for Sir J.C. Bose Award in Life Sciences, instituted with the help of endowment made available by Hari Om Ashram Trust, Nadiad, Gujarat. p 246-248
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'CIUGH'

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Minutes of the 172nd meeting of the University Grants Commission held on 29th September, 1975.

The following were present:

Professor Satish Chandra	- Vice-Chairman (in the Chair)
Shri K.N. Channa	- Member
Dr. Ajit Mozoomdar	- Member
Professor S. Gopal	- Member
Professor M. Santappa	- Member
Dr. Amarjit Singh	- Member
Professor J.B. Chitanbar	- Member
Shri K.T. Chandy	- Member
Shri R.K. Chhabra	- Secretary

Professor R.S. Sharma, Professor Rais Ahmed and Professor B.M. Udgaonkar could not attend.

SECRETARIAT

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

Item No. 1: To receive the minutes of the meeting of the Commission held on 11th & 12th August, 1975.

The minutes of the 171st meeting of the Commission held on 11th & 12th August, 1975 were confirmed.

...

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

The Commission approved the action taken on items listed in Appendix 1.*

*Not enclosed.

Item No. 3: To approve the statement of grants released after the last meeting of the Commission held on 11th & 12th August, 1975.

The Commission approved the grants released after the last meeting of the Commission held on 11th & 12th August, 1975 (Appendix II)*.

...

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

This was noted.

...

Item No. 5: To receive a statement indicating the progress of issue of Utilisation Certificates during the period ending 31st August, 1975.

This was noted.

...

Item No. 6: To receive the minutes of meeting of the Committee on coordination of various Cultural Exchange Programmes held on 30th July, 1975.

The Commission accepted the recommendations made by the Committee on coordination of various Cultural Exchange Programmes as given in Appendix III. The Commission was further of the view that the Departments identified for collaboration under the different collaborative programmes should serve as focal points, so as to enable sister departments in other universities in the country to share the benefit through organisation of Seminars, Symposia etc. in the specialised branch of knowledge.

...

Item No. 7: To consider the views of the Calcutta University on the report of the Committee on the Reorganisation and Development of Calcutta University.

The Commission noted that while the views on a few of the recommendations of the Committee's Report on Calcutta University had been received from the Calcutta University, no comments had so far been received from the State Government.

The Commission desired that a Committee may be appointed to discuss the implications of the Report with the State Government, the Calcutta University and other concerned universities. The Committee may also take into account the recommendations that may be made by the Visiting Committee appointed to assess the Fifth Plan requirements of the Calcutta University.

...

Item No. 8: To consider the recommendations of the Standing Committee on Adult Education at its meeting held on 10th July, 1975.

The Commission noted the recommendations of the Standing Committee on Adult Education at its meeting held on 10th July, 1975 and agreed that there may be only one Committee for adult education and continuing education to be designated as the Standing Committee on Adult and Continuing Education.

...

Item No. 9: To consider the report of the Committee for declaring Lalit Narayan Mithila University as an Institution fit to receive grants from Central Government Funds in terms of rules prescribed under Section 12 A of the UGC Act.

The Commission resolved that Lalit Narayan Mithila University be declared an institution fit to receive grants from the Central Government funds in terms of rules prescribed under Section 12-A of the UGC Act, provided the State Government gave an assurance with regard to the following:

- (i) the University would establish adequate machinery for health and welfare of the students;
- (ii) adequate funds will be provided by the State Government for buildings, equipment, books for library, hostels, staff quarters, whose aggregate value will not be less than Rs.2 crores along with developed land; and
- (iii) the University will be given adequate maintenance grants for its normal functioning.

...

Item No.10: To consider the report of the Committee appointed by the University Grants Commission to examine the proposal of the Vikram University about Bhoja Sanskrit Works on different branches of Indological Studies.

The Commission accepted the recommendations of the Committee appointed to examine the proposal of the Vikram University about Bhoja Sanskrit Works on different branches of Indological Studies and agreed to provide the following assistance within the Fifth Plan allocation:

Recurring

- | | | |
|-----------------------|-----|-------------------------------|
| 1. Research Assistant | one | (from 1.10.1975 to 31.3.1979) |
| 2. Research Associate | one | |

(The scale of pay of the Research Associate to be in conformity with the decision to be taken by the Commission)

Non-Recurring:

Amount

- | | |
|--|--------------|
| (a) Publication of vivid-vidyavicaracatura, Carucarya and Bhoja bibliography | Rs. 20,000/- |
| (b) Publication of seminar proceedings. | Rs. 10,000/- |
| (c) Contingencies, postage, stationery & clerical assistance etc. | Rs. 3,000/- |
| (d) Collection of manuscripts | Rs. 5,000/- |

Total: Rs. 38,000/-

...

Item No.11: To consider a reference from the Ministry of Education regarding the need of increase the rates of Post-Matric Scholarships for Scheduled Castes/Scheduled Tribes.

This was noted.

The Commission was of the view that the value of research scholarships for scheduled caste and scheduled tribe candidates should not be less than that for corresponding fellowships awarded by the UGC.

Item No.12: To consider a reference from the Ministry of Education regarding introduction of productivity as a subject of study in Schools/Colleges and Technical Institutions.

The Commission agreed in principle with the importance of productivity in appropriate university studies but stressed that instead of it being introduced as a separate subject, it should form an integral part of the relevant university courses at various levels.

...

Item No.13: To consider a reference from the Ministry of Education in respect of recommendations made by the Estimate Committee of Lok Sabha regarding general problem and grievances of Youth.

The Commission welcomed the recommendations of the Estimates Committee of the Lok Sabha regarding amenities to be provided to the students in the universities and colleges. The Commission was, however, of the view that these recommendations could only be implemented when adequate financial resources are placed at the disposal of the Commission.

...

Item No.14: To consider the matter regarding the utilisation of the amount released for sale of books produced by the University Departments under the College Science Improvement Programme.

The Commission noted that the materials including equipment and books produced under the University Leadership Projects under the COSIP would be sold by the universities and agreed that the sale proceeds would be utilised by the universities in the following manner to promote the activities approved under the programme:

- (1) 40% sale proceeds to be paid to the authors as remuneration for writing the books.
- (2) 20% to be paid as Commission to the book seller.
- (3) 40% to be utilised for production of more text-books or reading materials under the programme.

If the Departments desired to utilise a portion of the money available for remuneration (i.e. (1) above) to meet the general needs of the department concerned, they could do so. The sale proceeds should not be taken over as part of general revenues of the University.

The proposal of the Panjab University may be considered in the light of the above.

...

Item No.15: To consider a reference from the Ministry of Education regarding opening of Hindi Medium Sections/Departments in the existing colleges in the Non-Hindi speaking States.

The Commission was of the view that there was no objection to opening of Hindi-medium sections in existing colleges in Non-Hindi speaking States or with any other Indian language as the media of instruction provided such a programme is academically sustainable (for instance availability of suitable text-books, teaching staff and suitable demand for such facilities).

...

Item No.16: To consider the recommendation made by the Estimates Committee about the feasibility of making physical education, sports and games compulsory in colleges.

The Commission agreed with the view of the Estimates Committee that it would be desirable to involve the largest number of students in activities such as physical education, sports and games. The Commission was of the view that while it may be possible to make one of these compulsory along with NCC or NSS, this could only be achieved if necessary facilities and adequate funds are provided for the purpose.

...

Item No.17: To consider whether extension work by colleges could be considered for assistance under the Commission's programmes under Rs.5 lakhs scheme or programmes for restructuring courses.

The Commission agreed that the proposals for extension work by colleges may be considered for assistance on a 100% basis under the Commission's programme of Rs.5.00 lakhs scheme for colleges - subject to this being included as part of the provision under "Faculty Improvement and additional staff etc."

...

Item No.18: To consider the programme of academic collaboration under I.B.U.C. between
(1) Madurai University and Oxford University(UK) in the field of Molecular Biology and
(2) Indian Institute of Science, Bangalore and University of Liverpool (UK).

The Commission accepted the programme of academic collaboration (1) in Molecular Biology proposed by the University of Madurai (Department of Life Sciences) with Oxford University and (2) Indian Institute of Science, Bangalore with Liverpool University in Electrical Engineering under Indo-British University Collaboration Programme. It was noted that the collaboration will extend for a period of 3 to 5 years. The Commission further noted that efforts are being made to obtain sophisticated equipment, components etc. (which are essential in pursuit of joint agreed research and are not available indigenously) separately under Colombo Plan assistance.

The Commission's assistance under this programme would be primarily for exchange of personnel on either side as per terms of agreement.

In this connection, it was pointed out that there was considerable delay in the release of equipment from the Customs authorities due to non-production of NMI and other certificates. The Commission desired that this may be taken up with the Government of India so that equipment imported under due authorisation is released without loss of time.

...

Item No.19: To consider a proposal from the Banaras Hindu University for developing bilateral links between the Department of Metallurgical Engineering of the University with Max Planck Institute fuer Metallforschung, Stuttgart, under Indo-FRG Cultural Exchange Programme 1975-76.

The Commission accepted the programme of collaboration between the Department of Metallurgy at the Institute of Technology, Banaras Hindu University and the Max Planck Institute fuer Metallforschung, Stuttgart, under Indo-FRG Cultural Exchange Programme in the fields of Structure, Energetics, Mechanical Properties in Precipitation and Dispersion-Hardening Systems.

The Commission's assistance under the programme would be for exchange of personnel on either side as well as for the organisation of an Indo-German seminar.

...

p.t.o.

Item No.20: To consider matters relating to awards created with the endowment from the Hari Om Ashram Trust, Nadiad: (i) appointment of a Jury for Sir J.C. Bose Award in Life Science, 1974 and (ii) creation of additional awards out of the excess income of the endowment in the fields of interaction between 'Science & Society'.

The Commission desired that a jury consisting of three members of the Commission and three other experts, besides the Vice-Chairman, may be appointed for selecting candidate(s) for the Jagdish Chandra Bose Award in Life Sciences, 1974.

The Commission further agreed that another award may be created by utilising the additional income from the endowment in the field of interaction between 'Science and Society' to be awarded from 1975 onwards.

...

Item No.21: To consider a proposal of the Bhopal University for starting Correspondence Courses for B.A. Part I, II and III in Humanities.

The Commission was of the view that the proposal of Bhopal University to start correspondence courses could be considered only after the University sets up its teaching departments.

...

Item No.22: To consider a proposal of Allahabad University to start correspondence courses for B.A., B.Com., & LL.B.

The Commission desired that the proposal of the Allahabad University to start correspondence courses for B.A. and B.Com. may be discussed with the State Government and the University. The Bar Council of India, may be consulted regarding the feasibility of correspondence courses for the LL.B. degree.

The Commission also desired that the working of the correspondence courses at Meerut University may be reviewed

...

Item No.23: To consider a proposal of the University of Jammu for the introduction of correspondence courses at the undergraduate level.

Vice-Chairman mentioned that the Vice-Chancellor, Jammu & Kashmir Universities had discussed this proposal with him and that revised proposals would be submitted to the Commission shortly.

....

Item No.24: To consider a proposal of Sri Venkateswara University for assistance towards the construction of a building for correspondence courses.

The Commission accepted the proposal of the Sri Venkateswara University for assistance towards the construction of a building for correspondence courses at a cost of Rs.2.50 lakhs, the share of the UGC being limited to 50% of the actual expenditure or Rs.1,25,000/- whichever is less.

...

Item No.25: To consider the proposal of the Jammu University for relaxation of ban imposed on the construction of Teachers Hostels - Men students Hostel at new campus.

The Commission reiterated its earlier view that hostel facilities constitute an essential and inescapable component of the basic requirement of higher education and desired that the Government of India be requested to treat the hostels as functional buildings in relation to the universities and colleges.

The Commission, keeping in view the dire need of provision of hostels, agreed to the construction of the hostels in the Universities of Jammu and Bhagalpur as recommended by the Visiting Committee.

...

Item No.26: To consider a reference from Sambalpur University regarding rules framed by the Government of Orissa to review the cases of retirement of their employees at the age of 50 and 55.

The Commission desired that this may be discussed at the joint meeting of the UGC and the Standing Committee of the Association of Indian Universities to be held on 29th October, 1975.

...

Item No.27: To consider the proposals of the Banaras Hindu University and Roorkee University for setting up of Industrial Complexes.

The Commission desired that Shri K.T. Chandy be requested to discuss with the Banaras Hindu University the proposal for setting up of industrial complex in the light of the project report already prepared by the Project Engineer.

...

Item No.28: To further consider the proposal of University of Hyderabad for assistance for the purchase of equipment.

...

The Commission noted the action taken on the basis of the discussions held between the Vice-Chairman and the Vice-Chancellor, University of Hyderabad, for starting M.Phil. and M.A. courses, appointment of staff and provision of funds for subscription to journals and purchase of books as indicated below:

(a) The University may go ahead for making admission to the M.Phil. courses and the M.A. courses in English and that 50 fellowships of the value of Rs.400 per month for the M.Phil. courses may be sanctioned. If necessary, the number of fellowships could be increased to 60 for which the University would approach the Commission. A sum of Rs.6.50 lakhs may be provided for running these courses during the current year including the creation of the posts of one Reader and one Lecturer in Bio-chemistry. The fellowships would be for the current academic year and the position would be reviewed later.

(b) The proposals of the University for the various schools would need a detailed scrutiny. The University may in the meantime appoint two-three persons in senior positions in each school either as Professor or as Associate Professor, depending upon the availability of the persons. They may, apart from assisting in the running of the M.Phil. and M.A. courses, work out the requirements of the different schools of University for the next three years.

(c) The University may be sanctioned Rs.15 lakhs to enable it to pay the subscription of the journals and to purchase books during the current year.

(d) The University may be provided funds for organising a competition for the design of the lay out of the University Campus and other incidental expenses. The University may send the details of the new proposals under campus development scheme which it would like to be considered.

The Commission, while considering the request of the University for assistance for the purchase of equipment felt that it would be desirable for the University to appoint first the senior faculty and formulate the academic programmes.

Item No.29: To consider further the proposal regarding taking over of the Dayal Singh College by the University of Delhi - Transfer of assets and liability to the University.

...

Consideration of this item was postponed.

Item No.30: To consider the reports of the UGC Visiting Committee to the Universities of Panjab, Panjabi and Guru Nanak.

...

The consideration of the reports of the UGC Visiting Committee to the Universities of Panjab, Punjabi and Guru Nanak was postponed. The Commission however accepted the recommendation of the Visiting Committee with regard to the provision to be made by the Government of India for matching share of development schemes and other schemes not provided for by the U.G.C. as given in Appendix IV.

Item No.31: To consider the reports of the UGC Visiting Committee to the University of Kurukshetra and Regional Centre for Postgraduate Studies at Rohtak.

...

The Commission considered the reports of the UGC Visiting Committee to the Kurukshetra University and the Regional Centre for Postgraduate Studies at Rohtak and generally accepted the recommendations of the Visiting Committee except that instead of amalgamation of the Department of Ancient Indian History, Culture and Archaeology with the Department of History the University be advised to set up a School of Historical Studies including the two departments. The financial implications of the schemes accepted by the Commission are given in Appendix V.

Item No.32: To consider the reports of the Visiting Committees which assessed V Plan needs of Universities in Maharashtra, and Postgraduate Centre, Panaji, Goa.

...

Consideration of this item was postponed.

Item No.33: To consider the reports of the V Plan Visiting Committee for South Gujarat, M.S. University of Baroda, Gujarat and Sardar Patel University.

...

Consideration of this item was postponed.

Item No.34: To consider the report of the UGC Visiting Committee on the Universities of Madras, Annamalai and Madurai and the Postgraduate Centres at Tiruchirapally and Coimbatore in Tamil Nadu.

...

The Commission considered the reports of the Visiting Committee on the Universities of Madras, Annamalai and Madurai and the Postgraduate Centres at Trichy and Coimbatore and generally accepted the recommendations subject to the following:

(a) Madras University:

(i) The Commission noted that it has separately taken up with the Government of India the question of provision of personal promotion scheme in universities in connection with the introduction of revised scales of pay and could not therefore accept the recommendation of the Visiting Committee in relation to merit promotion in lieu of the scheme for revised scales of pay.

(ii) The Madras University may also be advised to consider the question of constitution of different authorities of the University in the light of the recommendations made by the Committee on Governance of Universities.

(iii) The Commission was not in favour of allocating specific number of fellowships to each department. It however agreed to provide a total of 25 junior research fellowships to be utilised according to the guidelines indicated by the Commission for the purpose.

The financial implications of the schemes approved by the U.G.C. are given in Appendix VI.

The Commission further desired that a provision for sabbatical leave may be made to enable the universities to provide sabbatical leave to the teachers. The Commission may also set up a committee to work out the details of the scheme of sabbatical leave and in the meantime a provision of Rs. one lakh may be made for each university to enable it to initiate the programme of sabbatical leave to its academic staff during the V Plan period.

(b) Postgraduate Centre at Tiruchirapalli

The financial implications of the schemes approved by the Commission are given in Appendix VII. The Commission was not in favour of allocating specific number of fellowships to each department. However, it was agreed to provide a total of 6 junior fellowships in the first instance to be utilised according to the guidelines indicated by the Commission for the purpose.

(c) Postgraduate Centre at Coimbatore

The financial implications of the schemes approved by the Commission are given in Appendix VIII. The Commission was not in favour of allocating specific number of fellowships to each department. However, it has agreed to provide a total of 6 junior fellowships in the first instance to be utilised according to the guidelines indicated by the Commission for the purpose.

(d) Annamalai University

The financial implications of the schemes approved by the Commission are given in Appendix IX.

The Commission was not in favour of allocating specific number of fellowships to each department. It however agreed to provide a total of 20 junior fellowships to be utilised according to guidelines indicated by the Commission for the purpose.

The Commission noted that 5 posts of Professors, 7 posts of Readers and one post of Lecturer sanctioned in earlier plans for the Annamalai University have remained vacant for a considerable period and that the Visiting Committee had recommended that UGC assistance may be provided for filling up these posts in the plan period on 50:50 basis. Since these posts were 'committed' non-plan posts, the Commission would not be able to provide assistance as recommended by the Visiting Committee. The Commission was however of the view that the State Government be requested to provide necessary funds to the University to enable it to fill up these posts without which the development of the University would be seriously hampered.

(e) Madurai University

The financial implications of the schemes approved by the Commission are given in Appendix X.

The Commission was not in favour of allocating specific number of fellowships to each department. It however agreed to provide a total of 20 junior fellowships in the first instance to be utilised according to guidelines indicated by the Commission for the purpose.

Item No.35: To consider the report of the UGC Visiting Committee on the Universities of Bangalore, Mysore and Karnatak and the Postgraduate Centres at Mangalore and Gulbarga in Karnataka State.

...

The Commission generally accepted the recommendations of the UGC Visiting Committee to the Universities of Bangalore, Mysore and Karnatak and the Postgraduate Centres at Mangalore and Gulbarga in Karnataka State subject to the following:

(i) Bangalore University

The financial implications of the schemes approved by the Commission are given in Appendix XI.

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

The Commission also noted that the funds required by the Bangalore University for the introduction of the job-oriented courses had been given for the first two years within V Plan allocation and that the working of these courses would be reviewed at the end of the current year and the question of providing further assistance, if any, decided thereafter.

(ii) Mysore University

The financial implications of the schemes approved by the Commission are given in Appendix XII.

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

The Commission noted that the Institute of Mineralogy is not an integral part of the Mysore University and as such could not provide assistance for it.

(iii) Karnatak University

The financial implications of the schemes approved by the Commission are given in Appendix XIII.

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

(iv) Postgraduate Centre at Mangalore

The financial implications of the schemes approved by the Commission are given in Appendix XIV.

The Commission was not in favour of allocating specific number of fellowships to each department. It was however agreed to provide a total of 6 junior fellowships to be utilised according to the guidelines indicated by the Commission for the purpose.

(v) Postgraduate Centre at Gulbarga

The financial implications of the schemes approved by the Commission are given in Appendix XV.

The Commission was not in favour of allocating specific number of fellowships to each department. It was however agreed to provide a total of 6 junior fellowships to be utilised according to the guidelines indicated by the Commission for the purpose.

Item No.36: 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 27th & 28th October 1975 at New Delhi.

Item No.37: To receive the minutes of the meeting of the Standing Committee on New Universities and University Centres held on 6th August 1975.

...

The Commission accepted the recommendations made by the Standing Committee on New Universities and University Centres at its meeting held on 6th August 1975 as given in Appendix XVI.

Item No.38: To consider the recommendations of the I.C.A.R. in respect of a proposal of the Government of U.P. concerning the declaration of Acharya Narendra Deva University of Agriculture and Technology at Faizabad and Chandrasekhar Azad University of Agriculture and Technology at Kanpur, as fit institutions to receive assistance from Central Government sources.

...

After taking into account the views of the I.C.A.R., the Commission resolved that the Acharya Narendra Deva University of Agriculture & Technology at Faizabad and the Chandrasekhar Azad University of Agriculture & Technology, Kanpur, be declared institutions fit to receive grants from the Central Government funds in terms of rules prescribed for Agricultural Universities under Section 12-A of the UGC Act.

Item No.39: To consider the recommendations of Indian Council of Agricultural Research that Bidhan Chandra Krishi Visva-Vidyalaya be declared fit to receive grants from the Central Government sources.

...

After taking into account the views of the I.C.A.R., the Commission resolved that Bidhan Chandra Krishi Visva-vidyalaya be declared an institution fit to receive grants from the Central Government funds in terms of rules prescribed for Agricultural Universities under Section 12-A of the UGC Act.

Item No.40: To consider the question of raising the amount of honorarium and contingency paid to teachers selected under the scheme of 'USRT'.

...

Consideration of this item was postponed.

Item No.41: To consider the report of the Committee appointed by the U.G.C. to examine the proposal of the Andhra University for financial assistance towards the introduction of correspondence courses at the postgraduate level.

...

Consideration of this item was postponed.

Item No.42: To consider the decision of the University of Mysore to relax the conditions of eligibility for admission to courses run by the Institute of Correspondence Courses and Continuing Education in respect of candidates over 50 years of age.

...

Consideration of this item was postponed.

Item No.43: To consider the proposals regarding implementation of University Leadership Projects in Physics, Chemistry, Biological Sciences and Mathematics under College Science Improvement Programme(COSIP).

...

Consideration of this item was postponed.

Item No.44: To consider the recommendations made by the Expert Committee constituted by the Commission to evaluate work done by various University Leadership Projects under COSIP during the first phase and to consider further proposals for undertaking follow-up activities during the next two years.

...

Consideration of this item was postponed.

Item No.45: To consider the report of the Committee regarding guidelines for assistance from foreign Government etc. to universities.

...

The Commission accepted the recommendations of the Committee (as in Appendix XVII) regarding guidelines for assistance from Foreign Governments/Foundations/Agencies for receiving assistance by universities, colleges and other institutions of higher education and desired that the same may be referred to the Government of India.

The Commission noted that the proposals received from St. Stephen's College, Delhi, and the Institute of Development Studies, Mysore University, for support from foreign sources will be examined in the light of these guidelines.

Item No.46: To consider the recommendations of the Science Research Council with regard to the departmental support for research activities in the Department of Physics of Aligarh Muslim University, Panjab & Poona Universities.

....

Consideration of this item was postponed.

Item No.47: Supernumerary posts

...

Vice-Chairman mentioned that in pursuance of the Commission's decision to institute supernumerary posts of Professors/Readers, some proposals have been received from universities. The Commission authorised the Vice-Chairman to have these proposals processed through a Committee to be appointed by him.

R.K. Chhabra
Secretary

Satish Chandra
Vice-Chairman

Appendix-III to the minutes
of the meeting of the UGC held
on 29th September, 1975 (Item No.6)

1. Before the Commission communicates the names of institutions for participation in the cultural exchange programmes, they should be consulted.
2. The Ministry of External Affairs may be requested to inform the Indian Embassies that they should not issue visas to foreign visitors unless sufficient advance notice has been given to authorities in India so that a meaningful programme can be arranged for the visitors.
3. A suitable procedure may be devised whereby the teachers returning from their visits abroad do send their evaluation report to the University Grants Commission. The teachers who do not send their evaluation reports may not be considered for fresh nominations and this fact may be brought to their notice.
4. When an agency other than the University Grants Commission approaches the university for participation in joint research programmes with foreign countries, the university should keep the University Grants Commission informed and get the position of funds settled before it agrees to participate in the programme.
5. The Cultural Exchange Programmes may be utilised for developing institution to institution links later.
6. Where links on an institutional basis have been developed, it would be desirable to have a few slots untied for other programmes.
7. If a foreign visitor spends a week or more in any university, the university should send an assessment of his visit.
8. The evaluation report of the Indian teachers/Scholars sent abroad under Cultural Exchange Programmes should be circulated to similar faculties in other universities to keep them informed of the developments.
9. The manner in which the universities have been nominating teachers/scholars for participation in the Cultural Exchange Programmes has been rather haphazard. There should be a machinery in the university to make proper selection of teachers/scholars so as to make the Cultural Exchange Programme meaningful and purposeful.

10. Normally no department of a university should have more than two links with foreign universities/institutions at a time.
11. The universities which have developed links with foreign universities/institutions will have to adjust their requirements of equipment and books needed for joint research programme under the link from out of their general development grant.
12. The binational conferences/seminars may be organised by and large by professional organisations like Indian National Science Academy, Indian Council for Historical Research etc.
13. The slots provided under the Cultural Exchange Programmes should also be utilised for international conferences held in those countries. The teachers/scholars attending such international conferences could utilise a part of their stay in that country for visiting other centres of research.

.....

'CHUGH'

Appendix IV to the minutes of the UGC
meeting held on 29.9.1975 (Item No.30)

PANJAB UNIVERSITY, CHANDIGARH

RECOMMENDATIONS MADE BY THE UGC FIFTH PLAN VISITING COMMITTEE

Estimate for budget head Development
(Buildings and Additions not financed
by the UGC for the years 1975-79).

.....

<u>IST PRIORITY</u>	<u>Rupees in Lakhs</u>
I. Matching grant for the UGC schemes for fifth plan period.	39.60
II. Houses for University Staff (Non-teaching)	7.50
III. i) Heating points & other improvements in all Hostels.	3.00
ii) Additions and alterations to Departments including car parks and cycle sheds.	5.00
iii) Improvement to houses i.e. providing wire gauze shutters, water taps in houses for Class IV and providing meters to houses, etc.	2.00
iv) Storm Water drainage in Sector 14.	3.00
v) Premix Carpet on Roads in Sector 14	2.00
vi) Street Lighting Phase III.	3.00
vii) Foot Paths and Railing for Lawns	2.00
viii) Construction of compound walls in houses.	2.00
ix) Common Rooms for Women Hostels III and IV and Cycle sheds for Women Hostels and toilets for servant quarters.	3.00
IV. Development of Sector 25. The whole sector will be developed in two Five Year Plans. Therefore, half the total cost of development is being taken in this plan period:	
i) Roads	6.00
ii) Storm Water Drainage: 1/2 x 260 Acres @ Rs.5000/-	6.50
iii) sewerage: 1/2 x 260 acres @ Rs.3,800/- per acre.	4.90
iv) Water Supply: 1/2 x 260 acres @ Rs.4,500/- per acre	5.90
v) Street Lighting 1/2 Sector	5.00
vi) Landscaping and Compound Wall	2.00
V. Providing two floors above Post Office Building	6.00
Total of Ist Priority:	Rs. 108.40 lakhs

<u>2nd Priority</u>	<u>Rupees in Lakhs</u>
I. Houses for University Staff (Teaching & Non-teaching).	7.50
II. i) Additions & Alterations to Departments, Partitions, furniture, additions, etc.	4.00
ii) Construction of new roads, foot paths and Landscaping between Medical Lab. & Boys Hostel No.IV.	1.50
iii) Water Supply, sewerage & storm water drainage of remaining area in Sector 14 (2nd Phase).	3.00
iv) Raising height of common wall in houses and providing wire gauze, etc.	2.50
v) Widening approach roads to houses in Sector 14 (Houses type A, B, C & D).	2.00
vi) Improvement of Kitchens and providing gas in kitchens of hostels).	1.00
vii) Car Garage for Departments	1.00
III. Development of Sector 25:	
i) Remaining work of Compound Wall	2.00
ii) Roads in Ist half of Sector 25 (2nd Phase)	6.00
iii) Sewerage, water supply and drainage etc. (2nd Phase)	2.00
iv) Extension to Health Centre	2.00

Total of 2nd Priority:Rs.34.50

Abstract:

Total of 1st Priority Rs.108.40 lakhs
(As per details above)

Total of 2nd Priority Rs. 34.50 lakhs
(As per detail above)

Grand Total: Rs.142.90 lakhs

Say: Rs.143.00 lakhs

.....

' CHUGH'

Appendix V of the minutes
of the U.G.C. meeting held
on 29th September, 1975
(Item No. 31).

KURUKSHETRA UNIVERSITY

<u>Spill-over</u>		<u>Figures in lakhs</u>
<u>Spill-over</u>		Rs.
Basic Grant		6.38
	i) Books	3.00
	ii) Equipment	5.00
 <u>New Allocations</u>		
Non-Recurring		
	Books	10.00
	Equipment	18.70
	Buildings	4.50
 Total		<hr/> 47.58 <hr/>

Recurring

Additional Staff: 6 Professors, 15 Readers, 12
Lecturers & 11 others.

(Details attached in enclosures)

Enclosure I to Appendix V

KURUKSHETRA UNIVERSITY

Rupees in lakhs

<u>S.No.</u>	<u>Depts.</u>	<u>Books 100%</u>	<u>Equipment 100%</u>
<u>A.</u>	<u>Science Depts.</u>	<u>I</u>	<u>I</u>
1.	Chemistry	1.00	4.00
2.	Physics	1.00	2.50
3.	Botany	0.80	1.70
4.	Zoology	0.80	1.70
5.	Mathematics	0.70	0.40
6.	Geography	0.40	0.50
7.	Centre Instrumentation facility.	-	3.50
<u>B.</u>	<u>Humanities & Social Sciences.</u>		
8.	Economics	0.40	-
9.	Political Science	0.40	-
10.	History	0.40	-
11.	Hindi	0.40	-
12.	English	0.20	1.00
13.	Linguistics & Folk Lore	0.20	-
14.	Music	0.10	0.10
15.	Library Science	0.10	-
16.	Modern European Languages	0.20	-
17.	Sanskrit, Punjabi & Prakrit	0.30	-
18.	Philosophy & Psychology	0.30	0.20
19.	Ancient Indian History, & Cultural, & Archaeology	0.30	0.30
20.	Education	0.30	0.20
21.	Physical Education & Sports	0.10	-
22.	Law	0.80	-
23.	Commerce	0.40	0.20
24.	Central Library	0.40	0.40
25.	University Press	0.40	2.00
Total:		10.00	18.70

Encl. II to Appendix No.V

KURUKSHETRA UNIVERSITY

<u>Buildings</u>	<u>U.G.C. Share</u>	<u>State Share</u>
Women's Hostel (Phase-I) 75%	Rs.4.50 lakhs	Rs.1.50

Enclosure III to Appendix V.

KURUSHETRA UNIVERSITY

Additional Staff position approved for the duration of the V Plan period ie. upto 1978-79.

<u>S.No.</u>	<u>Department</u>	<u>Recurring</u>
<u>A. Science Departments</u>		
1.	Physics	2 R (Electronics)
2.	Botany	1 P
		1 R
		1 O (Technician)
3.	Zoology	1 P
		1 R
4.	Mathematics	2 P (1 - Operations Research & 1 in Modern Algebra)
		1 R (numerical Analysis)
5.	Chemistry	1 P (Quantum Chemistry)
6.	Geography	1 P (Agriculture geography)
		1 R
7.	Central Instrumentation facility.	4-0 (1 - Work shop Supdt.(Electric (1 - Mehanic) (1 - Precigim Mech.) (1 - Technician)
<u>B. Humanities & Social Sciences</u>		
8.	Political Science	1 L
9.	History	1 R, 1L
10.	English	1 R
11.	Music	1 R
		3 L
12.	Library Science	1 R
13.	Modern European Languages	1 L (Russian)
14.	Sanskrit, Pali & Prakrit	1 L (Sanskrit Languages)
15.	Ancient Indian History, Culture & Achaeology.	1-0 (Tech.)
16.	Education	2-0 (Re's. Assts.)
17.	Physical Education & Sports	1 R
		1 L
		2 O (Coaches)

P.T.O.

18.	Law	1 R 3 L 1-O (Res. Asstt.)
19.	Commerce	2 R (Lectures to be utilised as 3 1 L part-time lectures in the field of Banking, Industrial Psychology & Human Relations & Production & Business Economics).
20.	Hindi	1 R

N.B.P= Professor, - R = Readers, L = Lecturer & O for others.

- ii) Payments will be on the basis of actual expenditure per annum on the agreed sharing basis only in respect of posts above, filled, from the date of appointment upto the end of 1978-79 whenever specialisations have been indicated against posts above no change can be made without prior approval of the Commission..
 - iii) UGC share for Professor=100%, Reader=100%, Lecturer=75%
Technical Staff=100%, Trained Coaches=75%.
-

Appendix No.V to Part II of the
Minutes of the UGC meeting held
on 29th September, 1975
(Item No. 31)

Regional Centre for Postgraduate Studies, Rohtak
(Kurukshetra University)

	<u>Figures in Lakhs</u> Rs.
Spill over ...	0.35
Basic grant i) Equipment	2.00
ii) Books	1.00
<u>New Allocation</u>	
a) <u>Non-recurring:</u> i) Equipment	8.57
ii) Books	5.50
iii) Building	11.00
Total:	23.42

b) Recurring

Additional Staff: 3 Professors, 6 Readers, 1 Lecturer
and 5 others.

(Details attached in enclosures)

Enclosure V to Appendix V

Regional Centre for Postgraduate Studies, Pantak

(Kurukshetra University)

<u>S.No.</u>	<u>Departments</u>	<u>Books (100 %)</u>	<u>Equipment (100 %)</u>
		<u>(Rs. in Lakhs)</u>	
<u>A. Science</u>			
1.	Physics	1.50	2.50
2.	Chemistry	1.50	2.00
3.	Mathematics	0.40	-
4.	Central Instrumentation Workshop facilities	-	4.00
<u>B. Humanities & Social Science</u>			
5.	Hindi	0.30	-
6.	English	0.30	-
7.	Economics	0.40	-
8.	Political Science	0.40	-
9.	Central Library	0.70	0.07
		<u>-----</u>	<u>-----</u>
	Total:	5.50	8.57
		<u>-----</u>	<u>-----</u>

VI
Enclosure to Appendix V

Regional Centre for Postgraduate Studies, Rohtak
(Kurukshetra University)

Buildings.

<u>S.No.</u>	<u>Department/Purpose</u>	<u>UGC share</u>	<u>State share</u>
		(Rupees in Lakhs)	
1.	Hostel for Women students (1st Phase) (UGC share 75%)	4.50	1.50
2.	Central Library (UGC share 50%)	4.00	4.00
3.	Academic Block (UGC share 50%)	2.50	2.50
	Total:	----- 11.00 -----	----- 8.00 -----

Regional Centre for Postgraduate Studies, Rohtak
(Kurukshetra University)

...

Additional staff approved for the duration of
the fifth plan period ending 1978-79.

...

S.No.	Department	Posts sanctioned
A. <u>Science</u>		
1.	Physics	1 Professor(Nuclear or Solid State Physics) 1 Reader 1 Technical Assistant
2.	Chemistry	1 Professor 1 Reader
3.	Mathematics	1 Professor(Pure or Applied Mathematics) 1 Lecturer(Statistics)
4.	Central Instrumentation Workshop Facilities	4 other: one Electrical Supervisor one technician two mechanics (i.e. one turner and one fitter)
B. <u>Humanities & Social Sciences</u>		
5.	Hindi	1 Reader
6.	English	1 Reader(Specialist in Linguistics)
7.	Economics	1 Reader(Specialist in Econometrics/Mathematical Economics/Theoretical (Economics) Statistics)
8.	Political Science	1 Reader(Specialist in Political Behaviour or Political Sociology)

N.B. i) P..Professor, R..Reader, L..Lecturer and O for others.

ii) Payments will be made on the basis of actual expenditure per annum on the agreed sharing basis only in respect of posts above, filled from the date of appointment upto the end of 1978-79 wherever specialisations have been indicated against posts above, no change can be made without prior approval of the Commission.

iii) UGC share for Professor=100%, Reader=100%, Lecturer=75%
Trained Staff=100% Trained Coaches=75%.

Appendix VI to the minutes of the UGC
meeting held on 29.9.1975 (Item No. 34)(a)

MADRAS UNIVERSITY

Allocation approved
(5th Plan Period)

A	<u>Spill-over</u>	Rs. 16,19,000/-
B	<u>Basic grants</u>	
	(i) Books	Rs. 5,00,000/-
	(ii) Equipment	Rs. 7,50,000/-
C	<u>New Allocations:</u>	
	<u>Non-Recurring</u>	
	Books	Rs. 22,75,000/-
	Equipment	Rs. 30,20,000/-
	Buildings	Rs. 16,75,000/-
	Others/Misc.	Rs. 11,48,000/-

Total:

D Recurring:

Staff: 7 Professors, 15 Readers, 21 Lecturers,
14 Others,

Junior Fellowships 25 (at Rs. 400 p.m.) at
any given time during the plan period
and as per guidelines laid down by the
Commission.

Annexure I to Appendix VI.

MADRAS UNIVERSITY

Allocations Approved
(5th Plan Period)

<u>Department</u>	<u>Books</u>	<u>Equipment</u>	<u>(100% UGC Share)</u>
History	Rs. 20,000/-	-	-
Psychology	Rs. 20,000/-	Rs. 40,000/-	-
Sociology and Social Anthro- pology	Rs. 20,000/-	-	-
Geography	Rs. 20,000/-	Rs. 30,000/-	-
Economics	Rs. 30,000/-	-	-
Commerce	Rs. 20,000/-	Rs. 10,000/-	-
Statistics	Rs. 20,000/-	Rs. 40,000/-	-
Journalism	Rs. 20,000/-	Rs. 20,000/-	-
Lib. Science	Rs. 15,000/-	Rs. 20,000/-	-
Pol. & Public Administration	Rs. 30,000/-	-	-
International Law	Rs. 50,000/-	-	-
Philosophy	Rs. 30,000/-	-	-
Education	Rs. 40,000/-	Rs. 1,00,000/-	-
English	Rs. 20,000/-	-	-
Sanskrit	Rs. 20,000/-	-	-
Tamil	Rs. 20,000/-	-	-
Kannada	Rs. 10,000/-	-	-
Telgu	Rs. 10,000/-	-	-
Malayalam	Rs. 10,000/-	-	-
Hindi	Rs. 15,000/-	-	-
Arabic Persian and Urdu	Rs. 10,000/-	-	-
Music School	Rs. 10,000/-	Rs. 20,000/-	-
<u>School of Chemistry</u>			
Physical Chemistry	Rs. 50,000/-	Rs. 1,20,000/-	-
Organic Chemistry	Rs. 50,000/-	Rs. 1,20,000/-	-
Inorganic Chem.	Rs. 50,000/-	Rs. 1,00,000/-	-
Analytical Chem.	Rs. 40,000/-	Rs. 70,000/-	-
Bio-Chemistry	Rs. 40,000/-	Rs. 70,000/-	-
Botany	Rs. 60,000/-	Rs. 1,00,000/-	-
Zoology	Rs. 60,000/-	Rs. 60,000/-	-

Contd...p.2.

: 2 :

School of Physics

Bio Physics and Crystallography	Rs. 30,000/-	Rs. 2,00,000/-
Nuclear Physics	Rs. 30,000/-	Rs. 1,00,000/-
Theoretical Physics	Rs. 70,000/-	-
Mathematics	Rs. 70,000/-	Rs. 50,000/-
Geology	Rs. 30,000/-	Rs. 1,00,000/-

School of Medical Sc.

Bio-Chemistry	Rs. 30,000/-	Rs. 70,000/-
Physiology	Rs. 30,000/-	Rs. 70,000/-
Genetics	Rs. 30,000/-	Rs. 70,000/-
Pathology	Rs. 50,000/-	Rs. 1,00,000/-
Pharmacology	Rs. 50,000/-	Rs. 1,00,000/-
Micro-Biology	Rs. 50,000/-	Rs. 1,00,000/-
University Library	Rs. 10,00,000/-	Rs. 1,00,000/-
C.I.S.L. for all Science departments & Sophisticated equipment	Rs. -	Rs. 10,00,000/-

Total:	Rs. 22,75,000/-	Rs. 30,20,000/-
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Annexure II to Appendix VI.

MADRAS UNIVERSITY

Allocation Approved

(5th Plan Period)

Buildings

<u>S. No.</u>	<u>Department</u>	<u>Amount UGC Share</u>	<u>University/State Govern- ment Share</u>
1.	C. I. S. L.	Rs. 2,00,000/-	-
2.	Science Block (I Phase)	Rs. 7,50,000/-	Rs. 7,50,000/-
3.	Women' s Ho stel	Rs. 2,25,000/-	Rs. 75,000/-
4.	Student s Home	Rs. 5,00,000/-	Rs. 5,00,000/-
Total:		Rs. 16,75,000/-	Rs. 13,25,000/-

Annexure IV to Appendix VI

MADRAS UNIVERSITY

Additional staff positions Approved

occurring: For the duration of the 5th Plan Period
i.e. upto end of 1978-79.

<u>No.</u>	<u>Department</u>	<u>Staff</u>	<u>Remarks</u>
	History	IR	
	Journalism	IR	
	Library Science	2L	
	Library Science	IR	
	Library Science	IL	
	Political and Public Administration	IR	(Public Administration)
	Education	IP	
	Education	PR	
	Education	2L	
	English	IL	
	Sanskrit	IR	
	Tamil	IL	
	Telugu	IP	
	Kannada	IP	
	Malayalam	IP	
	Hindi	IL	
	Urdu, Arabic & Persian	IL	Urdu
	Music	2L	IL Veena IL Violin
	Chemistry	IP	(Inorganic)
	Chemistry	IR	(Analytical)
	Chemistry	IL	(Inorganic)
	Botany	2R	Algology, Mycology
	Botany	3-Others	2 Technician, 1 Animal House Attendant
	Zoology	IR	0 Comparative Animal
	Zoology	IL	0 Physiology
	Zoology	2-Others	1 Technician, 1 Animal House Keeper
	Physics	IP 0	Theoretical Physics
	Physics	IR 0	
	Physics	IL	Nuclear Physics
	Geology	2-Others	Technicians
	Basic Medical Sc.	4R	1 Each in Genetics, Pathology Pharmacology, Micro-Biology.
	Basic Medical Sc.	6L	1 Each in Bio-Chemistry, Physiology, Anatomy, Pathology, Pharmacology, Micro-Biology.

Contd....p.2.

: 2 :

<u>S.No.</u>	<u>Department</u>	<u>Staff</u>	<u>Remarks</u>
20.	Basic Medical Scs. (Contd.)	4-Others	2 Technicians in Bio-Chemistry 1 Technician in Anatomy 1 Chemical Assistant in Anatomy.
21.	Central Instrumentation and Service Laboratory	IP IL 3-Others (Technicians)	(Instrumentation Engineer/ Scientist) (Jr. Scientist/Engineer)
		7p	15R 2IL 14-Others

N.B. (i) P. for Professor.

R for Reader

O for Others
L for Lecturer

(ii) Payment will be on the basis of actual expenditure per annum on the agreed sharing basis only in respect of posts above, filled from the date of appointment up to end of 1978-79, wherever specialisations have been indicated against post above no change can be made without prior approval of the Commission.

Appendix VII to the minutes of
the UGC meeting held on 29.9.75
(Item No. 34(b)).

Allocation Approved

P.G. Centre, Tiruchirappali (Madras University)

(5th Plan Period)

A.	Spill-Over	Rs. 7,00,000/-
B	<u>Basic Grants</u>	
	(i) Books	Rs. 1,00,000/-
	(ii) Equipments	Rs. 2,00,000/-
C.	<u>New Allocations :</u>	
	<u>Non-recurring</u>	
	Books	Rs. 7,60,000/-
	Equipment	Rs. 7,35,000/-
	Building	Rs. 3,00,000/-

Recurring :

Staff : 5 professors, 1 Reader, 4 Lecturers,
8 others

Junior Fellowships: 6 at Rs.400/- p.m. at any given time during
the plan period and as per guidelines laid down
by the Commission.

Details attached in enclosures.

Annexure I to Appendix VII

P.G. Centre, Tiruchirappali (Madras University)

Allocations Approved

(5th Plan Period)

<u>S. No.</u>	<u>Department</u>	<u>Books</u>	<u>Equipment</u>	<u>Building</u>
1.	Economics	Rs. 60,000/-	Rs. 10,000/-	-
2.	Mathematics	Rs. 60,000/-	Rs. 35,000/-	-
3.	Physics	Rs. 60,000/-	Rs. 2,50,000/-	-
4.	Chemistry	Rs. 60,000/-	Rs. 2,50,000/-	-
5.	Botany	Rs. 60,000/-	Rs. 1,20,000/-	-
6.	English	Rs. 60,000/-	Rs. -	-
7.	Central Library	Rs. 4,00,000/-	-	-
8.	Central Workshop	-	Rs. 70,000/-	-
9.	Science Block	-	-	Rs. 3,00,000/-
Total :		<u>Rs. 7,60,000/-</u>	<u>Rs. 7,35,000/-</u>	<u>Rs. 3,00,000/-</u>

Books & Equipment 100% UGC Share

Buildings 50% UGC share

Appendix II to Appendix VII

P.G. Centre, Tiruchirappali (Madras University)

Additional Staff Position approved

(5th Plan Period)

Recurring for the duration of the 5th plan period
i.e. upto end of 1978-79.

<u>S.No.</u>	<u>Department</u>	<u>Staff</u>	<u>Remarks</u>
1.	Economics	1 Reader	Econometrics
2.	Maths	IP	
3.	Physics	IP IL 1-Other	(Technician)
4.	Chemistry	IP IL 1-Others	(Technicians)
5.	Botany	IP IL 1-Others	(Technicians)
6.	English	IP IL	
7.	Central Library	1 Asstt. Librarian 1 Library Assistant	
8.	Central Workshop	1 Foreman 2 Technicians	
Total:		<u>5P</u> <u>1R</u> <u>4L</u> <u>8-Others</u>	

Fellowship : 6

N.B; (i) P-Professor R-Reader L-Lecturer O-Others

(ii) Payments will be on the basis of actual expenditure p.a. on the agreed sharing basis only in respect of posts above filled from the date of appointment upto the end of 1978-79 wherever specialisation have been indicated against posts above, no change can be made with prior approval of the Commission.

Appendix VIII to the minutes of the
UGC meeting held on 29.9.1975
(Item No. 34) (c)

P.G. Centre, Coimbatore (Madras University)

Allocation approved

(5th Plan Period)

A.	Spill over	Rs. 50,000/-	
B.	<u>New Allocations (NR)</u>		
1.	Books	Rs. 7,90,000/-	0
2.	Equipment	Rs. 8,50,000/-	0
3.	Buildings	Rs. 9,00,000/-	0

Including Basic Grant

Recurring:

Staff (R) (5P, 2R, 9L & 9-Others) 6 Junior Fellowships at
Rs. 400/- p.m. at any given time during the Plan period
and as per guidelines laid down by the Commission.

Annexure-I to Appendix VIII

P.G. Centre, Coimbatore (Madras University)

Allocations Approved

(5th Plan Period)

UGC Share 100%

S.No.	Department	Books Rs.	Equipment Rs.	Building Rs.	Remarks
1.	Chemistry	1,50,000	3,25,000	--	including sophisticated instruments
2.	Physics	1,50,000	3,25,000	--	workshops
3.	Zoology	70,000	75,000	--	Instruments etc. for common use.
4.	Psychology	30,000	--	--	
5.	Botany	70,000	75,000		
6.	Appl.Maths	30,000	25,000		
7.	Statistics	30,000	25,000		
8.	Economics	30,000	--		
9.	Sociology	30,000	--		State Govt. share
10.	Central Lib.	2,00,000	--	3,00,000	3,00,000
11.	Academic Buildings	--	--	6,00,000	6,00,000
Total		7,90,000	8,50,000	9,00,000	9,00,000

Annexure-II to Appendix VIII

P.G. Centre, Coimbatore (Madras University)
Additional staff position approved

Recurring: For the duration of the 5th Plan period i.e. upto end of 1978-79

<u>S.No.</u>	<u>Department</u>	<u>Staff</u>	<u>Remarks</u>
1.	Chemistry	1R 1L 1-Other (Technician)	
2.	Physics	1L 1-Other (Technician)	
3.	Zoology	1L 1-Other (Technician)	
4.	Psychology	1R 1L	
5.	Botany	1P 1L 1-Other (Technician)	
6.	App. Maths	1P 1L	
7.	Statistics	1P 1L	
8.	Economics	1P 1L	
9.	Sociology	1P 1L	
10.	C.I.S.I.	1 Foreman 3 Technicians	
11.	Central Library	1 Assistant Librarian 1 Library Assistant	
	Total	<u>5P 2R 9L 9-Others</u>	

NB: (i)
P Professor
R Reader
L Lecturer
O Others

(ii) Payment will be on the basis of actual expenditure p.a. on the agreed sharing basis only in respect of posts above, filled from the date of appointment upto the end of 1978-79. Wherever specialisation have been indicated against posts above no change can be made without prior approval of the Commission

Appendix IX to the minutes of the UGC meeting
held on 29.9.75 (Item No. 34)(d)

ANNAMALAI UNIVERSITY

(Allocation Approved)

(5th Plan Period)

A. Spill-Over	Rs. 20,07,000/-
B. Basic grants	
i) Books	Rs. 3,00,000/-
ii) Equipment	Rs. 5,00,000/-
C. New Allocations:	
i) Books & Journals	Rs. 7,75,000/-
ii) Equipment	Rs. 13,35,000/-
iii) Buildings	Rs. 10,00,000/-
iv) Miscellaneous	Rs. 1,25,000/-
	<hr/>
	Rs. 60,42,000

Staff (Recurring) 2 Professors, 6 Readers, 3 Lecturers, 2 others.

Junior Fellowships: 20, at any given time, @ Rs. 400/- P.M. in
the V Plan Period and as per guidelines laid down by the Commission.

ANNEXURE I TO APPENDIX IX

ANNAMALAI UNIVERSITY

(Allocation Approved)

5th Plan Period

(100% UGC)

<u>Department</u>	<u>Books</u>	<u>Equipment</u>
English	Rs. 10,000/-	Rs. 5,000/-
Hindi	Rs. 10,000/-	-
Sanskrit	Rs. 5,000/-	-
Tamil	Rs. 10,000/-	-
Linguistics	Rs. 20,000/-	-
Music	-	Rs. 15,000/-
Psychology	Rs. 10,000/-	Rs. 50,000/-
philosophy	Rs. 10,000/-	Rs. -
History & Pol. Sc.	Rs. 10,000/-	Rs. -
Economics	Rs. 10,000/-	Rs. 2,500/-
Commerce	Rs. 12,500/-	-
Sociology	Rs. 10,000/-	-
Education	Rs. 12,500/-	Rs. 12,500/-
Mathematics	Rs. 25,000/-	-
Statistics	Rs. 25,000/-	Rs. 25,000/-
Physics	Rs. 50,000/-	Rs. 1,50,000/-
Chemistry	Rs. 75,000/-	Rs. 1,50,000/-
Geology	Rs. 20,000/-	Rs. 75,000/-
Botany	Rs. 25,000/-	Rs. 1,00,000/-
Zoology	Rs. 25,000/-	Rs. 1,00,000/-
Marine Biology	Rs. 50,000/-	Rs. 1,50,000/-
Central Lib. Books	Rs. 3,50,000/-	-
C.I.S.L.	-	Rs. 5,00,000/-
Total:	Rs. 7,75,000/-	Rs. 13,35,000/-

ANNAMALAI UNIVERSITY

Additional staff position (Approved during the
5th plan period ending 1978-79).

<u>Department</u>	<u>Posts approved</u>	<u>Remarks</u>
English	IR	Phonetics
Hindi	IL	
Linguistics	2L	Telugu/Malayam or Kannada
Commerce	IR	(Income Tax)
Sociology	IP	
Education	IR	
Physics	IR	Solid state Physics Electronics
Chemistry	IP	(Physical-Inorganic- Chemistry)
Marine Biology	IR	(Marine Botany/ Oceanography)
	I-Other	Technician
C.S.I.L.	IR	(Instrumentation Engineer)
	I-Other	Technician

2 6R 3L 2-Others

- N.B.: (i) P= Professor, R= Reader, L= Lecturer, O=Others.
- (ii) Payment will be on the basis of actual expenditure p.a. on the agreed sharing basis only in respect of posts above, filled from the date of appointment upto end of 1978-79. Wherever specialization have been indicated against posts above, no change can be made without prior approval of the Commission.

Annexure III to Appendix IX

ANNAMALAI UNIVERSITY

Allocation Approved
(5th Plan Period)

<u>Department</u>	<u>Buildings</u> <u>UCE Share</u>	<u>University/State Govt. Share</u>
C.I.S.L.	Rs. 1,50,000/-	-
Staff quarters	Rs. 1,00,000/-	Rs. 1,00,000/-
Buildings for under-graduate Education	Rs. 6,00,000/-	Rs. 6,00,000/-
Hostel (50 Men)	Rs. 1,50,000/-	Rs. 1,50,000/-
Total:	<u>Rs. 10,00,000/-</u>	

Miscellaneous (100 % UCE)

Visiting Professorship	Rs. 50,000/-
Publication	Rs. 50,000/-
Botanical Garden	Rs. 25,000/-
	<u>Rs. 1,25,000/-</u>

Appendix-X to the minutes of the
UGC meeting held on 29.9.1975
Item No. 34)

MADURAI UNIVERSITY

Allocations Approved

(5th Plan Period)

(In Rupees)

A. Spill-over	Rs. 14,00,000/-
B. Basic grant (Books and Equipment)	Rs. 8,00,000/-
C. <u>New Allocations:-</u>	
1. Books and Journals	Rs. 10,65,000/-
2. Equipment	Rs. 14,05,000/-
3. Buildings	Rs. 19,70,000/-
4. Miscellaneous	Rs. 10,50,000/-

Total Rs. 76,90,000/-

5. Staff(R) 10P 15R 21L 8 others

Junior Fellowship: 20 @ Rs. 400/- p.m. estimated at
Rs. 4,00,000/- at any given time during
the plan period and as per guidelines
laid down by the Commission.

Details attached in enclosures.

Annexure-I to Appendix-X

MADURAI UNIVERSITY

Allocations Approved

(5th Plan Period)

(In Rupees)

<u>S.No.</u>	<u>Department</u>	<u>Books</u> Rs.	<u>Equipment</u> Rs.	<u>Misc.</u> Rs.	<u>Remarks</u>
1.	English	15,000	20,000	1,00,000	*For Lang. Lab.
2.	Economics	15,000	20,000	--	
3.	History	15,000	--	--	
4.	Geography	30,000	50,000	50,000	Vehicles
5.	Tamil	15,000	5,000	--	
6.	Malayalam	5,000	--	--	
7.	Telugu	5,000	--	--	
8.	Kannada	5,000	--	--	
9.	French	5,000	5,000	--	
10.	Sanskrit	5,000	--	--	
11.	Maths	1,00,000	--	--	
12.	Physics	60,000	2,00,000	--	
13.	Chemistry	1,50,000	2,00,000	--	
14.	Bio-Sciences	1,50,000	4,00,000	*4,00,000	*Animal House Botanical Garden Green house. Aquarium & Wet Lab.
15.	Lib. Science	25,000	--	--	
16.	Pol. Science	25,000	--	--	
17.	Sociology	25,000	--	--	
18.	Education	25,000	25,000	--	
19.	CISL	--	5,00,000	--	
20.	Central Lib.	4,00,000	--	--	
21.	Visiting Profs.	--	--	1,00,000	
22.	F.I.P.	--	--	3,00,000	
23.	Publications	--	--	1,00,000	
Total		10,65,000	14,05,000	10,50,000	

Annexure-III Appendix-X

MADURAI UNIVERSITY

Additional posts approved by the Commission

(5th Plan period)

<u>S.No.</u>	<u>Department</u>	<u>Staff</u>	<u>Remarks</u>
	English	1R 1L	Language
	Economics	1P	Econometrics
	History	1P 3L	Medieval History 1 each in Ancient History Medieval History Modern History
	Geography	1P 1L 1-Other	Human Geography Lab. Assistant
	Tamil	1L	
	Malayalam	1L	
	Telugu	1L	
	Kannada	1L	
	Sanskrit	1L	
	French	1R	
	Maths	2R 1L	(1 Reader in Applied Maths)
	Physics	1P 1R	Theoretical Physics Solid State Physics
	Chemistry	2P 2R 3L	(1 each in Physical Chemistry Bio-Chemistry) (1 each in Phytochemistry and Bio-Chemistry) (1 each in Physical Chemistry, Inorganic Chemistry - Bio-Chemistry)
	Bio-Sciences	2P 2R	1 each in Animal Physiology Microbiology 1 in Cryptogamic Botany 1 in Systematic Botany

	4L	One each in Plant Physiology Immunobiology, Plant Pathology, Animal Physiology.
	4-Others	2 Technicians, one aquarium keeper, one field man.
Lib. Science	1R	
Political Science	1P 1R 1L	Political Behaviour
Sociology	1P 1R 1L	
Education	1P 1R 1L	
C. S. I. L.	1R 1L 3 Others	Scientist/Engineer Jr. Engineer/Scientist Technicians
Total	10P 15R 21L	8-Others

N. B.:

No. (i) P - Professor, R - Reader, L - Lecturer,
O - Others.

(ii) Payment will be on the basis of actual
expenditure p.a. on the agreed sharing
basis only in respect of posts above,
filled from the date of appointment upto
end of 1978-79. Wherever specialisation
have been indicated against posts have no
change can be made without prior approval
of the Commission.

Appendix XI to the minutes of the
U.G.C. Meeting held in 29.9.75
(Item No.35)

BANGALORE UNIVERSITY
(Allocation approved)
5th Plan period

Rs.

A. <u>Spill-over</u>	31,50,000/-
B. <u>Basic Grant</u>	
(i) Books	5,00,000/-
(ii) Equipment	7,50,000/-
C. <u>Schemes approved prior to the assessment of the Vth Plan requirement of the University Visiting Committee.</u>	
i) Job Oriented Courses	6,00,000/-
ii) Purchase of Library Furniture	1,82,000/-
D. <u>New Allocation</u>	
1) Books and Journals	12,90,000/-
2) Equipment	17,00,000/-
3) Buildings	16,50,000/-
4) Misc.	7,90,000/-

5. Recurring

Staff 29 Readers, 25 Lecturers, 18 others.

Junior Fellowships 25 (at Rs.400/-p.m.) at any given time during the plan period and as per guidelines laid down by the Commission.

(Details attached in enclosures)

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Annexure I to Appendix-XI

BANGALORE UNIVERSITY

Allocation Approved
(5th Plan period)

UGC Shar 100%

<u>S. No.</u>	<u>Department</u>	<u>Books</u>	<u>Equipment</u>	<u>Other/Misc.</u>
		Rs.	Rs	Rs
1.	Mathematics	35,000/-	35,000/-	-
2.	Statistics	20,000/-	10,000/-	-
3.	Chemistry	75,000/-	1,50,000/-	-
4.	Physics	75,000/-	2,00,000/-	-
5.	Zoology	75,000/-	75,000/-	1,00,000/- Cold room aquarium Animal Home, Vehicle.
6.	Botany	75,000/-	75,000/-	-
7.	Home Science	35,000/-	75,000/-	-
8.	Geology	35,000/-	75,000/-	-
9.	Commerce	25,000/-	10,000/-	-
10.	Geography	20,000/-	35,000/-	-
11.	Education	20,000/-	-	-
12.	Philosophy	10,000/-	-	-
13.	Psychology	20,000/-	75,000/-	-
14.	Social Work	15,000/-	-	-
15.	Sociology	20,000/-	5,000/-	-
16.	English	20,000/-	-	-
17.	Sanskrit	20,000/-	-	-
18.	Kannada	10,000/-	-	-
19.	Hindi	10,000/-	-	-
20.	Urdu	10,000/-	-	-
21.	Telugu	10,000/-	-	-
22.	History	20,000/-	-	-
23.	Zol. Science	20,000/-	-	-
24.	Economics	20,000/-	10,000/-	-
25.	Dance-drama and Music	10,000/-	20,000/-	-
26.	Communication Arts	75,000/-	3,50,000/-	-
27.	Lib. Science	10,000/-	-	-
28.	Central Library	5,00,000/-	-	-
29.	C.I.S.I.	-	3,00,000/-	-
30.	University Press	-	2,00,000/-	-
31.	Publication	-	-	1,00,000/-
32.	Visiting professor- ships.	-	-	1,00,000/-
33.	F.I.P.	-	-	4,00,000/-
34.	School of Languages (Languages Lab.)	-	-	-
	Rs.	12,90,000/-	17,00,000/-	7,90,000/-

Annexure III to Appendix XI

BANGALORE UNIVERSITY

Additional Staff recommended Recurring
Approved during the fifth plan period ending 1978-79

<u>S. No.</u>	<u>Department</u>	
1.	Physics	1R (Theoretical Physics)
2.	Zoology	2R (Animal Physiology, Ecology) 2L 2 Technician, Animal House attendant
3.	Botany	2R (Plant Physiology, Mycology) 2L 1 Technician
4.	Geology	2R 2L 2 Curator, Cartographer
5.	Geography	1R 2L
6.	Commerce	2R 1L
7.	Education	3R (Research methodology, educational sociology, educational administration)
8.	Philosophy	2L
9.	Psychology	1R (Clinical Psychology) 1L
10.	Social Work	2L 1 field work supervisor
11.	Sociology	1R 1L
12.	English	1R (Linguistics) 2L
13.	Sanskrit	3 Pandits
14.	Kannada	1R (Kannada & Tamil or Kannada & Telugu)
15.	Economics	1R 1L
16.	Urdu	1L
17.	Telugu	1R 1L
18.	History	1R (Modern Social and Economic History)
19.	Pol. Science	2R (1 in Public Administration)
20.	Dance, Drama & Music	2R (Music, Dance or Drama) 2L
21.	Communication Arts	4R (One each in Rural Communication, Communication Research Communication Policy and Planning, Journalism) 2L
22.	Library Science	1R 1L
23.	Central Library	1 Deputy Librarian 1 Asstt. Librarian 2 Library Assistant
24.	C.I.S.L.	1 Inst. Engg. 1 Jr. Engg. 3 Tech.
	Total :	<u>29 R, 25 L, 18 Others</u>

N.B. Payments will be on the basis of actual expenditure per annum on the agreed sharing basis only in respect of posts above, filled from the date of appointment upto the end of 1978-79. Wherever, specialisation have been indicated against posts above, no change can be made without prior approval of the Commission.

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Annexure II to Appendix XI

BANGALORE UNIVERSITY

Financial implications of fifth plan recommendations of the
Visiting Committee

<u>S.No.</u>	<u>Department</u>	<u>UGC share</u> Rs.	<u>State Govt. Share</u> Rs.
1.	Geology	2,50,000/-	2,50,000/-
2.	Men's Hostel	3,00,000/-	3,00,000/-
3.	Women's Hostel	4,50,000/-	1,50,000/-
4.	Teachers' Hostel	3,00,000/-	3,00,000/-
5.	Staff Quarters (Academic)	3,50,000/-	3,50,000/-
Total :		Rs. 16,50,000/-	13,50,000/-

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Annexure III to Appendix XI

BANGALORE UNIVERSITY

Additional Staff recommended Recurring
Approved during the fifth plan period ending 1978-79

<u>S. No.</u>	<u>Department</u>	
1.	Physics	1R (Theoretical Physics)
2.	Zoology	2R (Animal Physiology, Ecology) 2L 2 Technician, Animal House attendant
3.	Botany	2R (Plant Physiology, Mycology) 2L 1 Technician
4.	Geology	2R 2L 2 Curator, Cartographer
5.	Geography	1R 2L
6.	Commerce	2R 1L
7.	Education	3R (Research methodology, educational sociology, educational administration)
8.	Philosophy	2L
9.	Psychology	1R (Clinical Psychology) 1L
10.	Social Work	2L 1 field work supervisor
11.	Sociology	1R 1L
12.	English	1R (Linguistics) 2L
13.	Sanskrit	3 Pandits
14.	Kannada	1R (Kannada & Tamil or Kannada & Telugu)
15.	Economics	1R 1L
16.	Urdu	1L
17.	Telugu	1R 1L
18.	History	1R (Modern Social and Economic History)
19.	Pol. Science	2R (1 in Public Administration)
20.	Dance, Drama & Music	2R (Music, Dance or Drama) 2L
21.	Communication Arts	4R (One each in Rural Communication, Communication Research Communication Policy and Planning, Journalism) 2L
22.	Library Science	1R 1L
23.	Central Library	1 Deputy Librarian 1 Asstt. Librarian 2 Library Assistant
24.	C. I. S. I.	1 Inst. Engg. 1 Jr. Engg. 3 Tech.
Total :		<u>29 R, 25 L, 18 Others</u>

N.B. Payments will be on the basis of actual expenditure per annum on the agreed sharing basis only in respect of posts above, filled from the date of appointment upto the end of 1978-79. Wherever, specialisation have been indicated against posts above, no change can be made without prior approval of the Commission.

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Appendix XII to the Minutes of the
UGC Meeting held on 29.9.1975
(Item No. 35). (ii)

MYSORE UNIVERSITY

Allocation Approved.

(5th Plan Period)

A.	Spill Over	Rs. 4,82,000/-
B.	Basic Grants	
	(i) Books	Rs. 3,00,000/-
	(ii) Equipment	Rs. 5,00,000/-
C.	<u>New Allocations(NR)</u>	
	(i) Books	Rs.14,20,000/-
	(ii) Equipment	Rs.20,25,000/-
	(iii) Buildings.	Rs.18,70,000/-
	(iv) Misc./Others,	Rs.10,75,000/-
	Total:	<u>Rs.76,72,000/-</u>

(v) Recurring:

Staff: 5 Professors, 20 Readers, 24 Lecturers and 9 Others.

Junior fellowships 25(at Rs.400/- p.m.) at any given time during the plan period and as per guidelines laid down by the Commission.

(Details attached in enclosures)

Annexure I to Appendix-XII

MYSORE UNIVERSITY

ALLOCATION APPROVED

(5th Plan Period)

UGC Share 100%

<u>Department</u>	<u>Books</u> RS.	<u>Equipment</u> RS.	<u>Other/Misc.</u> RS.
Maths.	50,000/-	-	-
Statistics.	40,000/-	15,000/-	-
Physics.	50,000/-	2,00,000/-	-
Chemistry	50,000/-	2,00,000/-	-
Biochemistry.	40,000/-	1,00,000/-	- Including Van.
Home Science.	30,000/-	1,00,000/-	-
Botany.	50,000/-	1,00,000/-	-
Zoology.	1,00,000/-	1,00,000/-	60,000/- Van.
Geology.	50,000/-	1,00,000/-	-
History.	20,000/-	-	-
Ancient History.	20,000/-	-	1,00,000/- Excavations etc.
Jainology & Prakrit.	10,000/-	-	-
Economics.	20,000/-	30,000/-	-
I.D.S.	30,000/-	-	1,20,000/- Studentship to M..R.P.
Centre for Study of Socialism.	-	-	-
Geography.	10,000/-	25,000/-	-
Commerce	20,000/-	-	-
Pol.Sc.	20,000/-	-	-
Education.	20,000/-	20,000/-	-
Psychology.	20,000/-	1,60,000/-	-
Journalism.	20,000/-	20,000/-	5,000/- Furniture.
Philosophy	20,000/-	-	5,000/- --do--
Law.	75,000/-	-	-
Anthropology.	20,000/-	25,000/-	25,000/- Van.
Sociology and Social Work.	20,000/-	-	3,000/- Furniture.
Kannada.	15,000/-	40,000/-	2,500/- --do--
Foreign Languages.	20,000/-	20,000/-	-
Oriental Research Institute.	-	-	1,00,000/- For addi- tional space, facilities etc.
English	20,000/-	-	-
Sanskrit.	10,000/-	-	-
Hindi.	15,000/-	-	-
Urdu.	10,000/-	-	-
Physical Edu.	15,000/-	15,000/-	-

<u>Department</u>	<u>Books</u>	<u>Equipment</u>	<u>Other/Misc.</u>
	Rs.	Rs.	Rs.
Library Sc.	10,000/-	15,000/-	5,000/-
Univ. Library	4,00,000/-	-	50,000/- Furniture
CISL.	-	4,00,000/-	-
Central Workshop	-	40,000/-	-
Univ. Press.	-	2,00,000/-	-
Languages Lab.	-	1,00,000/-	-
<hr/>			
Total:	Rs. 14,20,000/-	Rs. 20,25,000/-	Rs. 4,75,500/-

Other Miscellaneous Scheme (100% UGC) approved by UGC.

1.	Visiting Professorships	Rs. 1,00,000/-
2.	Faculty Improvement Programme.	Rs. 4,00,000/-
3.	Publications.	Rs. 1,00,000/-
		<hr/>
Total:		Rs. 6,00,000/-

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Annexure II to Appendix XII

MYSORE UNIVERSITY

Buildings : Allocations Approved (5th Plan Period)

<u>Department</u>	<u>U.G.C.Share</u>	<u>State Govt. Shre</u>
1. Chemistry (Addl.Space)	Rs.1,00,000/-	Rs.1,00,000/-
2. Bio-Chemistry	Rs.2,50,000/-	Rs.2,50,000/-
3. Zoology	-	-
i) Insectory	Rs. 80,000/-	-
ii) Cold Room	Rs.1,00,000/-	-
iii) Animal House	Rs. 50,000/-	-
iv) Addl. Space	Rs. 50,000/-	Rs. 50,000/-
4. Geology(Addl.Space)	Rs. 80,000/-	Rs. 80,000/-
5. I.D.S.	Rs.1,50,000/-	Rs.1,50,000/-
6. Geography(Addl.Space)	Rs. 40,000/-	Rs. 40,000/-
7. Commerce(Addl.Space)	Rs.1,00,000/-	Rs.1,00,000/-
8. Psychology(Addl.Space)	Rs. 20,000/-	Rs. 20,000/-
9. School of Foreign Languages	Rs.1,00,000/-	Rs.1,00,000/-
10. Physical Education	Rs.1,00,000/-	Rs.1,00,000/-
11. Central Instrumentation	Rs.1,50,000/-	-
12. Men's Hostel	Rs.2,00,000/-	Rs.2,00,000/-
13. Women's Hostel	Rs.3,00,000/-	Rs.1,00,000/-
	<hr/>	<hr/>
Total :	Rs.18,70,000/-	Rs.12,45,000/-
	<hr/>	<hr/>

Annexure-III to Appendix-XII.

MYSORE UNIVERSITY

Additional Staff (Recurring)

Approved during the Vth Plan Period ending 1978-79.

<u>Department.</u>	<u>Staff.</u>
Chemistry	1R (Physical-Inorganic Chemistry)
Bio-Chemistry	1R
	1L
Animal House.	1R
	1L
	2-Others(Technical Staff)
Home Science.	1R
Botany	3L
Zoology.	1P (Drosophila genetics/Reproductive Bio)
	2R (Applied Entomology, Histo-Physiology)
Geology.	1R
Ancient History &	1L
Archaeology. &	
History	1P (Medieval History)
Jainlogy and Prakrit	1R
Economics	1P(Public Finance)
I.D.S.	1P
	2R (Microeconomics/Rural develop-
	ment/resource/Manpower Planning)
Geography	2R (Settlement Geography, Transport Geography).
Pol.Science	2L
Education	1P
Psychology	1L
Journalism	1L
Philosophy	1L
Law.	1R
Anthropology	1R
	1L
Sociology	1R
	1L
Social Work	2L
	1-Others (Field assistant)
Kannada	1R (Linguistics)
	1L
	1 (Technician)
English	1R
	1L

<u>Department</u>	<u>Staff:</u>
Foreign Languages.	2L
Hindi	1R 1L
Urdu.	1L
Physical Education.	1R 1L
C.I.S.L.	1R (Instrumentation Engineer) 1L (Jr. Engineer/Scientist) 3- Others (Technicians)
Total:	<hr/> 5P, 20R, 24L, 9-Others. <hr/>

N.B: P. Professor, R-Reader, L- Lecturer, O- Others.

ii) Payment will be on the basis of actual expenditure per annum on the agreed sharing basis only in respect posts above, filled from the date of appointment upto the end of 1978-79. Wherever, specialisation have been indicated against posts above, no change can be made without prior approval of the Commission.

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Appendix XIII of the minutes of the
U.G.C. meeting held on 29th September,
1975 (Item No.35) (iii)

KARNATAKA UNIVERSITY

Allocations approved(5th Plan period)

	<u>Rs.</u>
A) Spill-Over	25,25,000 /-
B) i) Books	3,00,000/
ii) Equipment	5,00,000/-
C. <u>New Allocations (N.R.)</u>	
i) Books	10,30,000/-
ii) Equipment	12,00,000/-
iii) Buildings	14,20,000/-
iv) Misc./Others	<u>9,18,000/-</u>
	<u>78,93,000/-</u>

V) Recurring

Staff: 9 professors, 17 readers, 25 lecturers, 7 others

Junior Fellowships : 25 (at Rs.400/-p.m.) at any given time during the plan period and as per guidelines laid down by the Commission.

(Details attached in enclosures)

Annexure I to Appendix XIII

KARNATAK UNIVERSITY

ALLOCATION APPROVED BY UGC DURING THE VTH PLAN
UGC SHARE 100%

S.No.	Department	Books Pr. I	Equipment Pr. I	Misc. Pr. I	in Rupee
1.	Mathematics	25,000	-	-	
2.	Statistics	25,000	10,000	-	
3.	Physics	65,000	1,35,000	-	
4.	Chemistry	65,000	1,35,000	-	
5.	Botany	75,000	70,000	1,50,000	(Orchard)
6.	Zoology	75,000	35,000	1,68,000	(Animal house Insectory cold room etc.)
7.	Bio-Chemistry	40,000	35,000	-	
8.	Geology	40,000	1,00,000	-	
9.	Geography	25,000	20,000	-	
10.	Sociology, Criminology Forensic Sc. & Social work	20,000	25,000	-	
11.	Anthropology	10,000	10,000	-	
12.	Psychology	10,000	35,000	-	
13.	Law	40,000	-	-	
14.	Kannada	10,000	10,000	-	
15.	Foreign Languages	5,000	5,000	-	
16.	Sanskrit	10,000	-	-	
17.	Hindi	10,000	-	-	
18.	English	10,000	5,000	-	
19.	Pol. Sc.	25,000	-	-	
20.	Philosophy	25,000	-	-	
21.	Education	25,000	10,000	-	
22.	Economics	10,000	10,000	-	
23.	Commerce	10,000	-	-	
24.	Library Science	5,000	-	-	
25.	Kannada Research Instt. and Ancient Indian History Archaeology	20,000	-	1,00,000	(Study tour, Survey excavation etc.)
26.	Central Library	3,50,000	50,000	-	
27.	Central Workshop	-	50,000	-	
28.	C.O.S.L.	-	4,50,000	-	
29.	F.P.P.	-	-	3,00,000	
30.	Visiting Professorship	-	-	1,00,000	
31.	Publications	-	-	1,00,000	
		<u>10,30,000</u>	<u>12,00,000</u>	<u>9,18,000</u>	

Annexure II to Appendix XIII

KARNATAKA UNIVERSITY
Allocation approved (fifth plan period) Buildings

<u>Department</u>	<u>Buildings</u>	
	<u>UGC share</u> <u>Rs.</u>	<u>Univ./State, Govt. share</u>
1. Physics	2,50,000	2,50,000
2. Zoology	20,000	
3. Kannada	2,50,000	2,50,000
4. Education	1,50,000	1,50,000
5. C.I.S.L.	1,50,000	-
6. Library	6,00,000	6,00,000
	<u>14,20,000</u>	<u>12,50,000</u>

Annexure III to appendix XIII

KARNATAK UNIVERSITY

Additional Staff approved
during the Vth plan period
ending 1978-79

Recurring

Department

Physics IP (Solid State/Nuclear Physics/Electronics)

Chemistry 2R (one each in Inorganic, Physical)

Botany IR, 2L (Plant Physiology)

Zoology 2R, (Entomology, Marine Zoology)
IL

Bio Chemistry IP
2L

Geology IR

Geography IR (Applied Geography)
2L

Sociology IR (Educational/Industrial Sociology)
IL

Criminology & Forensic Science IR (Criminology)
2L

Social Work IP (Industrial Relations)

Anthropology IR (Anthropolinguistics)
IL

Psychology IP

Law IP (Labour Law)

Kannada IR (Linguistics)
2L

Foreign Languages 3L (Russian, French, German or Chinese)

Sanskrit IL

Hindi IP, IL

English IP (Linguistics)
IL

Pol. Science IR (International Relations)
IL

Philosophy	IR (Philosophy of Social Sciences)
Education	2R (Educational Research, Teacher Education) 2L
Economics	IP (International Trade/Economics)
Commerce	IP (In the areas of marketing, Banking, R Finance, Organisational Behavior and Industrial dynamics.
Yoga	I Instructor
Music and Fine Arts	IR (Vocal/Instrumental Music, Dance, Painting) 2L
Library	1(Asstt. Lib) 1(Rep. Asstt)
C.I.S.L.	1(Instrument Engg.) 1(Jr. Engg.) 3(Technician)
Total:	9 professor, 17 readers, 25lecturers, 7 others

N.B.: Payment will be on the basis of actual expenditure per annum on the agreed saving basis only in respect of posts above filled from the date of appointment upto the end 1978-79 wherever specialisation have been indicated against the posts above, no change can be held without prior approval of the Commission.

APPENDIX XIV OF THE MINUTES OF THE
UGC MEETING HELD ON 29th Sept., 1975
(Item No. 35)

P.G. Centre, Mangalore (Mysore University)

Allocation Approved

(5th Plan Period)

A. Spill-over	Rs. 39,000/-
B. <u>Basic Grants</u>	
i) Books	Rs. 1,00,000/-
ii) Equipment	Rs. 2,00,000/-
C. <u>New Allocations (NR)</u>	
i) Books	Rs. 8,65,000/-
ii) Equipments	Rs. 6,40,000/-
iii) Buildings	Rs. 9,80,000/-
iv) Misc./Others	Rs. 50,000/-
	28,74,000/-

Staff (Recurring) :
4P, 3R, 3L, 4-Others

Fellowships 6 estimated Rs. 1,40,000/- (at Rs. 400/-p.m.)
at any given time during the plan period and as per
guidelines laid down by the Commission.

(Details attached in enclosures)

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Annexure 1 to Appendix XI/

P.G. Centre, Mangalore (Mysore University)

Allocation Approved

(5th Plan Period)

<u>Department</u>	<u>UGC Share 100%</u>		<u>100% UGC</u>
	<u>Books</u>	<u>Equipment</u>	<u>Misc./Others</u>
Biosciences	1,40,000/-	2,00,000/-	-
Physics	1,40,000/-	3,50,000/-	-
Marine Geology	70,000/-	70,000/-	-
Commerce	40,000/-	15,000/-	-
Economics	70,000/-	-	-
Kannada	35,000/-	-	-
Mathematics	70,000/-	5,000/-	-
Library	3,00,000/-	-	-
Visiting Professorship	-	-	50,000/-
	<u>8,65,000/-</u>	<u>6,40,000/-</u>	<u>50,000/-</u>

Fellowships 6 (is. 400/-p.m.) at any given time during the V Plan period and as per guidelines laid down by the Commission.

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Annexure II to Appendix XIV

I.G. Centre, Mangalore (Mysore University)

Allocation Approved during 5th Plan Period

B U I L D I N G S

<u>Department</u>	<u>UG Share</u>	<u>State Govt. Share</u>
		Rs.
Bio-Sciences	30,000/-	30,000/-
Marine Geology	70,000/-	70,000/-
Commerce	30,000/-	30,000/-
Economics	1,00,000/-	1,00,000/-
Library	1,75,000/-	1,75,000/-
Student Hostel	1,75,000/-	1,75,000/-
Staff Quarters	2,00,000/-	2,00,000/-
Student Home, Health Centre	1,00,000/-	(Expenditure about Rs.1 lakh to be met by the State Govt.)
Guest House	1,00,000/-	1,00,000/-
Total :	<u>9,80,000/-</u>	<u>8,80,000/-</u>

Annexure III to appendix XIV

A.C. Centre, Mangalore (Uyore University)
Additional Staff approved during 5th Plan
period ending 1976-79 (Recurring).

<u>Department</u>	<u>Staff</u>
Bio-Sciences	2R (Hydrobiology, Bio-chemistry, 2 Others (Technician and Driver)
Marine Geology	1P 1L
Commerce	1P (Industrial Relations)
Mathematics	1P
Economics	1P (Economic analysis/Economic development) 1R (Econometrics) 2L
Library	1 Assistant Librarian 1 Tech. Assistant
	<hr/> 4P 3R 3L 4-Others

NB: (i) P - Professor, R-Reader, L-Lecturer, O-others

(ii) Payments will be on the basis of actual expenditure per annum on the agreed sharing basis only in respect of posts above, filled from the date of appointment upto the end of 1978-79. Wherever, specialisation have been indicated against posts above, no change can be made without prior approval of the Commission.

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Appendix XV of the Minutes
of the UJC Meeting held on
29.9.1975 (Item No.25).

Post-Graduate Centre, Gulbarga (Karnatak University)

Allocation Approved.

(5th Plan Period)

A.	Spill-over	Rs. 4,44,000/-
B.	<u>New Allocations(NR)</u>	
	(i) Books.	Rs. 7,65,000/- includes basic grant of Rs.3 lakhs for books and equipment.
	(ii) Equipment.	Rs.8,60,000/-
	(iii) Buildings.	Rs.7,00,000/-
	(iv) Misc./Others.	Rs. 85,000/-
	Staff(Recurring)	<u>Rs.28,54,000/-</u>
	5P,4R,8L 4 Others.	<u>Rs.28,54,000/-</u>

Fellowships 6 (at Rs.400/-p.m.) at any given time during the plan period and as per guidelines laid down by the Commission.

(Details attached in
enclosure).

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Annexure I to Appendix-KV.

Post-Graduate Centre, Gulbarga (Karnatak University)

Allocation Approved.

(5th Plan Period)

UGC Share 100%

<u>Department</u>	<u>Books</u>	<u>Equipment</u>	<u>Other/Misc.</u>
	Rs.	Rs.	Rs.
Kannada	20,000/-	-	-
English.	20,000/-	-	-
Maths.	35,000/-	-	-
Chemistry	70,000/-	2,00,000/-	-
Pol. Science.	35,000/-	-	-
Physics.	70,000/-	3,50,000/-	50,000/- (Vehicle Animal house etc.)
Micro- Biology.	1,40,000/-	2,50,000/-	-
Economics.	60,000/-	30,000/-	-
Commerce.	60,000/-	30,000/-	-
History & Archaeology or Sociology.	35,000/-	-	-
Hindi.	20,000/-	-	-
Central Library.	2,00,000/-	-	-
Visiting Professorship.	-	-	35,000/-
Total:	7,65,000/-	8,60,000/-	85,000/-

Post-Graduate Centre, Gulbarga (Karnatak University)

Allocation Approved during 5th Plan Period.

Buildings.

<u>Department</u>	<u>UGC Share</u>	<u>State Govt. Share.</u>
Physics.	Rs.1,40,000/-	Rs.1,40,000/-
Microbiology.	Rs.1,40,000/-	Rs.1,40,000/-
Central Library.	Rs.2,50,000/-	Rs.2,50,000/-
Social Science Block.	Rs.1,70,000/-	Rs.1,70,000/-
Total:	<u>Rs.7,00,000/-</u>	<u>Rs.7,00,000/-</u>

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Annexure III to Appendix-XV.

P.G. Centre, Gulberga (Karnatak University)

Additional Staff approved

(5th Plan Period)

<u>Department</u>	<u>Staff.</u>
Chemistry	1P
Political Science.	1R 1L
Physics.	1P (Applied Electronics) 1L 2-Others.
Micro-Biology.	1P (Microbial Taxonomy/Micro- bial Physiology/Bio- Chemistry) 1R (Microbial genetics/Micro- bial ecology/Agricultural Micro-Biology. 2L 2-Others.
Economics.	1P (Agricultural Economics) 1L
Commerce.	1P 1L
History and Archaeology or Sociology.	1R 1L
Hindi.	1R 1L
Total:	<u>5P 4R 8L 4 -Others.</u>

Fellowships:-7.

N.B: (i) P-Professor R-Reader L- Lecturer O- Others

(ii) Payments will be on the basis of actual expenditure per annum on the agreed sharing basis only in respect of posts above, filled from the date of appointment upto the end of 1978-79. Wherever, specialisation have been indicated against posts above, no change can be made without prior approval of the Commission.

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Appendix XVI (item No. 37) to the
minutes of the UGC meeting held on
29th September, 1975.

The Commission is receiving a number of proposals for establishment of new universities and university centres from the State Governments piecemeal. It would, therefore, be desirable for the University Grants Commission to make an estimate of the number of universities to be established and which could be supported financially by it during the Fifth Plan period and also the States where such universities are essentially required to be set up. It would also be necessary for the State Governments to send up their proposals at a given point of time for the entire plan period rather than send proposals from time to time for consideration by the Commission.

Item No. 1: To consider a proposal of the Government of Tamil Nadu to set up two new universities at Tiruchirapalli and the other at Coimbatore.

The Tamil Nadu Government may be requested to indicate its overall proposals for the Fifth Plan in respect of (a) new universities required and (b) proposals for deemed university status. It should also furnish detailed information with regard to specific academic and innovative programmes as well as new inter-disciplinary courses etc., to be started in the proposed new universities. A note may also be obtained with regard to the pattern of functioning of the Postgraduate Centres in these two places under the Madras University and the impact made by them in improvement of undergraduate and postgraduate education and research activities in the colleges in the areas concerned. The two proposals now received could then be considered by the Committee in the light of the information to be received.

Item No. 2: To consider a proposal of the Bar Council of India to set up a National Law School under its auspices as a deemed to be university under Section 3 of the UGC Act.

The Bar Council of India has already been advised that it could establish a National Law School as an autonomous institution within the framework of the Bangalore University or such an institution could obtain the status of a recognised institution from any other university, for example, Jawaharlal Nehru University.

The question of giving it the status of a deemed university under the UGC's Act could be considered in due course depending upon the standards maintained by it and the contribution of the school in the field of legal education. The Bar Council of India may, therefore, be requested to pursue further, the above suggestion.

Item No. 3: To consider a proposal to confer deemed to be university status to the Academy of General Education, Manipal.

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There was a prima facie case for consideration of the proposal for conferring deemed university status under the UGC's Act. The University Grants Commission may appoint a Committee to examine the proposal, in detail, and make recommendations either with regard to (a) granting deemed university status to the Manipal Academy Complex of university level institutions or (b) granting autonomous status to some of these colleges under the Mysore University. The report of the Committee could then be considered by the Standing Committee.

It was also noted that a proposal for setting up a university at Bhavnagar had been received on the day of the meeting of the Standing Committee. Before the proposal could be considered the State Government may be requested whether this proposal represented the overall requirements of new universities within the State of Gujarat and to forward detailed information with regard to the various programmes and courses to be taken up by it for improvement of standards of higher-education.

Appendix XVII to Item No. 45 to
the minutes of the UGC meeting held
on 29th September, 1975

Guidelines for assistance from Foreign Government/
Foundations/Agencies for receiving assistance by
universities, colleges and other Institutions of
Higher Education from foreign Governments/Foundations/
Agencies.

1. Foreign Governments/Foundations or Agencies which wish to give financial assistance to universities/colleges, may indicate their areas of interest, the amount of assistance and the period for which it would be available and other relevant information. They may indicate their preference as regards institutions to which assistance is to be given by them. The University Grants Commission would prepare a plan for its utilisation with representatives of the respective party offering assistance. The plan would be submitted to the Government of India for clearance. Foreign assistance to institutions should be for a specified purpose and period.
2. The selection of institutions to be assisted would be made by the Commission keeping in view, if necessary, the preference, if any, indicated by the Government/Foundation/Agency.
3. The foreign assistance to University/College would be acceptable for books and journals, and for equipment not available indigenously.
4. Proposals for visits abroad or for inviting persons from abroad, as also the need for such visits, should be clearly indicated in the proposed plan for assistance.
5. Foreign assistance should not be used for salaries of staff and similar recurring expenses.
6. Foreign assistance should not ordinarily be accepted for construction of buildings. However, in special cases, a sum not exceeding 1/3rd of the total financial assistance offered may be used for the construction of Library and laboratory buildings. It should however, be ensured that the norms and specifications for constructions are the same as prescribed by the Commission.
7. Acceptance of individual contributions from foreign dignitaries of substantial amounts, say over Rs. one lakh should, to the extent possible, be governed by the above guidelines.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 27th & 28th October, '75

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

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- (1) Minutes of the meeting of the Selection Committee appointed to consider the nominations received for award under the scheme of National Fellowships held on 16th July, 1975.
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The meeting of the Selection Committee constituted to recommend names of suitable candidates for the award of National Fellowships was held on 16th July, 1975. The following scholars were recommended for award under the scheme:-

1. Physics: Professor A.N. Mitra, Delhi University.
2. Chemistry: Professor S.V. Kessar, Panjab University.
3. Biochemistry: Professor N.R. Moudgel, Indian Institute of Science, Bangalore.
4. Geology: Professor U. Aswathnarayana, Saugar University.
5. Economics: Dr. C.T. Kurien, Madras Christian College, Tambaram, Madras.

The Committee recommended that the comments of the second expert may be awaited in the case of Professor M.S. Kanungo of the Banaras Hindu University and he may be awarded the fellowship in case a favourable comment is received from the other expert. Subsequently this was received in respect of Professor Kanungo and all the above six scholars have been invited to **join** as National Fellows under the scheme. The Committee desired that the Andhra University may be requested to intimate the age of superannuation, as well as the date of birth of Professor B.S. Rao of the Department of Economics, Andhra University. The University has stated that the date of birth of Professor Rao is 4.11.1915 and he is to retire from service on 30.11.1975. In view of this, the National Fellowship **has** not been awarded to Professor Rao as the Committee has recommended that only the cases of Professors and Readers who can avail of this scheme at least for a period of two years prior to their superannuation as per university rules, may be considered by the Commission. The Committee also recommended that the question of selection of scholars from the Indian Institute of Technologies and other institutions of National importance may be considered. This matter is being examined in consultation **with** the Ministry of Law.

P.T.O.

- (2) UGC assistance under the scheme of 'Preparation of University level books/monographs.

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- 1) A book writing project titled "Bharata Silpakatha" of Professor SK Saraswati, was approved by the Commission during 1970-71. This book-writing project was taken up by Professor Saraswati on part-time basis at the Banaras Hindu University w.e.f. 25.2.1972 and, as permissible under the rules, he engaged the services of a fellow (Shri G. Subbaiah) on the terms and conditions governing the Book Writing Scheme.
- 2) Professor Saraswati on his retirement from Banaras Hindu University moved to Calcutta and pursued his work at the Calcutta University. Though under the rules he should have taken up the Book Writing Project himself on full-time basis after retirement but he continued to avail of the services of the fellow Shri G. Subbaiah which is normally permissible under the rules.
- 3) Under the rules, a fellow has to work on full-time basis on the project and is not supposed to take up any work, not even to get registered for Ph.D. concurrently till completion of the project. However, in this case Shri Subbaiah got registered for his Ph.D. and for some-time also worked for his thesis alongwith the work entrusted to him by the supervisor.
- 4) The rules governing the scheme provide that a retired teacher/scientist may participate in the Book Writing Scheme provided he has not availed of the benefits of any supernumerary scheme of UGC/CSIR etc. In the present case, it has transpired that Professor Saraswati availed of an award under the Commission's scheme of utilisation of services of retired teachers and worked on "A Comprehensive History of Indian Architecture" from 31.8.1973 to 31.3.1974 i.e. for a certain period he worked under two schemes simultaneously namely - the retired teachers scheme and the book writing scheme. The retired teachers scheme also emphatically lays down that "a participant will not accept any other fulltime or part-time assignment during the tenure of the award". This has been another irregularity so far as the book writing project of Professor Saraswati is concerned.

In view of the fact that the project has already completed its normal tenure of 3 years, it was decided to regularise the above (vide orders dated _____).

(3) The following proposals of colleges have been approved (vide orders dated _____) for financial assistance under Rs.5 lakhs scheme during Fifth Five Year Plan period:-

S.No.	Name of the college	Name of the project	Estimated cost	UGC share	Date of approval
1.	2.	3.	4.	5.	
1.	Saldiha College, Saldiha (Burdwan University)	Books & Journals	Rs 40,000/-	Rs 30,000/-	22.9.75
2.	S.N. Sinha College, Warsaliganj. (Magadh University).	-do-	80,000/-	60,000/-	28.8.75
3.	Marwari College, Bhagalpur (Bhagalpur University).	Equipment and Furniture.	30,000/-	21,000/-	8.9.75

(4) North-Eastern Hill University - Creation of a post of Officer-on-Special Duty (Campus Development).

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The Commission has already sanctioned the following non-teaching posts for the North-Eastern Hill University:-

1.	Officer-on-Special Duty	-	4
2.	Assistant Registrars	-	3
3.	Librarian	-	1
4.	Statistician	-	1
5.	P.S. to the Vice-Chancellor	-	1
6.	Director of Sports	-	1
7.	Editor	-	1
8.	Assistant Librarians	-	2

The North-Eastern Hill University again approached the Commission for an additional post of Officer-on-Special Duty (Campus) in view of the fact that the Meghalaya Government was almost ready to hand over the land for the University Campus. In order to develop the land properly and to hold a competition for a worthy architectural master plan and other building projects to be launched, the University expressed a great need for an experienced man with drive and energy. In view of this the Commission agreed to the creation of an additional post of Officer-on-Special Duty (Campus) in the grade of Rs.1500-60-1800-100-2000 for the duration of the rest of the V Plan period (vide orders dated).

- (5) Payment of grant to the Delhi University towards Research Methodological courses at the Institute of Economic Growth.

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The Commission at its meeting held on 5th February, 1963 agreed to provide financial assistance to the Institute of Economics Growth through the University of Delhi, towards conducting a five-month teaching-cum-training course in Research Methodology for the benefit of Ph.D. students and economic investigators for a period of three years during the Third Plan period. The Commission's assistance was limited to Rs.89,851 (recurring) per annum and Rs.22,000/- (N.R.) for a period of three years upto 31.3.1966. Subsequently, while extending the period of assistance upto 31.5.1968, the Commission agreed that if the institute is to be assisted by the University Grants Commission for any purpose, the suggestion made earlier that it should either be a separate department of Delhi University or a Department of Economics, should be pursued further.

A total grant of Rs.4,12,000/- had been paid to the university towards the above course upto 31.5.1968.

The Audit of the University Grants Commission for the year 1968 raised an objection to the grants paid to the Institute of Economics Growth. This audit objection was also considered by the FAC 1969-70 (4th Lok Sabha). The Committee desired that the Ministry of Law be consulted whether the University Grants Commission could give grant to the Institute without the Institute becoming a part of a recognised university. The matter was taken up with the Ministry of Law which held the view that the Commission could not give grant to the Institute of Economic Growth unless it was covered under section 2 (f) or declared a deemed university under section 3 of the UGC Act. The Commission considered the views of the Ministry of Law at its meeting held on 5th May, 1971 and noted that the course in Research Methodology introduced by the

Delhi University at the Institute of Economic Growth was initiated at the instance of the Planning Commission and the Delhi University and that it was largely intended for students registered for the Ph.D. courses at the university; and felt that even assuming that the payment of the grant for this purpose to the Delhi University was automatically outside the purview of the University Grants Commission, the grant was made for a scheme of real academic value and of great interest to the university and the Planning Commission. In view of the academic need, the Ministry of Education and Social Welfare may be requested to pay the amount under reference to the university so that the same could be reimbursed to the Commission (to meet the audit objection).

Since then, the matter was pending with the Government of India in the Ministry of Education and Social Welfare. The full facts of the position were explained in a note submitted by the Ministry of Education to the PAC. In the note, it was mentioned 'inter-alia' that "it is not possible for the government to give a grant to the university so that the University Grants Commission may be able to regularise the irregularity. The University Grants Commission has been asked to be more careful in future and to avoid such illegal grants it cannot be justified by virtue of the provision of the Act, PAC is requested kindly to treat these recommendations as settled". In view of this, the Ministry of Education have now informed the Commission that subject to strict compliance by the University Grants Commission of the contents of the above note, the recommendation may be treated to have been settled.

As a settlement of the audit objection the Commission has paid to the Delhi University the balance admissible grant of Rs.12,433.77Ps. (vide orders dated 21.9.1975).

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- (6) Delhi University - Training of Manpower in the field of Micro Wave Technology.

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The Department of Electronics, Government of India, have agreed to the project on "Training of Manpower in the field of Micro Wave Technology to be undertaken by the Department of Physics & Astro Physics, Delhi University. This would lead, to the starting of an M.Tech. Course in Micro Wave Engineering Physics of two years duration at Post-M.Sc. level. The entire finances for the equipment and the staff needed to run this course will be provided by the Department of Electronics. The

Delhi University had requested the Commission for approval to the running of the above course. The proposal of Delhi University has been accepted on the condition that no financial commitment would be involved on the part of the University Grants Commission and without prejudice to the decision that may be taken to treat the recurring expenditure as committed expenditure at the end of the period when the assistance from the Department of Electronics ceases.

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- (7) Central Universities - Payment of additional dearness allowance to Central Government Employees - Extending the benefit to the employees of the Central Universities and the colleges affiliated to the Delhi University receiving maintenance grant from the University Grants Commission.

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The Government of India in the Ministry of Finance (Department of Expenditure) vide Office Memorandum No. ~~MB~~ 3017 (1)-E.II(B)/75.Pf.I dated the 4th September, 1975, has from the dates indicated ~~in~~ ^{therein} sanctioned additional dearness allowance to Central Government employees.

2. As the employees of the Central Universities and the colleges aggiliated to Delhi University which are receiving maintenance grant from the University Grants Commission are paid dearness allowance as applicable to the Central Government employees, the benefit of the additional dearness allowance, sanctioned vide Ministry of Finance, Office Memorandum dated the 4th September, 1975 referred to above has been extended to the corresponding staff both teaching and non-teaching of the Central Universities and the Delhi University Colleges (vide orders dated 6.9.1975) from the dates, to the extent specified for the Central Government employees and on the same basis and conditions as for such employees.

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- (8) Increase in the value of contingent grant for blind scholars awarded Junior Research Fellowship.

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The Commission at its meeting held on 4th February, 1975 (item No.68) agreed that the contingent grant in the case of blind scholars may be raised to Rs.3,000/- per annum to enable them to avail the services of readers. The contingent grant available to general candidates was Rs.1,000/- only for approved

items of contingent expenditure. Since the basis of the contingent grant has been revised to Rs.1500/- from Rs.1,000/- per annum with effect from 1st July, 1974 the ceiling for blind scholars has been raised from Rs.3,000/- to Rs.3,500/- per annum (vide orders dated 7.8.1975).

(9) Award of Scholarships for Hons./Postgraduate Studies in Arabic/Persian - 1975-76.

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The Commission awards 20 Scholarships every year for Hons./Postgraduate Studies in Arabic/Persian. The value of Postgraduate Scholarship is Rs.1800/- per annum and Hons. Scholarship is Rs.1200/- p.a. The Commission received 65 applications for 1975-76 award. A Selection Committee with the following members was constituted to recommend the names of suitable candidates for the award of scholarships during year 1975-76.

1. Dr. K.A. Fariq,
Head of the Department of Arabic & Persian,
Delhi University.
Delhi
2. Professor Gulwant Singh,
Department of Arabic, Persian & Urdu,
Punjabi University,
Patiala.
3. Dr. Mohd. Haneef,
Department of Arabic, Persian & Urdu,
~~Oswania~~ Osmania University,
Hyderabad.
4. Professor Mohd. Rafiq,
Department of Arabic & Persian,
Allahabad University,
Allahabad.
5. Professor Mukhtar Uddin Ahmed,
Department of Arabic,
Aligarh Muslim University,
Aligarh.

The Committee which met in the Commission's office on 8.9.75 recommended 20 awards for Hons. and Postgraduate Studies in Arabic and Persian on all India basis keeping in view a uniform distribution covering all the regions. The 20 candidates recommended by the Committee for the awards are listed as below: The recommendations of the Committee have been accepted (vide orders dated 21.9.1975).

orders dated 21.9.1975).

<u>S.No.</u>	<u>Name of the Candidate</u>	<u>Centre of Study</u>
<u>A. For Postgraduate Studies in Arabic</u>		
1.	Shri Zafar Alam	Aligarh Muslim University
2.	Shri Tariq Mukhtar	-do-
3.	Shri Makarram Ahmed	-do-
4.	Km. Sabiha Khan	-do-
5.	Km. Farzana Firoz Nasib	-do-
6.	Shri Mohammad Habibur Rohman	Gauhati University
7.	Shri Abdurahiman	Farook College, Calicut.
8.	Shri Syed Kaleem Akhatar	Delhi College, Delhi
9.	Shri Khursheed Ahmed	Hamidia Arts & Commerce College, Bhopal.
10.	Shri Mohammad Rashid Ansari.	Allahabad University.
<u>B. Postgraduate in Persian</u>		
1.	Shri Mohinuddin	Aligarh Muslim University
2.	Kumari K.M. Ansari	Gujarat University
3.	Kumari Habiba Nigar	Patna University
<u>C. Hons. Studies in Arabic</u>		
1.	Shri Mohammad Yaseen	Aligarh Muslim University
2.	Km. Farida Mukhtar	Abdullah Girls College, Aligarh.
3.	Miss Farhana Tayyab	Jamia Millia Islamia, Delhi.
<u>D. Hons. Studies in Persian</u>		
1.	Shri Shailkh Khwaja Moinuddin Md. Usman	Gujarat College, Ahmedabad.
2.	Shri Mohammad Omar	M. Azad College, Calcutta.
3.	Shri Syed Mohammad Osama Daudi	Aligarh Muslim University
4.	Shri Abdulrashid Mohammedshafi Ansari.	Gujarat College, Ahmedabad.

(10) Award of Scholarships for Postgraduate Studies
in Sanskrit/Pali/Prakrit during 1975-76.

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The Commission awards 20 scholarships every year for postgraduate studies in Sanskrit/Pali/Prakrit. The value of the scholarships is Rs.1800/- per annum. The Commission received 70 applications.

The Commission constituted a Committee with the following members to recommend suitable candidates for the award of scholarship during 1975-76.

1. Dr. B.S. Sharma
Head of the Department of History,
Delhi University,
Delhi.
2. Dr. K. Krishnammoorthy,
Head of the Department of Sanskrit,
~~Karnatak University,~~ University,
Dharwari.
3. Pt. Karunapati Tripathi,
Department of Sanskrit,
Sampurnanand Sanskrit University,
Varanasi.
4. Dr. Ved Kumari Ghai,
Department of Sanskrit,
Jammu University,
Jammu.

The Committee which met in the Commission's office on 8th September, 1975 recommended 24 awards for postgraduate studies in Sanskrit/Pali/Prakrit of which 8 were for one year only on all India basis keeping in view a uniform distribution covering all the regions. The 24 candidates recommended by the Committee for the awards are as under (vide orders dated 21.9.1975).

<u>S.No.</u>	<u>Name of the Candidate</u>	<u>University/Institute of Study</u>
*1.	Kumari Jagadamba Jaiswal	Banaras Hindu University
2.	Km. Sumitra Charya	Kurukshetra University
3.	Km. Sarita Bhargava,	Udaipur University
4.	Sri Uma Kant Mishra	Bhopal University
*5.	Km. Sheela Gupta	Agra University
*6.	Sri Tapendra Kumar	Gurukul Kangri Vishwavidyalaya
7.	Km. Manju Malhotra	Meerut University
8.	Sri Ram Singh Khatta	WRI, Hoshiarpur (Panjab University)
*9.	Km. A.K. Chandra	Madras University
*10.	Sri B.N. Raghavendra,	Bangalore University
11.	Km. Sneha Lalta Khare	Lucknow University

12. Sri Guna Saikia, Gauhati University
13. Km. Saroj Rani Dudani, Delhi University
14. Km. Rekha Biswas Visva Bharti
15. Km. Parikh Daksha Tryambaklal, Saurashtra University
16. Km. Rekha Kantilal Shah Gujarat University
17. Sri Indiresk Jha Bihar University
- *18. Miss Neeta Agarwal Aligarh Muslim University
19. Km. Minoti Dey North Eastern Hill University, Shillong.
- *20. Km. Nalini Kohli Jammu University
21. Km. Rohini N. Patwardhan SNDT Women's University, Bombay
22. Km. Vidya Gupta Kurukshetra University

Pali & Prakrit

- *1. Km. Supurna Sen Calcutta University
2. Sri Rajendra Kumar Jain Banaras Hindu University

* for one year only.

- (11) Proposals received from the universities/colleges for the organisation of seminars, symposia, workshops and conferences during 1975-76 financial assistance for.

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The University Grants Commission has been supporting efforts of universities and colleges for providing opportunities to teachers and research workers to keep abreast of modern developments in the field of study and making available grants towards the organisation of summer institutes, seminars, symposia, workshops, orientation/refresher courses etc. These programmes have been widely welcomed and evoked an enthusiastic response from the universities/institutions and members of the academic community.

The Commission constituted a committee consisting of the following members for considering the proposal received from the universities/institutions for financial assistance towards organisation of seminars symposia, workshops, conferences etc. during 1975-76:-

1. Professor R.S. Sharma,
Department of History,
Delhi University,
Delhi.
2. Professor M. Santappa,
Director,
Central Leather Research Institute,
Madras.
3. Professor S.C. Dube,
Director,
Institute of Advanced Study,
Simla.
4. Professor Randhir Singh,
Department of Political Sciences,
Delhi University,
Delhi.
5. Professor Gautam Mathur,
Department of Economics,
Osmania University,
Hyderabad.
6. Professor Sivatosh Mukherjee,
Department of Zoology,
Jawaharlal Nehru University,
New Delhi.
7. Professor Arun Sharma,
Department of Botany,
Calcutta University,
Calcutta.
8. Professor K.G. Ramenathan,
School of Mathematics,
Tata Institute of Fundamental Research,
Bombay.
9. Professor C.Y. Mande,
Department of Physics,
Nagpur University,
Nagpur.

The Committee met on 10th September, 1975 and examined 333 proposals (112 in Sciences and 221 in Humanities including Social Sciences) received from various universities/institutions. The Committee recommended financial assistance to 112 proposals (63 in Sciences and 49 Humanities) as indicated in the list attached (Annexure I & II). This has been accepted with the provision of

funds as per UGC norms (vide orders dated 4.7.1975). The universities/institutions concerned are being informed in the matter accordingly.

- (12) Incentive ~~Bonus~~ Scheme for Subscribers to Provident Funds - Applicability to the employees of the Central Universities.

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The Government of India in the Ministry of Finance (Department of Expenditure) has vide its O.M.No.F.20(7)-E.V.(B)/75 dated the 30th July, 1975, introduced with effect from 1st April, 1975 an incentive bonus scheme for Central Government employees who do not withdraw any amount from their Provident Fund Account during a financial year.

2. The main features of the scheme are as follows:-

- (i) During a financial year commencing from 1.4.1975, any Central Government employee who does not withdraw any amount from his provident fund account will be entitled to bonus on the subscriptions made during the year;
- (ii) The bonus will be calculated at the rate of 3% for employee drawing emoluments upto Rs.500/- per month and 1% for employees drawing emoluments above Rs.500/- per month. The total amount of bonus should be rounded to the nearest whole rupee (fifty paise counting as the next higher rupee);
- (iii) For calculation of bonus, emoluments as on the 31st March of the preceding year will be taken. The term 'emoluments' will be as defined under Rule 2(b) read with rule 8(2) of G.P.F. (CS) Rules, 1960 and the corresponding rules in the C.P.F. Rules (India) 1962;
- (iv) The term "withdrawal" means both refundable and non-refundable withdrawals. While withdrawals for financing insurance policies will not make subscribers ineligible for this benefit, the bonus will in such cases, be related to net subscription during the year after deducting the amount of withdrawals for financing policies;

P.T.O.

- (v) The bonus so calculated, will be credited to the account of the subscriber. This will be in addition to the interest allowed on Provident Fund balances; and

Since all in all such matters Government of India's orders/rules are generally made applicable to the employees of the Central Universities the above scheme has been made applicable to the employees, teaching as well as non-teaching, of the Central Universities on the same terms and conditions as contained in the Ministry of Finance O.M. dated the 30th July, 1975 referred to above. The scheme is also applicable to the Colleges affiliated to the University of Delhi which are receiving maintenance grant from the Commission.

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- (13) IIND/72/032 - UNESCO/UNDP Assistance to the selected Departments of Special Assistance during 1975-1976.

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The Project document revised on the basis of discussions with UNDP Mission in October, 1974 was placed before the Commission at its meeting held on December, 1974. The Government of India forwarded this project document to UNDP in March, 1975. The Resident Representative, UNDP, New Delhi has now informed that the project document for UNDP assistance to Selected Departments has since been considered and in accordance with the revised standard costs for experts etc., the contribution of the UNDP will increase from \$ 729,500 to \$ 771,900. The project will become effective from 1st October, 1975 for a period of 18 months. The UNDP also suggested a few minor changes to be made in project document and requested for the concurrence of the University Grants Commission so that the project can be approved for implementation. The changes proposed by the UNDP have been accepted and the concurrence of the University Grants Commission conveyed to UNDP.

The UNDP has also indicated that the implementation of this project over the 18 months period would be evaluated before further assistance for II phase is approved as envisaged in the project document.

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- (14) Proposals of the colleges accepted under COHSIP.

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The University Grants Commission at its meeting held on the 10th February, 1975 (Item No.9) generally accepted the recommendations

of the conference of principals of colleges selected for participation in the colleges humanities and social sciences Improvement programme and noted the colleges recommended by the selection committee for participation in the programme on the basis of the approved criteria.

Fifty one COSIP Colleges selected so far under COHSIP were requested to revise their proposals in the light of the guidelines formulated in the Principal's conference. Proposals received from 27 of these colleges have already been processed and grants have been approved for initiating COHSIP as per details given in Appendix to Item No.2(a) (7) of the meeting of the Commission held on 12th May, 1975.

In addition to the 27 colleges indicated above, proposals received from the following 9 colleges have been processed and grants approved for initiating COHSIP:

Name of the college	Grants approved p.a. for a period of 3 years.	Date of approval
1. Sree Narayana College, Quilon	30,000/-	24.5.75
2. Union Christian college, Alwaye	28,000/-	14.6.75
3. Ahmednagar College, Ahmednagar	15,000/-	12.6.75
4. St. Agnes College, Mangalore	30,000/-	22.7.75
5. Meerut College, Meerut	35,500/-	9.6.75
6. Jawahar Bharati, Kavali	14,600/-	14.6.75
7. Loyola College, Madras	33,000/-	21.4.75
8. C.M.S. College, Kottayam	42,000/-	4.9.75
9. Agra College, Agra	21,000/-	2.9.75

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The following additional grants have also been approved to the Colleges indicated against each:

Name of the College	Grants already approved	Additional grant approved	Purpose of additional grant	Date of approval
Sri Padmavati Women's College, Tirupati.	Rs 33,000/-	Rs 2,500/-	Commerce Department Lib. Books Rs.1000/- English - Services of experts from Language training Institution Rs.1,000/- Remuneration for P.G. students who help in the Bridge course Rs.500/-	16.7.75
University College Trivandrum.	24,000/-	4,000/-	Political Science Books & Journals, Surveys, Seminars, Discussion.	21.4.75
Mount Carmel-1 College, Bangalore.	25,000/-	1,000/-	Typing Work	8.6.75
D.A.V. College, Jullundur.	70,000/-	9,000/-	Duplicating machine	5.6.75
Sophia College, Bombay.	40,000/-	4,000/-	Equipments & Tests	30.6.75
S.D. College, Muzaffarnagar.	40,000/-	4,560/-	Geography Department Books & Journals, Study tours/surveys Extension Lectures by eminent Scholars Field Study, Maps & Diagrams, Teachers qualifications improvement.	29.7.75
St. Xavier College, Ahmedabad.	13,000/-	13,100/-	Audio Visual Aid, Clerical Asstt. student assistance Field Work, Stationery	13.8.75
Nalini & Arvind Arts College, Vallabh Vidyanagar.	31,000/-	12,000/-	Duplicator, Language Teaching aids.	16.8.75

9.	Jawahar Bharati, Kavali (Nelore Distt.)	14,600/-	30,400/- (R+MR)	<u>English Department</u> Books & Journals, Guest Lectures, Part-time teachers, Seminars & Tutorials. <u>Economics Department</u> Books & Journals, Guest Lectures, Seminars & Tutorials. <u>Politics</u> Books & Journals, Guest Lectures, Seminars Tutorials, <u>Commerce</u> Books & Journals, Guest Lectures, Seminars and Tutorials, Part-time teachers for Central Library, facility for arranging extended hours of library.	2.9.75
10.	Ram Narain Ruia College, Bombay.	40,000	11.289.55	Purchase of Duplicator	27.8.75

- (15) Creation of a supernumerary post of Assistant Secretary in lieu of the post of Education Officer kept in abeyance.

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Consequent upon officiating promotion of an Education Officer as Deputy Secretary in the vacancy caused by the deputation abroad of Dr. T.N. Hajela, Officiating Deputy Secretary, a supernumerary post of Assistant Secretary has been created in lieu as a temporary measure vide orders dated the 6th October, 1975 in lieu of the post of Education Officer kept in abeyance with effect from the 8th October, 1975 (forenoon), in order to provide a Branch Officer to the concerned Division, since as per cadre rules there was no officer available for promotion to the cadre of Education Officer.

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- (16) Applicability of the recommendations of the Third Pay Commission regarding journey fare of children studying at a place other than the place of posting of Govt. Servant to the employees of U.G.C.

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The orders issued by the Govt. of India in the Ministry of Finance (Deptt. of expenditure) O.M. No.F.19030/2/73-EIV(B) dated 23th February, 1974, which were applicable to class II, III & IV officials and were made applicable to

the staff of the U.G.C. as reported under item No.2(a)(5) of the Agenda of the Commission's meeting held on 22nd July, 1975 have also been made applicable to class I officers in pursuance of the subsequent orders issued by the Government of India in the Ministry of Finance (Deptt. of Expenditure) O.M. NO. 19030/2/73-EIV(B) dated 29th June, 1974 on receipt of these orders in UGC in September, 1975 (vide orders dated 24.9.75).

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(17) Lifting of ban on the grant of house building advance.

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-- The Government of India, in the Ministry of Works and Housing O.M. NO. I/17011/4/73.H.III(pt) dated 7th November, 1974 had imposed certain restrictions on the grant of house building advance to Central Government employees after the total ban on house building advances imposed vide Ministry of Works and Housing O.M. No. I/17011/4/73-H.III(pt.) dated the 30th August, 1973 was lifted. As the Commission follows the Government rules and orders in connection with the grant of house building advances to the extent feasible, the above mentioned orders were also made applicable to UGC employees and accordingly the house building advance was sanctioned to UGC employees subject to the restrictions contained therein. These restrictions have now been removed by the Govt. of India in the Ministry of Works and Housing O.M. NO. I/17019/2/74.H.III(I) & (II) dated 6th August, 1975 and the maximum limit of advance of Rs.70,000/- or 75 months pay of the Govt. servant, whichever is less, under the existing House Building Advance rules has been restored, subject to the revised rates of interest chargeable on a slab system as 6½% per annum for advances upto Rs.25,000/-, 8% per annum on the amount between Rs.25001/- to Rs.50,000/- and 10% per annum on the amount between Rs.50,001/- to Rs.70,000/- as announced by the Govt. of India in the Ministry of Works and Housing O.M. No.10/15/59-H.III-Vol.III dated 6th August, 1975. The revised orders of Govt. have been made applicable to UGC employees (vide orders dated the 12th September, 1975).

(18) Amendment of Rule 4(i) of the UGC (Terms and conditions of Service of Employees) Rules, 1958.

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Rule 4(1) of the UGC (Terms and conditions of Service of Employees) Rules, 1958 provided:

"Recruitment to all posts under the Commission shall be made (a) by direct recruitment by advertisement or through the Employment Exchange, or (b) promotion or (c) by transfer from other Government or semi-Government offices or Universities."

In order to implement the arrangement entered into with the Institute of Secretariat Training and Management, Department of Personnel, Cabinet Secretariat to draw upon the surplus qualified candidates of the Clerk's Grade examination and to recruit some staff of advisory nature through means of 'contact' and also to re-employ superannuated persons not only belonging to Government or Semi-Government offices or universities but also belonging to other organisations, in exceptional cases, and on the basis of the decision of the UGC Standing Committee on Establishment Matters taken at its meeting held on the 8th July, 1975, the Ministry of Education & Social Welfare was requested to amend Rule 4(1) quoted above accordingly. The Ministry have amended the above-mentioned rule and issued the necessary Notification, which provides:-

"Recruitment to all posts under the Commission shall be made:-

- (a) by direct recruitment by advertisement or through the Employment Exchange or through the Institute of Secretariat Training and Management, Department of Personnel, or, where the Commission is of the view that candidates of exceptional merit have to be located for specialised posts, by contact;
- (b) promotion; or
- (c) by transfer from other Central or State Government or Semi-Government Offices or universities or other organisations or, where the Commission is of the view that it is absolutely necessary so to do, by re-employment of superannuated persons belonging to Central or State Government or Semi-Government Offices or universities or other organisations".

The above quoted rule stands amended accordingly.

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- (19) International Congress of Human Sciences in Asia and North Africa (formerly known as International Congress of Orientalists) to be held in Mexico City in August 1976.

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The International Congress of Human Sciences in Asia and North Africa (formerly known as International Congress of Orientalist is scheduled to be held in Mexico City in August 1976. The Mexican organising Committee of the Congress has extended an invitation to the Government of India to participate in the Congress. The Governme

of India appointed a Working Group to consider India's participation in the Congress. In the light of the recommendation of the Working Group, the Government of India have been informed that the University Grants Commission would sponsor the participation of the following :-

1. Professor Satish Chandra
2. Professor Sachidananda Murti,
Professor of Philosophy,
Andhra University.
3. Professor Kunjunni Raja,
Professor of Sanskrit,
Madras University.

The University Grants Commission will meet the registration fee, return air fare of their nominees along with their board and lodging expenses in Mexico.

Annexure I to Item No. 2(a)(1)

List of seminars/symposia recommended by the
Committee.

HUMANITIES

S.No.	Name of the Univer- sity/college	Title of the project	No. of partici- pants(outstat- ion and Local)
1.	Aligarh Muslim University	Seminar on Myth and Reality in the Rig Veda.	30
2.	Aligarh Muslim Univ.	Seminar on Urdu Gazal	10+20
3.	Andhra University	Seminar on Early Andhra and Socio-Economic Study.	20+40
4.	Annamalai University	Seminar on Dravidian Studies	30
5.	Banaras Hindu Univ.	Seminar on Language and Music.	10+10
6.	Bangalore University	Workshop on Moderanisation of Commerce courses.	10+30
7.	Bhagalpur University	Orientation course in the teaching of political Sc.	10+40
8.	Calcutta University	Seminar on teaching and research in Economics.	10+40
9.	Calcutta University	Religion of Non-literate People.	40+40
10.	Calicut University	Seminar on Influence of Arabic on South Indian languages.	15+10
11.	Delhi University	Use of Economic force by states with near monopoly of special resources (problems of inter- national law-organisation & policy).	15+25
12.	Dibrugarh Univ.	Economic Progress & Develop- ment of Modern Assam (1826- 1947).	10+20
13.	Gauhati University	Seminar on Female education as an instrument of Social change in modern India.	25+25

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14. Guru Nanak Univ.	Contribution of the Nirmal Panthis to Religious and Philosophical literature of Punjab.	20+30
15. Himachal Pradesh	Workshop on Recent trends in political science.	15+25
16. Indira Kala Sangeet Vishwavidyalaya	Symposium on the Development of Art in Chhattisgarh Region of M.P.	10+20
17. Indore University	The 63rd Annual Session of the Numismatic Society of India, Indore.	lumpsum
18. Karnatak Univ.	29th Session of All India Oriental Conference.	"
19. Kerala University	Seminar for University & College Teachers of Sociology	20+30
20. Lucknow University	Seminar on Peasant Society in India.	20+20
21. Madras University	Sangam Classics	5+10
22. MS University of Baroda	Seminar University Departments of Education and Problems of Higher Education.	20+20 specific topic to be focussed.
23. Marathwada Univ.	Seminar on Economic Development of Marathwada.	20+20
24. North Eastern Hill	Seminar on tribal Economy	10+20 details of academic supporting staff of delegates to be obtained.
25. Panjab University	Seminar on Early Man in North Western India.	20+30
26. Panjab University	Inter Disciplinary Seminar on Philsophy & Social Change.	15+20
27. Patna University	Seminar on Amir Khusro, A. Socio critical Study of his works.	10+15

28. Poona University Seminar on Defence Studies 10+30 It should be made clear to the Univ. that only Univ./ college teaching staff will be paid TA/DA.
29. Rajasthan Univ. Conference on "Social Unrest" 10+20
30. SNDT Women's Univ. Summer Workshop on Effective College Librarianship. 20+20
31. Sri Venkateswara University. A Seminar on Modern trends and developments in Physical Edn. and sports and its implementation to the university youth 20+20
32. Utkal University Decesional Phenomena and Quantitative Management Technique. 15+10
33. Utkal University Annual Conference of Indian Economic Association. lumpsum
34. Vishwa Bharati Seminar on the Education of the unprivileged. 15+20
35. Delhi University Seminar on Bengali language & literature in Bangladesh 1947-72. *5+15 *subject to being a seminar rather than merely teachers from visiting professors. 2. One academic participant from Bangladesh.
36. Jawaharlal Nehru University A course on input modles in Regional Analysis (Emphasis on the Indian Planning problem) **25+25
- ** Recommended under short-term course subject to recommendations of the University and whole region being covered.
37. Kurukshetra University Refresher course in Political Science 20+10
38. Kurukshetra University A refresher course on the study and teaching of History for College teachers in Haryana. 20+10
39. Panjabi University Regional Conference on co-operation in University Library. 20+30

40. Patna University	Refresher Course for post-graduate teaching in History for teachers of Eastern India.	20+30
41. Rajasthan Univ. (Govt. College, Sirahi)	9th Rajasthan History Conference	lumpsum
42. Ranchi University	10th International Congress of Anthropological and Ethnological Sciences.	Recommended un- UGC norms.
43. Saureshtra	For holding the annual Conference of the All India Law Teachers Association at Rajkot.	lumpsum
44. Sri Venkateswara	For holding the 35th Indian Political Science Conference at Tirupati	lumpsum
45. Utkal University	Refresher course in Logic and Philosophy	30+20
46. M.S.Univ. of Baroda	Refresher course in Museology.	30+10
47. Saurashtra	Refresher course in Principles of literary criticism.	25+15
48. Osmania	Short term course in Economics	40+40
49. Visva Bharati	International conference on Metaphysics	Recommended as per * UGC norms

Annexure II to Item No. 2(a)(ii)

Seminars, Symposia recommended for following universities

<u>S C I E N C E</u>			Participants
1.	St. John's College, Agra.	Seminar on Impact of Man on Mountain Ecosystem	40
2.	Andhra University	Seminar on Foundation pro- blems in coastal districts of Andhra Pradesh.	50
3.	Andhra University	Seminar on Recent Advances in Chemistry & Pharmacology of Indian Plant Drugs.	40
4.	Annamalai University	Symposia on Molecular spectroscopy	35
5.	Annamalai University	Advanced Symposium on proba- bility theory & its applications	40
6.	Banaras Hindu Univ.	Seminar on Head and Neck cancer.	40
7.	Banaras Hindu Univ.	Symposium on Molecular basis of Cellular Regulation	30
8.	BITS, Pilani	Symposium on Flow through Porous Media.	40
9.	Bhopal University	Workshop on Mathematics teaching & evaluation at under- graduate level.	40
10.	Bhagalpur University	Symposium on Physiology of Micro-organisms.	30
11.	Bombay Univ.(TIFR)	Gravitation and General Relativity.	Recommended as (Summer Inst.)
12.	Calcutta	Seminar in Instrumentation and Measurement.	40
13.	Calcutta	First international Symposium of Avian Endocrinology.	
14.	Calcutta	44 Annual Convention of the society of Biological chemists.	

15. Delhi Univ. (IIT) Winter School of Physiological Fluid Dynamics. Summer Institute
16. Delhi University International Conference on ~~2w~~ body problems a nuclear Practise Physics
17. Delhi University (b) Workshop on Allergy Allergens and Aerobiology.
18. Gauhati Symposium on Evolving a workable methodology of land used survey.
19. Himachal Pradesh Workshop on Feynman Path Integration and its application to Quantum Mechanics & Gauge Fields, Recent development in Gauge Theory (As summer Institute)
20. Jawaharlal Nehru Univ. Symposium on basis of Biological structure Function and Adaptability. 40
21. Kerala University. Symposium on Hostparasite Relationships in Holminthic and Arthropod Infections.
22. Kurukshetra University Seminar in Algebra
23. Madras University A symposium on Digitatis -Yes- (As conference terday, Today and Tomorrow to be held during the Annual Conference of the Indian Pharmacological Society.
24. Madras University Workshop on work orientation to Science, Teaching in Colleges.
25. -do- Nutrition & dietetic Management in disease with special reference to Indian conditions.
26. -do- Nutrition & dietetic Thin Film Technology
27. Madurai All India Seminar on Bioenergetics.
28. MS Univ. of Baroda Solid State chemistry & development of Material symposium-cum-Conference.

9.	Mysore	Seminar on Geology of the Kaladgi and cuddapali Formations.	
	Mysore	Regional Seminar on Teaching & Research in Plant Taxonomy and Floristics.	
1.	Nagpur Univ.	Seminar on Recent Trends in contacts between Cytogenetics Embryology and Morphology.	
2.	Osmania University	Symposium on Molecular Modulation in cells.	30
3.	Patna Univ. (Bihar College of Engg.	All India Symposium on Mathematical Modelling for simulation and solution of water resources problems	30
4.	Poona University	Workshop on I Chemistry curriculum	30 10days
5.	Poona University	Workshop on II on Chemistry curriculum	30 10days
6.	Poona University	Workshop on Assessment and Evaluation.	30 10days
7.	Revi Shankar Univ.	Seminar on Metallurgical Analysis	
8.	Sambalpur	Analysis Seminar	30 10days
9.	Sambalpur	Seminar/Refresher course on distribution theory and Harmonic analysis.	(to be summer Institute)
0.	Sardar Patel University.	Workshop in Crystal growth	
1.	South Gujarat University	Modern Mathematical trends in Fluid Dynamics.	
2.	Sri Venkateswara.	A workshop in Statistical techniques for Agricultural Veterinary Biological & Medical College Teachers in Tirupati.	30
3.	Visva Bharati	Seminar on Interaction of Elementary particles with Nuclei	40

44.	Visva Bharati	The Eight's annual symposium of the Indian Bio-Physical Society.	(Cong. grant)
45.	Indian Institute Bangalore	All India Conference on Recent Developments in the chemistry of natural products.	"
46.	Indian Institute of Bangalore	Advanced Institute on reaction Mechanism .	
47.	Indian school of Mines Dhanbad	Symposium on Geo-exploration in hard rock area.	
48.	Berhampur Univ.	Symposium on properties of Amorphous Semi conductors.	
49.	Delhi University	Summer School for Lab. and Technical Staff for training Lab. Staff in Chemistry Laboratories of the Deptt. and colleges under Delhi University.	(under SI)
50.	Kanpur Univ.	Orientation Programme in Physics of degree and Postgraduate level	(As conference)
51.	Madras	The conduct of a Seminar on Study on the Aetiology of deafness and its prevention and its socio economical aspects.	
52.	Meerut (LLRM Med. College, Meerut)	Annual Conference of Physiologists and Pharmacologists.	(under Conf)
53.	Mysore	For conducting an Orientation Course in Mathematics for teachers of undergraduate colleges affiliated to the University of Mysore.	(Under SI)
54.	Poona Univ.	Refresher Course in Geography for College teachers.	10 days
55.	Roorkee	Seminar on Mettalic Corrosion and its Prevention	40 participants
56.	South Gujarat	Seminar on Molecular Symmetry and Group Theory.	(SI)
57.	Udaipur Univ.	Symposium on Evolutionary Dynamics	Details to be obtained
58.	Indian School of Mines Dhanbad.	Short-term course on Advanced Topics in Geophysics.	(SI)

29. Dehra University Symposium on the use of non-human primates in biomedical research.
30. Mysore University National Symposium on Radiation Physics. 40 participants
31. Sri Venkateswara Refresher course for college teachers in Statistics serving in Sri Venkateswara University area Summer Institute
32. Meerut Workshop on the atomic and molecular Collisions.
33. N.P.L. New Delhi National conference on Physiological Fluid Dynamics Recommended as Conf.

Payment of TA/DA to Participants from University.

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 27th & 28th

October, 1975

Confidential

Item 2(c): To receive the statement of proposals which could not be accepted by the Commission.

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The following proposals of colleges have not been approved for financial assistance under Rs.5 lakh scheme during Fifth Five Year Plan period due to non-fulfilment of the condition of minimum enrolment required for the purpose:

S.no.	Name of the college	Project	Estimated cost.	Date of order
1	2	3	4	5

Ranchi University:

1.	Doranda College, Doranda	Construction of class rooms, library building & NRSC.	10,36,693	16.9.75
2.	R.S.M. College, Govindpur.	1.Laboratory Building 2.Teaching Accommodation.	2,35,010 4,89,226	8.8.1975

L.N. Mithilia University

3.	M.R. Mahila college, Darbhanga.	1) Extension of Science Block	3,64,177	4.8.75
4.	M.I.S. College, Sarisabpahi	i) Teaching Accommodation.	4,67,475	21.8.75

Berhampur University:

5.	Ganjam College Ganjam	i) Construction of library building ii) Library books iii) Equipment	88,000 1,00,000 1,81,340	2.8.75 -do- -do-
6.	Rayagada college, Rayagada	i) Laboratory Equipment and furniture ii) Workshop Equipment iii) Books and Periodicals	1,98,000 1,00,000 67,000	2.8.75 -do- -do-

p.t.o.

1	2	3	4	5
7.	K.S.U.B. college, Bhanjanagar	i) Laboratory Building	1,59,000	8.8.75
		ii) Workshop for Science Department	53,518	-do-
		iii) Staff Quarters	41,256	-do-
		iv) Laboratory Equipment	1,50,000	-do-
		v) Books and Journals	1,00,000	-do-
8.	Aska Science College, Aska	i) Laboratory Building	3,46,156	4.10.75
		ii) Books & Journals	50,000	-do-
		iii) Laboratory Equipment	1,50,000	-do-
		iv) Boys' hostel	7,71,800	-do-
<u>North Bengal University:</u>				
9.	Loreto College, Darjeeling	Additional Teaching Accommodation.	3,28,200	5.9.75
<u>Utkal University:</u>				
10.	Vyasnagar College, Jajpur Road	Students Hostel	3,87,000	10.9.75

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated : 27th & 28th Oct., 1975

Item No.3: To approve the statement of grants released after the last meeting of the Commission held on 30th September, 1975.

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P L A N

S. No.	Subject	No. of instalment	Amount
<u>1. Agra University</u>			
<u>Affiliated Colleges</u>			
Agra College, Agra.	College Humanities and Social Sciences Development Programme - Payment of grant.	1st	10,000
Jaudyal Mahila Mahavidyalaya, Ferozabad (U.P.)	Grant towards the loan of books to students - Setting up of Book Bank.	1st	4,500
Swami Shukdevanand Degree College Shahjahanpur	Grant towards the loan of books to students - Setting up of Book Bank.	1st	5,625
Mahatma Gandhi Balika Vidyalaya Degree College Ferozabad	Grant towards the loan of books to students - Setting up of Book Bank.	1st	5,625
D.S.College Aligarh	Financial Assistance to Teachers for research/learned work in Sciences - Payment of Second instalment of grant.	2nd	1,750
Babu Shivnath Agrwal College Mathura.	Establishment of Health Centre.	1st	6,639.61
Govt. Raza P.G. College Kanpur (U.P.)	Financial Assistance to Teachers for resrarch/learned work in Sciences and Humanities including social sciences - Payment of second instalment of grant.	2nd	1,000

P.T.O.

Andhra University Contd.

Research Fellowships in Engineering & Technology - payment of fellowship and contingency grant.		4,961.61
Writing of University level books/monographs.		2,000
Increased intake Science Courses-Purchase of Books & Journals - Payment of Grant.		12,976
Research Fellowships in Engineering & Technology - payment of fellowship and contingency grant.		3,822.58
Construction of first floor over Commerce College Building-IV Plan.		25,000
Award of Junior Fellowship in Engineering & Technology and Pharmacy in respect of students admitted to the approved Post-Graduate Courses in 1975-75 Session. Payment of grant for.	2,00,000	
Award of Post-graduate scholarships of the value of Rs.400/- p.m. to M.E., M.Tech., M.Sc. Mineral process Engineering, and M.Pharmacy admitted during the year 1973-74.	3,00,000	

Affiliated Colleges

B.H.V.B. & S.J.B. Maha Rane College Peddapuram (A.P.)	Students' Aid Fund in the College - Grant for 1974-75		182
R.V.V.N. College Dharanikota Amarvati	-do-		750
Sree Konaseema Bhanøji Ramars College Amalapuram	-do-		2,750
Jawahar Bharati Kavali	College Humanities and Social Sciences Development Programme - Payment of grant	1st	10,000
V.S.R. College Renal (A.P.)	Construction of Cycle Stand and Library Building - Payment of Grant.	2nd	1,00,000
Ch S.D.St. Theresa's College Tiuru A.P.	Construction of residential flats for teachers - payment of Grant-regarding.	Final	10,000
Jāgāriamudi Kupuswamy Chaudhary College, Guntur	Construction of Library & Laboratory Building.	-do-	8,736

Total: 14,65,153.19

P.T.O.

Agra University contd.

Affiliated Colleges.

D.I.E. Women's Training College Dayal Bagh Agra.	Writing of University level books/monographs.	2,000
S.V. College Aligarh.	University Grants Commission Assistance for the research project entitled "Eperimental Nuclear Spectroscopy" by Dr. D.K. Gupta.	5,000
U.P. College of Veterinary Science and Animal Husbandry, Mathura.	Utilisation of services of outstanding retired teachers - Payment of grant in r/o Dr. S.K. Talapatra.	7,000
Agra College Agra.	Students' Aid Fund in the Colleges- Grant for 1975-76	5,000

Total: 54,139.61

2. Aligarh Muslim University

36th Session of the Indian History Congress to be held at Aligarh from 29th to 31st December, 1975.	5,000
Senior/Junior Rsearch Fellowships in Science/ Humanities/Engineering and Technology - Extension in Fellowship tenure - payment of fellowship to -	2,400
Development of Area Studies Programme - Grant for the purchase of Books & Journals.	25,000
Installation of Maintenance of I.B.M. - 1130 Computer - Purchase of Card Punches and Air Conditioners.	29,522
Research Fellowships in Engineering & Technology - payment of Fellowship Shri Ilyas Ahmad Khan.	100
Junior Rresearch Fellowships in Sciences Extension in Fellowship tenure - payment of fellowship	1,200

Total: 63,222

3. Andhra University

Grant-in-aid for the introduction of Post- graduate Courses in Engineering & Technology - purchase of equipment, furniture and Library Books.	6,44,000
Grant-in-aid for the Development of Post- graduate Courses in Engineering and Technology- Release of Recurring grant for maintenance.	1,00,000
Grant-in-aid for re-organisation of 3 year Degree Course in Pharmacy into 4 year Degree Course towards the purchase of Equipment, furniture and books.	39,975

4. Annamalai University

Development Schemes under 5th Plan period-		50,000
Basic grant for the purchase of Library books and journals for Humanities and Science.		
Purchase of Equipment for the Post-graduate course in Chemical Engineering.	5th	15,000
Development of Post-graduate Courses in Engineering & Technology - Purchase of Equipment.	4th	1,00,000
		<hr/>
	Total:	1,65,000
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5. Awdesh Pratap Singh University

Affiliated Colleges

L.S. Medical College Rewa	Students's Aid Fund in the Colleges - Grant for 1975-76		1,000
Kamla Nehru Girls College Satna	Grants to College Libraries for loan of Books to Students (Book-Banks)	1st	4,500
Degree College Sirmour, Distt. Rewa	-do-	1st	4,500
Maharaja College Chhatarpur	Book grant for 1970-71 - Sanction of grant for the	2nd	963
Nehru Degree College Burhar Distt. Shadol	Grants to College Libraries for loan of Books to Students (Book-Banks).	1st	4,500
Arts College Amarpatan, Distt. Satna	-do-		4,500
		Total:	<hr/> 19,963 <hr/>

6. Banaras Hindu University

Construction of Men's Hostel for 24 students and Women's Hostel for 12 students for Rural Health Centre of Institute of Medical Sciences.	8th	190.19
National Associate ship scheme - Dr. O.N. Srivastava		500
Construction of 3 Warden's Quarters at Chiragaon Health Centre of the Deptt. of Preventive & Social Medicine of the Institute of Medical Sciences.	2nd	20,000
Extension of the Deptt. of Metallurgical Engineering, Banaras Hindu University.	1st	30,000
Writing of University level books/monographs.		21.87

Banaras Hindu University Contd.

Programme of Special Assistance to Selected Department - Department of Metallurgy - Release of grant for 'books & Journals - Non-recurring regarding.		50,000
Extension of the Deptt. of Chemical Engineering Building.	1st	25,000
Salary of Additional Staff of Faculty of Education - under fourth plan development scheme - Release of grant for 1975-76		60,000
Utilisation of Services of Outstanding retired Teachers - Payment of grant in respect of Prof. S.K. Bhattacharya.		6,000
Research Fellowships in Engineering & Technology - payment of contingency grant - Shri Ram Phal Ram		1,947.64

Total: 1,93,659.70

7. Bangalore University

Affiliated Colleges

Evening College of Arts and Commerce U.Y. Puram, K.N. Road Bangalore	Students' Aid Fund to Colleges for the year 1975-76.	1,750
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Total: 1,750

8. Berhampur University

National Associateship Scheme - Dr. C.S. Panda		1,000
Unassigned grant for the year 1975-76		13,973.70

Affiliated Colleges

Govt. Evening College Berhampur.	Grants to College Libraries for Loan of books to Students (Book-Bank) during Fifth Plan.	1st	4,500
Saya-gada College	-do-	1st	4,500
Saya-gada (Koraput)	-do-	1st	4,500
Govt. Women's College Berhampur	-do-	1st	4,500
Saka Science College Saka, Dist. Ganjam	-do-	1st	4,500
Hinjilicut Science College, Hinjilicut	-do-	1st	4,500
K.C.G. College S.O. Paralakhemundi	-do-	1st	5,500
Utkram Dev College Bypore, Koraput	-do-	1st	4,500
Hinjilicut Science College, Hinjilicut	Construction of Teachers Hostel.	2nd	20,000

Total: 65,473.70

P.T.O.

9. Bhagalpur University

Affiliated Colleges

G.D. College, Begusarai.	Grants to College Libraries for Loan of books to Students (Book Bank) during Fifth Plan.	1st	5,500
Murarka College, Sultanganj, Bhagalpur.	-do-	1st	4,500
Ramadhin College, Sheikhpura (Monghyr).	-do-	1st	4,500
Total:			14,500

10. Bhopal University

Affiliated College

Govt. College, Ganj Basoda.	-do-	1st	6,000
Total:			6,000

11. Bombay University

Enhancement of the value of Senior Research Fellowship of Rs.400/- p.m. to Rs.500/-p.m. for two years and Rs.600/- p.m. for next two years for the students admitted for the Ph.D. degree in Engineering and Technology during 1974-75 - Payment of arrears @ 200/- p.m. for the third year.			50,000
Establishment of Study Centres - Release of recurring grant. Centre of Advanced Study in Economics - Award of Junior Research Fellowships, Senior Research Fellowships and National Scholarships.			90,000

Affiliated Colleges

Sophia College for Women, Bhalathhai Desai Road, Bombay-26.	Grant for purchase of equipment and furniture for the library.	2nd	50,000
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Bombay University (Contd.)

Affiliated Colleges

Seva Sadan's College of Education, Opposite Central Hospital, Ulhasnagar-2.	Students' Aid Fund		750
Bhalan College, Kings' Circle, Matunga, Bombay.	-do-		547
Govt. Law College, Bombay.	-do-		3,750
Elphinstone College, Fort, Bombay-32.	-do-		1,882
Ramanarain Ruia College, Bombay.	-do-		11,289.55
-do-	Financial Assistance to Teachers for research/learned work in final Sciences.	2nd &	3,500
St. Xaviers College, Mapsa, Goa.	Grants to College Libraries for loan of books to students - (Book Banks).	1st	5,600
S.K. Patil Sindhudurg Mahavidyalaya, Kalvan, Distt. Ratnagiri.	-do-	1st	4,500
Srinivassa Sinai Dempe College of Commerce & Economics, Panaji, Goa.	-do-	1st	5,600
St. Xavier's College, Bombay.	College Science Improvement Programme - Selected Colleges Project - Grant in aid.		40,000
			Total: 2,67,418.55

12. Burdwan University

Construction of Gymnasium	2nd	25,000
Utilisation of services of outstanding retired teachers		6,000
payment of grant in respect of Dr. S.R. Chatterjee.		
Grant in aid for the purchase of Scientific Equipment - Basic grant for 5th Plan period.	5th	1,00,000

Burdwan University (Contd.)

Affiliated Colleges

Bidhan Chandra College, Asansol.	Grants to college libraries for loan of books to students (Book Banks).	1st	17,000
Nistarini College, Purulia, P.O. & Distt. Purulia	-do-	1st	1,000
Netaji Mahavidyalaya, Arambagh (Hooghly)	-do-	1st	14,000
Saldiha College, Saldiha (Distt. Benhara).	Development of undergraduate facilities during V Five Year Plan period - Purchase of Books and Journals.		40,000
Sri Ramakrishna Sarda Vidyamahapitha, P.O. Kamarpukar (hooghly).	Financial assistance to teachers in the universities and colleges for undertaking research or learned workin Humanities including Social Sciences/ Sciences.	1st	5,000
			<hr/> Total: 2,08,000 <hr/>

13. Bihar University

Grant in aid for the purchase of Library books and journals - Vth Plan Basic grant.	31,966.56
UGC Assistance for the Research Project entitled "Development of Air- breathing Organs and Oxygen Utilisation of some Air-breathing Fishes in India" of Dr. B.R. Singh, Department of Zoology, Fifth Five Year Plan period	9,600

Affiliated Colleges

Nand Lal Singh College, Jaitpur - Daudpur, P.O. Daudpur, Saran (N.E.Rly).	Grants to college libraries for loan of books to students (Book Banks).	1st	4,500
R.N. College, Hajipur (Muzaffarpur).	-do-	1st	8,000
Braj Mohan Das College, Dayalpur (Vaishali).	-do-	1st	4,500

Bihar University (Contd.)

Affiliated Colleges

M.P. Sinha Science College, Muzaffarpur.	Construction of Science Block - Assistance for.		20,000
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Total:	76,566.56
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14. Calcutta University

National Associateship Scheme -			1,500
Senior/Junior Research Fellowships in Sciences - payment of contingency grant.			1,500
-do-	1st		2,903.33
UGC Assistance for the Research Project entitled "Molecular Biology: Physical Aspects" of Dr. R.K.Poddar, Department of Physics - Fifth Five Year Plan period -			90,000
Utilisation of services of outstanding retired teachers - payment of grant in respect of -			6,000
-do-			6,000
-do-			6,000

Affiliated Colleges

Asutosh College, Calcutta.	-do-		766.67
Hiralal Mazumdar Memorial College for Women, Dakshineswar, Calcutta-35.		1st	4,500
Mahishadal Raj College, P.O. Mahishadal (Midnapore).	-do-	1st	8,000
Midnapore College, Midnapore.	-do-	1st	17,000
Rammohan College, 102/1, Raja Rammohan Sarani, Calcutta-9.	-do-	1st	17,000
Budge Budge College, Senpukaren, Budge Budge, 24 Parganas.	-do-	1st	4,500
Purash - Kanpur Haridas, Nandi Mahavidyalaya, P.O. Kanpur, Distt. Howrah.	-do-	1st	4,500

Calcutta University (Contd.)

Affiliated Colleges

Seva Bharati Mahavidyalaya, P.O. Kapgari, Distt. Midnapore.	Grants to college libraries for loan of books to students (Book Bank)	1st	4,500
Sarojini Naidu College for Women, 30, Jessore Road, Dum Dum, Calcutta-28.	-do-	1st	11,000
Mahishadal Girls College, P.O. Mahashadal, Midnapore.	-do-	1st	4,500
Shyampur Siddheshvari Mahavidyalaya, P.O. Ajodhya, Howrah.	-do-	1st	5,500
Charuchdhra College, Calcutta-29.	-do-	1st	14,000
Acharya Prafulla Chandra College, New Barrackpore, 24-Parganas.	-do-	1st	8,000
Narajole Raj College, P.O. Narajole, Midnapore.	-do-	1st	4,500
Maharaja Srischandra College, 20, Ramkanto Bose Street, Calcutta.	-do-	1st	12,000
Mahiabajal Raj College, P.O. Mahishadal, Distt. Midnapore.	-do-	2nd & final	1,100
Sitanda College, P.O. Mandigram, Distt. Midnapur.	-do-	2nd & final	1,250
Maharaja Manindra Chandra College, Calcutta-3.	-do-	2nd	4,000
Women's College, 204, Bidhan Sarat, Calcutta.	-do- Students' Welfare Programme	2nd & final	2,000
Narasinha Dutt College, Howrah.	Financial Assistance to Teachers for research/learned work in Sciences and Humanities including Social Sciences.	2nd & final	250
Gokhale Memorial Girls' College, Calcutta-20.	Grants to colleges for laboratory equipments.	2nd & final	4,000

Calcutta University (Contd.)

Affiliated Colleges

Bengabasi Morning College, 19, Seatt Lane, Calcutta-9.	Students' Aid Fund		3,750
Rastraguru Surendranath College, Barrackpore.	-do-		3,750
Narajole Raj College, Narajole, Midnapore.	-do-		275
Raja Krishmath College of Commerce, Berhampore.	-do-		1,353.50
Unasachandra College, 13, Surya Sen (Mirzapur) Street, Calcutta-12.	-do-		4,375.50
Rammohan College, 102/1, Raja Rammohan Street, Calcutta-2.	-do-	2nd & final	512
Vivekananda Centenary College, Ramakrishna Mission Boys' Home, P.O. Rahara, Distt. 24-Parganas.	-do-		1,750
Total:			2,64,536

15. Calicut University

Grant-in-aid for the development of Teachers Education - Payment of grant for Staff Salary.	24,000
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Affiliated Colleges

Nirmalagiri College, Nirmalagiri, Kerala.	Establishment of Students' Aid Fund.		888
College of Engineering, Trivandrum.	Writing of university level books/monographs.		2,000
Sree Krishna College, Guruyayur.	Grants to college libraries for loan of books to students (Book Bank).	2nd & final	2,776.32
S.N. College, Natika.	-do-	1st	5,000
Mercy College, Palghat.	Students' Aid Fund		1,000
S.N. College, Nattika.	-do-		1,000
SKV College, Trichur.	Utilisation of services of out-standing teachers retired.		7,000
Total:			43,664.32

16. Cochin University

Basic grant for the purchase of Scientific Equipment during the 5th Five Year Plan period.	2nd	2,00,000
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	Total:	2,00,000
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17. Delhi University

Junior Research Fellowships in Humanities including Social Sciences - Payment of fellowship to Shri Bhikshu Kondinya.		100
Additions and alterations in M.B. Higher Secondary School to make in fit for Evening Law Centre No.1.	final	4,217.14
Course in Research Methodology at the Institute of Economic Growth.	final	12,433.77
UGC Research Project entitled "Hormal Regulation of Implanation with Particular Reference to the Action of Estrogen and Pregesterone on Nucleic Acid and Protein Synthesis in the Uterus and Blastocysts" of Professor M.R.N. Prasad, Head of The Department of Zoology,	8th	50,000
UGC Assistance for the Research Project entitled "Studies of the Ionosphere" of Prof. C.S.G.R. Setty, Department of Physics & Astrophysics, Fifth Five Year Plan period.	2nd	50,000
Indo-Polish Cultural Exchange Programme Dr. M. Karo's salary.		7,000
Indo-P.R.G. Cultural Exchange Programme - Payment of salary to Dr. Peter Baster German Language Teacher assigned to the university.		16,730.67
Research Project entitled "Study of Impact of Technological Changes on the Behaviour of Managers in Industrial Undertakings.	2nd	10,000
Financial Assistance to Teachers for research/learned work in Sciences.	2nd & final	500
Indo-Hungarian Cultural Exchange Programme - Payment of salary to Mr. G. Bethlenfalvy.		5,500
Payment of salry to Mr. EV Stoysnor under Indo-Bulgarian Cultural Exchange Programme.		7,238.08

Delhi University (Contd.)

Affiliated Colleges

Deshbandhu College (Evening Classes), Kalkaji, New Delhi.	Maintenance Grant for 1973-74	6,47,878
Rao Tula Ram College Rao Tula Ram Marg, New Delhi.	Grants to affiliated colleges of Delhi University for loan of books to students - Setting up Book Bank.	4,500
Kalindi College, East Patel Nagar, New Delhi.	-do-	11,250
Raj Kumari Amrit Kaur Nursing College, Andrews Ganj, New Delhi.	-do-	234
Kirori Mal College, Delhi.	Transfer of the teaching of Botany and Zoology (Hons.) to the college w.e.f. 1973-74 - Purchase of Lab. Equipment for the -	40,000
-do-	Transfer of the teaching of Botany and Zoology (Hons.) to the college w.e.f. 1973-74 - Purchase of books for the -	10,000
Daulat Ram College, Delhi.	Renewal of scholarships for P.G. Studies in Sanskrit/Pali/ Prakrit to Miss Madhu Sharma during 1975-76.	1,800
Janki Devi Mahavidya- laya, Poorvi Marg, New Delhi.	Extension to the Library Building under the Extended College Chems.	30,000
Hastinapur College (Day Classes) Moti Bagh, New Delhi.	Purchase of a duplicator Machine.	3,000
Indraprastha College of Women, Sham Nath Marg, Delhi.	Award of Scholarships for P.G. Studies to the students belonging to the Hill Areas of North Eastern Region of India.	1,900
Shivaji College, Karampura, New Delhi.	Construction of College Building	1,50,000
S.G.T.B. Khalsa College, New Delhi.	Transfer of Botany and Zoology (hons.) to the colleges - Purchase of Library books.	15,000
-do-	Transfer of Botany and Zoology (Hons.) to the college - Purchase of Laboratory Equipment.	50,000

Total: 11,29,281.66

18. Dibrugarh University

Grant-in-aid towards field training work in Geology for the year 1975-76.			2,000
Financial Assistance to Teachers for research/learned work in Sciences and		2nd & final	2,500
Financial Assistance to Teachers for		2nd & final	2,500
-do-			
<u>Affiliated Collges</u>			
Majuli College, P.O. Kamalbari (Sibsagar).	Grants to college libraries for loan of books to students (Book Banks).	1st	4,500
Jorhat College, (Amalgmated), Jorhat.	-do-	1st	5,500
Moran College, Moranhat.	-do-	1st	4,500
Sibsagar Girls College, Sibsagar.	-do-	1st	4,500
Swahid Maniram Dewan College, Charing, P.O. Charing (Sibsagar).	-do-	1st	4,500
Jorhat College, (Amalgmated), Jorhat.	-do-	1st	782
Total:			31,282

19. Gauhati University

Travel grant in respect of Shri Bangkita under the scheme - P.G. Scholarships to the students of Hill Areas 1974-75.		244
Grant in aid towards the construction of science block No.5.		2,00,000
Travel grant in respect of Shri F. Sangvala under the scheme 'Award of P.G. Scholarships to the students belong to Hill Areas of North Eastern Region of India -		194
Travel grant in respect of Shri N. Sangehame under the scheme 'Award of P.G. Scholarships to the students belonging to Hill Areas of North Eastern Region of India -		194
Travel grant in respect of Shri Liangala under the scheme 'Award of P.G. scholarships to the students belonging to Hill Areas of North Eastern Region of India.		94

Gauhati University (Contd.)

Travel grant in respect of Shri R.S. Hosanglusia - P.G. Studies to the students of Hill Areas.	182
Utilisation of services of outstanding retired teachers - payment of grant in respect of -	1,000
Junior Research Fellowships in Science/ Humanities including Social Sciences to the students belonging to Hill Areas of North Eastern Region of India - Payment of fellowships to -	2,709.68

Affiliated Colleges

Tezpur College, Tezpur.	Grants to college libraries for loan of books to students (Book Banks)	1st	4,500
Gauhati Commerce College, Gauhati.	-do-	1st	8,000
Nowgong Girls' College, Nowgong.	-do-	1st	4,500
Tyagbir Hem Barua College, Jamugurihat, Darrang.	-do-	1st	4,500
Tihu College, Tihu.	-do-	1st	5,500
North Gauhati College, P.O. and D.O. College Nagar, Gauhati.	-do-	1st	4,500
Dakshin Kamrup College, P.O. Mirza.	-do-	1st	4,500
Sualkachi Buiram Medhab Satradhikar College, P.O. Sualkuchi.	-do-	1st	4,500
Hojai College, Hojai (Nowgong).	-do-	1st	4,500
Barpeta Road Howly College, P.O. Howly, Kamrup.	-do-	1st	4,500
Jawaharlal Nehru College, Pasighat, Arunachal.	-do-	1st	4,500
B. Saruah College, Construction of Men's Hostel Gauhati-7.		5th & final	5,000
Anandaran Dhekial Phookan College, Nowgong.	Students' Aid Fund		1,000

Total: 2,64,617.68

20. Gorakhpur University

Establishment of Health Centre - Salary of Staff for 1975-76 - Sanction of grant for. 10,000

-do-

Purchase of equipment under the scheme of Excavation & Exploration (Department of Ancient Indian History) during the IV Plan - Sanction of grant for. 6,432.18
26,656.12

Affiliated Colleges

Degree College, Pratapgarh.	Grant towards the loan of books to students - Setting up of Book Bank.	1st	11,250
Sarvodya Degree Vollege, Ghosi, Azamgarh.	-do-	1st	5,625
Satish Chandra College, Ballia.	Financial Assistance to Teachers for research/learned work in Sciences -	2nd & final	1,500
D.C.S. Khandelwal Degree College, Haunath Bhanjan (Azamgarh).	Students' Aid Fund		1,850
Budha Degree College, Kushinagar (Deoria).	Construction of Teachers' Hostel.	3rd	25,000

Total: 88,313.30

21. Gujarat University

Release of grant for the purchase of Scientific Equipment during the fifth five year plan period. 80,000

Allocation of unassigned grant during 1975-76 - Release of grant for - 1st 15,000

Affiliated Colleges

St. Xavier's College, Ahmedabad.	Financial Assistance to Teachers for research/learned work in Sciences -	2nd & final	1,250
Nalini & Arvind Arts College, Vallabh Vidyanagar, Distt. Kaira.	College Humanities and Social Sciences Development Programme - Payment of grant.		10,000

Gujarat University (Contd.)

Affiliated Colleges

Government Science College, Gandhinagar.	Development of play field and purchase of accessories for games and sports.	2nd & final	1,500
Parekh Brothers Science College, Kapadwanj (Distt. Kaira).	Grants to college libraries for loan of books to students (Book Banks).	1st	4,500
Sheth L.H. Science College, Manga (St. Makakhand)	-do-	1st	4,500
UNI Trust Surajva Mahila Arts College, Nadiad.	-do-	1st	4,500
Smt. H.C. Patel (Kandaria) Arts & Commerce College, Mayapore, Karpun, Distt. Nadiad).	-do-	1st	6,000
C.N. Arts & B.D. Commerce College, Kadi.	-do-	1st	6,000
Vivekanand College of Commerce, Ahmedabad.	-do-	1st	12,000
Sheth T.C. Kapadia Arts College, Bodeli (Distt. Baroda).	-do-	1st	6,000
Shah K.S. Arts & V.M. Parekh Commerce College, Kapadwang, Distt. Kaira.	-do-	2nd	2,000
Sheth Shri G.N. Commerce College, Gandhinagar.	Students' Aid Fund		882

Total: 1,54,132

22. Guru Manak University

Establishment of Study Centre at Jullundur - Recurring expenditure - Commission's assistance for -	6,500
-do-	3,500
-do-	6,500
-do-	3,500

P.T.O.

Guru Nanak University (Contd.)

Affiliated Colleges

Government College, Kala Afghan.	Grant towards the loan of books to students - Setting up of Book Bank.	1st	4,500
Guru Nanak Bhai Lalo Ramgarhia College for Women, Phagwara.	-do-	1st	4,500
Guru Nanak College for Women, Charan Kanwal - Banga (Jullundur).	-do-	1st	4,500
B.L.M. Girls College, Nawanshahr Doaba.	-do-	1st	5,625
S.G.A.D. Govt. College, Tarn Taran.	-do-	1st	4,500
Hindu College, Amritsar.	-do-	1st	8,437
Lyallpur Khalsa College, Jullundur-1.	-do-		2,750
B.L.M. Girls College, Nawanshahr Doaba. (Jullundur).	Students' Aid Fund		1,000
D.A.V. College, Jullundur.	-do-		5,000
Government College, Kala Afghana (Dt. Gurdaspur).	-do-		750
Guru Nanak Prem Karan Sar College, Nadala (Kapurthala).	-do-		1,000
D.A.V. College, Amritsar.	-do-		5,000
D.A.V. College for Women, Lawrence Road, Amritsar.	-do-		2,750
Khalsa College, Amritsar.	Development of play field & purchase of accessories for games and sports.	2nd & final	1,500

Total: 71,812

23. Haryana Agricultural University

Writing of University level books/
monographs.

5,006.67

Total: 5,006.67

P.T.O.

24. Himachal Pradesh University

Construction of Mens' Hostel for 160 students.	7th	1, 50,000
Construction of 40 Staff Quarters of Lecturers.	8th	2, 00,000
Construction of Science Block (Physics & Chemistry).	8th	2, 00,000

Affiliated College

Government College, Simla.	Grant towards the loan of books to students - Setting up of Book Banks.	1st	11,250
Total:			5, 61,250

25. Indira Kala Sangeet Vishwavidyalaya

Basic grant for books and journals - Sanction of grant for.		30,000
Construction of Teachers Hostel		50,000
Total:		80,000

26. Indore University

Basic grant for the purchase of Library books and journals during the 5th Five Year Plan period.		50,000
Establishment of Students' Aid Fund in Universities - 1975-76.		15,000
Allocation of unassigned grant during 1975-76 - Release of grant for -	1st	12,500
Release of grant for the purchase of scientific equipment during the fifth five year plan period.		1, 00,000
Total:		1,77,000

27. Jabalpur University

Affiliated Colleges

New Education Society Science College, Jabalpur.	Grants to College Libraries for loan of books to Students (Book Banks).	1st	6,000
Government Tilak College, Katni, Jabalpur.	-do-	1st	6,000
M.B. College of Home Science for Women, Jabalpur.	-do-	2nd & final	5,600
Government College of Education, Jabalpur.	Utilisation of services of retired teachers - payment of grant in respect of -		533.33
		Total:	18,133.33

28. Jadavpur University

Research Fellowships in Engineering & Technology - payment of fellowship.			486.67
Award of studentship - Applied Geology course.			4,200
Grant in aid towards the construction of Research Building.	6th		50,000
Research Fellowships in Engineering & Technology - payment of fellowship and contingency grant.			4,725.81
Construction of Gymnasium.	2nd		50,000
		Total:	1,09,412.48

29. Jammu University

Celebration of 400th Anniversary of Ram Charit Manas - Sanction of the grants Seminar on Ram Charit Manas.			6,500
Publication of Research Work including Doctoral Theses.			13,504

Jammu University (Contd.)

Affiliated Colleges

Govt. Degree College, Kathua.	Grant towards the loan of books to students - Setting up of Book Bank.	1st	8,437
			<hr/>
Total:			28,441
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30. Jawaharlal Nehru University

Construction of an open air theatre in the JNU Campus.	2nd	25,000	
Protection of salary of Shri S. Subhash - Junior Research Fellow - Payment of grant - regarding -			
Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Social Sciences/ Sciences.	1st	750	
Award of Junior Research Fellowship in respect of Mrs. Bina Roy Burman.		8,100	
Area Studies Programme - Award of Research Fellowship -		2,800	
UGC Assistance for the research project entitled "Effect of light and Hormones on the control of Enzyme synthesis in higher plants" by Prof. Sipra Guha Mukherjee, School of Life Sciences, JNU.		10,000	
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Total:			46,650
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31. Jiwaji University

Affiliated Colleges

Govt. Girls' Degree College, Morar.	Grants to college libraries for loan of books to students (Book Banks).	1st	6,000
DK Janta Degree College (Now V.S. Govt. College, Dabra.	-do-	1st	6,000
Smt. Chhatrasal Degree College, Shivapuri.	-do-		4,500

Jiwaji University (Contd.)

Affiliated Colleges

Vija Raje Scindia Mahavidyalaya, Bhander (Gwalior).	Grants to college libraries for loan of books to students (Book Banks).	1st	4,500
Dr. B.S.S. Mahavidyalaya, Gwalior.	-do-	1st	6,000
Jain Degree College, Bhind.	-do-	1st	6,000
Govt. Degree College, Sheopur Kalan.	-do-	1st	6,000

Total: 39,000

32. Jodhpur University

Grant in aid for the development of
Scientific education and research -
Construction of Chemistry department
building block II, Phase I - 4th Plan
development schemes.

4,50,000

total: 4,50,000

33. Kanpur University

Affiliated Colleges

P.P.N. College, 96/12, Mahatma Gandhi Road, Kanpur.	Development of P.G. Studios in Science subject in Affiliated Colleges - Financial Assistance by the UGC during the Fourth Plan period for Postgraduate departments of Physics, Chemistry and Mathematics.	final	4,500
Harcourt Butler Technological Institute, Kanpur.	Utilisation of services of outstanding retired teachers - payment of grant in respect of - Shri A.C. Gupta.		6,000
Christ Church College, Kanpur.	-do-		7,000

Total: 17,500

34. Kalyani University

UGC Assistance for the Research Project entitled "Photoelectrical Properties of Cds Solar Cells" of Shri B. Saha, Department of Physics - Fifth five year plan period -	2nd	9,600
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Total:	9,600
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35. Karnatak University

Development Schemes under - Plan P.G. Centre, Gulbarga - Purchase of Library Books under Basic grant.	2nd	25,000
Construction of Humanities Block in P.G. Centre, Bulbarga.	4th	40,000
Construction of Staff Quarters in P.G. Centre, Bulbarga.	4th	15,000
Construction of Chemistry Department Building - P.G.C. Centre, Gulbarga.	5th	40,000
M.Sc. Applied Geology Course Studentship of the value of Rs.150/- p.m.		20,000
Books and Journals	3rd	50,000
Construction of Geology Building	6th	2,00,000
Utilisation of services of outstanding retired teachers - payment of grant in respect of -		6,000

Affiliated Colleges

S.S. Khuba Basaveshwar College of Arts and Science, Basavaklyan (Distt. Bidan).	Grants towards the loan of books to students - setting up book banks.	1st	4,500
KRCR's Arts and Science College, Bailhongal, Distt. Belgaum.	-do-	1st	4,500
Jagudguru Shri Shivlingeshwar Arts and Science College, GOKAK.	-do-	1st	5,625
Dr. A.V. Balinga College of Commerce, Kumtaon, Kanara.	-do-	1st	4,500
SDVE Sangh's L.K. Khot College of Commerce, Shankeshwar Distt. Balgaum.	-do-	1st	4,500

Karnatak University (Contd.)

Affiliated Colleges

Smt. Veeramma Gangasiri College for Women, Gulbarga.	Grants towards the loan of books to students - setting up of book banks.	1st	4,500
Shri Kadesidheshwar Arts College and H.E. Kotambri Science Institute, Habli.	-do-	1st	8,500
KRE Society's Karnatak College of Commerce, Bihar.	-do-	1st	4,500
V.M.S.R. Vastrad Arts and Science College, Hungund. Distt. Bijapur.	-do-	1st	4,500
Municipal Arts College, Lakshmoshwar Distt. Dharwar.	-do-	1st	4,500
B.V.V. Sangh's Baraveshwar Science College, Bagalkot.	-do-	1st	4,500
Matushiri G.V. Chinjwar Arts College, Mudebihal (Distt. Bijapur).	-do-	1st	4,500
M.V. Peatha's Mahantswamy Arts and Science College, Haunsbhavi, Disstt. Dharwar.	-do-	1st	4,500
Dr. A.V. Baliga College of Arts and Science, Kunta (N. Kanara).	-do-	1st	5,625
Shri Annadaneshwar Arts and Science College, Naregal, Distt. Dharwar.	-do-	1st	4,500
Shri Chamabasaveshwar Arts and Science College, Bhalki (Distt. Bidar).	-do-	1st	4,500
Kottureshwara College, Kottur, Distt. Bellar.	-do-	1st	4,500
Vijanagar College, Hospet (Distt. Bellary).	-do-	2nd	2,750

Karnatak University (Contd.)

Affiliated Colleges

P.G. College of Commerce, Hebli.	Students' Aid Fund		2,250
S.R. Vastrad Arts and Science College, Hungund.	-do-		543
Vijayanagar College, Hospet, Distt. Bellary.	-do-		1,750
P.C. Jabin Science College, Vidyanagar Kabli.	-do-		1,750
Shri Annadanashwar Arts and Science College, Naregol, Distt. Dharwar.	-do-	3rd	25,000

Total: 5,12,793

36. Kashmir University

Affiliated Colleges

Amar Singh College, Srinagar.	Utilisation of services of outstanding retired teachers - payment of grant in respect of -		7,000
Gandhi Memorial College, Srinagar.	Grant towards the loan of books to students - setting up of book bank.	1st	8,437

Total: 15,437

37. Kerala University

Affiliated Colleges

St. Thomas College, Palai.	Construction of Teachers Hostel.	4th & final	25,000
N.S.R. Training College, Changanacherry.	Students' Welfare Programme	2nd & final	2,500
St. Thomas College, Palai.	Purchase of Equipment for Physics Department.	3rd & final	3,181

Kerala University (Contd.)

Affiliated Colleges

University College, Tricandrum.	Students' Aid Fund		1,576
N.S.S. Training College, Perunnai	-do-		102
P.O. Changanacherry-2. Government Sanskrit College, Tripunithura.	Grants towards the loan of books to students - Setting up of Book Banks.	1st	4,000
Union Christian College, Alwaye-	-do-	1st	8,000
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Total:			44,359

38. Kurukshetra University

Salaries of Staff of Humanities and Social Sciences Department under Fourth Plan Development Scheme.			362.96
UGC Assistance for the research project entitled "Formation Constants and Reaction Mechanism of Transition and Metal Complexes" of Dr. D.M.Puri, Department of Chemistry, Fifth Five Year Plan period -		2nd	9,600
Renewal of the scholarship for P.G. Studies in Sanskrit to Km. Nirmal Rani.			1,800

Affiliated Colleges

D.A.V. College, Pundri.	Students' Aid Fund		750
Dhri College, Rewari.	-do-		2,250
Chhotu Ram Arya College, Sonapat.	-do-		2,750
Guru Nanak Khalsa College, Karnal.	-do-		750
J.A.V.M.G.R.R. College, Charkhi Dadri,	-do-		840
Govt. College, Bahadargarh.	Grant towards the loan of books to students - setting up of books	1st	4,500

Kurukshetra University (Contd.)

Affiliated Colleges

Rao Behal Singh College for Women, Rewari.	Grant towards the loan of books to students - Setting up of Book Bank.	1st	4, 500
Adarsh Mahila Mahavidyalaya, Bhiwani.	-do-	1st	5, 625
Government Evening College, Bahadargarh.	-do-	1st	4, 500
Janta College, Kaul Kurukshetra.	-do-	1st	4, 500
Guru Nanak Khasla College, Karnal.	-do-	1st	4, 500
D.A.V. College, Hasangarh.	-do-	1st	4, 500
D.A.V. College, Pundri.	-do-	1st	4, 500
Braj Mandal College, Hodul (Gurgaon).	-do-	1st	5, 625
Haryana Mahavidyalaya, P.O. Dujana, Beri (Dt. Rohtak).	-do-	1st	4, 500
Maharani Pratap College for Women, Mandi Dabwali.	-do-	1st	4, 500
B.P.S.M. Girls' College, Khanpur Kalan.	-do-	1st	4, 500

Total: 75, 352.96

39. Lucknow University

Travel grant to Prof. K.P. Bhargave, Head of the Department of Pharmaco- logy and Therapeutics, K.G. Medical College, Lucknow for attending a symposium on "Mechanism of Drug action on Central Cardiovascular Control held at Helsinki Finland from 20th-25th July, 1975.	5, 664
Junior Research Fellowships in Sciences payment of contingency grant.	786.32
Publication of Research Work including theses - Sanction of grant for -	4, 046.80
Utilisation of services of outstanding retired teachers - payment of grant -	3, 300

Total: 13, 797.12

40. Lalit Narayan Mithila University

Affiliated Colleges

Bharat Sevak Samaj College, Supeal (Saharsa)	Grants to college libraries for loan of books to students (Book Bank) during Fifth Plan.	1st	4,500
Thakur Prasad College, Madhipura (Saharsa).	-do-	1st	8,000
Gordlal Mhta College, Banankhi, Parsea.	Construction of additional Teaching accommodation - Assistance for -	3rd	20,000
A.U.R. College, Shahpur, P.O. Uatory, Samawtipu.	Establishment of Text Book Library.	3rd & final	1,000
Total:			23,500

41. Madras University

Research Associateship in Sciences/ Humanities including Social Sciences/ Engineering & Technology - payment of fellowship and contingency grant. Development Schemes under IV Plan period.		5th	8,400
Utilisation of services of outstanding retired teachers - payment of grant in respect of -			10,000
			6,000
<u>Affiliated Colleges</u>			
Pachaiyappa's College, Madras.	-do-		4,806.41
P.S.G. Arts College, Coimbatore.	-do-		1,000
Voorhces Colloge, Vellore.	-do-		7,000
Vivckananda College, Mylapore, Madras.	-do-		1,000
Pathurangan Government Arts College, Vellore.	Financial Assistance to Teachers for research/learned work in Sciences/Humanities including Social Sciences	2nd & final	750
Sri Avineshilingan Teachers' College for Women, Coimbatore.	Special grant for books and journals.	2nd & final	2,000

Madras University (Contd.)

Affiliated Colleges

Gabi Arts College, Gabischottipalalam.	Grants towards the loan of books to students - setting up of book banks.	1st	5,625
Shrimati D.N. Bhatt Vaishnar College for Women, Chromepet, Madras-14.	-do-	1st	8,500
Seethalakshmi Ramaswami College, Tiruchirapalli.	-do-	2nd & final	4,750
St. Christopher's College, Vepory, Madras-7.	Students' Aid Fund in colleges		202
Sri. Avinashilingam Teachers' College for Women, Coimbatore.	-do-		350
Nehru Memorial College, Puthanampati.	-do-		666
K.K. Government Arts College for Women, Tiruvavur.	-do-		1,070
Thiruvalluvar Govt. Arts College, Ragupuram. Salem.	-do-		607
Government Arts College, Salem.	-do-		2,529
Government College of Arts (Women), Thanjavur.	-do-		1,202
Tagore Arts College, Pondicherry.	-do-		2,250
The Women's Christian College, Madras.	-do-		848
P.S.G. College of Technology, Coimbatore.	Writing of university level books/monographs.		122.23
Madras Medical College, Madras.	International travel grant to Dr. S. Kameswaram, Director, Institute of Oto-Rhino- Laryngology.		2,674
Madras Christian College, Tambaram.	Award of National Fellowship to Dr. C.T. Kurian, Professor of Economics - regarding.		20,000

Total: 92,351.68

42. Madurai University

Southern Region Conference on
Mathematics Education and Research from
3rd October, 1975 to 6th October, 1975
under the Directorship of Professor M.
Venkataraman, Department of Mathematics. 10,000

Affiliated Colleges

Madura College, Madurai.	Grants towards the loan of books to students - setting of book banks.	1st	14,000
Arignar Anna College, Aramboly.	-do-	1st	5,625
Arulingu Palaniandavar Arts College, Palni, Madurai.	-do-	1st	8,500
Sree Savugam - Annamalai College, Devakottai.	-do-	1st	5,625
Sri Kumara Gurapara Swamikal Arts College, Arul Mandi Nagar, Srivaikustem Tirunelveli Distt.	Construction of additional class rooms and lecture theatre during 4th plan period.	3rd	75,000
Scott Christian College, Nagarcoil.	Development of play field and purchase of accessories for games and sports.	Final	1,500
Saraswathi Narayanan College, Madurai.	Construction of Men's Hostel for 44 students during 4th Plan period.	3rd	26,000
-do-	Construction of teaching accommodation and laboratory accommodation during IV Plan period.	3rd	50,000
			Total: 1,96,250

43. Magadh University

Unassigned grant for 1975-76 1st 16,000

Affiliated Colleges

Jaggiwan College, Gaya.	Financial assistance to teachers for research/learned work in Sciences and Humanities including social sciences.	2nd & Final	500
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Magadh University (Contd.)

Affiliated Colleges

H.I.D. Jain College, Arrah.	Utilisation of services of out- standing retired teachers - payment of grant in respect of -		1,112.90
Anugrah Memriql College, Gaya.	Grants to college libraries for loan of books to students - (Book Bank) during Fifth Plan.	1st	8,000
Sri Chand Udasin College, Hilsa (Nalanda).	-do-	1st	6,000
H.I.D. Jain College, Arrah.	-do-	1st	8,000
B.S. College, Dinapore.	-do-	1st	6,000
Jagjwan Mahavidyalaya, Gaya.	-do-	1st	6,000
Kisan College, Sahasrai (Nalanda)).	-do-	1st	8,000
Gautam Budha Mahila College, Gaya.	-do-	1st	4,500
Oriental College, Guzri, Patna City.	-do-	1st	4,500
Mahant Mahadev Mahila Mahavidyalaya, Arrah.	-do-	1st	4,500
Satyendra Narain Sinha College, Dehri (Gaya).	-do-	1st	5,500
Thakur Prasad Singh College, Chiraiyantar, Patna..	-do-	1st	5,500
S. Sinha College, Aurangabad (Gaya).	-do-	1st	5,500
Maitidhari College,, Mautapur (Patna).	-do-	1st	4,500
Nalanda Collge, Bihar Sharif, Patna..	-do-	1st	8,000
Beamlakhan Singh Yadav College, Raktarpur Patna.	Construction of additional teaching accommodation - Assistance for -	5th	15,000
S.N. Sinha College,, Wansalinganj, Wadah, Bodh-Gaya..	Financial assistance during V Plan period for development scheme - purchase of books and journals.		80,000

Magadh University (Contd.)

Affiliated Colleges

H.D. Jain College, Arrah.	Establishment of students welfare programme.	2nd & final	6,000
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Total:			2,03,112.90
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44. M.S. University of Baroda

Equipment and furniture for Five Years Degree College in CME Engineering.	9th	75,000
Visits of Dr. M.M. Dadi, Reader in Economics to U.K. under the Programme of Exchange of visits by Younger Scientists between India and U.K. during 1975-76.		595
Allocation of unassigned grant 1975-76 - Release of grant for.	1st	21,000
Purchase of equipment for the establish- ment of the centre for degree course in Pharmacy at -	2nd	30,000
Construction of a building for the Faculty of Fine Arts.		5,000
Studentships to Post M.Sc. Course in Applied Geology.		393
Grant in aid for the Postgraduate studies in the Faculty of Engineering and Technology at M.S. University of Broada .	2nd	30,000
Introduction of degree course in Metallurgy Purchase of equipment and furniture.	5th	60,000
Visit of Dr. B.K. Raval, Reader in English, Faculty of Arts at U.K. under SMIV Scheme		9,500

Affiliated College

Mahila Mahavidyalaya, Baroda.	Utilisation of services of outstanding retired teachers - payment of grant in respect of -	2,183
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Total: 2,33,671

45. Marathwada University

Construction of Consumers Co-operative
Stores-cum-Post office-cum-Bank Building 5,000

Affiliated Colleges

Government College of Education, Pardhah.	Students' Aid Fund		750
Peoples Education Society's Dr. Babasaheb Ambedkar College of Arts and Commerce, Aurangabad.	Grants towards college libraries for loan of books to students - (Book Banks).	1st	14,000
Maharashtra Education Society's Maharashtra Udayagiri Mahavidya- laya, U.D Gutr (Distt. Osmanabad), Adat Vayapari Education Society's Degloor College, Begloor (Distt. Nanded).	-do-	2nd & final	4,750
Mahatma Gandhi Mahavidyalaya (Arts Science and Commerce) Arnedpur Distt. Osmanabad.	Construction of science laboratory building.	final	29,395
	-do-	2nd	1,00,000
Total:			1,53,895

46. Meerut University

Utilisation of services of outstanding
retired teachers - payment of grant in
respect of - 6,000

Affiliated Colleges

Bhambhu Doyal College, Bhaziabad.	Students' Welfare Programme	final	2,327.19
D.A.V. College, Muzaffarnagar.	Junior Research Fellowships in Sciences - Extension in Fellow- ship tenure - payment of fellowship to -		3,063.87

Meerut University (Contd.)

Affiliated Colleges

J.A. Jain College, Saharanpur.	Students' Aid Fund		3,108
R.S.S. Degree College, Pilkhuwa.	-do-		350
Shambhu Dayal College, Ghaziabad.	-do-		1,444
D.A.V. College, Muzaffarnagar.	-do-		3,750
-do-	College Humanities and Social Sciences Development Programme - Payment of grant.	1st	10,000
			Total: 30,042.96

47. Mysore University

Purchase of books and journals increases in take to P.G. Departments in Science subjects.			5,500
Unassigned grant for the year 1975-76	1st		15,000
Purchase of equipment for Science Department - Increase intake to the P.G. Conveners for Science subjects.			25,000
Writing of university level books/ monographs.			1,000
Providing one refrigerator and air- conditioner to the International House occupied by the German Language Teacher of Mansangothiri, Mysore.			13,144.50
Construction of an extension of first floor over the north east corner of the existing chemistry block - Increase in take scheme -	4th		7,000
Purchase of equipment for establishment of University Centre for P.G. Studies at Managalore during Vth Plan period -			30,000
Field Training work in Geology.			147.64

Affiliated Colleges

Maharaja's College, Mysore.	Construction of Residential Flats for Teachers .	5th	10,000
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Mysore University (Contd.)

Affiliated Colleges

First Grade College of Arts Science and Commerce, Tirthchalli (Shhanga Distt.).	Grants towards the loan of books to students - (Book Banks).	1st	5,625
Scholl of Social Work, (Institute of Social Services) Roshni Nilaye, Mangalore.	-do-	1st	4,500
J.S.S. College, Nanjangud.	-do-	1st	4,500
Bhodra College, Bhadravati.	-do-	1st	4,500
Sri Jagadguru Gjandrasedkhara Bharati Memorial College, Sringure.	-do-	1st	4,500
S. Govinda Basa College, Suratkal.	-do-	1st	4,500
Kanala Nehru Memorial National College for Women (Shimoga).	-do-	1st	4,500
Hoysaleswara College, Arsikere.	-do-	1st	4,500
Cauvery College, Gonikoppal,	-do-		1,000
St. Ann's College of Education, Mangalore.	Students' Aid Fund		750
St. Aloysius College, Mangalore.	-do-		1,750
Bhandarkara's Arts & Science College, Coondapoor.	-do-		1,750
Hoysalashwara College, Arsikera.	-do-		750
St. Philomona's College Mysore.	-do-		1,000
Kulpatara College, Tiptur.	Book Bank Grant	2nd & final	2,750
Sahyadri College, Shimoge.	Construction of Science Block	5th	10,000
Regional College of Education, Mysore.	Basic Grant	final	500
Jagadguru Gangadhar College of Commerce, Hubli.	Development of play field and purchase of accessories for games and sports.	2nd & final	1,500
Govt. College, Mangalore.	Book Banks Grant.	2nd & final	2,750
Bhandarkar's Arts & Science College, Coondapoor.	Financial Assistance to Teachers for research/learned work in Sciences.	2nd & final	500

Total: 1,68,917.14

48. Nagpur University

Grant-in-aid for award of Junior Fellowship to the students admitted to Post-graduate Courses in Chemical Engineering & Chemical Technology at the Laxmi Narain Institute of Technology.	20,000
Grant-in-aid for the award of Junior Fellowship to the students admitted to Post-graduate courses in Food Technology at the Laxmi Narain Institute of Technology.	30,000
College Science Improvement Programme - University Leadership Project in Physics Grant-in-aid.	1,00,000
Financial assistance to teachers in the universities and colleges for undertaking research or learned work in Humanities including Sciences/Sciences - Payment of first instalment of grant.	4,000
Award of Studentships of the value of Rs.150/- p.m. to the Post-graduate students of Applied Geology Course - Fourth Plan Development Schemes.	11,235
Research Associateship in Sciences/ Humanities including Social Sciences/ Engg. & TECHNOLOGY - Payment of fellowship and contingency grant.	7,961.29
Renewal of the scholarship for Postgraduate Studies in Sanskrit/Pali/Prakrit to Km. J.T.Kamble for 1975-76.	1,233.87

Affiliated Colleges

Sitabai Arts College Akola (Maharashtra)	Construction of Library Building.	3rd	55,000
Panjabhai Patel College of Education CONDIA	Development of Teachers Training Programme in Teachers Training Colleges	5th	5,475
Lokmanya Tilak Mahavidyalaya Wani.	Students' Aid Fund in the Colleges - Grant for 1975-76.		628
Total			<u>2,35,532.16</u>

49. North Eastern Hill University

Award of Scholarship for P.G. studies
to the student belonging to Hill Areas
of North Eastern Region of India -
1974-75. 1,900

-do- 1,900

Affiliated Colleges

St. Mary's College Shillong Writing of University Level Books/Monographs. 2,000

Dimapur College Dimapur Grants to College Libraries for loan of books to students (Book-Bank) during fifth plan. 1st 4,500

Synod College Shillong -do- 1st 4,500

Kazi Ali College Mokekchung -do- 1st 4,500

Kohima College Kohima -do- 1st 5,500

Total

24,800

50. North Bengal University

Affiliated Colleges

Raiganj College Raiganj. Book Grant (1970-72) 3rd 1,125

Malda Women's College P.O. and Distt. Malda Grants to College Libraries for loan of books to students (Book-Bank) during Fifth Plan. 1st 6,000

Total

7,125

51. Osmania University

Seminar on "Disparity Tax" at the Deptt. of Economics, Osmania University.		6,000
Junior Research Fellowships in Humanities including Social Sciences - payment of contingency grant to Shri Regi Paul.		1,500
Grants towards the purchase of Computer Equipment.	5th	20,000
Financial Assistance to Teachers for research/learned work in Sciences - Payment of Second instalment of grant	2nd	1,000

Affiliated Colleges

College of Arts & Science Kamareddy	Students' Aid Fund in the Colleges Grant for 1975-76.		1,528
Regional Engineering College Warangal	-do-		2,418.75
Arts & Science College Armoor Distt. Nizamabad.	-do-		750
Saifabad Science College Hyderabad.	Construction of Laboratory Building	5th	14,258.42
Government College Jagtial Karimnagar	Financial assistance to Teachers for research/learned work in Science and Humanities including social sciences - payment of second instalment of grant.	2nd	750
Hindi Mahavidyalaya Hyderabad.	Grants towards the loan of books to students - setting up of book banks.	1st	5,000
S.R. & B.G.N. R. Govt. Arts & Science College	-do-	1st	11,250
S.R.B. Govt. Arts College (Evening) Karimanagar.	-do-	1st	8,000
S.R.R. Govt. Arts & Science College (Day) Karimnagar.	-do-	1st	11,250
Total			83,705.17

552. Panjab University

Senior Research Fellowships in Humanities including Social Sciences payment of fellowship and contingency grant.		6,800
College Science Improvement Programme - University Leadership Project in Chemistry : Grant-in-aid.		60,000
Introduction of correspondence courses in the Panjab University - Construction of Correspondence Courses Building.		1,00,000
Scheme of Development of Higher Education & Research during Vth Plan period - purchase of Library Books & Journals - Basic grant.		50,000
Construction of Arts Block Building at Postgraduate Regional Centre, Tohtak, under Fourth Plan Development Scheme.	6th	7,000
Writing of University level books/nonographs.		253.45
Assistance to Universities towards field training in Geology during the Fifth Five Year Plan.		1,000
Centre of Advanced Study in Geology, Panjab University - Release of recurring grant in respect of Teacher Fellowships.		15,923
Construction of 8 staff quarters at V.I.S. & I.S.Hoshiarpur.	6th	7,000

Affiliated Colleges

G.H..G.H. College of Education for Women, Sidhwan-Khurd	Special Grant for Books & Journals to the Teachers Training Colleges. Release of final instalment of Rs.2,000/-	2nd	2,000
D.A..V. College Jullundur	Utilisation of services of outstanding retired teachers - payment of grant in respect of Shri A.C. Deveshwar.		1,000
Guru Nanak Khalsa College Model Town Ludhiana	Students' Aid Fund in the Colleges Grant for 1975-76.		750
D.A.W. College Abhor	-do-		1,750

Panjab University Contd.

Affiliated Colleges

Dev Samaj College for Woman Ferozepore City	Students' Aid Fund to the colleges - Grant for 1975-76.		1,750
R.S.D. College Ferozrepore City	-do-		2,750
G.H.G.Khalsa College Guru-sar Sudhar Dt. Ludhiana	-do-		1,750
Govt. College of Education Chandigarh.	-do-		750
D.A.V. College Chandigarh.	-do-		3,750
D.M. College Moga	-do-		2,250
Govind National College Govind Nagar P.O. Narangwal Dt. Ludhiana.	-do-		1,000
MR. College Fazilka	-do-		1,750
D.A.V. College Malout	Grant towards the loan of books to students - setting up of Book Bank.	1st	5,625
Guru Nanak College for Girls Girls Muktsar	-do-	1st	5,625
Guru Nanak College Moga	-do-	1st	4,500
Arya College Ludhiana	Setting up of Book Bank- Rlease of additional grant of Rs.2,812.		2,812
Total			3,88,788.45

53. Panjab Agriculture University

Financial Assistance to Teachers for research/learned work in Sciences - Payment of Second instalment of grant. 2nd 750

Total 750

54. Patna University

Basic grant for the purchase of Scientific equipment during the 5th Plan period. 2nd 50,000
Grant-in-aid for the purchase of books and journals during the 5th plan period. 75,000
Utilisation of Services of Outstanding retired teachers - payment of grant in respect of Dr. V. Shrivastava. 7,000
-do- in respect of Prof. D.Chatterjee 7,000

Affiliated Colleges

Magadh Mahila College Patna Grants to College Libraries for the loan of books to students (Book-Bank)during fifth Plan. 1st 8,000

Total 1,47,000

55. Poona University

Basic grant for the purchase of Scientific equipment during the 5th Five Year Plan period. 80,000
Centre of Advanced Study in Linguistics - Fixation of pay of staff etc. 23,853.18
National Associateship Scheme - Dr. Sreenivasulu. 60,349
Statement of actual expenditure incurred during the year 1973-74 in respect of Centre of Advanced Study in Sanskrit - Payment of grant for. 2,00,000
Indo-USSR Cultural Exchange Programme - Placement of Russian Language Teachers - Reimbursement of Salary to Techno Expert USSR. 3,336.82

P.T.O.

Poona University Contd.

Affiliated Colleges

S.S.V.P. Sans- th's Science College Dhulia.	Construction of Physics Laboratory	3rd	4,800
R.K. Talreja College	Grants to Colleges for Laboratory Equipment.	2nd	3,750
DES College of Education Dhulia.	Students' Aid Fund in the Colleges - grant for 1975-76.		270
-do-	Students' Aid Fund in the Colleges - Grant for 1974-75.		167
C.D.Jain College of Commerce Shrirampur Ahmednagar	Students' Aid Fund in the Colleges - grant for 1975-76.		706
T.C. College of Arts, Science and Commerce Baramati.	-do-		1,750
S.P. College Poona.	College Science Improvement Programme - Selected Colleges Project - Grant-in-aid.		60,000
		Total	4,38,982.00

56. Punjabi University

U.G.C. Assistance for the Research Project entitled "Stellar Structure : Evoluion and Pulsation" of Dr. H.S.Gurm, Department of Physics, Punjabi University, Patiala -Fifth Five Year Plan period - Release of the 2nd instalement of grant (for Fellowship).		3,600
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Affiliated Colleges

Rajindra Govt. College Bhatinda.	Students' Aid Fund in the Colleges - Grant for 1975-76.	3,250
M.M. Modi Degree College Patiala.	-do-	2,750

Punjabi University Contd.

Affiliated Colleges

T.P.D.Malwa College Rampur Phul Dt. Bhatinda.	Students' Aid Fund in the Colleges - grant for 1975-76.		750
Shri Lal Behadur Shastri Arya Mahila College Bamala. Govt. College Malerkotla	Grants towards the loan of books to students - Setting up of Book Bank.	1st	4,500
	-do-	1st	8,437
		Total	<hr/> 23,087 <hr/>

57. Rabindra Bharati University

Payment of grant towards the salary of staff appointed in Humanities and Social Science Departments under the 4th Plan Development Schemes.			50,000
	Total		<hr/> 50,000 <hr/>

58. Rajasthan University

U.G.C. Assistance for the Research Project entitled "Synthesis of Some Novel Heterocyclics Through Ylide-Intermediates" of Dr. R.K. Bansal, Department of Chemistry, Rajasthan University, Jaipur - Fifth Five Year Plan period - Release of the 2nd instalment of grant.			4,800
Programme of Special Assistance to Selected Departments - Department of Chemistry.			3,50,082
Project on Alternative Futuristics. Support for advanced research in the Humanities and Social Sciences - 1975-76.	1st		16,400 5,000

Rajasthan University Contd.

Holding of Regional Workshop on Political Science at Rajasthan University, Jaipur.	1st	12,000
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Affiliated Colleges

S.D.Govt. College Beawar	Grants to colleges for loan of Books to students - Book-Bank.		3,250
Seth G.R. Chamnai Ratehpur.	Grants to College Libraries for loan of Books to Students (Book Banks).	1st	4,500
S.P.U.College Faina	-do-	1st	4,500
Govt. Girls College Bhilwara.	-do-	1st	4,500
Bhagwan Dass Todi College Lachmangarh.	-do-	1st	6,000
Govt. College Nasirabad.	-do-	1st	6,000
V.S.J.College Shatapur.	Students' Aid Fund in the College - Grant for 1975-76.		1,997.50
M.S.J.College Bharatpur.	Students' Aid Fund in the Colleges - Grant for 1974-75.		1,997.50
H.T.Todi College Lachmangarh.	Development of play field & purchase of accessories for games & sports.	2nd	1,500
Banasthali Vidyapith Gyan Vigyan Mahavidyalaya Banasthali Vidyapith.	Utilisation of Services of outstanding retired teachers - Payment of grant in respect Dr. Rameshwar Prasad Gupta.		1,000
	Total		<u>4,23,527.00</u>

59. Ranchi University .

Financial Assistance to Teachers for research/learned work in Sciences - Payment of second instalment of grant.	2nd	250
Unassigned grant for 1974-75.	2nd	1,501.26
-do-	1st	20,000
Grant-in-aid towards the construction of postgraduate Arts Block.	3rd	2,00,000

Ranchi University Contd.

Utilisation of Services of outstanding retired teachers - payment of grant in respect of Dr. Sarvanand Pathak.	6,000
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Affiliated Colleges

St. Xavier's College Ranchi.	Grants to College Libraries for loan of books to students (Book-Bank) during fifth Plan.	1st	8,000
Women's College Ranchi.	-do-	1st	15,000
Jamshedpur Workers College Sakchi Jamshedpur.	-do-	1st	5,500
Ganesh Lal Agarwal College Daltonganj.	-do-	1st	5,500
Karim City College Jamshedpur-1.	-do-	1st	8,000
Marwari College Ranchi.	Students' Aid Fund in the Colleges - sanction of grant for the year 1975-76.		1,699.50
P.K. Roay Memorial College Dhanbad.	-do-		270
Total			2,71,720.76

60. Ravishankar University

Construction of Gymnasium.	2nd	50,000
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Affiliated Colleges

Gramya Bharati Post graduate College Govt. Post Graduate College Kanker.	Grants to College Libraries for loan of Books to students (Book-Banks)	1st	6,000
N.D.P.E.S. Arts and Commerce College Paloda Bazar Dist. Raipur.	-do-	1st	6,000

Ravishankar University (Contd.)

Govt. Digvijai Mahavidyalaya Rajnandgaon	Grants to college libraries for loan of books to Students (Book-Bank)	Ist	12,000
Govt. college of Science, Raipur	de-	Ist	12,000
S.N.G. Degree college, Mungeli	Development of play field and purchase of accessories for games and sports	Final	1,317
			<u>Total: 87,317</u>
61. <u>ROHELKHEND UNIVERSITY</u>			
<u>CONSTITUENT COLLEGES</u>			
Hindu college, Moradabad	Grant towards the loan of books to students - setting of Book Bank	Ist	16,875
Upadhi Mahavidyalaya Philibhit	-do-	Ist	8,437
Sahu Jain college, Najibadabad	Students Aid Fund for 1975-76		1,750
			<u>Total: 27,062</u>
62. <u>ROORKEE UNIVERSITY</u>			
	Senior research fellowship in Engineering and Technology to Shri R.P. Gakkhar.		3,033.3
	National Associateship Scheme Budget estimate for the year 1974-75 for the school of Research and Training in Earth quake Engineering		100
	Payment of equipment grant for Mechanical Engineering Department for the 5th plan period		40,396
	UGC Assistance for the Research Project entitled 'The Study of Scattering of Atoms Ions and Molecules by Charged Particle Impact' of Dr. M.K. Srivastava, Deptt. Physics,		3,00,000
			6,000
			<u>Total: 3,49,529.33</u>
63. <u>SAMBALPUR UNIVERSITY</u>			
	Summer Institute in English for college Teachers during 1975 sanction of Rs.14,000/- grant for.	2nd	14,000
	Students Aid Fund in the colleges		500
<u>AFFILIATED COLLEGES</u>			
Kuchinda College, Kuchinda	Grants to college libraries for loan of books to students (Book-Bank) during 5th plan	Ist	4,500
Sonepur college, Sonepur	-do-	Ist	4,500

SAMBALPUR CONTD.

D.A.V.College, Titilagarh	Grants to college libraries for loan of books to students (book Bank) during 5th plan	Ist	4,500
Jawshar lal college Patnagarh	-do-	Ist	4,500
Rourkela Evening college, Rourkela	-do-	Ist	6,000
Sundergarh college, Sundergarh	Development of play field and purchase of accessories for games and sports	Final	1,500
G.M.College, Sambalpur	Laboratory equipment grant	Final	900
Sundergarh college, Sundergarh	Construction of Men's Hostel	2nd	20,000
		Total:	<u>60,900</u>

4. SARDAR PATEL UNIVERSITY

Salary of staff for the Deptt. of Education - IV Plan continuing Scheme.	10,000
Release of grant for the purchase of scientific equipment during the fifth five year plan period	1,00,000
National Assosiatship Scheme	

AFFILIATED COLLEGES

Nalini Arvind Arts College, Vellabh Vidyanagar	Students Aid Fund	841	
V.N.Mahavidyalaya Vallabh Vidyanagar	-do-	1,750	
Mahavidyalaya, Vallabh Vidyanagar	-do-	1,557	
Anand Arts college, Anand	Establishment of Health Centre at Anand Arts College, Anand	IIIrd	20,000
		Total:	<u>1,34,148</u>

65. SAUGAR UNIVERSITY

Writing of University level books/monographs	4,000	
Senior Research fellowship in Humanities	5,750.38	
Research fellowship in Engineering and Technology	4,500	
Development of post-graduate Courses in pharmacy at saugar Univ.	25,000	
-do-	25,000	
Grants to college libraries for loan of books to students (Book-Bank)	Ist	4,500

SAUGAR UNIVERSITY CONTD.
AFFILIATED COLLEGES

Kusum Mahavidyalaya Senoi Malwa	Grants to college libraries for loan of books to students (book Banks)	Ist	4,500
Arts & Commerce Mahavidyalaya, Khurai	-do-	Ist	4,500
S.R.T.(NES) college, Barman	-do-	Ist	4,500
Jawahar Lal Nehru Memorial Mahavidyalaya, Sohagpur	-do-	Ist	6,000
SH.E.Singh Gaur Mahavidyalaya, Sagar	-do-	Ist	4,500
S.G.J.Q. Women's College, Burhampur	-do-	Ist	4,500
Kamla Nehru Mahavidyalaya Damoh	-do-	Ist	4,500
University college of Education, Sagar	Purchase of Chalk Boards	Final	1,000
Govt. P.G. College, Damoh	Students Aid Fund for 1974-75		500
		Total:	<u>43,250</u>

66. **SAURASHTRA UNIVERSITY**

	Establishment of Students Home UGC Assistance for the Research Project entitled 'Gravitational Collapse and Gravitational Radi- ation' of Dr. J. Krishan Rao	Final	13,988
			4,800

AFFILIATED COLLEGES

M.P. Shah Commerce and Law College, Surendranagar	Grants to college libraries for loan of books to students (Book-Bank)	Ist	12,000
Maharaja Sh. Mahandrasihji Science college, Morvi	-do-	Ist	4,500
		Total:	<u>35,288</u>

67. **SHIVAJI UNIVERSITY**

	Financial assistance to teachers for research/learned work in sciences	Final	46
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SHIVAJI UNIVERSITY CONTD.
AFFILIATED COLLEGES

Arts, Commerce & Science college, Miraj	Grants to college libraries for loan of books to students (book banks)	Final	3,250
Yeshwantrao Chawan College, Khatav	-do-	Ist	5,000
Atpadi college, Atpadi	-do-	Ist	4,500
Balashob Desai College, Patan	-do-	Ist	6,000
Arts, Commerce & Science college, Kij	-do-	Ist	6,000
Kashob Chawan Mahavidyalaya, Anavati	-do-	Ist	5,000
D.P. Bhosale College, Karegaon	-do-	Ist	5,000
Milligram college, Gargli	Students Aid Fund for 1975-76		2,750
Kara college, Kara	-do-		1,750
Rajarshi Chhatrapati Sahu College, Kolhapur	Students Aid Fund in the Colleges - Grant for 1975-86		1,750
Acharya Jawadakar Adhyapak Mahavidyalaya, Vishwanath nagar	-do-		240
Yashwant Rao Chawan college, Khatav	-do-		750
Jaysingpur college, Jaysingpur	Construction of Men's Hostel	3rd	23,000
Rajaram College, Kolhapur	Construction of Teacher's Hostel		14,000
		Total:	<u>79,056</u>

68. S.N.D.T. WOMEN'S UNIVERSITY

Grants to teachers training college		
Appointment of Additional staff (Education) at Poona		10,000
Grants in aid towards the construction of Women's hostel at Poona		1,00,000
Sanction of grant for the construction of class rooms for postgraduate courses in Humanities & Social Sciences at Poona		75,000

AFFILIATED COLLEGES

Smt. Maniben M.P. Shah Women's college of Arts Maturga	Students Aid Fund in the colleges		750
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contd.

69. SOUTH GUJARAT UNIVERSITY

AFFILIATED COLLEGES

•Sardar Vallabhbhai Regional college of Engineering & Technology, Surat	University Grants Commission Assistance for the Research Project entitled 'Optical and Magneto-optics of Dispersed Media' of Dr. H.S.Shah	7,800
•Patidar Jin Science college, Darbanga	Grants to college libraries for loan of books to students(Book-Banks)	Ist 4,500

70. SRIVANKATESWARA UNIVERSITY

		Total: 12,300
	Seminar on P.G. Medical Education Training & Assessment proposed to be held on 6th & 7th Sept., 75	10,000
	Junior research fellowship in Humanities including Social Sciences	500
	Grants in aid for the Post-graduate Courses in Engineering Establishment - S.V. University College of Engineering Development of Post-graduate courses in Engineering & Technology	30,000
		Ist 10,000

AFFILIATED COLLEGES

Silver Jubilee Govt. college, Karnool	Students Aid Fund in colleges	253
Jawahar Bharati Kavali	College Science Improvement Programme Selected	
		Total: 50,753

71. UDAIPUR UNIVERSITY

	UGC Assistance for the Research Project entitled 'Synthesis of Antimalarial Drugs' of Dr. K.S.Suresh Department of Chemistry, University of Udaipur, Udaipur - Five Year Plan REASE of 2nd instalment of grant	4,800
	Basic grant for the purchase of library books and journals during 5th Five Year Plan period.	1,50,000
	UGC assistance for the Research Project entitled 'Kinetic Studies of Fast Reactions in Solutions'- Study of Some Electron Transfer Reactions of Transition Metal Ions with Compounds of Biological Significance' of Prof.G.V.Bakore.	4,800
		1,59,600

71. UTKAL UNIVERSITY

Utilisation of Services of
Outstanding Retired Teachers
Payment of Grant in Respect
of Dr. K.B. Das 6,000

AFFILIATED COLLEGES

Nayagarh college, Nayagarh.	Grants to College Libraries for loan of books to students (Book-Bank) during Fifth Plan.	Ist	5,500
Udala college, Udala	-do-	Ist	6,000
Dhenkanal college, Dhenkanal	-do-	Ist	7,500
Govt. Evening college, Baripada	-do-	Ist	4,500
Khetrabesi Dayanand Anglovedic College, Nirakarpur	-do-	Ist	4,500
S.C.S. College, Puri	-do-	Ist	1,765
Shailabala Women's College, Cuttack	Students Aid Fund in the colleges		1,300
Dhenkanal College, Dhenakal	Laboratory Equipment grant	Final	1,200
Kendrapara college, Kendrapara	Construction of Teachers Hostel.	First	40,000
		Total:	78,265

VIKRAM UNIVERSITY

Establishment of Study Centre	12,928
Basic grant for the purchase of library books and Journals during 5th Five Year Plan period.	50,000
Release of grant for the purchase of scientific equipment during fifth five year plan period	1,00,000

AFFILIATED COLLEGES

Govt. College, Narsinghgarh	Grants to college libraries for loan of books to students(Book-Bank)	Ist	7,500
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VIKRAM UNIVERSITY CONTD.

AFFILIATED COLLEGES

Govt. college, Jhabua	Grants to college libraries for loan of books to students (Book-Banks)	Ist	6,000
Govt. Girl's college, Ratlam	-do-	Ist	10,000
Govt. college, Dhar	-do-	Ist	9,000
Govt. college, Rampura	-do-	Ist	6,000
Govt. K.P. college, Dewar	-do-	Ist	8,000
Govt. college, Khargon	-do-	Ist	11,000
Govt. college, Rajgarh	-do-	Ist	6,000
Jin Govt. college, Barwanah	-do-	Ist	6,000
Govt. college, Khargone	Construction of Men's Hostel	3rd	25,000
Govt. college, Barvani	Grants to college for Laboratory Equipment	Final	6,755.
			<hr/>
Total			2,64,183.

73. VISVA BHARTI UNIVERSITY

Junior Research fellowships in Sciences	2,967.74
Award of National Fellowships to Prof. S.K. Ghosh Deptt. of English	20,000
<hr/>	
Total:	22,967.74

INSTITUTIONS DEEMED TO BE UNIVERSITY

74. Birla Institute of Technology & Science

Starting two years Master's Programme on Science and Society Policy, Planning and Management of Science and Technology	Ist	35,000
Unassigned grant for 1974-75	Final	7,290
Award of Junior Fellowships to the M.Pharm Students admitted during 1973-74		11,687.12
Award of Junior Fellowships to M.Pharm Students admitted in 1975-76 session		6,600
		<hr/>
Total:		60,577.12

75. Gujarat Vidyapith

Employment of Trained Coaches in 1973-74.	final	2,697
Basic grant for library books and journals - Sanction of grant for.		25,000
Support for advanced research in the the Humanities and Social Sciences - 1975-76.	1st	4,000

Total: 31,697

76. Indian Institute of Science

Payment of maintenance grant	3rd	61,00,000
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Total: 61,00,000

77. Indian School of Mines

Visit of Dr. M. Poddar, Lecturer in Geophysics, to U.K. under the Programme of Exchange of Younger Scientists between India and U.K. during the year 1975-76.		9,786
Payment of maintenance grant	3rd	13,00,000

Total: 13,09,786

78. Jamia Millia Islamia

Construction of Science Block - Grant for .	8th	10,000
Student Amenities - Improvement of sanitation in the hostels.	1st	10,000

Total: 20,000

Total Plan

1,32,78,475.64

P.T.O.

NON-PLAN

1. Aligarh Muslim University

Revision of scales of pay of Academic and Non-academic staff - Rates of dearness allowance, compensatory (City) allowance, House rent allowance consequent upon the decisions of the Govt. of India on the recommendations of the 3rd Pay Commission etc. . Payment of grants for meeting the expenditure on the -

Maintenance grant for 1975-76 -

32, 00, 000

4th 84, 37, 500

Total: 1, 16, 37, 500

2. Banaras Hindu University

Maintenance grant for 1975-76 -

4th 1, 15, 12, 500

Total: 1, 15, 12, 500

3. Delhi University

-do-

5th 49, 37, 500

Affiliated Colleges

Hindu College,
Delhi.

-do-

3rd 3, 83, 000

Delhi School of Social
Work, Delhi.

-do-

3rd 2, 300

-do-
P.G.D.A.V. College
(Evening Classes),
Mandir Marg,
New Delhi.

-do-

3rd 1, 28, 000

Dyal Singh College,
Lodi Road, New Delhi.

-do-

4th 3, 78, 000

Atrna Ram Sanatan Dharma
College, Dhuala Khuan,
New Delhi.

-do-

5th 1, 73, 000

Delhi University

Affiliated Colleges

Deshbandhu College (Day Classes), Kalkaji, New Delhi.	Maintenance grant for 1975-76	4th	2,20,000
P.G.D.A.V. College (Day Classes), Mandir Marg, New Delhi.	-do-	3rd	2,00,000
Shivaji College, Karampura, New Delhi.	-do-	4th	2,33,000
Institute of Home Economics, South Extension Part I, Ring Road, New Delhi.	-do-	3rd	1,73,000
Lady Shri Ram College for Women, Lajpat Nagar, New Delhi.	-do-	4th	3,02,000
Ranjas College, Delhi.	-do-	6th	1,88,000
Kirori Mal College, Delhi.	-do-	3rd	4,17,000
Shivaji College, Karampura, New Delhi.	-do-	3rd	1,10,000
Jesus & Mary College, Chanakyapuri, New Delhi.	-do-	4th	1,00,000
Shyam Lal College, Shahdara, Delhi.	-do-	3rd	1,20,000
Gyan Devi Salwan College, Salwan School Marg, Rajinder Nagar, New Delhi.	-do-	3rd	60,000
Rao Tula Ram College, Rao Tula Ram Marg, New Delhi.	-do-	3rd	35,000
Ram Lal Anand College (Day Classes), Anand Nikotan Marg, New Delhi.	-do-	5th	60,000
Lady Shri Ram College for Women, Lajpat Nagar, New Delhi.	-do-	3rd	1,00,000

Delhi University (Contd.)

Affiliated Colleges

Sri Venkateswara College, Dhoola Kuan, New Delhi.	Maintenance grant for 1975-76.	3rd	1,75,000
Central Institute of Education, 38, Chhatra Marg, New Delhi.	-do-	3rd	2,47,000
Rajdhani College, Kirti Nagar, New Delhi.	-do-	3rd	4,15,000
Lakshmi Bai College, Ashok Vihar-III, Wajir Pur, Delhi.	-do-	3rd	3,09,000
Gargi College, Jajpat Nagar-IV, New Delhi.	-do-	3rd	2,90,000
Shri Aurobindo Mahavidyalaya, Malviya Nagar, New Delhi.	-do-	4th	2,22,000
Maitreyi College, Netaji Nagar, New Delhi.	-do-	3rd	2,33,000
Swami Shardhanand College, Alipur, Delhi.	-do-	3rd	2,43,000
Shyama Prasad Mukherji College for Women, Tagore Garden, New Delhi.	-do-	3rd	2,41,000
Vivekananda Mahila College, Gandhi Nagar, Delhi.	-do-	3rd	1,38,000
Satyawati Co-educational College (Day classes), Tinarpur, Delhi.	-do-	3rd	1,81,000
Shyan Lal College (Day Classes), Shahdara, Delhi.	-do-	4th	1,43,000
-do-	-do-	3rd	94,000
Rao Tula Ram College, Rao Tula Ram Marg, New Delhi.	-do-	4th	3,000
Kamala Nehru College, Panch Shila Park Marg, New Delhi.	-do-	3rd	3,19,000

Delhi University (Contd.)

Affiliated Colleges

Bharati Mahila College, Link Road, Karol Bagh, New Delhi.	Maintenance grant for 1975 76	8th	14,000
Janki Devi Maha- vidyalaya, Poorvi Marg, New Delhi.	-do-	3rd	3,48,000
Hans Raj College, Delhi.	-do-	3rd	5,08,000
			<hr/>
Total:			1,25,83,800
			<hr/>
4. <u>Jawaharlal Nehru University</u>			
	-do-	4th	19,42,500
			<hr/>
Total:			19,42,500
			<hr/>
5. <u>Viveka-Bharati</u>			
	-do-	4th	26,70,000
			<hr/>
Total:			26,70,000
			<hr/>
Total Non-Plan:			4,03,46,300
Grand Total (Plan + Non-plan)			<u>5,36,24,775.64</u>

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated: 27th & 28th Octr., '75

Item 4. To receive a statement showing expenditure incurred by the University Grants Commission during the year 1975-76 (upto 30th September, 1975).

<u>SECTION I-NON PLAN PROJECT</u>	<u>BUDGET ESTIMATES</u> (Rs. in lakhs)	<u>EXPENDITURE UP TO</u> 30th September, 1975. (Rs. in lakhs)
A. Administration charges	60.00	26.98
B. i) Block Grants to Central Univ.	1260.00	945.00
ii) Block Grants to Institutions deemed to be Univ.		61.00
C. Maintenance Grants to constituent/affiliated colleges of Delhi Univ.	480.00	387.34
D. Schemes not covered under Block grant	308.00	14.52
	----- 2108.00 -----	----- 1434.84 -----

SECTION II-PLAN PROJECTS

A. Grants to Central & State Universities for Humanities	257.25	103.99 @ 0.73
B. Grants to Central & State Universities for Science	769.51	243.90 @ 1.08
C. Grants to Central & State Universities for Engg. & Tech.	285.31	99.17 @ 0.01
D. Grants to constituent/affiliated colleges	466.95	130.16 @ 0.03
E. Grants to Central & State Universities for Misc. schemes	1322.01	365.06 @ 3.69
F. Misc. expenditure Unesco Coupons	32.05	9.72
Dollar Loan Scheme	-	1.60

Total Section II 3133.08

953.60

*400.00

@ 5.54

Total I & II

5241.08

2388.44

**SECTION III: EXPENDITURE OUT OF GRANTS RECEIVED FROM
GOVT. OF INDIA AND OTHER SOURCES FOR SPECIFIC PURPOSES.**

i)	Evaluation of Books	2,100
ii)	Grants to universities for organising Summer Institutes for School teachers (out of contribution received from NCERT)	50,000
iii)	Fellow for writing of books	3,13,792 @ 24,398
iv)	<u>National Sports Organisation Programme</u>	
	a) Construction of Gymnasium	4,72,906
	b) Play fields	36,702
v)	Dr. Zakir Hussain Memorial Lecturers	-
vi)	Aurbindo Memorial Lecturers	-
vii)	National Service Scheme	1,32,577
viii)	National Award of Prizes	@ 6,638
ix)	Ram Charitra Manas	16,000
x)	Survey on Higher Education (NCERT)	22,077
	Total Section-III	<u>10,77,190</u>
	Total Section I, II & III	2399.21 (in lakhs)

SECTION IV: DEPOSITS AND ADVANCES

i)	Conveyance Advance	24,900
ii)	Festival Advance	3,100
iii)	House Building Advance	71,306
iv)	Fan Advance	200
v)	UGC Departmental Canteen	-
	Total Section IV:	<u>99,506</u>

Expenditure during 1974-75 (upto 30.9.1974) was as under:-

Section I Non-Plan Project	10,53,57,352
Section II Plan Project	12,15,47,815
	<u>22,69,05,167</u>

*By adjustment

@Administration charges

Confidential

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated :

27th + 28th Oct 1974

Item No.

5 To consider the report of the committee appointed by the UGC to examine the proposal of the Andhra University for financial assistance towards the Introduction of Correspondence Courses at the postgraduate level.

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The University Grants Commission at its meeting held on 7th October, 1974, considered the report of the committee appointed by the University Grants Commission to examine the proposal of the Andhra University for financial assistance towards the introduction of correspondence courses at the postgraduate level. The Commission felt that it would be desirable to suggest specific guidelines in regard to the development of correspondence courses at undergraduate and postgraduate levels to be offered by universities. (Resolution No. 9 dated 7.10.74).

Guidelines have since been finalised and these have been circulated to the universities for implementation. The important features of the guidelines for the Introduction of Correspondence Courses at the postgraduate level are given below:-

1. Correspondence courses at the postgraduate level should be started only in those universities which have experience of running undergraduate correspondence courses properly for at least three years. The undergraduate correspondence programme should be fully consolidated in accordance with the guidelines before correspondence courses are offered at the postgraduate level.
2. Correspondence courses at the postgraduate level should be started only in those subjects in which the university has well established postgraduate departments noted for their high standards. The head of the department concerned should be willing to assume full responsibility for the maintenance of standards.
3. Course material for postgraduate students should be in the nature of guidelines which should be supplemented by suggested readings, extracts from journals, source materials, reference books etc.
4. The basis of grants and assessment by visiting committees would be the same as at the undergraduate level but the ceiling of UGC assistance will be Rs. one lakh per subject per annum for a period of five years. The grants

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should be for core-staff, preparation of reading materials, contact programmes, provision of visiting lecturers, books and journals and postal library services.

5. It would be desirable to have a system of rotation so that the same two members in a given subject do not take responsibility for correspondence courses year after year. To avoid this, new positions should be created, whenever necessary, in the appropriate department of the university.

The Commission reconsidered the report of the committee on the proposal of the Andhra University for assistance towards the Introduction of Correspondence Courses at the postgraduate level at its meeting held on 10th March 1975 and desired that the report may be examined in the light of the recommendations that may be made by the visiting committee to assess the fifth plan development proposals of the university (Resolution No.8 dated 10th March 1975). The report of the visiting committee has now been considered by the Commission but there is no specific recommendation in the report on strengthening correspondence courses in the Andhra University in the fifth plan period.

A copy of the Report of the Committee on Correspondence Courses placed before the Commission at its meeting held on 7th October 1974 is at attached (Annexure). The Committee examined the proposal of the Andhra University for the introduction of correspondence courses from the point of view of demand and the willingness of the departments to assume responsibility for the conduct of correspondence courses and also recommended the introduction of correspondence courses for M.A. (Economics) and M.Com.

The Committee has recommended that assistance for the courses may be provided for a period of two years for each of the subjects for the following items of expenditure as already approved by the Commission in the case of Mysore University and the Panjabi University, Patiala.

1. Core Staff: One Reader and Two Lecturers.
2. Preparation of reading material and guidelines etc. Rs.15,000
3. Two contact programmes and one orientation programme Rs.5,000
4. Visiting lecturers and provision for taped lecturers Rs.5,000
5. Evaluation of reading material & students responses Rs.5,000

A grant of Rs.10,000 for books and journals is also recommended. The grants will be paid on condition that the university implements the recommendations of the committee and the guidelines.

The University has requested a grant of Rs.49,000/- for extension of the correspondence course building to enable it to have postgraduate correspondence courses in the same building. The area required is 1650 sq.ft and the cost will be Rs.49,000/- (including service and furniture). This may be agreed to in principle so that the construction of the building may be taken up after the present ban on the construction of non-functional buildings is lifted.

The matter is placed before the Commission for consideration.

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Report of the Committee appointed by the UGC to examine the proposal of the Andhra University for financial assistance towards the introduction of correspondence courses at the postgraduate level.

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The University Grants Commission appointed a Committee, consisting of the following members, to examine the proposal of the Andhra University, Waltair for financial assistance towards the introduction of correspondence courses at the post-graduate level:

1. Prof. A.B. Lal,
Chairman,
Uchh Shiksha Anudan Ayog, M.P.,
Bhopal.
2. Shri Bakshish Singh,
Director,
Correspondence Courses,
Punjabi University,
Patiala.
3. Dr. S.C. Goel,
Research Officer,
University Grants Commission,
New Delhi.

2. The Committee visited the Andhra University on August 13 & 14, 1974 and held discussions with Shri L. Bhullayya, Vice-Chancellor, Shri M. Gopal Krishna Reddy, Registrar, Prof. K.V. Sivayya, Prof. of Commerce and Director, School of Correspondence Courses and Dr. E. Suryanarayanamurty, Reader in History, Prof. K. Viswanadham, Head of the Department of English, Prof. K.V.R. Narsimham, Head of the Department of Telugu, Prof. K. Venkateswarlu, Professor of Politics and Public Administration and Prof. B. Sarveswara Rao, Head of the Department of Economics. The observations and recommendations of the committee follow.

3. The School of Correspondence courses (established in 1972-73) at the Andhra University imparts education in respect of the following courses:

- (i) Two year Pre-University Course.
- (ii) Three-year B.A. & B.Com. Course.

The above courses were started with the concurrence of the Commission and the Commission agreed to provide assistance amounting to Rs.5 lakhs for a period of four years for the programme (Resolution No.11, dated 4th August, 1971). The proposal of the University for the construction

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of a composite building at a total cost of Rs.3.60 lakhs for the correspondence course portion was also accepted by the Commission on condition that the share of the U.G.C. will be limited to 50% of the building cost and the total assistance for capital projects and recurrent expenditure will be subject to the ceiling of Rs.5 lakhs during a period of four years.

4. Instructional material is supplied to correspondence course students in Telugu or English in the two-year pre-university course and English in the B.A. & B.Com. courses. The conditions for admission are as given below.

(I) I Year P.U.C. Candidates passing the Matriculation examination under New Scheme. H.S.C. Examination or any other qualifying examination recognised by the Andhra University as equivalent there to are eligible for admission to the First Year of the Two-Year P.U.C.

(II) II Year P.U.C. Candidates passing Matriculation under old regulations and S.S.L.C. are eligible for admission to the Second Year of Two-Year Pre-University Course.

I Year B.A. & B.Com. Candidates passing the qualifying examination such as one year P.U.C. (Old): H.S. & M.P.S.L.C., Intermediate Examination recognised by the Andhra University as equivalent thereto are eligible.

II Year B.A. & B.Com. (1) Those who appeared for the first year examinations after studying in a regular college. (2) Those who appeared for the I Year examinations privately and (3) Those who have passed the old Intermediate examinations are eligible for admission to II Year B.A. & B.Com. Courses.

III Year B.A. & B.Com. Those who studied for first and second years in regular colleges and those who appeared at first and second years privately are eligible for admission to the third year course.

5. The syllabus for each paper is divided into 30 lessons or more. Each lesson covers the amount of teaching work normally done in one week in regular class room lectures. Lessons are prepared by teachers teaching the subjects concerned in various colleges of the university and are also edited and reviewed. The teachers are paid at the rate of Rs.35/- per lesson. Unlike the practice obtaining in other universities, the entire package of lessons in some of the papers was written by the same person. The University adopted this method in the interest of continuity but the Committee feels that this is indefensible and has seriously impinged on the quality of lessons. The purpose of the scheme is defeated if lesson writing is not a co-operative venture. Even when lessons are written by different persons, uniformity of presentation can be maintained through proper editing and review.

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6. The courses of study which are the same for correspondence course students as for regular students, are detailed below:-

Pre-University Course:

Part-I: English.

Part-II: Telugu or Hindi (The candidate can choose any one of the two).

Part-III: The Candidate can choose any of the following approved combinations.

- (i) Indian History and Civics and Elements of Indian Administration.
- (ii) Economics and Civics.
- (iii) Economics, Accounts and Commercial Knowledge.
- (iv) Indian History and Economics.

P.A. Part-I Paper-I English
Paper-II Telugu.

Part-II. The candidate is allowed to choose economics as main and History and Politics as ancillaries.

History as main and Economics and Political Science as ancillaries.

Politics as main and History and Economics as ancillaries.

B.Com. Part-I Paper-I English.
Paper-II Hindi Or Telugu (the candidate can choose any one of the two).

Part-II. Ist Year Economics, Accountancy, Commercial Geography.

II Year, Accountancy, Business Organisation Banking Theory and Practice.

7. Enrolment in B.A. Correspondence Course in the Andhra University has not been so encouraging as in some Universities in the North e.g. Delhi, Panjab and Panjabi, nor has it stabilizes around a certain level. However, the trend of enrolment in commerce compares favourably with the trend elsewhere e.g. in the University of Rajasthan Jaipur. Student enrolment in B.A. & B.Com. Correspondence courses for the year 1973-74 is given below:-

B.Com.	1st year	69	admitted so far
	2nd year	307	
	3rd year	69	
B.A.	1st year	85	admitted so far.
	2nd year	230	
	3rd year	78	

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P.U.C.	Ist year	71 admitted so far
	2nd year	411

It would be seen from the above figures that the University started with low enrolment but during the second year of the conduct of correspondence courses, the rate of admission shot up considerably, The pass percentage has been about the same in B.A. Ist year correspondence courses as for the regular students but pass percentage in B.Com. Ist year was 41 for correspondence course students as compared to 21 for the regular students of the University.

8. One of the chief weaknesses of correspondence courses in the Andhra University is the lack of adequate teaching staff. At present, the teaching staff consists of only two Assistant Directors, one in Commerce and the other in Economics in the scale of pay of a lecturer. They co-ordinate the programme, review the lessons and do proof reading also. An other shortcoming of the undergraduate correspondence programme is the inadequate attention paid to contact classes. The contact programme was organised for only three days during 1973-74, although the reported attendance viz., 60% was highly satisfactory. Responsesheets are corrected by those who write lessons. Payments for the evaluation of students response-sheets are received from the students which seems to be in line with the experience of other Universities offering correspondence courses. It is to be regretted that presently there exists no co-operation between the Andhra University and Sri Venkateswara University both of which offer correspondence course for B.A. and B.Com. Such co-operation is feasible in diverse areas & e.g. the writing of lessons, conduct of contact programmes etc and was, in fact specifically suggested by the Commission, while accepting the proposal of Sri Venkateswara University to introduce correspondence courses. We suggest immediate action towards co-ordination in the programme in both the universities, which are located in the same state.

9. The Andhra University proposes to introduce correspondence courses for M.Com. and the M.A. degree in Telugu, English, Economics, Political Science and History. This question was discussed at the conference of Vice-Chancellors of the three universities in Andhra Pradesh and the conference resolved that the Andhra University may take initiative in the matter. It may also be mentioned in this connection that at present only one university in the Southern zone is offering correspondence courses* at the undergraduate level. Therefore the proposal of the university to extend these facilities to the postgraduate level should be acceptable 'in principle'. However, the main question to be considered in this context is whether there will be sufficient demand for post-graduate correspondence courses to make them viable and if so, in which of the subject areas. In this connection, the Committee noted that for such of the subjects in which correspondence courses are offered by the university, the provision to permit private appearance at University examinations would be withdrawn.

/is made @ 35 paise for response sheet. Nearly 2% response sheet for the M.A. degree viz. the university of Mysore for M.A. pto in Kannada. The Andhra University also has some experience in running correspondence courses.

10. The nature of the demand for post-graduate correspondence courses can be gauged from the

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- (a) number of successful candidates at the B.A. B.Com. examination.
- (b) the number of students taking M.A. examination privately and
- (c) the number of seats in the regular courses in relation to the number of eligible applicants. The position of (c) is given below.

For the M.A. Degree 1973-74

<u>No. of students who applied for admission.</u>	<u>No. of admitted in University/ Colleges</u>	<u>No. admitted in post-graduate centres.</u>
Histry 123	42	NA
Economics 175	40	40
Pol-Science 225	42	NA
English 185	33	40
Telugu 110	44	50
M. Com. 512	100	NA

11. The following tables show that the largest number of successful candidate who would constitute the demand for post-graduate correspondence courses are in commerce and Economics (main subject).

B.A.(New Scheme)
1973-74

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<u>I class</u>		<u>II class</u>		<u>III class</u>	
<u>Main</u>		<u>Main</u>		<u>Main</u>	
Economics	3	History	38	History	165
Telugu	14	Economics	125	Economics	415
Psychology	1	Politics	33	Politics	99
Social Work	1	Telugu	23	Telugu	100
		English	9	English	24
		Hindi	2	Hindi	7
	<u>16</u>	Philosophy	2	Philosophy	8
		Psychology	5	Psychology	3
		Sociology	9	Sociology	15
		Social work	4	Social work	6
		Geography	1	Pub.Admn.	4
		Anthropology	1		
		Pub.Admn.	2		
			<u>254</u>		<u>696</u>

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I (IIB).Com. (M.S.) May 1974

I class	120
II class	720
III class	1000

12. The conclusion about the demand for admission to M.Com. is also borne out by the following figures relating to exemptions granted to candidates to enable them to appear at university examination privately.

Statistical information regarding Exemptions applied for in M.A., and M.Com., by private appearance.

1. M.Com. Degree	Year	Number of Candidates who applied for Exemption
	March 1971	122
	March 1972	131
	March 1973	178
	March 1974	210

II. M.A. Degree Examination.

Number of candidates who applied for Exemptions.

	<u>History</u>	<u>Economics</u>	Politics	Telugu	English
March 1971	98	103	120	95	48
March 1972	93	100	140	179	184
March 1973	56	128	168	211	221

(M.A., and M.Com., Degree Examinations are held every year only once. Exemptions have to be obtained in the previous year of appearance at Examinations i.e. a candidate who wants to take the Examination in 1972 has to obtain Exemption in 1971.)

13. Considering the demand from various points of view, the Committee supports the proposal of the Andhra University for the introduction of correspondence courses for M.A. (Economics) and M.Com. Both these are well established departments of the University and the professors are willing to assume responsibility for running these courses. The departments of economics and commerce can also collaborate with each other in regard to some papers which are common to both the courses. The Committee is, however, positive that the courses cannot be started during 1974-75. The current academic year should be utilised by the university for adequate preparation so that the courses can be offered from 1975-76. Assistance for the courses may be provided for a period of two years for each of the

subjects for the following items of expenditure as already approved by the Commission in the case of the Mysore University and the Punjabi University, Patiala. (9)

- | | | |
|------|---|--------------|
| i) | Core staff: One Reader and two Lecturers. | |
| ii) | Preparation of reading material and guidelines etc. | Rs.15,000.00 |
| iii) | Two contact programmes and one orientation programme | Rs. 5,000.00 |
| iv) | Visiting lecturers and Provision for taped lectures | Rs. 5,000.00 |
| v) | Evaluation of reading material and students responses | Rs. 5,000.00 |

A grant of Rs.10,000 for books and journals is also recommended. The grants will be paid subject to there being an overall deficit in respect of postgraduate correspondence course and on condition that the University implements the recommendations of the committee.

14. The University has requested for an amount of Rs.49,000 for extension of the correspondence course building to enable it to have postgraduate correspondence courses in the same building. The area required is 1650 sq.ft. and the cost will be Rs.49,000/- at Rs.30 per sq.ft. including services and furniture. This may be agreed to in principle, so that the construction of the building may be taken up after the present ban on the construction of building is lifted.

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UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 27-28th Oct., 1975.

Item No. 6: To consider the recommendations made by the Expert Committees constituted by the Commission to evaluate the work done by the various University Leadership Projects under UGIP during the first phase and to consider further proposals for undertaking follow up activities during the next two years:

.....

The Standing Committee for the College Science Improvement Programme desired that the University Leadership Projects which had completed their first phase of activities extending over the period of three years may be requested to submit consolidated reports of the achievements during the first phase and the follow-up proposals to be taken up in the second phase extending over two -year period and these may be examined with the help of Expert Committees. The Commission accepted this recommendation, and appointed Expert Committees to evaluate the work done by those University Leadership Projects which had completed the first phase of their activities and consider further proposals for undertaking follow-up activities during the next two years.

The Expert Committees so far visited the following University Leadership Projects for the propose:

1. University Leadership Project in Physics, Andhra University, Waltair.
2. University Leadership Project in Chemistry, Panjab University, Chandigarh.
3. University Leadership Project in Chemistry, Cormanica University, Hyderabad.
4. University Leadership Project in Chemistry, Poona University, Poona.
5. University Leadership Project in Mathematics, Madurai University, Madurai.
6. University Leadership Project in Biological Sciences, Madurai University, Madurai.
7. University Leadership Project in Physics, Rajasthan University, Jaipur.
8. University Leadership Project in Mathematics, Bangalore University, Bangalore.

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The reports of the Expert Committees have been furnished in respect of the following University Leadership Projects for the present which are attached as Annexures I, II, III, IV, V and VI.

1. University Leadership Project in Physics, Andhra University, Waltair.
2. University Leadership Project in Chemistry, Punjab University, Chandigarh.
3. University Leadership Project in Chemistry, Osmania University, Hyderabad.
4. University Leadership Project in Chemistry, Poona University, Poona.
5. University Leadership Project in Mathematics, Madurai University, Madurai.
6. University Leadership Project in Biological Sciences, Madurai University, Madurai.

The recommendations of the Expert Committees with regard to the financial requirements of the above 6 University Leadership Projects are indicated below. The follow up proposals of the University Leadership Project in Mathematics, Bangalore University, Bangalore has been accepted by the U.G.C. at a total cost of Rs.1,70,000/- for over a period of two years(1975-77).

The recommended needs of these 6 follow-up proposals are given below:-

1. University Leadership Project in Physics, Andhra University.

The Expert Committee recommended that the following grants may be made available to the Department of Physics, Andhra University for the period 1975-77, in addition to the balance grants available from earlier sanction of Rs.10.50 lakhs:

- | | | |
|------|---|--------------|
| i) | Curriculum development (book writing) | Rs. 25,000/- |
| ii) | For demonstration apparatus-fabrication, special apparatus and cost of materials. | Rs. 30,000/- |
| iii) | Academic Year teacher fellowships (5 per year) for 3 years. | Rs. 50,000/- |
| iv) | Teacher research participants, short visits by teachers for consultations. | Rs. 15,000/- |

v)	a) Teaching Staff (1 Reader)	Rs. 30,000/-
	b) Workshop staff.	Rs. 20,000/-
vi)	Contingencies.	Rs. 10,000/-
Total:		Rs. 1,80,000/-
For 2 years.		

2. University Leadership Project in Chemistry, Panjab University.

i)	Staff (teaching & supporting)	Rs. 50,000/-
ii)	Organisation of Refresher Course for college teachers.	Rs. 50,000/-
iii)	Curriculum development-writing text books, Lab. manuals, lecture notes etc.	Rs. 80,000/-
iv)	Contingencies.	Rs. 20,000/-
Total:		Rs. 2,00,000/-

3. University Leadership Project in Chemistry, Osmania University.

The grant for Rs.2,00,000/- as detailed below is suggested for acceptance on the basis of recommendations of the committee:-

i)	Staff (teaching & supporting)	Rs. 75,000/-
ii)	Contingencies (typing and materials etc.)	Rs. 20,000/-
iii)	Publication of books etc.	Rs. 35,000/-
iv)	Teaching aids & preparation of models etc.	Rs. 50,000/-
v)	Other needs.	Rs. 20,000/-
Total:		Rs. 2,00,000/-

4. University Leadership Project in Chemistry, Poona University.

i)	Writing of text books.	Rs. 15,000/-
ii)	Equipment fabrication	Rs. 30,000/-
iii)	Visits by University teachers to the colleges for delivering lectures.	Rs. 4,000/-

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iv)	Preparation of teaching aid, self learning and lab. materials etc. in collaboration with the Physics Deptt., as proposed.	Rs. 20,000/-
v)	Curriculum discussion groups for object analysis of theory, and lab. courses.	Rs. 20,000/-
vi)	Organisation of workshop for teachers for glass blowing, workshop practice and instrument repairs.	Rs. 20,000/-
vii)	Part-time technicians and stencil operator.	Rs. 4,000/-
viii)	Contingencies.	Rs. 3,000/-
Total:		Rs. 1,16,000/- for 2 Year

5. University Leadership Project in Biological Sciences.
Madurai University.

i)	Production of Laboratory manuals 6 Nos.	Rs. 60,000/-
ii)	Curriculum discussion group meetings.	Rs. 10,000/-
iii)	Development of Prototypes of equipt. experimental etc. spare parts and service facilities and other audio-tutorial aids.	Rs. 1,00,000/-
iv)	Environmental Biology Course.	Rs. 25,000/-
v)	Continuation of Teacher-Research Participation Programme for 2 years.	Rs. 20,000/-
vi)	Continuation of the existing Biology Supply Centre .	Rs. 40,000/-
	a) Plant Breeding Centre	Rs. 40,000/-
	b) Drosophila Genetic Centre	Rs. 40,000/-
vii)	Biology News-Publication.	Rs. 15,000/-
viii)	Maintenance and Continuation of existing staff.	Rs. 50,000/-
ix)	Spare parts and service facility.	Rs. 25,000/-
Total for 2 years period (1975-77)		Rs. 3,85,000/-

6. University Leadership Project in Mathematics, Madurai University.

- | | | |
|------|--|---------------|
| i) | Continuation of the existing programmes of short-term courses as well as one year academic programme for college teachers in Mathematics . | Rs.1,00,000/- |
| ii) | University departmental requirements for continuation of staff recruited. | Rs.1,00,000/- |
| iii) | Mathematics Workshops on specialised topics. | Rs. 50,000/- |
| iv) | Curriculum discussion group | Rs. 10,000/- |
| v) | Printing of educational material | Rs. 5,000/- |
| vi) | Contingencies etc. | Rs. 10,000/- |
| vii) | Supply of books to the 20 colleges yet to be covered. | Rs. 60,000/- |

Total for 24 years
(1975-77)

Rs.3,35,000/-

The matter is placed before the Commission for consideration.

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Annexure I to Item No.

Report of the Expert Committee appointed to evaluate the University Leadership Project in Physics and the follow-up proposals under the College Science Improvement Programme in the Department of Physics, Andhra University.

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The Standing Committee for the College Science Improvement Programme at its meeting held on 7th December, 1974 reviewed the progress in the implementation of the College Science Improvement Programme, both university leadership projects as well as the selected colleges programmes and desired that the institutions which have completed the initial phase of three or four years may be requested to send suitable follow-up proposals and these may be evaluated with the help of a Committee. The Andhra University, Department of Physics, accordingly sent up a comprehensive report of the work done by it in the first phase of implementation during 1970-71 to 1974-75 and its proposals for follow-up activities during the next two years. The Standing Committee had also suggested that the follow-up proposals in respect of university leadership projects should lay emphasis, among other things, on (a) the development of materials and bringing such materials for production on a large scale and (b) introduction of the new curricula and courses of study, evaluation techniques and examination reforms in the subject concerned in all the colleges of the university and the university concerned should give an undertaking to implement effectively the reforms and changes developed under the University Leadership Project.

A Committee consisting of the following members examined the proposals in this regard received from the Department of Physics, Andhra University during its visit to the department on 2nd and 3rd May, 1975.

1. Professor B.M.Udgaonkar,
T.I.F.R. Bombay.
2. Professor K.Venkataramiah,
Osmania University,
Hyderabad.
3. Dr. P. Shanker Narayan,
U.G.C., New Delhi.

During the visit the Committee reviewed the progress in the implementation of the various activities initiated under the COSIP-ULP since September, 1970 inspected the materials developed and had detailed discussions with the staff members of the department with regard to the achievements as well as the difficulties experienced in the implementation of the programme and examined the proposals to be taken up during the follow-up period in the course of next two years.

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The University Leadership Project in Physics at Andhra University undertook the following activities in the first phase of the programme:-

- (a) Curriculum Development.
- (b) Improvement of college library facilities and bringing up the library collections to an optimum standard required for supporting the reoriented physics programme at B.Sc. level.
- (c) Improvement of laboratory facilities in the affiliated colleges and introduction of new experiments and workshop practices.
- (d) Organisation of short term refresher courses in selected subjects to improve the teachers competence in the subject.
- (e) Organisation of academic year programme and teacher participation in research for short periods for college teachers.
- (f) Development of demonstration experiments, film strips, loops etc., and making them available to the colleges/ departments ; and
- (g) Establishing channels of communication and interaction between the college physics teachers and the university faculty in the Physics Department.

The department also organised a regional workshop on teaching methods for teachers in physics in colleges in the Southern Region and also published a COSIP Physics Newsletter.

Details of the progress and results achieved in each of these activities is given in the report attached as Appendix-I.

Besides taking up the above activities as part of the COSIP-ULF, the department also undertook a major programme of setting up a physics instrumentation workshop for the development of physics apparatus required for improvement of instruction at undergraduate level in the colleges. This programme, which began in 1973-74 with additional grant from UCC., has supplemented the efforts in this direction those of the COSIP-ULF.

The department has been able to organise so far, in consultation with the college teachers, 7 short term refresher courses during winter and summer vacations to prepare the teachers for the new curricula, courses of study and experiments introduced at the B.Sc. level and to encourage them to develop demonstration equipment.

The teachers were supplied with copies of lecture notes and the Committee was informed that these materials were now available for preparation of suitable textbooks for use by the college teachers. So far about 125 teachers out of nearly 250 teachers have participated in these refresher courses.

The research participation programme enabled, since summer 1972, a total of 8 teachers to spend the summer months in the university department and to get trained in the use of the available research equipment and in appropriate research methodology. One of these teachers was able to write a short note for publication in a scientific journal. The one year academic programme provided opportunities for experienced senior teachers from affiliated colleges to spend an academic year at the university department, to associate themselves in the teaching and research activities as well as in the laboratory exercises for postgraduate students and to involve themselves in preparation of objective type questions, demonstration charts, demonstration equipment and to participate in the seminars at advanced level. Some of the teachers also attended regular courses (in M.Sc. classes) in such topics in which they had not obtained training earlier. The number of such teachers who have participated in the academic year's programme is 13 so far.

The department prepared an inventory of the laboratory facilities available in the affiliated colleges and also the library collections and prepared a basic list of equipment and library books to be supplied to them for improvement of the B.Sc. instructional programme. Some of the deficiencies in the colleges departments were made good by supplying the essential equipment and library books required for each college. Fifteen items of equipment were supplied to each of the colleges, as indicated in the report.

One of the important activities undertaken under the COSIP-UEP is the fabrication and setting up of demonstration experiments both by the university staff as well as by the participating college teachers. These apparatus are simple and help in better illustration of the physics principles and are built up with materials available locally. The demonstration experiments were picked up from various sources and the college teachers participating in the refresher courses as well as in the academic year programme were assigned the job of setting up these experiments with the help of the workshop facilities and under the guidance of the university faculty. Some of the teachers were also encouraged to continue this work in their own colleges. The results of such demonstration experiments developed by the college teachers were given wide publicity through the COSIP Newsletters. The number of demonstrations so developed, account for 48 completed experiments, 8 partly completed 6 commercial demonstration apparatus are also available with the department. A number of demonstration experiments developed by the college teachers were exhibited in the university department. The department has also built up a collection of about 80 films and 15 film strips and makes them available to the colleges on request for classroom demonstration in the colleges. The

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department has initiated a programme by which it would prepare projector slides for classroom lectures. The department proposed to make available to each college a set of such slides at a cost of Rs.1/- per slide.

The Southern Regional Workshop on teaching methods and teaching aids organised by the department in September, 1973, enabled 18 college teachers to display and demonstrate the experiments with the help of equipment designed by the college teachers themselves and to prepare necessary manuals for introducing such experiments in the various colleges. The Regional Workshops also had the benefit of demonstration of equipment developed in other ULP Projects e.g. University of Rajasthan. The selection of each of the teachers was based on the eligibility that each teacher had to present an experiment with the help of the equipment designed by himself.

General Observations and Recommendations with reference to follow-up programme at Andhra University.

The foregoing account indicates the activities undertaken so far under the ULP by the Physics Department of Andhra University. The Committee had detailed discussions with the teachers regarding the difficulties encountered, the achievements and potentialities of the programme, and the follow-up programme. On the basis of these discussions, the Committee makes the following observations and recommendations.

1. The Andhra University had 43 colleges offering Physics when the University made the COSIP (ULP) proposal. This number increased to 54 by the time COSIP started, and had become 82 by the time of the visit of the Committee. Such a rapid increase in the number of colleges allowed to offer the subject with limited facilities, at a time when a serious effort was being made to bring the facilities in existing colleges to a reasonably satisfactory level, underlines a serious problem. Further, the Committee was informed that the department had to disqualify 7 or 8 colleges from assistance under COSIP (ULP), because the colleges did not take any interest in the programme.

In the light of this experience the Committee recommends that

- (a) the University should be expected to take a greater interest in the programme, and help ensure that all colleges co-operate with the University department in the COSIP(ULP) programme.
- (b) when a ULP programme has started, and the University department concerned has defined the minimal norms that each college department in the subject must satisfy, norms that are sought to be met out of COSIP (ULP) funds, the University must ensure that these norms become the conditions for affiliation (of extension of affiliation) of any new college for the subject

concerned, so that addition of more weak departments is avoided. Failing this, the COSIP(ULP) programme would not be able to make the desired impact on the standards of instruction.

c) The Department of Physics of Andhra University should send to the UGC the list of colleges which the department was unfortunately forced to disqualify from assistance.

2. The Committee was informed that question banks prepared by the academic year participants had been sent to colleges and that these had evoked the interest of teachers. The Committee recommends that these question banks be brought to a stage where they can be printed and circulated to other universities, and that this be done soon.

3. The Committee was informed that about 70 per cent of the teachers teaching Physics in colleges had taken M.Sc. with subjects like Applied Physics, Geophysics or Meteorology, and that they were weak in general physics, and this posed a problem from the point of view of their equipment to teach the usual undergraduate courses in physics, especially the theoretical/mathematical parts, or subjects like Atomic Physics or Electronics. The Committee would therefore like to recommend that the University should study this problem, and especially for colleges offering Physics Main, it should consider demanding that any future appointments be of M.Sc.'s in Physics or Nuclear Physics. Alternatively, some colleges may consciously be allowed to offer for B.Sc. an alternative undergraduate programme with a different emphasis, for example in applications of physics, for which appropriately different qualifications for teachers may be prescribed.

For the 25 existing colleges which offer Physics(Main), it would be necessary to retrain at least two teachers per college. The university may organize such a retraining programme under the general Faculty Development Programmes of the U.G.C.

4. The Committee was informed that many colleges did not have the standard experiments which any college offering B.Sc. in Physics should have, but that the Physics Department had not made a systematic analysis of the problem since it felt that it would not be in a position to supply the additional apparatus to every college, within the resources available under COSIP (ULP). The Committee considers that this is a serious problem which needs to be looked into further. The ULP department must make such a basic list of equipment (and books). The colleges should not expect to have all the missing items supplied under COSIP(ULP). Some will have to be acquired by the college out of its own resources or under UGC general scheme of assistance to colleges some may be fabricated by the college teachers with the assistance provided under COSIP (ULP), and some may be otherwise provided by the ULP department out of the resources of the ULP.

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5. In the light of the experience with the college teachers with regard to the fabrication of demonstration experiments and other equipment under COSIP(ULP), the Physics Department may consider introducing Workshop Practice as a component in its M.Sc. programme, so that future teachers may be better equipped to fabricate and /or repair certain types of equipment.

6. The Physics department of the Andhra University should submit to the UGC the basic list of books and equipment/experiments which any under graduate college teaching Physics should be expected to have (separately for Physics Main, and Physics subsidiary). Such lists which should be obtained from all ULP departments would help the UGC in defining basic lists that may in due course be circulated to all universities.

7. The Committee was informed that the interaction between the University teachers and college teachers under COSIP(ULP) was appreciated by colleges. It recommends that this component be continued under the follow-up programme: academic year programme and research participation programme for college teachers; also short visits by some motivated teachers for continued interaction.

8. The Committee was informed that the department had plans to bring out (a) a manual on the demonstration experiments developed under COSIP(ULP), (b) modern text books, including one on Modern Physics, building on the lecture notes that had been prepared and circulated to teachers (c) a consolidated laboratory guide for B.Sc. experiments.

The Committee recommends that these book-writing programmes be supported, with a commitment that the department will bring these materials in hand to completion, edited and printed, without loss of time, say in the course of the next eight months.

The Committee was informed that the department so far had a problem of manpower in editing and bringing to completion these write-ups. The Committee was unable to understand this difficulty. There should be adequate academic incentives in bringing out these books if those working on it get due credits as authors.

9. In discussing their difficulties in implementing COSIP(ULP), the teachers brought out two related problems.

(a) difficulty in finding a senior teacher who was interested in Physics Education as an objective, and was willing to take sustained interest and devote a fair fraction of his time for the success of the programme

(b) question of financial and/or academic incentives to the staff participating in the programme.

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The Committee feels that while it may be difficult to provide specific financial incentives for participants in the programme, it would be possible to provide academic incentives through

- (a) reduction in routine teaching load for those participating in the programme.
- (b) due academic credit through authorship in books/manuals/kits developed or articles written.
- (c) due weightage given to outstanding contribution made by a teacher in the COSIP (ULP) programme, when promotion to Readership or Professorship is considered.

The UGC may also consider instituting national awards for outstanding contribution under COSIP (ULP).

10. The Committee has not recommended any short term refresher courses as part of the COSIP (ULP) follow-up programme, since they can now be undertaken as a part of the Faculty Improvement Programmes which the UGC is introducing in the universities during 1975-76.

The Committee was sorry to note that the department was faced with the problem of last minute-drop-outs in the refresher courses organized by it under COSIP (ULP). There seem to have been difficulties in getting a teacher released for these courses, especially from Government colleges. It is clear that college authorities have to take greater interest in the refresher programmes, and the University may try to ensure this in any refresher courses it may organize in future.

11. The improvement of laboratory facilities in the colleges and supply of books and equipment may be brought to completion during the year, to the extent that funds are still available from the original sanctioned amounts.

12. Similarly, all other activities initiated in the first phase and which remain to be completed may be brought to completion during 1975-76 by utilizing the funds available.

13. The Committee recommends a certain assistance for bringing the programme of development of demonstration apparatus/kits to a completion.

14. In order to bring these programmes to a completion, the department feels that the services of a senior person at the level of a Reader is required for the duration of the follow-up period 1975-77. This recommended.

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15. On the basis of the discussions held and the evaluation of the results under the COSIF-ULP and an examination of the follow-up proposals, the Committee recommends that the following grants may be made available to the Department of Physics, Andhra University for the period 1975-77. The Department may also be permitted to utilize the balance of grants available from the earlier sanction for different purposes.

(For 1975-77)

I.	Curriculum Development (book writing)	Rs.25,000
II.	For demonstration apparatus-fabrication, special apparatus and cost of materials.	Rs.30,000
III.	Academic Year teacher fellowships (5 per year) for three years.	Rs.50,000
IV.	Teachers research participants; short visits by teachers for consultation.	Rs.15,000
V.	(a) Teaching staff: (1 Reader)	Rs.30,000
	(b) Workshop staff.	Rs.20,000
VI.	Contingencies.	Rs.10,000

Total:Rs.1,80,000

Any activities which may require to be continued beyond 1975-77, for sustaining the processes started with UGC support since 1970-71, should be supported, by the University authorities, both with funds and other managerial adjustments essential to maintain and strengthen the interaction between colleges and the University departments, and thereby promote the common concern for better physics instruction in Andhra University.

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UNIVERSITY LEADERSHIP PROGRAMME IN PHYSICS
COLLEGE SCIENCE IMPROVEMENT PROGRAMME
DEPARTMENT OF PHYSICS, ANDHRA UNIVERSITY, WALTAIR
FINAL PROGRESS REPORT.

The following activities have been initiated under
College Science Improvement Programme (COSIP).

1. Short Term refresher Courses : (5 Weeks duration)
2. Research Participation: (During Summer Vacation)
3. Academic Year Programme.
4. Development of Library Facilities in Affiliated Colleges and in the Physics Department of University.
5. Improvement of Laboratory facilities in the affiliated Colleges.
6. Design and fabrication of Demonstration apparatus.
7. COSIP News letter (details under each head are enclosed)
8. Scientific films and film strips.
9. Improvement of workshop facilities in the Physics Department and affiliated colleges to cater to the needs of the COSIP.
10. Regional Workshop.
11. Contingency.

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LIST OF FILMS

S.No.	Title of the films.	Time.
1.	Time and Clock. ...	28 Mts.
2.	Long time intervals. ...	25 "
3.	Measuring large distances. ...	29"
4.	Measuring short distances. ...	20 "
5.	Measurements. ...	21 "
6.	Change of scale. ...	23 "
7.	Straight line Kinematics. ...	34 "
8.	Vectors. ...	27 "
9.	Vectors Kinematics. ...	16 "
10.	Definite and multiple proportions. ...	30 "
11.	Elements, Compounds & Mixtures ...	33 "
12.	Crystals. ...	25 "
13.	Random events. ...	31 "
14.	Short time intervals. ...	28 "
15.	Introduction to optics (colour).....	23 "
16.	Pressure of light. ...	23 "
17.	Speed of light. ...	21 "
18.	Simple waves. ...	27 "
19.	Sound waves in Air. ...	35 "
20.	Forces. ...	23 "
21.	Inertial. ...	26 "
22.	Inertial mass. ...	19 "
23.	Free fall and projectile motion. ...	27 "
24.	Deflecting forces. ...	30 "
25.	Periodic motion. ...	33 "
26.	Universal gravitation. ...	31 "
27.	Elliptic orbits. ...	19 "
28.	Energy and work. ...	28 "
29.	Mechanical Energy and Thermal Energy. ...	22 "
30.	Conversion of Energy. ...	27 "
31.	Collision of Hard spheres. ...	19 "
32.	Columb's law. ...	30 "
33.	Millikan experiment. ...	30 "
34.	Electric fields. ...	25 "
35.	Electric line of forces. ...	7 "
26.	Counting electrical charges in motion. ...	22 "
37.	Elementary charges and transfer of kinetics.	34 "
38.	Magnetic Laboratory. ...	21 "
39.	Electrons in a uniform magnetic field. ...	11 "
40.	Mass of the Electron. ...	18 "

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41. Electromagnetic waves.	33 Mts
42. The Rutherford Atom	40 "
43. Photo Electric Effect (Colour)	28 "
44. Protons	.....	19 "
45. Interference of Protons	.....	30 "
46. Frank Nertz Experiment with an alloquo by Mames Frank	.....	30 "
47. Matter waves	.....	28 "
48. E.M.F.	-----	20 "
49. Electric potential energy and potential defference - Part I	.....	27 "
50. -do-	-----	27 "
51. A million to one	.....	15 "
52. Doppler effect	.....
53. Television how it works	.....
54. Moving with centre of mass	.....
55. Surface tension (Advanced)	.....
56. Magnetism (Advanced)	.....
57. Introducing atom and nuclear energy	.....
58. Principles of Ultrasonic		
59. Effects of inductor, capacitor and A.C. power factor.		
60. Lassers.		
61. X-rays		
62. Discharge through gases	.....	10 Mts
63. Vacuum practice.	.....	15 "
64. X-ray crystallography	.....	20 "
65. Principles of transistor	-----	20 Mts
66. Light wave and quantum theory mechanics		
67. Cosmic rays	.....	24 Mts
68. Asteroids, coments and meteorites.		10 "
69. Chemical bond and atomic structure		15 "
70. Capacitors		25 "
71. Hydrogen atom as viewed by quantum mechanics		35 "
72. Universe	.....	25 "
73. Energy from the sun	.....	25 "
74. Fields of Space (Colour)	.....	25 "
75. Electronics and Electronics and introduction	.....	25 "
76. Electrical oscillations and the electromagnetic spectrum.		25 "
77. Use of contimeter waves in teaching optics		25 "
78. Exploring the atomic nucleus		

35 mm FILM STRIPS

1. Converter - I
2. Converter - II
3. Converter - III
4. Alignment - I
5. Alignment - II
6. How to use signal generator
7. How Radio and radar works (Colour) available reading
8. Our Solar system (Colour) -do-
9. Star and outer space (Colour) -do-
10. Rockets missiles and satellites (colour) scripts.
11. Atoms, molecules and Ion (Colour) -do-
12. You and the Universe (Colour) -do-
13. The Sun and its Energy -do-
14. Atoms and Molecules do -
15. How Man Explores Space do-

LIST OF DEMONSTRATION EXPERIMENTS AVAILABLE UNDER COSIP (PHYSICS)
ANDHRA UNIVERSITY, WALT AIR.

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I. Experiments ready for Demonstration:

1. Water lens microscope (As Seshagir Rao, Analapuram)
2. Inverse Law Magnetic Poles (Sastry)
3. Defects of eye and rectification (Venkatachalam)
4. Equipotential lines (Venkata Rao)
5. A.C. Frequency kits (K.Pundarikakshudu)
6. Interference of waves coherent source (A.Seshagiri Rao)
7. Forces between two parallel current carrying conductors (D. Upendar Rao)
8. Charge and discharge of a condenser (K.Rambabu)
9. Independence of vertical and horizontal motions (Dr. Upendar Rao)
10. Principle of Black body radiation (K. Rama Rao)
11. Relaxation oscillator principle 'Near' glow (K.Rama Rao)
12. Measurement of capacitance 'Near' glow (K.Rama Rao)
13. Interference of sound waves.
14. Rotating fields (K.Ramababu)
15. Double refraction (K. Ramababu)
16. Centripetal force (-do-)
17. Centre of mass sliding bar
18. Centre of mass moving trolleys.
19. Angular Momentum (K. Ramababu)
20. Transmission of signal through R, L, and C.
21. Michaelson's interferometer.
22. Magnetoscope

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23. Doppler effect (Jaggannadha Rao)
24. Viscosity of liquids (D. Upendra Rao)
25. Standing waves along a pipe (D. Upendra Rao)
26. Interference kits (A. Seshagiri Rao)
27. Resonance in a Mechanical System.
28. A.C. Frequency sonometer kit (D. Upendra Rao)
29. Electric swing (Electromagnetic induction) (D. Upendra Rao)
30. Van de Graff generator (D. Upendra Rao)
31. Ion flow in electrolysis (D. Upendra Rao)
32. Study of vertices (Subrahmanyam)
33. Molecular speed (Reaction of HeI and $\text{NH}_4 \text{OH}$) (A. Seshagiri Rao)
34. Zone plate (Photographic disc) (A. Seshagiri Rao)
35. Jumping ring apparatus (Marry Consolata)
36. Projection of Lissar figures (Prof. Fullakumar)
37. Variation of Viscosity of gases with temperature (B. Bhaskara Rao)
38. Magneto - striction (M. Bhaskara Rao)
39. Magnetic tubes of forces (-do-)
40. Magnetically driven sonometer (A. Magabhusanam)
41. Principles of cloud chamber (-do-)
42. Rotary dispersion (-do-)
43. Refractive index of lens using double convex lens (P. Victor)
44. Crava's disc and Cheshire's disc (To demonstrate progressive longitudinal and transverse waves)
45. Conductant flames (A. Seshagiri Rao)
46. Thermal anisotropy of wood (A. Seshagiri Rao)
47. Flow of liquids through tubes (dependency of critical velocity on Reynold's Number) (Subrahmanyam)

48. Relaiqh's Interferometer (Sibrahmanyam)

II. Partly Completed demonstrated experiments

1. Acoustical zone plate (M. Bhaskara Rao)
2. Frustrated wave (A. Nagabhushnam)
3. Transistor characteristics (V.K. Viswanadham)
4. Electric kit (for Radio construction)
5. Projectile motion.
6. Doppler effect (K. Jagannadham Rao)
7. Hysterisis loop
8. Doppler Radar Principle (V.K. Viswanadham)
9. -

III. Commercial demonstration apparatus:

1. G.M. Demonstrator unit.
2. Radio Transmitter
3. Crook's radiometers
4. Leacher's wire set up
5. Crystal structures
6. Laser beam unit; Laser Interference.

LIST OF EQUIPMENT SUPPLIED TO THE AFFILIATED COLLEGES IN THE ANDHRA UNIVERSITY, UNDER THE UNIVERSITY LEADERSHIP PROGRAMME IN COSIP.

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1. Dynam kit for measuring mass of the electron
2. Regulated power supply unit
3. Cathode Ray Ossillograph
4. Current Balance Kit.
5. Van de graff generator.
6. Multimeter.
7. V.T.V.M.
8. Audio frequency generator
9. Wave nster (Super heterodyne type)
10. Hand Strobe scope
11. Voltage regulation tester.
12. Hartley Oscillator and R.C. amplifier kit.
13. Power supply kit
14. Valve characteristics kit.

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Annexure II to Item No. 4. 6

The Report of the UGC Committee which visited Department of Chemistry, Panjab University, Chandigarh on 12th February, 1974 for assessing the work done by the University so far under the UGC Scheme of University Leadership Project.

The Commission constituted a Committee with Professor M. Santappa and Professor R. G. Mehrotra for assessing the work done at the Deptt. of Chemistry, Panjab University, Chandigarh under University Leadership Project. The Committee alongwith an officer of the Commission visited the Deptt. of Chemistry on 12th February, 1974.

The Commission at its meeting held in September, 1970 accepted the proposal of the Panjab University for implementation of University Leadership Project in Chemistry and agreed to provide a ceiling grant of Rs. 10,20,000 spread over a period of 3 years from the date of implementation. A statement indicating the approved programme and activities, the amount sanctioned and the expenditure incurred so far for each item is as below:-

Programme and activities.	Ceiling approved	Expenditure incurred/to be incurred upto 31.3.74
	Rs.	Rs.
1. Curriculum Development	75,000	69,250.93
2. Refresher Courses for college teachers	50,000	40,822.96
3. Improvement of facilities in Colleges:		1,90,832.72
(a) Equipment & Demonstration aids	5,00,000	72,325.26
(b) Books etc.	1,00,000	12,741.14
4. Research participations by college teachers during vacations.	1,00,000	20,871.52
5. Requirements of University Departments:		
(a) Staff	75,000	75,000
(b) Workshop for fabrication etc.	75,000	50,013.83
(c) Contingencies	45,000	27,677.99
		<u>5,59,537.33</u>

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The Project came into operation from 1970-71. Ordinarily, the schemes were to be completed by 31st March, 1974. The Commission however, has allowed the Panjab University to continue the project upto July, 1974 subject to the condition that no additional financial commitment was involved on the part of the Commission over and above the approved ceiling of Rs. 10,20,000/-

4. Programme of work done from Sept., 1970 upto February, 1974.

- a) Publications on Blow-Ups, Teachers Guide, Model Questions etc.
- 1) University Leadership Project in Chemistry at the Panjab University, Chandigarh was envisaged to be implemented in three phases - (1) Improvement of Chemistry teaching at the Pre-engineering/Pre medical/B.Sc. (I) Level; (2) Improvement of Chemistry teaching at B.Sc. (II) Level and (3) Improvement of Chemistry teaching at B.Sc. (III) Level.

The UIP in Chemistry Panjab University has prepared the guidelines in two parts based on the 'Blow-Ups' of the Chemistry Syllabus for B.Sc. Part I/Pre-engineering/Pre-medical. Part I contains 9 chapters covering (1) Structure of the Atom; (2) The Periodic Table and Atomic Properties; (3) Chemical Bonding; (4) Chemical Kinetics; (5) Driving Forces and Chemical Equilibrium and (9) Liquids and Solutions. Part II of the Blow-Up covers the remaining chapters in General Chemistry e.g. (10) Electrochemical Cells: Electrode Potential; (11) Acids and Bases; (12) Chemistry of Some Elements; (13) Chemistry of Organic Compounds: Characteristic Properties of Carbon and Classification of Organic Compounds; (14) Chemistry of Carbon Compounds: Halides and Hydroxyl Compounds; (15) Chemistry of Carbon Compounds: Hydrocarbons; (16) Chemistry of Carbon Compounds: Aldehydes, Ketones, Acids and Esters and (17) Chemistry of Carbon Compounds: Amides, Amines, Proteins, Carbohydrates and Heterocyclic Compounds.

The Centre has also prepared the Blow-Ups of the Chemistry Syllabus for the three-year Degree course Part I/Pre-Engg./Pre-Medical and also for the B.Sc. Part II. The contents of the Blow-up for the three-year Degree course Part I/Pre-Engg./Pre-Medical include 17 Chapters (as given in Blow-Ups of the Chemistry Syllabus for B.Sc. Part-I/Pre-Engg./Pre-Medical and Part II of the Blow Up). The Blow-Up for B.Sc. Part II covers 23 Chapters e.g. (part I - Physical) (1) Chemical Thermodynamics; (2) Chemical Equilibrium; (3) Gaseous and Liquid States; (4) Properties of Liquids; (5) Chemical Kinetics; (6) Elementary Principles of Photochemistry; (Part II - Inorganic) (7) Chemical Bonding; (11) The S-Block Elements of Periodic Table; (12) Some

- (8) Structure of Solids; (9) The noble gases; (10) Hydrogen.

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Chemical Industries; (Part III-Organic) 13) Nomenclature of Organic Compounds; (14) Alkanes; (15) Alkenes; (16) Stereochemistry; (17) Alkynes and Dienes; (18) Cyclic Aliphatic Hydrocarbons; (19) Benzoids; (20) Spectroscopy and Structures; (21) Alkyl Halides; (22) Alcohols and (23) Ethers and Chapter on Syllabus; Theory and Practical. The Blow-Up of the Syllabus has been prepared by the Study Group (COSIP) in consultation with the Chemistry teachers in the affiliated colleges for the purpose of defining the scope and content. The Blow-Ups prepared by the Centre would provide guidelines to the teachers of Chemistry who may be interested to write books for the undergraduate students. The Blow-Ups (in two Parts) and the Teacher's Guide (in two Parts) have been circulated to all the affiliated colleges of the Panjab University as also to all the COSIP colleges in India.

One of the objectives of writing the Teacher's Guide was to ensure that the prospective authors of the General Chemistry course find it convenient to describe the concept of the subject correctly in their books. Another innovative programme under UIP in Chandigarh has been the preparation of model questions on various topics of pre-Engg./Pre-Medical and three year Degree Course Part I and B.Sc. Part II of the Syllabus of the Panjab University. These questions have been designed to show a shift from memory oriented to application oriented examinations. These model questions have been printed in two parts - one for the Pre-Engg./Pre-Medical and three-year Degree course Part I and the other for the three year Degree Course Part II. COSIP and the UIP Study Group are of the view that these model questions will serve as illustrative and not an exhaustive list and the teachers would be better guided in framing the questions under the new set-up with a view to correlate the practical work in the laboratory with the theory taught in the class. The COSIP Study Group has developed programmes for Chemistry practical for B.Sc. Part I. The experiments have been tried by the members of the COSIP Study Group and also by the college teachers in the symposia organised for the purpose. This correlation of theory with practical work has revealed that the experiments were good for the classroom and were helpful in offering better comprehension. The detailed instructional material regarding these experiments have also been prepared by the Study Group. There has been some feed-back from the college teachers on some of the experiments which in turn has helped to improve upon the instructional material.

material
developed.

An Oxidation/potential scale has been developed under the Programme as a ready recknor for various cell system. By suitable manipulation of the three concentric discs in accordance with the instructions given on the scale, the cell potentials can be found out. This scale has been

supplied to the undergraduate colleges.

iii) Symposia/
Refresher
course.

The UIP in Chemistry, Panjab University organised a symposia at Chandigarh to enable the college teachers to participate in the discussions of the Syllabus/Bio/UPs and the practicals for B.Sc. Part I. The involvement of the college teachers in these symposia helped in the preparation of the Blow-Ups etc., to be effective and useful to average student in the undergraduate colleges. The symposia were held in the Deptt. of Chemistry, Panjab University Chandigarh. A total no. of 381 college teachers participated.

Besides, the Symposia held at the headquarters, the UIP in Chemistry organised such symposia at the district levels where almost all Chemistry teachers in the district participated. Such district levels symposia were considered necessary for the successful implementation of the revised syllabus in the class-rooms. In all 7 such symposia were held at 7 colleges located at different district centres. The total number of 20% college teachers participated in these 7 symposia. These district level symposia helped the Study Group of the UIP to prepare the details of the revised syllabus for B.Sc. Part II.

These symposia organised at the headquarters as well as at the district levels not only helped in the preparation of new syllabus for the B.Sc., the Blow-Ups and the Teacher's Guide but also helped in the development of an effective liaison between the students and the college teachers on the one hand and the university teachers on the other. This has also helped for an effective feed back for further improvement in the curricula development.

iv) Supply of
teaching
aids and
other
material
to colleges.

All the 79 colleges affiliated to the Panjab University upto B.Sc. were supplied with different Chemistry charts as teaching aids eg.g. 1) Relative Energies of Atomic Orbitals, (2) Study of Theromionic and Photoelectric Emissions and (3) Periodic Chart of Elements - Long form.

Besides, equipment and other materials have been supplied to the colleges to enable them to carry out the experiments for which no equipment were available with them. These included Defraction gratings, Moving Coil Voltmeter, Thermocole spheres etc. The total amount involved for supply of teaching aids, equipment and other materials was about Rs.50,000/- (against a provision of Rs.5 lakhs for a period of 3 years).

1v) Supply of
Books to
colleges.

A set of 17 books have been supplied to each of the affiliated colleges. These books relate to general Chemistry Course. These books have provided supplementary reading material needed by the college teachers. The colleges have also been supplied with the Teacher's Guide prepared by the Study Group. The reading material supplied to the college libraries under the Project have proved of great benefit to the

teachers and the students involved in the general Chemistry programme. As far as possible paper backs and low priced editions have been supplied to as to enable each college to receive a larger number of books within the provision made by the UGC under this programme. (A provision of Rs.1 lakh has been made for supply of books to the colleges). The total amount spent on books came to about Rs.63,000 which was inclusive of the cost of Blow-Ups, Teacher's Guide, Model Questions, Lab. Manual etc., prepared by the Study Group under the UIP Programme.

Facilities for research by college teachers.

The UIP in Chemistry, Panjab University has provided research facilities in respect of 4 college teachers annually. This opportunity has proved very useful not only to the concerned college teachers but also to the institutions they served.

1) Chemistry

The Deptt. of Chemistry, Panjab University has made available 16 mm Chemistry study films for use by the colleges. 7 films have been issued to each college for period of about a week. So far 18 colleges have taken advantage of these teaching aids and other colleges are awaiting their turn for the loan of the films.

PROGRAMMES CONTEMPLATED BY THE UIP IN CHEMISTRY PANJAB UNIVERSITY FOLLOWUP ACTION ON THE COMPLETION OF THE NORMAL PERIOD - OF THREE YEARS IN JULY, 1974.

i) The UIP in Chemistry, Panjab University, Chandigarh has felt the urgent necessity of continuing the work beyond the normal period of three years to maintain the tempo of progress in curricula development, in improvement of teaching and evaluation methods and in the feed-back process to bring about around improvement in Chemistry teaching at the undergraduate level in a continuous way with the cooperation of all concerned.

ii) The organisation of 15 symposia/seminars/workshop arranged during the initial period of three years has helped in curricula development with publication of Blow-Ups, Teachers Guide, special laboratory techniques/manuals and teaching aids. Continuation of such symposia/seminars etc. for the benefit of college teachers would be an essential ingredient to make the programme to develop further with the involvement of all teachers, students and the colleges so that the impact of achievement is maintained in a continuous process.

iii) The impact of the feed-back process would become all the more effective after the initial period of experimentation for three years and more and more emphasis would shift on the feed-back process in the implementation of the programme in subsequent years.

iv) An inventory of further requirements of the concerned colleges by way of equipments, books, other materials and teaching aids would have to be prepared by the UIP in Chemistry, Panjab University based on the basic needs of the concerned colleges and the supply has to be maintained in this regard to the colleges concerned during the subsequent years.

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G. RECOMMENDATIONS
OF THE U.G.C.
COMMITTEE.

i) The UIP in Chemistry, Panjab University has done a good job during the initial period of three years. It has covered about 79 colleges affiliated to the University to bring about the desired improvement in curricula development in the preparation of Blow-Ups and Teacher's Guide, in drawing an effective syllabus for the B.Sc. students in Chemistry and in formulating Model questions for the benefit of the teachers and students at the undergraduate level. The UIP in Panjab University has concentrated mostly in the organisation of symposia at the headquarters as well as at district levels to cover a large number of Chemistry teachers from the affiliated colleges. The Blow-Ups and Teacher's Guide etc., are indicative of the effective organisation of these symposia. The Blow-Ups and Teacher's Guide etc., cover all the branches of teaching in chemistry at the undergraduate level. The importance of the continuation of the symposia/workshops/seminars for curricula development and for improving teaching and evaluation methods cannot be over-emphasized. The follow-up of such activities would ensure a continuous process of improvement and in bringing the colleges and the universities closer for the benefit of all and for improvement of the science teaching and its effective utilisation to meet the national/regional needs.

ii) Most of the colleges are starved for lack of basic equipments and library facilities. The UIP in Chemistry Panjab University would do a great service to these colleges if it prepares an inventory of such basic requirements of the individual colleges for the effective teaching of science and makes available such equipments and other teaching materials and aids to these colleges concerned based on the shortcomings in this regard of the individual colleges. Mention may be made of such basic necessities by the Colleges such as Sensitive Chemical Balance, good microscope, electrically operated centrifuge, vacuum desiccator with pumps, fractionating columns, chamber type paper chromatography, semi micro analytical kit, PH meter, spectroscope etc. These would not only help the students in the modern methods of teaching in Chemistry but also would be of use to some of the teachers in the pursuit of their research in a humble way. This would act as incentive to the colleges to recruit and retain qualified teachers as without their active involvement no progress may be possible in bringing about improvement.

The UIP in Chemistry, Panjab University are left with a comparatively large amount of resources earmarked for equipments and books for the use of the colleges. The Department of Chemistry, Panjab University would do a great service if it provides the necessary basic equipments and other materials to these colleges out of these earmarked grants based on the needs of the individual colleges. All these could be obtained in India.

iii) The UIP in Chemistry, Panjab University, Chandigarh has so far incurred/proposed to incur an expenditure of Rs.5.60 lakhs out of a total provision of Rs.10.20 lakhs. The unutilised grant available with the UIP could be utilised profitably in the organisation of symposia/seminars/workshops etc., for the procurement of much need equipments, books and other teaching aids and materials for the colleges and for maintaining a continuous liaison with the colleges which have been brought under the purview of activities of the UIP. For this purpose the UIP may need some recurring grants for the successful continuation of the programme beyond July, 1974. A recurring grant of Rs.1,00,000/- per annum for a period of 2 years beyond July, 1974 is recommended to cover expenses on the salary of the teaching and supporting staff of the UIP in Chemistry, Panjab University, Chandigarh (Rs.25,000), for the organisation of Refresher courses for colleges teachers (Rs.25,000), for curriculum development and for writing text books/laboratory manuals/lecture notes etc. (Rs.40,000/-) and towards contingencies (Rs.10,000/-). This would help in the organisation of more symposia/seminars/workshops for bringing about the improvement in teaching of Chemistry at the undergraduate level through the preparation of Blow-Ups, Teachers Guide, Model questions and better evaluation process and in producing better teachers/laboratory manuals/lecture notes for the benefit of undergraduate students. The Committee felt that the non-recurring grant available with the UIP against the approved sanction may be permitted to be utilised by the Department for the duration of the next two years from July, 1974. After two years an evaluation of the progress achieved would be necessary for continuation of the Programme or otherwise beyond July, 1976.

The Committee is grateful to the Panjab University, the Vice-Chancellor, Head of the Deptt. of Chemistry and his colleagues for extending all cooperation and facilities in assessing the progress made under the UGC Programme of University Leadership Project in Chemistry, Panjab University, Chandigarh.

Dated : 12th February, 1974

(M. Santappa
Director
Central Lecher
Research Institute
Adyar, Madras-600020.

(R. G. Mehrotra)
Head of the Department of
Chemistry,
Rajasthan University, Jaipur.

Annexure III to Item No.

NOTES IN CONNECTION WITH THE VISIT OF PROF. A.R. VASUDEVA MURTHI OF INDIAN INSTITUTE OF SCIENCE, BANGALORE AND PROF. M. SANTIAPPA TO THE CHEMISTRY DEPARTMENT OF OSMANIA UNIVERSITY ON 21ST DECEMBER 1973, IN REGARD TO THE UNIVERSITY LEADERSHIP PROJECT UNDER COSIP PROGRAMME.

I Programme of work done from November, 1970 upto date - December, 1973

- (i) The Heads of Departments of various Colleges affiliated to the Osmania University were involved in connection with the COSIP Programme. Five Workshops were held in order to prepare teaching material in general Chemistry and the three branches of Chemistry. The text book on general Chemistry is already published and is also available in the market. The book on basic Mathematics and numerical problems in Physical Chemistry is under publication and is expected to be ready by March, 1974. The text book on Organic Chemistry under the Editorship of Prof. T.R. Seshadri is expected to be published by July, 1974. The text book in Inorganic Chemistry is also under publication.
- ii) The Department organised four Refresher Courses in subjects like Quantum Chemistry, Thermodynamics and Chemical Kinetics, Stereo Chemistry, Co-Ordination Chemistry etc. for the benefit of college teachers.
- iii) Equipment and books useful to the teaching of undergraduate Chemistry have been supplied to various colleges.
- iv) A number of objective and short answer type questions have been framed by the staff of the Constituent and affiliated colleges with the guidance of the staff of the University Department.
- v) The University Department has provided facilities for part time research by college teachers from affiliated and constituent colleges in the City for several years. They are registered for Ph.D. Degrees after they have carried out some research and have published one or two notes or papers in the standard journals. Eight teachers from various affiliated colleges in the City are now carrying out research in the Department and four college teachers from colleges outside Hyderabad also participate in the research programmes during the vacation period. It may thus be seen that research facilities at the University Department of Chemistry, Hyderabad are made available to the teachers of the affiliated colleges from the City as well as from the Districts to gain an insight into methodology of research as well as to improve their qualifications.

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vi) A comprehensive Progress Report of UL Project under COSIP Programmes for the period November 1970 to 15th December, 1973 (Annexure 2) given.

vii) It is seen from the Budget provision (Annexure 2) (November 1970 to 30th November, 1973) that a sum of nearly 1.6 lakhs has been provided towards recurring expenditure and expenditure to the tune of approximately Rs.95,000/- has been incurred towards Conferences, Workshops and Publications, Seminars, TA/DA for visiting Lecturers, contingencies, remuneration for non-academic staff, Coordinators, etc. A saving of nearly Rs.50,000/- will be available by March, 1974. A Budget Provision of Rs.7 lakhs has been provided towards books, equipments, models, charts, etc. The year-wise expenditure 1970-1974 under various heads is shown (Annexure 2) and a total expenditure to the tune of 6.7 lakhs has been incurred and a committed expenditure of nearly Rs.30,000/- will be utilised before March 15, 1974, thus leaving no balance under the non-recurring head.

II. Programme contemplated under the UL Project under the COSIP Programme for the Period April 1974 - March, 1976

(i) It is proposed in the next two years periods 1974-76 to conduct workshops and seminars to finalise the teaching material in Chemistry whose publication will be undertaken during 1974-75. Laboratory Manuals and Teachers' Guides which are now under preparation are expected to be completed and published during 1974-76.

ii) Five more Refresher Courses will be organised to increase the competence of the teachers to handle the various subjects at the undergraduate level.

iii) Some more equipments, apparatus and books will be supplied during the next two year period to enable the colleges to demonstrate some of the basic constituents and also help the improvement of the library.

iv) It is also contemplated to organize workshops for the test construction and evaluation to involve every teacher in Chemistry at the under-graduate level. It is hoped that such an involvement of all the teachers will facilitate introduction of examination reforms in future.

v) More question papers involving the objective types of questions will be framed and it is contemplated to set-up a question bank also.

vi) At the various workshops and refresher courses it is not possible to bring all teachers of Chemistry in the University

area. It is also difficult to bring them all together (consisting of 200 to 300) to the University Department. It is therefore proposed to organize zonal meetings inviting teachers in Chemistry to certain District Centres where the problems of teaching Chemistry should be fully discussed.

vii) It is proposed to have mobile van or mini bus equipped with film projector, demonstration equipment, some sophisticated instruments and also a minimum of 3 to 4 teachers at various levels to visit all affiliated colleges in and around Hyderabad with a view to lecture, show films, demonstrate experiments and also allow the pupils and the teachers in the colleges to have a look at the sophisticated instrumentation which the model unit may carry. The Andhra Pradesh Academy of Sciences has also been making use of such a model unit for films and for demonstration of experiments in various secondary colleges in Andhra Pradesh. A similar project extended to colleges would certainly go a long way for improvement of teaching of Chemistry at the under-graduate level.

viii) It is felt that one co-ordinator will not be sufficient to cope up with the work and therefore two more staff members in the lecturer's scales may be required to promote further improvements of Chemistry teaching in the colleges.

ix) The list of various types of books to be supplied to the various colleges under the COSIP Programme for the period 1974-76 is enclosed. The future programme from 1.4.1974 upto 31.3.1976 with regard to workshop and refresher courses, additional equipment to be supplied to various colleges, publication of the materials both text books library manuals and lecture demonstration experiments, teaching aids, conducting summer workshop for talented undergraduate students, etc., publication of COSIP News letter etc. are provided (Annexure 5).

x) For the period April 1974 to March 1976 a recurring budget estimate of Rs.2 lakhs towards salaries of faculty members and secretarial staff, refresher courses, typing material, contingencies, etc., has been proposed. For a similar period for the future programmes from April 1974 to March 1976 a sum of Rs.8 lakhs under non-recurring expenditure towards equipment, books teaching aids, etc., is being proposed by the Department.

Prof. A.R. Vasudeva Murthy and myself have had the opportunity of discussing the work that has been covered so far under the UL Project of COSIP Programme by the Chemistry Department of Osmania University and also their future plans for the next two years under the same programme with various faculty members of the Chemistry Department and also with some of the teachers from

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the affiliated colleges who have been associated with this programme, We are of the opinion that the Department of Chemistry of Osmania University has done a very useful and commendable work under the University Leadership Project and it richly deserves to be encouraged and assisted to continue this project for a further period of two years 1974-76. The future programmes under the Schemes are very interesting and it is hoped that very good results will flow if the targets laid down in the programmes are achieved. We strongly recommend for the consideration of the UGC that the future programmes (1974-76) of the Chemistry Department of Osmania University for UL Project under COSIP Programme be favourably considered with regard to its contents as well as the financial implication of a total budget of Rs.10 lakhs.

Sd/-Prof. A.R.Vasudeva Murthi

Sd/- Prof. M. Santappa

Follow-up Activities (1-4-1975 to 31-3-1977)

U.G.C. College Science Improvement Programme
University Leadership Project in Chemistry:

Department of Chemistry, University College of Science, Osmania
University, Hyderabad - 500007, A.P.

Detailed proposals for follow-up activities proposed to be undertaken under the University Leadership Project by the Department of Chemistry, Spread over next two years i.e. 1.4.1975 to 31.3.1977, are as follows:-

I. WORKSHOP AND REFRESHER COURSES :-

(a) Workshops:-

1. Workshop in Physical Chemistry for preparation of text-book based on our Physical Chemistry Syllabus.
2. Workshop for Test Construction and Evaluation to be conducted at Hyderabad for the benefit of the teachers working in at Colleges in the districts of Hyderabad, Medak and Mahbubnagar.
3. Workshop for Test Construction and Evaluation to be conducted at P.G. Centre, Warangal for the benefit of the teachers working in colleges in the districts of Warangal, Khammam and Nalgonda.
4. Workshop for Test Construction and Evaluation to be conducted at Karimnagar for the benefit of the teachers working in colleges in the districts of Karimnagar, Nizamabad and Adilabad.
5. Workshop for preparing the laboratory manual in Physical Chemistry and Organic Chemistry.
6. Workshop for preparing the laboratory manual in Inorganic Qualitative and Quantitative Analysis.

N.B.:- Each workshop will be followed by seminar/meetings to finalise text material.

(b) Refresher Courses:-

1. Inorganic Reaction Mechanisms.
2. Electrochemistry at one centre and Organic synthesis at other centre. (To be conducted simultaneously).
3. Nuclear Chemistry.
4. Spectroscopy at one centre and Instrumentation and New Techniques at other centre. (To be conducted simultaneously).

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II. ADDITIONAL EQUIPMENT AND BOOKS TO BE SUPPLIED : --

(a) Equipment :

1. Gas discharge tube to demonstrate the properties of electrons together with induction coil and battery eliminator.
2. Kohlrausch bridge.
3. All gas apparatus utility set consisting of 27 pieces to demonstrate organic preparations (Quick fit).
4. Elevation of boiling point apparatus (Mc Coy type) with Beckman thermometer.
5. Electroanalyser.
6. Electrical Centrifuge.
7. Projector for slides and film strip.

(b) Books :-

About 40 titles other than those already supplied.

III. PUBLICATION OF MATERIALS :-

1. Organic Chemistry - Text Book.
2. Inorganic Chemistry - Text Book
3. Physical Chemistry - Text Book.
4. Inorganic Chemistry - Laboratory manual.
5. Organic Chemistry - Laboratory manual.
6. Physical Chemistry - Laboratory manual.
7. Lecture Demonstration experiments.

IV. TEACHING AIDS : - (Audio-Visual):-

1. Preparation of Charts.
 2. Preparation of Models.
 3. Preparation of slides and film strips.
- V. Conducting Summer Workshop for talented undergraduate students for four weeks.

VI. Publication of COSIP News letter (once in three months).

VII. It is proposed to have a mobile unit equipped with film projector and also demonstration equipment for visiting colleges with a view to showing the films and also showing some demonstrations with special equipment. The Andhra Pradesh Academy of Sciences has already been making use of

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such a mobile unit for showing films and demonstration experiments in the schools in Andhra Pradesh. A similar project would give scope for improvement of teaching in Chemistry at the collegiate level. The proposals for the two years period 1975-77 have been made keeping this in view. It is also felt that one Coordinator will not be sufficient to cope up with the work and therefore two more staff members in the lecturer's scale will be taken to promote further improvement of chemistry teaching in colleges.

VIII - Budget Estimates April 1975 to March 1977.

Head of Expenditure	Estimate for April 1975 - March 1976.	Estimate for 1976 - March 1977	Grand Total
I. RECURRING : Rs. 2, 80, 000=00			
(a) Salaries :			
1. One Coordinator (700-1250) + 21% allowance.	20, 800=80	20, 750=80	
2. Two Asst. Coordinators (400-950) * with deputation allowance as above	21, 000=80	22, 600=80	
3. Driver	3, 750=80	3, 750=80	
4. Part-time Remuneration for Secretarial Staff	2, 500=80	2, 500=80	
b) 5. T.A. & D.A. & Hon. for teaching staff conducting workshop and refresher courses.	4, 000=80	4, 000=80	
c) Typing and Printing materials	42, 750=80	41, 050=80	
d) Contingencies	6, 000=80	6, 000=80	
	<u>-1, 80, 000=00</u>	<u>1, 00, 000=00</u>	2, 00, 000=00
II. NON-RECURRING : Rs. 8, 00, 000=00			
a) Equipment	2, 50, 000=00	2, 85, 000=00	
b) Books	50, 000=00	50, 000=00	
c) Publication of books prepared under this programme	20, 000=00	20, 000=00	
d) Teaching aids, Large scale preparation of models, charts, film strips etc.,	30, 000=80	30, 000=80	
e) Mobile Unit, 16 mm film projector and teaching aids for visiting colleges.	65, 000=80		
	<u>4, 15, 000=00</u>	<u>3, 85, 000=00</u>	Rs. 8, 00, 000=00
		<u>4, 85, 000=00</u>	<u>Rs. 10, 80, 000=00</u>
	Grand Total: Rs. 5, 15, 000.00		

*They will visit colleges to give lectures demonstrate experiments and discuss teaching problems with the staff.

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Report of the Committee for evaluation of the COSIP UNIVERSITY LEADERSHIP PROJECT IN CHEMISTRY and consideration of follow-up proposal of the Department of Chemistry, University of Poona.

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The University of Poona, Department of Chemistry, initiated with the assistance from the University Grants Commission a University Leadership Project in Chemistry under the College Science Improvement Programme in September 1970. The University Grants Commission provided over the past four years a sum of Rs.8,50,000/- for implementation of the various programmes undertaken by it in this regard for the improvement of instruction in Chemistry in the undergraduate colleges affiliated to Poona University. The Standing Committee for the College Science Improvement Programme desired that the University Leadership Projects which had completed their first phase of activities extending over the three-year period may be requested to submit consolidated reports of the achievements during the first phase and the follow-up proposals to be taken up in the second phase extending over two-year period and these may be examined with the help of Expert Committees. In accepting this recommendation, the UGC appointed a Committee consisting of the following members to visit Poona University for the purpose :

- 1) Professor M. Santappa
University of Madras
Madras.
- 2) Professor A.R.V. Murthy
Indian Institute of Science
Bangalore.
- 3) Dr. D. Shanker Narayan
Additional Secretary, UGC.

The Committee visited Poona on 16th - 17th August, 1975. Professor Santappa could not join the Committee but gave his views. The Committee had discussions with the Coordinator and other faculty members associated with ULP, examined the materials - both reading as well as demonstration - developed under this programme and considered the follow-up proposals to be taken up by the department during the course of next two years. The major activities undertaken by the department under the University Leadership Project are briefly given below :-

- (1) Curriculum Revision : The B.Sc. syllabi and courses of study have been revised and brought upto date and the revised curricula have been introduced in the colleges. Semester system for teaching and examination at the B.Sc. level has been accepted by the University authorities and has been

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made applicable to the second and third year of the B.Sc. courses and examinations with effect from June, 1970.

(2) Teacher improvement and preparation of teachers: Under the ULP, the department organised during the past three years a total of nine theory and three practical short term courses to acquaint the teachers with the revised syllabi and courses of study and to prepare them adequately to teaching the newly introduced topics as well as to reorient their teaching in respect of other parts of the syllabi. Nearly all college teachers of the 40 science colleges affiliated to the Poona University have participated in these courses. In addition to these short-term courses, some of the staff members of the department visited regularly the affiliated colleges and delivered lectures to the B.Sc. classes, particularly in selected topics included in the newly adopted syllabus (list enclosed Appendix-I).

(3) A part of the efforts towards preparation of teaching materials, the ULP staff of the department brought out two laboratory manuals, Part I and Part II, and a lecture demonstration experiments manual. These were made available to all the colleges. Several useful charts and models have also been supplied to the colleges for class room demonstration purposes. The department has taken up assembling a projector to all the colleges. The department has also supplied to the college departments of Chemistry several items of equipment, some of which were fabricated in the department with the help of workshop facility available. A list of such equipment supplied is given in Appendix-II. On an average, each College received equipment of the value of Rs.14,000/- and the department feels that every college department now possesses the basic minimum equipment as well as some sophisticated instruments like radio-activity measuring instrument and photoelectric colorimeter and is therefore in a position to provide necessary laboratory instruction in accordance with the revised syllabi.

(4) Similarly the college departmental libraries have been brought upto date and to possess a basic list of books required for supporting B.Sc. Chemistry Programme. Under this, each college was supplied books worth Rs.500/- from among the basic list of books developed by the ULP and another set of books worth Rs.500/- from a list of books and according to the choice of the colleges concerned. The department appeared to favour purchase of books by foreign authors, almost to the exclusion of some good books written by Indian authors. This could have been avoided. A list of books, so supplied is given as Appendix-III.

The department also bought some equipment and books required by it for purposes of undertaking the programmes required under the COSIP ULP. While some of the equipment purchased for the purpose could be justified, the Committee however, could not escape the fact that the books purchased for the Department of Chemistry under the COSIP-ULP included several books which had no relevance to COSIP activity but were mainly related to the departmental postgraduate teaching and research activities.

The department also organised regional meetings of the COSIP colleges in the western region to discuss the various programmes taken up by the different colleges, both under ULP as well as under the selected colleges activities of the COSIP. The department also had the advantage of discussing these programmes with a few foreign scientists visiting this department and associated with curriculum development/ in Chemistry at the undergraduate level in their own countries.

According to the assessment made by the department, the impact of the different activities of the COSIP has been considerable. The Chemistry laboratories and the libraries of all the colleges in the University have been equipped to an optimum level to meet the requirements of the revised syllabus effected under the curriculum development programme of the ULP. The teachers in the different colleges have become acquainted with new topics and new experiments included in the revised syllabus through participation in the short term courses and the materials supplied. Besides the teachers, some of the students of the B.Sc. classes had the benefit of lectures delivered by the university teachers on selected topics under the extension lectures programmes by which a number of university teachers specialising in different fields visited different colleges and delivered series of lectures on special topics.

The Committee notes with appreciation efforts made by the Department of Chemistry in the improvement of teaching and facilities for undergraduate chemistry instruction in the Poona University colleges. The Committee, however, felt that organisation of the short term courses during summer vacation periods without provision for continuous communication between college teachers and the university department throughout the academic year considerably reduced the impact. This was partly made up by visits by the university teachers to the college departments. Establishment of suitable mechanisms to provide for flow of information both ways between college departments and the university departments and making efforts to assist teachers in the colleges to overcome difficulties encountered by them in the classroom or laboratory situations is one of the essential aspects of a university leadership project programme. It is suggested that this aspect may be kept in view

by the department during the follow-up phase. It should also be possible for any teacher to seek guidance of the staff of the department on specific difficulties experienced by him in his teaching activity. Such individual attention and concern would considerably enhance the value of the various group activities and short-term courses. Similarly the Committee felt that it would have been desirable for the teachers to have been provided with lecture notes prepared in advance for the short-term courses organised by it. Such lecture notes would have the potential of ultimately becoming printed reading materials and even possibly being built into a regular textbook.

In the matter of both curriculum revision as well as design of experiment for laboratory work, it would appear the department has wholly utilised materials available from U.K. and U.S.A. under similar programmes. The Committee would normally expect, in addition, an indigenous effort suited to the University's own conditions and the college facilities and introduction of appropriate work experience as part of the laboratory work by students.

Follow-up proposals : The proposals made by the department relate to both consolidation of the previous programmes started in the first phase as well as new activities. Under the former, the department has included (a) writing of text materials and preparation of teachers' guide and writing of short monographs on selected topics. It has also proposed completion of the fabrication of some items of equipment and their accessories (TOPS Projector and accessories, TGA apparatus using a chainomatic balance, DTA Apparatus, Apparatus for the determination of ionisation energy, Gas chromatography with electrodeless discharge detector). The department proposes to develop two copies of the prototype and subsequently involve local small scale industry for production of the number of items required for the colleges. The other activities proposed include the deputation of teachers to visit the colleges to deliver lectures on selected topics.

The new activities proposed include activities for students particularly practical training to talented students during summer vacations, research projects of an applied nature for the M.Sc. previous students, group activities for teachers to include curriculum discussion groups for object analysis of theory and laboratory courses, workshop for college teachers for instrument repairs and glass blowing, preparation of teaching aids, self-learning, and laboratory materials in collaboration with the physics department of the university which has also a university leadership programme in physics. Some activities are also proposed to be taken up for examination reforms.

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On the basis of the discussion, the Committee would like to make the following recommendations :-

(1) The activities proposed for consolidating the work started in the first phase may be supported. This would include (a) writing of text (Rs.15,000/-), (b) equipment fabrication (Rs.30,000/-) and (c) visits by university teachers to the colleges for delivering lectures (Rs.2,000/-per annum). The work relating to the preparation of teaching aids, self-learning and laboratory materials etc., may be undertaken in collaboration with the Physics Department as proposed (Rs.20,000/-).

(2) The Committee would also recommend the group activities particularly with regard to curriculum discussion groups for object analysis of theory, and laboratory courses (Rs.10,000/-p.a.) and organisation of workshop for teachers for glass-blowing, workshop practice and instrument repairs (Rs.10,000/-per annum).

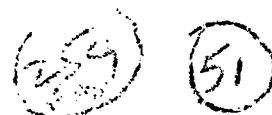
(3) The Committee do not recommend the other programmes included in the proposals, such as, practical training to talented students and research projects for M.Sc. students as these do not relate to the objectives of the COSIP.

(4) The Committee does not consider it necessary to have any full time staff during the period of follow-up activities. The staff associated in the first phase may continue to be associated to the extent necessary in respect of the programmes recommended above but such staff would not receive any honorarium. The department may, however, continue to have the services of part-time technicians and stencil operator as proposed and this would involve an expenditure of Rs.2,000/- per annum. A sum of Rs.3000/- may be provided for meeting any contingent expenditure.

(5) Work relating to examination reforms may be undertaken as part of the University's programme of examination reforms for which the UGC has already selected Poona University. Any other activities arising out of the COSIP experience in relation to teachers of chemistry in colleges could be taken up by the department as part of the general faculty improvement programme initiated by the University Grants Commission in each University.

The Committee hopes that with the utilisation of the grants available during the first phase and the funds now recommended for the follow-up activities would enable the university Department of Chemistry, Poona University to make a substantial contribution towards improvement of teaching of Chemistry at the undergraduate level in the affiliated colleges.

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Extension Lectures :

Year	Subject	Topic	No. of Colleges when the lectures were given
1971-1972	Physical Chemistry	Nuclear Chemistry	1
		Concentration cells and adsorption.	1
		Electrochemistry and Surface Chemistry	1
		Strong Electrolytes.	1
		Thermodynamics	1
1971-1972	Inorganic Chemistry	Transition Metal Chemistry.	1
- do -	Organic Chemistry	Organophosphorus compunds and organoboron compounds	1
		Proteins and hormones	2
		Stereochemistry and condensation reactions	4
1972-1973	Physical Chemistry	Molecular Structure	1
		Nuclear Structure and Radioactivity	4
		Phase rule and Chemical Kinetics	1
		X-ray and crystal structure	2
		Electrochemistry	4
		Entropy and Free energy and thermodynamics	4
- do -	Inorganic Chemistry	Chromatography- Principles and Techniques.	3
		Ionic Solids	5
		Coordination Chemistry	3

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<u>Year</u>	<u>Subject</u>	<u>Topic</u>	<u>No. of Colleges when the lectures were given</u>
1972-73	Organic Chemistry	Physical Methods in Organic Chemistry	3
		RNA, DNA and Organic Stereochemistry	1
		Conformational isomerism	1
		Organoboron and Organophosphorus compounds	1
1972-73	Organic Chemistry	Proteins	2
		Reaction Mechanism	4
1973-74	Physical Chemistry	Phase equilibria	2
		Atomic Structure	3
		X-rays and Crystal Structure	3
		Thermodynamics	3
		Electrochemistry	1
		Molecular structure	5
		Free Energy	1
		Concentration Cells	1
- do -	Inorganic Chemistry	Hard and Soft Acids and Bases	4
		Silicons	1
		Chromatography	3
		Periodic Properties	1
		Coordination Chemistry	8
		Ionic Solids	6
		Covalent Bond	4
Lanthanides	1		

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<u>Year</u>	<u>Subject</u>	<u>Topic</u>	<u>No. of Colleges when the lectures were given</u>
1973-74	Organic Chemistry	Physical Methods in Organic Chemistry	5
		Aromatic Substitution	1
		Stereochemistry	1
		Carbohydrates, Nucleio acid, Lipids, Enzymes.	6
		Condensation reaction.	2
		Geometric isomerism	2
		Conformational isomerism.	1

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Appendix-II

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List of the equipment supplied/fabricated by the
Department of Chemistry, University of Poona, Poona
and given to the colleges.

Sr. No.	Name of the equipment/ teaching aid	Quantity	Price Rs.
1.	G.M. Radiation counter with G.M. tube and stand.	1 No.	4200
2.	Water thermostat	1 No.	1795
3.	Colorimeter	1 No.	1900
4.	Orbital models (wooden)	1 set	140
5.	Charts		
	a) Shapes of atomic Orbitals	0	
	b) Relatives energies of atomic orbitals	0	
	c) Shapes of orbitals and molecules	0	
6.	Periodic table chart	1 No.	192
7.	Conductivity Bridge	1 No.	1055
8.	Water distillation plant	1 No.	585
9.	Electric water bath	2 Nos.	590
10.	Magnetic stirrer	1 No.	400
11.	Potentiometer with galvanometer lamp and scale	1 No.	1587
12.	Laboratory electric stirrer	2 Nos.	1300
13.	Heating mantle with control	2 Nos.	450
14.	Radial Crystal charts	1 No.	3
15.	*Temperature control unit	1 No.	150
16.	*Aluminium absorbers	1 set	50

*Fabricated in the Department of Chemistry, University of Poona, Poona 411007.

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List of the Books supplied to the colleges

(A) Following books, worth of Rs.500/- (approx.) were given to all the colleges.

<u>Sr.No.</u>	<u>Names of the books and author</u>	
1.	Willard	Instrumental Methods of Analysis, 4th Edn.
2.	Crookford	Fundamentals of Physical Chemistry, 2nd Edn.
3.	Daniels & Alberty.	Physical Chemistry, 3rd Edn.
4.	Famill	Principles of Physical Chemistry.
5.	Barrow	Physical Chemistry, 2nd edn.
6.	Rao	Handbook of Chemistry and Physics, 3rd Edn.
7.	Cartmell	Valency and Molecular Structure, 3rd Edn.
8.	Cotton and Wilkinson.	Advanced Inorganic Chemistry
9.	Gilreath	Fundamental concepts of Inorganic Chemistry.
10.	Jaffe	Symmetry in Chemistry.
11.	Drage	Physical Methods in Inorganic Chemistry
12.	Sanderson	Principles of Chemistry
13.	March	Advanced Organic Chemistry.
14.	Witt	Stereochemistry of Carbon Compounds
15.	Henricksen, Gam & Hammond	Organic Chemistry, 3rd Edn.

(B) From the following list college authorities were requested to choose the books worth of Rs.500/-. Hence different books were applied to different colleges:

<u>Sr.No.</u>	<u>Name of the books & authors</u>	
1.	Adams	Heterocyclic Compounds.
2.	Adams	Understanding Physical Chemistry
3.	Ballantine	Dictionary of Named Effects and Laws.

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<u>Sr.No.</u>		<u>Name of the books & authors</u>
4.	Bares	Collection of Problems in Physical Chemistry.
5.	Barnard	Theoretical Basis of Inorganic Chemistry.
6.	Breslow	Organic Reaction Mechanisms.
7.	Castellan	Physical Chemistry.
8.	Daniels	Mathematical Preparation for Physical Chemistry.
9.	Day & Selbin	Theoretical Inorganic Chemistry.
10.	Dyer	Applications of Spectroscopy in Organic Chemistry.
11.	Eggins	Chemical Structure and Reactivity.
12.	Ferguson	Modern Structural Theory of Organic Chemistry.
13.	Fieser	Reagents for Organic Synthesis, Vol.3
14.	Glasstone	Introduction to Electrochemistry.
15.	Glasstone	Thermodynamics for Chemists.
16.	Grey	Electrons and Chemical Bonding.
17.	Hansch	Outline of Organic Chemistry.
18.	Harvey- Porter	Introduction of Physical Inorganic Chemistry
19.	House	Modern Synthetic Reactions.
20.	Janardhan	Physico-Chemical Techniques of Analysis, Vol.I
21.	Janardhan	Physico-Chemical Techniques of Analysis, Vol.II
22.	Muriakose	Physical Chemistry of Analysis.
23.	Laidler	Chemical Kinetics
24.	Lange	Handbook of Chemistry
25.	Latham	Elementary Reaction Kinetics.
26.	Loe	Concise Inorganic Chemistry
27.	Hoeler	Inorganic Chemistry
28.	Morrison-Doyd	Organic Chemistry

<u>Sr.No.</u>		<u>Name of the books & Authors</u>
29.	Norman	Principles of Organic Synthesis.
30.	Poesok	Modern Methods of Chemical Analysis.
31.	Ramaswamy	S.I. Units.
32.	Roberts- Casserio	Organic Chemistry.
33.	Sanderson	Chemical Chemistry
34.	Sanderson	Inorganic Chemistry
35.	Schwartz	Physical Methods in Organic Chemistry.
36.	Sienko-Plane	Chemistry
37.	Spice	Chemical Reactions and Structures.
38.	Sykes	Guidebook to Mechanisms in Organic Chemistry, 3rd Edn.
39.	Tinn	General Chemistry.
40.	Van Nostrand's	Natl. Ency of Chemical Science.
41.	Williams	Spectroscopic Methods in Organic Chemistry.
42.	Wilson	Experiments in Physical Chemistry.
43.	Wood- Holliday	Inorganic Chemistry
44.	Wood- Holliday-Bear	Organic Chemistry.

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Report of the Expert Committee appointed to evaluate the University Leadership Project in Biological Sciences and the follow-up proposals of the Department of Biological Sciences at Madurai University.

A Committee consisting of the following members was appointed by the Commission, on the suggestion of the Standing Committee for the COSIP, to visit Madurai University to evaluate the activities taken up by the Department of Biological Sciences, Madurai University under the University Leadership Project since 1971-72 and to consider the proposals for follow-up activities.

- 1) Professor M.R.N. Prasad,
Delhi University.
- 2) Professor (Mrs.)A. Sharma,
Calcutta University.
- & 3) Dr. D. Shankar Marayan,
Additional Secretary,
University Grants Commission.

The Committee visited the Madurai University on 18/19th August, 1975. The Committee had discussions with the Vice-Chancellor, Head of the Division and other faculty members of the Biological Sciences and also visited two of the local colleges participating in the College Science Improvement Programme.

The Committee, at the very outset, would like to record its appreciation for the many sided achievements made by this department in the improvement of undergraduate instruction in Biological Sciences in the colleges affiliated to Madurai University as a result of its efforts under the University Leadership Programme. The department has also been able to make substantial impact, through its efforts, on providing materials and services required for better instruction in biological sciences in other universities as well.

The Department of Biological Sciences, Madurai University was chosen by the University Grants Commission as one of the centres to take up a University Leadership Project in Biological Sciences in 1971-72. The major objectives of the programme was to improve and coordinate the teaching of biological sciences in the Departments of Botany and Zoology at the B.Sc. level in the colleges affiliated to Madurai University. The major efforts undertaken by the faculty and the staff of the department towards achieving

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this objective are given below:

(1) Organization of Refresher Courses: On the basis of an assessment of the academic background, qualifications and competence of the teachers in Botany and Zoology and the facilities available in the college departments of Botany and Zoology, the University organized during the past three years a series of refresher courses on Biological Chemistry, Cytology, Genetics, Functional Morphology and Physiology of Animals and Plants, Embryology of Animals and Plants, both during the academic year as well as during the vacations as an inservice activity. The courses were generally of a duration of two to five weeks. The courses have been attended by about 150 teachers from the colleges - this represents a retraining of a 100% of the biology faculty in the various affiliated colleges of Madurai University. Initially the programme was restricted to only those college departments of Botany and Zoology teaching these courses as a principal subject. This accounted for 30 zoology and 20 botany departments. The courses were designed to improve and up-date the scientific information competence of the teachers so that the instruction could be made upto date in relation to the recent developments in the different branches of the subjects. They were also designed to provide to the teachers the necessary skills and training in certain analytical techniques of experimentation, such as, colorimetry, radiometry, chromatography, photochemical and bio-chemical analysis and microbiological methods. The details regarding the number of lectures etc., organised in each of these short term courses are given in Appendix - I

(2) Equipping the undergraduate laboratories:- On the basis of an inventory undertaken regarding the laboratory facilities including scientific equipment available to the college departments and in relation to a basic list of equipments developed as essential for an undergraduate programme and to enable the teachers to take back their training in refresher programmes to class room teaching and demonstration work, the University Department has provided to the college departments selected items of equipment. Presently everyone of the biology departments that came under the ULP has been equipped with a set of basic equipments which would facilitate and improve their laboratory instructional activities. A list of equipment supplied is given as Appendix - II.

Besides equipping the college departments, teachers from the participating colleges were encouraged both during the course of their attendance at short term courses as well as subsequently as a follow-up measure to fabricate equipment and innovate experiments to enable

the teachers to put across certain subjects more effectively through demonstration experiments in the laboratories. For example, the development of light temperature and conductivity meter and extension of this instrument in the laboratory is one of the typical outcomes of such innovative efforts by the teachers.

3) Development of college libraries: - Once again, on the basis of an inventory of the present collection of books in the college libraries and with reference to a basic list of books required for undergraduate programmes, the University department supplied a number of books to the different college libraries. This has facilitated a constant reference and use of books and monographs. These books were specifically related to the various refresher courses attended by the teachers and in fact most of the course materials were taken from these books to familiarise the participating teachers in the use of these books, reading materials, monographs etc. Care was taken to see that no duplication of the already existing books in their own college libraries was possible since books were ordered and obtained in consultation with the teachers and from the basic list of books prepared by the university department. A list of books provided to the college libraries is given as Appendix - III.

(4) Development of experimental materials-Supply Centres:

The College teachers generally express a genuine difficulty felt by them in obtaining suitable materials for purposes of experimentation particularly in disciplines like Genetics and Physiology. In order to help the situation, the University Department has developed two centres for breeding and maintaining *Drosophila* mutants and plant mutant forms for genetic and physiology work. These two centres are engaged in collection of suitable mutant forms and development of experiments in genetics and also the manuals for the benefit of students and teachers. The college departments are supplied with the flies and tested seeds from these centres alongwith necessary instructions for the conduct of appropriate experiments by B.Sc. students. The laboratory manual developed by the *Drosophila* Centre has also been published.

(5) Inservice teachers research participation:- Selected teachers from amongst the participants in the refresher courses were given an opportunity to participate in the research programmes of the department and were encouraged to work towards a research degree. There are currently

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four college teachers working towards their Ph.D. degree with the support available from the COSIP-ULP.

6) Feed-back Information and Control:- The University Department has been able to establish a viable and effective means of continuous communication between the college departmental staff and the university faculty. This has enabled the department to assess the effectiveness of the various facilities undertaken by it with reference to the actual class room situation, teachers' performance and student reaction. The staff of the department have also undertaken personal visits besides eliciting information through suitable questionnaire developed for the purpose. It is now possible for any teacher to refer his problems to the university faculty and the faculty in turn make their best effort to help the teacher to over-come and solve such problems. The faculty of the department, during their visits to the various college departments, have delivered a series of special as well as demonstration lectures and helped the college faculty in commissioning some of the basic equipment supplied under the programme. A typical questionnaire developed for the purpose is enclosed as Appendix - IV.

From the above account of the activities, it is evident that the department of Biological Sciences, through the various activities initiated by it under the University Leadership Project of the College Science Improvement Programme, has been able to make during the past three years a significant contribution in bringing about desirable changes in instruction in Botany and Zoology in the affiliated colleges of Madurai University. It has been able to introduce in a significant manner several new concepts and contents in the syllabi and courses of study. It has been able to publish books, laboratory manuals and also develop demonstration equipment and kits for use by the college departments. In the matter of development of equipment, the department has been able to involve the local small scale industries as well. Several universities and research laboratories have obtained supplies of experimental materials from the two material supply centres developed by this department.

The department also undertook the responsibility of publication (on behalf of UGC) of the COSIP News and Views - a quarterly publication embodying information about the activities undertaken by various universities and colleges under the College Science Improvement Programme. This journal has served a very useful purpose for exchange of information and in generating enthusiasm amongst biology teachers.

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(7) Follow-up proposals: - On the basis of the achievements so far made, the department has proposed a number of follow-up activities to be taken up both for purposes of consolidating the programmes undertaken in the first phase as well as to complete its developmental activities in the areas of equipment, kits, production of slides and other audio-visual materials required for better biology instruction in the colleges.

The rationale put forward by the department for the different follow-up activities is based upon the need for a continuous effort to improve the undergraduate teaching and to develop constant interaction between the university faculty and the teachers in the colleges. There is also the need for evaluation of the effectiveness of the programme and to supplement the training given in the first phase. The departmental faculty has put in a great deal of effort in preparation of experimental materials and also newer experimental approaches to various concepts in biology. The laboratory manuals developed to support the different short term courses in collaboration with the participating teachers, are required to be consolidated, edited, printed and published. Besides, these materials, viz., laboratory manuals, experimental kits, and material supplies etc., can now be brought up to production stage on a fairly large scale and made available to other universities also. The follow-up programme includes production of a number of such inexpensive items of equipment like LTC meters, Thermister thermometers, Blaska Apparatus, etc.

The recommendations of the Committee with regard to the various follow-up proposals are given below:

(i) Production of Laboratory Manuals:

The department has developed several laboratory experiments as an integral part of the various refreshhr. courses organised by it since 1971-72. These experiments have therefore been thoroughly course-tested. This material requires to be consolidated into several appropriate manuals. The department has therefore plans for publication of the following six laboratory manuals during the follow-up phase:

- a) Plant Physiology
- b) Animal Physiology
- c) Microbiology
- d) Genetics
- e) Developmental Biology
- f) Biological Chemistry.

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The estimated expenditure of Rs.60,000/-for this purpose is justified and therefore recommended.

ii) Curriculum Discussion Groups:

On the basis of the effects made so far in upgrading the subject matter competence of the college teachers, the department proposes to upgrade the existing curriculum for the B.Sc. classes. The college teachers have also urged for such a revision and modernisation of the undergraduate syllabi. Since the final decision could however be required to be taken by the boards of studies, the department proposes to organise a few curriculum discussion groups of about three days each, involving teachers from the colleges as well as members of the boards of studies to discuss matters pertaining to curriculum reforms, examination system, internal evaluation, introduction of semester programmes, etc. Each such group would be attended by about 30 participants. The Committee feels this as useful follow-up activity and suggests a provision of Rs.10,000/-for this purpose.

iii) Proposal for supply of equipment, spareparts, books and equipment, service facility

During the first phase, the equipment and books supplied to 50 colleges departments involved a total expenditure of Rs.4.00 lakhs. The Committee does not consider it necessary to continue to further supply scientific equipment to these colleges under the COSIP-ULP. The individual colleges could be encouraged to seek assistance from the UGC under the normal assistance programme to affiliated colleges. The University Department could also provide some guidance to the colleges in the matter of procurement of suitable equipment in the Fifth Plan period. The same suggestion would apply in respect of supply of books also. On the other hand, the proposal to set up a bank for spare parts and also to provide service facility to maintain the equipments in the colleges departments is a useful activity and may be supported. This would involve an expenditure of Rs.25,000/-including the salary of one or two technicians for the purpose.

iv) A Short-Term Course in Environmental Biology:

The department had originally planned for a number of short term courses and all these different courses have so far been conducted. The one course yet to be given is in the area of environmental biology. This subject is of increased importance and is included in the curricula of both Botany and Zoology. The department therefore proposes organising

a six weeks' course on Modern Approaches to Environmental Biology. A sum of Rs.25,000/-is recommended for this purpose.

v) Development of Proto-type of equipment, Experimental Kits and other audio-visual aids

In the teaching of biology certain concepts can be effectively taught and understood if they are presented with the help of audio-tutorial aids, such as, films, models, modules, culture methods etc. The department has a well defined programme for development of such aids and estimates an expenditure of Rs.10000/-..This is recommended.

(vi) Teacher Research Participation Programme:

This academic year programme of enabling teachers to work in the different disciplines towards an advanced degree has been initiated successfully in the first phase. The department wishes to continue this activity and has requested for five such fellowships during the next two years. The University Grants Commission has recently initiated a faculty improvement programme which includes provision for teacher fellowships of one year as well as three-year duration. It would therefore be desirably for the university to utilise this provision to enable teachers to come to this department to work for their Ph.D. degree. However, the Committee would like to suggest provision for a few short term research fellowships under the COSIP also to enable college teachers, who have participated earlier in the short term courses to come to the university department for undertaking research work, though not leading to a degree. A provision of Rs.10,000/- per year for this purpose is recommended(Total: Rs.20,000/-.)

(vii) Continuation of existing supply centres :

As already mentioned, the two supply centres, viz., the Drosophila Genetics Centre and the Plant Breeding Centre have served a useful purpose. The expenditure involved on running each of these two centres is Rs.20,000/-per annum. A total provision for Rs.80,000/-is therefore recommended.

(viii) Maintenance expenditure and continuation of existing staff

A provision of Rs.50,000/-is recommended for this purpose for the follow-up period of two years. Similarly the Biology News, a publication of this department has served a useful purpose. An expenditure of Rs.15,000/- may be provided for continuation of this publication.

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The Committee also considered other proposals placed before it, viz., (1) organisation of a certificate course in Plant Physiology, (2) Setting up of a Genetics Centre, (3) A diploma course for bio-technician etc. The Committee could not agree to these proposals. Courses of this type may be introduced, if necessary, as part of the faculty improvement programme or as part of the Fifth Plan development activities of the University.

Summary:

	Rs
1. Production of lab. manuals, 6 nos, as detailed in the proposal	60,000
2. Curriculum discussion group meetings	10,000
3. Development of Proto-types of Equipment, Experimental kite, spare parts and service facilities and other audio-tutorial aids.	1,00,000
4. Environmental Biology Course	25,000
5. Continuation of Teacher-Research Participation Programme for 2 years	20,000
6. Continuation of the existing Biology supply Centres;	
a) Plant Breeding Centre	40,000
b) Drosophila Genetic Centre	40,000
7. Biology News-Publication	15,000
8) Maintenance and Continuation of Expenditure	50,000
9) Spare-parts bank and service facility	25,000
	<u>Total: 3,85,000</u>

APPENDIX-I

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Title of short-term Course	No. of Lectures	No. of Lab. Experts	<u>SHORT-TERM REFRESHER COURSES</u>		No. of participants	Text Materials Etc., not developed
			Group discussion topics(No.)	Duration of the course		
1. Biological Chemistry	12	9	9	4 weeks	37	1 Book Published
2. Cytology	13	14	Special Lectures	4 weeks	40	1 Lab. manual published.
3. Genetics	15	4		3 weeks	44	
4. Functional morphology and Physiology of animals	9	10		10 days	29	
5. Functional morphology and Physiology of Plants	10	9		12 days	19	
6. Embryology of animals	13	18	6	12 days	29	
7. Plant Embryology	10	11	12	12 days	20	

APPENDIX-II

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List of Equipments supplied to COSIP COLLEGES:

1. Calorimeter	17 Nos.
2. Electrophoresis	4 Nos.
3. Korb Balance	8 Nos.
4. T.L.C. Unit	11 Nos.
5. Phase contrast microscope equip.	1 No.
6. Warburg Apparatus	3 Nos.
7. Biology kits	35 Nos.
8. pH meter	2 Nos.
9. Hot Air Oven	1 No.
10. Rotary microtome	6 Nos.
11. Lab. Centrifuge	3 Nos.
12. Meopta phase Constrast equip.	1 No.
13. Microslide Projector	12 Nos.
14. Genetic kits	45 Nos.
15. Gas Analyser	23 Nos.
16. Aquatic tanks	6 Nos.
17. Blazka's Apparatus	4 Nos.
18. L.T.C. meters	19 Nos.
19. Reflex Assembly	21 Nos.

APPENDIX-III

COLLEGE SCIENCE IMPROVEMENT PROGRAMME
DEPARTMENT OF BIOLOGICAL SCIENCES,
MADURAI UNIVERSITY, MADURAI.

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BIOLOGICAL CHEMISTRY COURSE

<u>No.</u>	<u>Author & Title</u>
1.	White, E.H. - Chemical background for biological sciences
2.	Johnsen - Atoms, Molecules and chemical changes
3.	Conn & Stumph - Outlines of Biochemistry
4.	Fairley & Kilgour - Essentials of Biological Chemistry
5.	Mallette, E - Principles of Biochemistry of Plants and animals.
6.	Baldwin, E. - The nature of Biochemistry.
7.	Karlson, R. - Introduction of modern biochemistry
8.	Reithel, F.J. - Concepts in Biochemistry
9.	White et al. - Principles of Biochemistry
10.	Mahler & Cordes - Biological Chemistry
11.	Cantarow - Biochemistry
12.	Clark Jr. - Experiments in Biochemistry
13.	Bradshaw - Introd. to Molecular Biological Techniques
14.	Segal - Biochemical Calculation.
15.	Anderson - Chemical calculations.
16.	Mc Elroy - Cellular Physiology.
17.	Goldsby - Cells and Energy.
18.	Paul - Cell Biology.
19.	Bennett & Freiden - Modern topics in Biochemistry
20.	Steiner - Molecules and Life
21.	Govindjee & Rabinowitz - Photosynthesis
22.	Ingram - Biosynthesis of macromolecules
23.	Bernhard, S. - The structure and function of enzymes
24.	Westley - Enzymic Catalysis
25.	Cohen, D. - The biological role of nucleic acids
26.	Casey - Biophysics

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CYTOLOGY COURSE

- 27. Bourne - Division of labour in cells
- 28. Bournes - Cytology and Cell Physiology
- 29. Bowen - Experimental Cell Biology
- 30. Cutter - New Research in Plant Anatomy
- 31. Dalton - The membrane
- 32. Droop - Advances in microbiology of the sea
- 33. Frankel conrate- Chemistry & biology of viruses
- 34. Foulds - Neoplastic Development
- 35. Finean - Biological Ultrastructure.
- 36. Kamen - Isotopic tracers in Biology.
- 37. Pringsheim - Pure cultures of algae.
- 38. Roodyn - Enzyme cytology.
- 39. Dalton - The nucleus.
- 40. Pearse - Histochemistry: Theoretical and applied
- 41. Swanson - Cytology and cytogenetics
- 42. Sharp - Fundamentals of Cytology
- 43. Taylor - Practical Cytology
- 44. Sumner - A laboratory manual of microtechnique and histochemistry.
- 45. De Robertis - Cell Biology.
- 46. Becker - Cytological Technique.
- 47.

GENETICS COURSE

- 47. S.Krishnaswamy-BIOLOGY: An inquiry into Life Vol.I & II.
- 48. Scientific American: - Readings in Life Sciences 7 Volumes.
- 49. Laboratory Experiments in Microbiology and Molecular Biology.
- 50. Strickberger - Experiments in genetics with Drosophila.
- 51. Davidson - The Biochemistry of Nucleic Acids.

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- 52. Mackean - Introduction to Genetics
 - 53. Watson - Molecular Biology of the gene.
 - 54. Oser - Hawk's Physiological Chemistry.
 - 55. Holum - Principles of physical, organic and biological chemistry.
 - 56. Stansfield - Genetics
 - 57. Dobzhansky - Evolution, Genetics & Man
 - 58. Levine - Biology of the Gene
 - 59. - Elements of Protein synthesis.

PHYSIOLOGY COURSE

- 60. Hoar - General and comparative physiology
- 61. Hoar & Hickman - A lab. companion for General and comparative physiology
- 62. Gordon - Animal function: Principles & Adaptation
- 63. Giese - Cell Physiology
- 64. Harper - Review of Physiological Chemistry
- 65. Keele & Neil - Sampson Wright's Applied Physiology
- 66. Prosser & Brown - Comparative Physiology
- 67. Schmidt-Nielsen - Animal Physiology
- 68. Griffin - Animal Structure and function
- 69. Salisbury - Plant Cell Physiology
- 70. Park S. Nobel - Plant Cell Physiology
- 71. Philips - Introduction to the Biochemistry and Physiology of plant growth hormones
- 72. Witham, Blaydes Devlin - Experiments in Plant Physiology
- 73. Lester Packer - Experiments in cell physiology
- 74. Dunn & Arditti - Experimental Physiology: Experiments in cellular general and plant physiology
- 75. Street & Opik - Physiology of flowering plants; Their Growth and development
- 76. Devlin & Barker - Photosynthesis
- 77. Wilkins - Physiology of Plant Growth and Development
- 78. Meidner & Mansfield - Physiology of Stomata

Embryology Course

- 79. DeHann & Ursprung - Organogenesis
- 80. Willier & Oppenheimer - Foundations of experimental embryology
- 81. Ebert & Sussex - Interacting systems in development
- 82. Balinsky - An introd. to Embryology
- 83. Frye - Hormonal control in vetebrates
- 84. Bell - ~~Be~~ Molecular and cellular aspects of development
- 85. Mathews - Atlas of Descriptive embryology
- 86. Cutter - Plant anatomy
- 87. Wardlaw - Morphogenesis in Plants
- 88. Beerman - Cellular differentiation & Morphogenesis
- 89. Eames - Morphology of angiosperms
- 90. Johansen - Plant Microtechnique.

S.No.	Name and College	Department	Course attended
1.	Thiru J.C.B. Abraham, American College, Madurai.	Zoology	Genetics
2.	Miss Agatha Padma, Holy Cross College, Nagercoil.	Zoology	Physiology
3.	Sr. Agnes Mary, St. Mary's College, Tuticorin.	Botany	Cytology Genetics
4.	Miss R. Alagammal, Sri Parasakthi Govt. Arts College, Courtallam.	Zoology	Genetics
5.	Thiru K. Annamalai, V.H.S.N.S. College, Virudhunagar.	Zoology	Cytology
6.	Smt. Y. Annama Daniel, Sri Parasakthi Govt. Arts College, Courtallam.	Zoology	Cytology
7.	Thiru K.R. Ananthakrishnan, Madura College, Madurai.	Zoology	Embryology
8.	Miss Aranya Alphonse Vasuki, St. Mary's College, Tuticorin.	Zoology	Cytology
9.	Thiru A. Arockiasamy, St. Xavier's College, Palayankottai.	Botany	Genetics Embryology
10.	Thiru J.X. Arachi, St. Xavier's College, Palayankottai.	Botany	Physiology
11.	Thiru Arumugam, Vivekananda College, Agastheeswaram.	Zoology	Embryology
12.	Thiru P. Arumugaswamy, Saiva Bhanu Kastriya College, Aruppukottai.	Zoology	Physiology

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| 13. | Thiru K. Arunachalam,
Sri Palani Andavar Arts College,
Palani. | Zoology | Genetics |
| 14. | Thiru S. Arunachalam,
Sri Palani Andavar Arts College,
Palani. | Zoology | Cytology |
| 15. | Thiru T. Athisaya Rajah,
Arignar Anna College,
Aramboly. | Botany | Biochemistry
Genetics
Physiology |
| 16. | Thiru R. Arulanantham,
Pioneer Kumaraswamy College,
Nagercoil. | Zoology | Embryology |
| 17. | Miss Baby Flankit Vittabai,
Sarah Tucker College,
Palayamkottai. | Zoology | Embryology |
| 18. | Thiru K. Baskaran,
A.P.S. College,
Tirupathur. | Zoology | Biochemistry |
| 19. | Miss M. Bhawani,
Seethalakshmi Achi College,
Pallathur. | Zoology | Cytology Physiology |
| 20. | Thiru R. Baskaran,
Sri Palani Andavar Arts College,
Palani. | Zoology | Embryology |
| 21. | Thiru K. Baskaran,
Sri Palani Andavar Arts College,
Palani. | Botany | Genetics
Embryology |
| 22. | Thiru R. Bothi,
Vivekananda College,
Agastheeswaram. | Zoology | Biochemistry |
| 23. | Thiru D.A. Chandra Bose,
Scott Christian College,
Nagercoil. | Zoology | Biochemistry |
| 24. | Thiru C. Chandrasekaran,
V.H.S.M.S. College,
Virudhunagar. | Botany | Cytology |
| 25. | Thiru R. Chandrasekaran,
Alegappa College,
Karaikudi. | Botany | Physiology |

26.	Thiru J.S. Chandrasen, Christian College, Martandam.	Zoology	Biochemistry
27.	Tmty. Chandraleksha Joshmsn	Zoology	Cytology Genetics
28.	Thiru P. Chockalingam, Thiagarajar College, Madurai.	Zoology	Physiology
29.	Thiru P. Chockalingam, Thiagarajar College, Madurai.	Zoology	Cytology
30.	Thiru D. Christadas, Scott Christian College, Nagercoil.	Botany	Cytology
31.	Miss Coral D' Monte, Fatima College, Madurai.	Zoology	Biochemistry
32.	Miss E. Cross Bell, Scott Christian College, Nagercoil.	Botany	Embryology
33.	Tmty. Damayanthi Rajadurai, V.V.H. College, Virudhunagar.	Zoology	Physiology
34.	Thiru J.A. Daniel, V.O.C. College, Tuticorin.	Zoology	Biochemistry
35.	Thiru V.S. David Raj, Scott Christian College, Nagercoil.	Zoology	Physiology
36.	Thiru J.K. Devasagayam, V.H.S.N.S. College, Virudhunagar.	Zoology	Genetics
37.	Thiru P. Devasagayam, St. John's College, Palayamkottai.	Botany	Genetics
38.	Thiru A. Deva Sobhana Raj, Scott Christian College, Nagercoil.	Zoology	Biochemistry Physiology

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| 39. | Thiru P. Deva Sobhan Raj,
St. John's College,
Palayamkottai. | Zoology | Embryology |
| 40. | Thiru S. Davis,
Christian College,
Martandam. | Zoology | Physiology |
| 41. | Thiru R. Dinakaran Michael,
American College,
Madurai. | Zoology | Biochemistry |
| 42. | Thiru S. Duraiswamy,
V.O.C. College,
Tuticorin. | Zoology | Genetics
Cytology |
| 43. | Thiru Earnest Thayasingh,
Scott Christian College,
Nagercoil. | Botany | Genetics |
| 44. | Thiru J. Ebenezer,
Christian College,
Martandam. | Botany | Physiology |
| 45. | Mrs. Edilt Juslin,
Holy Cross College,
Nagercoil. | Zoology | Genetics |
| 46. | Thiru S. Edwin,
American College,
Madurai. | Botany | Cytology |
| 47. | Mrs. Flora David Raj,
Lakshmipuram College,
Pallathur. | Zoology | Physiology |
| 48. | Miss Florence Mary,
Holy Cross College,
Nagercoil. | Zoology | Cytology |
| 49. | Thiru S.V. Ganapathy Raman,
K.G.S. Arts College,
Srivaikundam. | Botany | Cytology |
| 50. | Thiru R. Gandhi,
A.P.S.A. College,
Tirupathur. | Zoology | Embryology |
| 51. | Thiru George Rajendran,
Arignar Anna College,
Aramboly. | Botany | Embryology |

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|-----|--|---------|--------------------------|
| 52. | Miss Gita Paul,
Fatima College,
Madurai. | Zoology | Genetics |
| 53. | Miss T. Gomathy,
Lady Doak College,
Madurai. | Botany | Cytology
Physiology |
| 54. | Miss V. Gomathy,
Sarah Tucker College,
Palayamkottai. | Zoology | Physiology |
| 55. | Miss P. Hansraj,
Lady Doak College,
Madurai. | Zoology | Cytology |
| 56. | Miss Indrani Samuel,
Lady Doak College,
Madurai. | Botany | Biochemistry |
| 57. | Miss Indrani Michael,
Lady Doak College,
Madurai. | Botany | Genetics |
| 58. | Thiru Indochoodan Thampi,
S.T. Hindu College,
Nagercoil. | Zoology | Physiology |
| 59. | Thiru N. Inbamani,
V.H.S.N.S. College,
Virudhunagar. | Zoology | Embryology |
| 60. | Thiru F. Israel,
Pope's College,
Sawyerpuram. | Zoology | Embryology |
| 61. | Thiru P. Jai Singh,
Christian College,
Martandam. | Zoology | Cytology |
| 62. | Thiru M.R. James,
American College,
Madurai. | Botany | Genetics |
| 63. | Miss Janaki Krishnan,
Sarah Tucker College,
Palayamkottai. | Botany | Biochemistry
Genetics |
| 64. | Thiru F. Jayachandran,
American College,
Madurai. | Botany | Physiology |

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- | No. | Name | Subject | Specialization |
|-----|--|---------|--------------------------|
| 65. | Thiru Jayachandran Joseph
Christian College
Martandam | Botany | Embryology |
| 66. | Thiru Jayachandran Gabriel
American College
Madurai | Botany | Biochemistry |
| 67. | Thiru A. Jayaraman
Madura College
Madurai | Botany | Embryology |
| 68. | Thiru S. Jayaseelan
A. N. J. A. College
Madurai | Botany | Physiology |
| 69. | Thiru P. John Jebaraj
Duraisamy
American College
Madurai | Botany | Embryology |
| 70. | Thiru J. Johnson
Christian College
Martandam | Zoology | Genetics |
| 71. | Thiru M. Johnson Solomon
St. John's College
Palayankottai | Botany | Cytology |
| 72. | Thiru A. T. J. Johnsingh
A. N. J. H. College
Sivakasi | Zoology | Physiology |
| 73. | Thiru. D. Joseph Dharmasingh
Scott Christian College
Nagercoil | Zoology | Cytology |
| 74. | Thiru D. Kasinathan
V. H. S. N. S. College
Virudhunagar | Botany | Physiology
Embryology |
| 75. | Mrs. Kalavathi Thiagarajan
Sarah Tucker College
Palayankottai | Botany | Embryology |
| 76. | Miss. Kasthuri David
Sarah Tucker College
Palayankottai | Botany | Cytology |
| 77. | Thiru S. Kanagavel
Saiva Bhanu Khastriya College
Aruppukottai | Zoology | Embryology |

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78.	Thiru Kasthuri Raj, F Thiagarajar College Madurai	Botany	Biochemistry
79.	Thiru M. Kesary Christian College Martandam	Botany	Embryology
80.	Thiru M. S. Krishnamoorthy Thiagarajar College Madurai	Botany	Physiology
81.	Thiru K. R. Krishnan Thiagarajar College Madurai	Zoology	Genetics
82.	Thiru S. Krishnan Madura College Madurai	Botany	Biochemistry
83.	Miss Leela Judnis Holy Cross College Nagercoil	Zoology	Biochemistry
84.	Miss P. Leelambika St. Mary's College Tuticorin	Botany	Biochemistry
85.	Thiru Lionel Thomas St. John's College Palayankottai	Botany	Biochemistry
86.	Thiru Loviah Joseph Scott Christian College Nagercoil	Zoology	Genetics
87.	Thiru S. Madaswamy Pioneer Kumarasamy College Nagercoil	Zoology	Genetics
88.	Miss S. Nageswary St. Mary's College Tuticorin	Zoology	Embryology
89.	Thiru A. Mani R. D. M. College Sivaganga	Zoology	Biochemistry
90.	Thiru R. M. Manickan Alagappa College Karaikudi	Botany	Cytology

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91.	Mrs. Manohar Daniel V. V. V. College Virudhunagar	Zoology	Embryology
92.	Miss Marina Prena Seethalakshmi Achi College Pallathur	Zoology	Genetics Embryology
93.	Miss Mary Richard Holy Cross College Nagercoil	Botany	Physiology
94.	Miss Mary Vasantha, S. Fatima College Madurai	Zoology	Cytology
95.	Thiru AN. Meyyappan Alagappa College Karaikudi	Zoology	Cytology
96.	Thiru T. S. Murugan M. D. T. Hindu College Tinelveli	Zoology	Physiology
97.	Miss Muthammal St. Mary's College Tuticorin	Zoology	Genetics
98.	Thiru M. S. Muthiah St. John's College Palayankottai	Zoology	Cytology
99.	Thiru J. Muthukrishnan Palani Andavar Arts College Palani	Zoology	Biochemistry
100.	Thiru M. H. Martin St. John's College Palayankottai	Zoology	Biochemistry
101.	Thiru V. Nagappan Alagappa College Karaikudi	Zoology	Physiology
102.	Thiru P. S. Narayanan V. O. C. College Tuticorin	Botany	Biochemistry Physiology
103.	Thiru S. Narayanan K. G. S. Arts College Srivaikundam.	Botany	Biochemistry Embryology

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104.	Mrs. Natchiarammal, Sri. Meenakshi Govt. Arts College Madurai	Zoology	Physiology
105.	Thiru P. Natanaraj Alagappa College Karaikudi	Botany	Embryology
106.	Thiru N. Natasen Vivekananda College Agastheeswaram	Zoology	Cytology
107.	Miss Nirmala Paul Lady Doak College Madurai	Zoology	Physiology
108.	Miss Nirmala Samuel Lady Doak College Madurai	Zoology	Embryology
109.	Mrs. Olive Rawlin Lady Doak College Madurai	Zoology	Genetics
110.	Thiru S. Palaniappan Alagappa College Karaikudi	Zoology	Genetics
111.	Tmt. P. Panchaly Thiagarajar College Madurai	Zoology	Physiology
112.	Thiru V. Paravaikarasu Pillai Trigna Anna College Aramboly	Botany	Cytology
113.	Miss K. Parvathi Sri Meenakshi Govt. College Madurai	Zoology	Embryology
114.	Thiru R. Pitchairaj Palani Andavar Arts College Palani	Zoology	Physiology
115.	Miss Premila Devi St. Mary's College Tuticorin	Botany	Embryology
116.	Thiru R. S.P. Radha Thiagarajar College Madurai	Zoology	Biochemistry

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117.	Miss Radha K. Nair Sri Parasakthi Arts College Courtallam	Botany	Genetics Embryology
118.	Thiru P. Rajagopal Palani Andavar Arts College Palani	Botany	Cytology
119.	Thiru K. Rajakumar V.H.S.N.S. College Virudhunagar	Botany	Genetics Biochemistry
120.	Thiru K.K. Rajan P.S.A. College Tirupathur	Zoology	Cytology Physiology
121.	Thiru M.V. Rajendran St. Xavier's College Palayankottai	Zoology	Biochemistry Embryology
122.	Thiru Rajunarayanan G.V.N. Arts College Kovilpatti	Botany	Physiology
123.	Thiru T. S. Ramachandran A.N.J.A. College Sivakasi	Botany	Embryology
124.	Tmt. Rajamani Muthiah Sri Parasakthi Arts College Courtallam	Botany	Physiology
125.	Thiru D. Ramalingam K.G.S. Arts College Srivaikundam	Botany	Genetics
126.	Thiru S. Ramalingam R.D.M. College Sivaganga	Zoology	Genetics Physiology
127.	Thiru S. Ramaswamy M.D.T. Hindu College Tinneveli	Zoology	Embryology Cytology
128.	Thiru H. Ramaswamy Mlagappa College Karaikudi	Zoology	Embryology
129.	Thiru M. Ramaswamy M.D.T. Hindu College Tirunneveli	Zoology	Genetics

130.	Thiru Ramaswamy Thiagarajar College Madurai	Botany	Embryology
131.	Thiru S. Ramaseshan Madura College Madurai	Zoology	Physiology
132.	Thiru C.R. Richmonds American College Madurai	Zoology	Physiology
133.	Thiru T.K. Renganathan V.O.C. College Tuticorin	Zoology	Physiology
134.	Thiru N. REngasamy Sri Palani Andavar Arts College Palani	Botany	Physiology
135.	Miss A. Rosalee Sarah Tucker College Palayankottai	Botany	Physiology
136.	Thiru N.H. Sabban Hussain V.O.C. College Tuticorin	Zoology	Embryology
137.	Thiru N. Samaiah Lakshnipuran College Neyoor	Zoology	Genetics

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- 138. Thiru C. Sankaranarayan Zoology Biochemistry
V.H.S.N.S. College
Virudhunagar

- 139. Miss Santhalkumari Botany Genetics
Lady Doak College
Madurai

- 140. Miss K. Shanthini Botany Embryology
Lady Doak College
Madurai

- 141. Tmt. Saraswathi Anna Zoology Genetics
Vivekenanda College
Agastheeswaram

- 142. Mrs. Saroja Sebasan Zoology Embryology
Parasakthi Govt. Afts
College
Courtallam

- 143. Miss Sarojini Menon Botany Physiology
St. Mary's College
Tuticorin

- 144. Thiru A. Sasthanakutty Botany Biochemistry
Pillai
S. T. Hindi College
Nagercoil

- 145. Thiru R. Selvaratinam Zoology Physiology
Fernande
St. Xavier's College
Palayankottai

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| 146. | Thiru A.M. Selvaraj
Pioneer Kumaraswamy
College
Nagercoil | Zoology | Physiology |
| 147. | Thiru S. Shunmugasundaram
V.O.C. College
Tuticorin | Botany | Genetics |
| 148. | Thiru D. Shanmugavel
V.O.C. College
Tuticorin | Botany | Embryology |
| 149. | Tmt. T.A. Shelly
S.T. Hindu College
Nagercoil | Zoology | Cytology |
| 150. | Thiru K.L. Shyam Sundar
Sri Palani Andavar Arts
College
Palani | Botany | Biochemistry |
| 151. | Thiru A. Selvaraj
G.V.N. Arts College
Kovilpatti | Botany | Embryology |
| 152. | Thiru P. Sivarama-
krishnan
M.D.T. Hindu College
Tirunneveli | Zoology | Biochemistry |
| 153. | Thiru K. Sivasubra-
manian
S.T. Hindu College
Nagercoil | Zoology | Embryology |

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| 154. | Thiru N. Sivasamy
Thiagarajar College
Madurai | Botany | Genetics |
| 155. | Thiru K.M. Somasundaram
Alagappa College
Karaikudi | Zoology | Biochemistry |
| 156. | Thiru K.R. S. Subbiah
R. D. M. College
Sivaganga | Zoology | Cytology |
| 157. | Thiru G. N. Subbiah
Thiagarajar College
Madurai | Zoology | Embryology |
| 158. | Thiru G. Subramanian
Madura College
Madurai | Botany | Genetics |
| 159. | Thiru M. Subramania
Pillai
S. T. Hindu College
Nagercoil | Zoology | Biochemistry |
| 160. | Thiru T. Sriganesan
Madura College
Madurai | Botany | Physiology |
| 161. | Thiru K. Srinivasan
Madura College
Madurai | Zoology | Biochemistry |

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162.	Mrs. Sulochana Swamy Rao Sri Meenakshi Govt. College Madurai	Zoology	Cytology Genetics
163.	Miss R. Susila Mary Holy Cross College Nagercoil	Botany	Cytology Embryology
164.	Thiru K. S. Sundarajan Madura College Madurai	Botany	Cytology
165.	Miss. Sylvia Sunder- raj Fatima College Madurai	Zoology	Embryology
166.	Thiru C. D. Thambi das Christian College Martandam	Botany	Genetics
167.	Thiru A. Thangamani Ayyanadar Janaki Annam College Sivakasi	Zoology	Embryology
168.	Thiru V. Thanga- rathinam V.H.S.N.S. College Virudhunagar	Botany	Embryology

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| 169. | Thiru C. Thangumoorthy
S. T. Hindu College
Nagercoil | Zoology | Genetics |
| 170. | Thiru A.K.R. Thilagar
American College
Madurai | Zoology | Cytology |
| 171. | Mrs. Thilaga Johnson
Sarah Tucker College
Palayankottai | Zoology | Biochemistry |
| 172. | Thiru L.J. Thomas
St. John's College
Palayankottai | Botany | Physiology |
| 173. | Thiru Thomas Punitham
St. Xavier's College
Palayankottai | Zoology | Genetics |
| 174. | Thiru A. Vadnani
Vivekananda College
Palayankottai | Zoology | Physiology |
| 175. | Thiru P. Vallinayagam
Thiagarajar College
Madurai | Botany | Cytology |
| 176. | Thiru K. Varadharajan
R.D.M. College
Sivaganga | Zoology | Embryology |
| 177. | Thiru K. Venkataraman
Madura College
Madurai | Zoology | Cytology |

178.	Thiru V.R. Venkata- chalam Mlagappa College Karaikudi	Botany	Genetics
179.	Selvi P. Vijayammal Parasakthi Govt. Arts College Courtallam	Botany	Cytology
180.	Miss S. Vincent Lakshmi puram College Neyoor	Zoology	Biochemistry
181.	Mrs. Virula Nagasamy Seethalakshmi Achi College Pallathur	Zoology	Biochemistry
182.	Sr. Vitalina Mary St. Mary's College Tuticorin	Zoology	Biochemistry Physiology
183.	Thiru H. D. Wesley St. John's College Palayankottai	Zoology	Genetics
184.	Miss N. Whiting Lady Doak College Madurai	Zoology	Biochemistry
185.	Thiru A. Winfred American College Madurai	Zoology	Embryology

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|------|---|---------|------------|
| 186. | Thiru L. Kesavan
V.O.C. College
Tuticorin | Botany | Cytology |
| 187. | Miss Mary Alphonse
Fatima College
Madurai | Zoology | Physiology |
| 188. | Thiru K.G.
Sivaramakrishnan | Zoology | Genetics |

Annexure VI to Item No.

Report of the Expert Committee appointed to evaluate the University Leadership Project in Mathematics and the follow-up proposals of the Department of Mathematics, Madurai University under the College Science Improvement Programme.

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The University Grant Commission on the suggestion made by the Standing Committee for the College Science Improvement Programme appointed an Expert Committee consisting of the following members to visit the Department of Mathematics, Madurai University to evaluate the various activities initiated by it under the University Leadership Project in Mathematics and also the follow-up proposals to be taken up in the second phase.

1. Professor J.N. Kapur,
Indian Instt. of Technology,
Kanpur.
2. Prof. T.S. Bhanu Murthy,
Madras University.
3. Dr. D. Shankar Narayan,
Additional Secretary,
University Grants Commission.

The Committee visited Madurai University on 18-19th August, 1970. Professor Bhanu Murthy was unable to join the Committee owing to illness.

During the visit the Committee discussed with Head of the Department of Mathematics and Faculty members the various programmes taken up by the department of Mathematics since 1971 under the University Leadership Project of the College Science Improvement Programme. The Committee evaluated the value and usefulness and the impact of each of these programmes on improving undergraduate instruction in Mathematics in the colleges affiliated to Madurai University. The Committee also had discussions with the Vice-Chancellor of the University.

The important activities initiated by the department since 1971-72 included (i) a major programme of re-training of college Mathematics teachers concurrently with the development of curriculum, and upgrading of the syllabuses in Mathematics at the B.Sc. level, (ii) bringing up the college collections of books to the required level to support the updated mathematics programme (iii) providing opportunities to a few college teachers to spend an academic year at the University Department to work towards M.Phil. or get initiated into a research project (iv) holding workshops and seminars on special topics in Mathematics (v) preparation of basic lists of books for reading and reference in relation to the important areas in Mathematics taught at the B.Sc. level and (vi) preparation of lecture notes and other reading materials for use by teachers.

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During the first phase of initial 3 years and subsequently during the current year the department has been able to provide opportunities for over a 100 teachers to attend ten 3 months courses in Algebra analysis and Geometry. The number of teachers attending each such course was 10 to 12. In the short term courses the emphasis has been on seeing mathematics, not as an abstract subject, but as a process so as to give new orientation and sense of purpose to teachers engaged in teaching Mathematics at the college level. The provision of substitute teachers appointed out of the OSIP funds enable colleges to depute teachers to attend these 3 months short term courses.

In addition to these short term courses the department has been able to invite annually 3 teachers to spend an year in the department and work towards an M.Phil. Degree. So far 14 such teachers have been trained under the programme.

The Department Faculty prepared lecture notes for each of these courses and made them available to participating teachers. The department also indicated lists of books which the teachers may read for purposes of preparation for attending these courses. On the basis of the evaluation of the performance of the teachers participating in the short term courses the department feels that nearly 90% of the teachers could be graded as good.

As regards bringing the college library collections upto date and to the required level the progress has been rather slow. The Committee understood that even the books that have been procured so far have remained with the University department in the hope of getting the other books and to present to the colleges a full set. Supplying of the books at any given time after completing a set may not be appropriate and books to the individual colleges could be supplied as and when available. The department would be well advised to distribute the books already available with it immediately to the colleges departments and any further supplies could be sent to the colleges in due course.

The Faculty of the department felt that the University Leadership Project in Mathematics has had a very beneficial impact on improvement of the subject matter competence of the teachers as well as helped in building up the necessary confidence for teaching better Mathematics. It has also generated enthusiasm for Mathematics amongst college teachers. The follow-up proposals proposed would help in further consolidating the benefits resulting from the first phase as well as to complete the work of re-training of teachers in the colleges which have not so far benefited from the University Leadership Project. This programme is expected to be completed in a period of two years.

The Committee considered the follow-up proposals placed before it. The Committee would recommend support from the University Grants Commission for completion of the programme on short term courses for the remaining number of teachers in about 20 colleges.

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The proposal to organise workshops of about one month's duration for purposes of re-vitalisation on the basis of the experience of teachers who participated in the initial phase and preparation of final version of course outlines on small units and problem sets. These workshops will be assisted by curriculum discussion groups of one week duration. The Committee would like to support both these activities.

During the discussions the Committee was apprised of some of the problems faced by the Department in its efforts to improve Mathematics teaching in the colleges. These mainly relate to:(i) constitution of the Boards of studies without involving the University faculty,(ii) hesitation on the part of the colleges administration to release teachers to take advantage of the short term courses offered by the Department,(iii) Lack of guidance to colleges at the time of recruitment of teachers. These and other related problems were brought to the notice of the Vice-Chancellor so that the basic problems of recruitment of suitably qualified teachers, involvement of teachers in framing syllabi and courses of studies, introduction of changes required to modernise the courses of study, syllabuses etc., and some guiding influence from the University Department to the college departments could be looked into and appropriate measures taken. The University department of Mathematics has well qualified staff who have a real concern for college Mathematics and are willing to make sincere efforts for the betterment of teaching mathematics and programmes in the affiliated colleges. The University would be well advised to channelise this effort to its advantage. During the discussions the Vice-Chancellor assured the Committee that he would look into these matters and agreed to call a meeting of the Board of studies immediately and to involve the University department Faculty. He also assured that the curricular changes, and other reforms arising out of the University Leadership Project would be suitably incorporated into the syllabi etc., to be framed by the Board of Studies.

On the basis of the discussions which the Committee had and the evaluation of the activities so far undertaken, the Committee would like to recommend to the University Grants Commission financial support for the following activities to be taken up by the Departments during the course of the 2 years.

1. Continuation of the existing programme of short term courses as well as one year academic programme for college teachers in Mathematics. Rs.1,00,000/-
2. University departmental requirements for continuation of the staff recruited. Rs.1,00,000/-
3. Mathematics workshops on specialised topics. Rs. 50,000/-

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4.	Curriculum discussion group.	Rs. 10,000/-
5.	Printing of educational material.	Rs. 5,000/-
6.	Contingencies etc.,	Rs. 10,000/-
7.	Supply of books to the 20 colleges, yet to be covered.	Rs. 60,000/-
	Total:	<u>Rs. 3,35,000/-</u>

Any other activities which the department proposes to initiate could be considered as part of the Faculty Improvement Programme of the University to be supported by the University Grants Commission. If during the course of these 2 years the department is able to take up the work relating to production of text materials the Commission may consider such a proposal on its merits and provide additional assistance for the purpose. The normal M.Phil. programme by which a few fresh M.Sc. graduates are enabled to pursue M.Phil. Course should be integrated with the Fifth Plan Development Schemes of the University. The Committee hopes that with the activities to be supported during the follow-up phase the University Department of Mathematics would be able to bring about the necessary reforms in instruction in Mathematics in the colleges affiliated to the Madurai University.

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 27th July, 1975.

27th July 1975

Item No. 7 To consider the recommendations of the Science Research Council with regard to the departmental support for research in the departments of Physics of Aligarh, Panjab and Poona Universities.

1. The Physics panel while considering the major research projects received from universities for support for Science Research decided that in the cases of a few departments which had submitted a number of departmental research projects seeking substantial assistance from the Commission the proposals may be examined by expert committees which could visit these departments. Accordingly expert committees were appointed in respect of departments of physics in Aligarh Muslim University, Poona and Panjab Universities. The reports relating to these three departments were considered by the Science Research Council at its meeting held on 11th July '75 and were recommended for support.

2. The recommendations of the SRC were considered by the Commission at its meeting held on 14th July, 1975 and the Commission desired that these may be considered separately. It was subsequently decided that these may be referred to the Standing Committee on the Centres of Advanced Study/special assistance to selected departments for advice whether these departments may be assisted under general support for Science Research or the present status of the departments would enable them to be invited to participate in the programmes of Centres of Advanced Study/departments of special assistance.

3. The meeting of this Standing Committee which was to be held on 20th September, 1975, had to be postponed and hence its views are not yet available.

4. The Physics panel at its meeting held in Bombay on 18th and 19th August, 1975 reiterated the decision taken by them earlier and requested that Commission may take urgent action on these recommendations as the panel and the expert committee while recommending these grants have made efforts to integrate the research activities of these

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departments and an attempt has been made to give definite direction and thrust to future research programmes. The panel has further indicated that this feature should characterize future support to other departments that may be considered also.

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5. The reports of the committees in respect of these departments enclosed as Annexures I to III.

6. The amount recommended by the Committee for these departments for support of research programmes is indicated below:-

Panjab University Chandigarh	Non-Recurring :	Rs.9 lakhs
	Recurring:	Rs.2.4 lakhs.p.a.
Aligarh Muslim University	Non-Recurring :	Rs.11.90 lakhs
	Recurring :	Rs.1,33,800/- p.a
Poona University Poona	Non-Recurring :	Rs.7.50 lakhs
	Recurring :	Rs.0.75 lakhs p.a

The matter is placed before the Commission for consideration.

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Annexure I to item N o.7

Report of the Expert Committee appointed by the Commission to examine the requirements of Physics Department, Aligarh Muslim University for support of research.

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The Physics Panel, at its meeting held on 28th & 29th October, 1974 while examining the proposals received from Aligarh Muslim University for support of research desired that an expert committee may visit Aligarh and examine these proposals. As per decision of the Panel an expert committee consisting of following members visited Aligarh on 9th and 10th May, 1975:

1. Prof. B.M. Udgaonkar, T.I.F.R., Bombay, Convenor of the Physics Panel.
2. Dr. P.K. Iyengar, B.A.R.C., Bombay.
3. Dr. D.R. Rao, I.I.T., Kanpur

The Committee was accompanied by Sri A.G. Deshmukh, Education Officer, University Grants Commission.

The Committee had discussions with the Head of Department and other staff members and examined in detail the facilities available and future programmes proposed by the Department.

The Department had originally requested grant amounting to Rs.78.33 lakhs for the support of research during the Fifth Five Year Plan period.

General Background, Observations and General Recommendations:

1. The Department lists the following major research groups:

- i) Spectroscopy
- ii) Low Energy Nuclear Physics
- iii) High Energy Physics
- iv) Theoretical Physics

It also lists minor research groups in Biophysics, Solid State Physics, Plasma Physics and Electronics.

2. The total staff strength of the Department is : 3 Professors (1 vacant), 11 Readers and 19 Lecturers. The Department has at present 55 research students. It conducts both undergraduate and postgraduate courses and also has a M.Phil programme. The average teaching load of the staff is about 10 periods per week.

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3. The Department has produced 36 Ph.D's during the last 10 years. Their distribution is as follows: 11 in Experimental Nuclear Physics, 10 in Spectroscopy, 6 in Electronics, 7 in Cosmic Rays and High Energy Physics and 2 in Theoretical Physics. The current rate of Ph.D's is about 4 or 5 per year.

4. The Department so far has had no ear-marked research grants except for the contingency grant of research students. The departmental budget is Rs.1 lakh per year, to cover both teaching as well as research needs. The Department has received about Rs.1.8 lakhs over the last 5 years from various schemes, and it also received equipment worth about \$ 2,00,000 under the U.S. Dollar Loan Scheme. The U.G.C. has recently provided a grant of Rs.2,21 lakhs for installation and for obtaining accessories for this equipment as also for the posts of 2 engineers (one electronics and one mechanical) and 2 technical assistants.

5. The research programmes in the Department are by and large individual-based, and the research activities do not seem to have developed on a planned basis, and the Department does not give an appearance of having yet established coherent research groups in the major research areas listed by it. This is all the more true of the minor research areas listed by it. While the situation may be due to the fact that no substantial research grants have been available to the Department in the past, the Department will now have to make an effort to define a few selected thrust areas of research for concentrated effort, by bringing together various individuals and sub-groups working in related areas, so that with the assistance recommended by this Committee, the Department may be able to make an impact over the next few years. The Committee did notice that some thinking in this direction had already started.

6. One notices a tendency in the Department to introduce a large number of specialisations in the M.Sc. programme so that the special areas of different members of the staff may be represented. It would be desirable for the Department to have a fresh look at the options offered at the M.Sc. level and consider whether all of them should be continued. The Department has a M.Phil programme, and some of the options should feature more logically in the M.Phil programme. A reduction in the number of options offered at M.Sc. would lead to a reduction of some of the teaching load of the staff, about which they complained.

7. The V plan Visiting Committee of the U.G.C. has visited the Department recently and its recommendations have yet to be finalised. The Committee was given to understand that the V Plan Visiting Committee is likely to recommend a liquid nitrogen plant as a central facility for all the science departments. The Committee would support the creation of such

a facility in the University. The Physics Department has asked for a grant amounting to Rs.18.66 lakhs within the V Plan allocations of the University as indicated below:

- | | | |
|----|-------------------------------------|---|
| a) | Teaching Posts | 2 Professors, 2 Readers & 3 Lecturers. |
| b) | Non-teaching posts | 1 Office Supdt. & 1 Clerk |
| c) | Technical and supporting Lab. Staff | 2 Tech. Assistants, 1 Electronic Engineer & 6 Lab. Attendants |
| d) | Workshop | 2 Mechanics & equipment
Rs.1 lakh |
| e) | Equipment | Rs.2 lakhs. |
| f) | Building | Rs.3 lakhs |
| g) | Innovative teaching | Rs.4 lakhs. |

In view of the large equipment needs placed before the present Committee including those for maintenance of existing equipment, and the paucity of funds for support of research activities, the Committee was surprised to note that the Department had asked for only Rs.2 lakhs for equipment under the V Plan, and had preferred to ask for Rs.3 lakhs for building.

8. Space:

Apart from the building requirements of Rs.3 lakhs placed before the V Plan Visiting Committee, a request for additional space of about 800 sq.ft. was placed before the present Committee also. The Committee however feels that the problem of the Department is not of inadequate space but of optimal utilisation of existing space. Considerable space has for example been occupied by equipment not in use. The Department could do well to write off any obsolete equipment and other equipment which could be used after repairs should be urgently got repaired and put to use. The Committee is recommending some grant for this purpose. The Committee feels that with proper rearrangement of various laboratories so as to bring together related research groups, not only the present space needs could be met but this would also facilitate closer interaction among staff members and students working in related areas. In making this rearrangement, the Department may keep in mind the need for stand-by power for certain equipment. The 40 KW generator which is recommended for the Department should be located in such a way that power from it is made available for such equipment without loss of time.

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9. The Committee noted that the Department at present has about 10 room air-conditioners and it has also asked for 10 more air conditioners for proper installation of sensitive equipment. While making a rearrangement of the laboratories mentioned above, the Department could try to arrange to get a few large rooms airconditioned and keep all or most of the sophisticated equipment which needs airconditioning together. This may lead to some saving of space and also of money spent on airconditioning.

10. Library:

The staff members repeatedly complained about inadequacy of funds for purchase of books and journals. It was mentioned that the annual expenditure on journals alone is Rs.66,000 whereas the departmental annual provision is only Rs.40,000. The Department had in the past been forced to purchase books from the contingency grant of research students. The Committee noted that the UGC has already indicated to the University that 20% of the V Plan allocation of Rs.2½ crores should be used for the purchase of books and journals. The University would thus get a plan grant of about Rs.50 lakhs for the purchase of books and journals during the V Plan period. It should therefore be possible to adjust the departmental requirement of books and journals within the amounts likely to be made available for this purpose.

11. Other difficulties faced by the staff members were mentioned to be lack of funds for purchase of computer time, travel grants, absence of trained technical staff, maintenance of sophisticated equipment and variations in power supply. The Committee's recommendation take into account the needs for computer time, travel, technical staff and maintenance of equipment as a general need for the entire department. In view of the frequent break-down in power supply, the Committee recommends that a 40 KV generator be acquired by the Department as a central facility within its Plan allocation. The Department could also consider establishing a centralised unit for stabilizing the power fluctuations. This will be more economical in the long run than having several voltage stabilizers. The Committee recommends that expeditious steps be taken to repair and put to use all the idle equipment unless it is to be written off as obsolete. It also recommends that in future 5% of the grant sanctioned for equipment should be kept apart for maintenance and repairs of the equipment.

12. The Committee noted that the number of research students working in the Department is rather large. Normally it should not exceed more than about 2 or 3 times the number of Professors and Readers in the Department, and it should also commensurate with the research facilities that are available. The optimum size which the Department could accommodate with the existing facilities including those that are now being recommended is about 25 to 30. The Department should try to maintain the number of research students at this level, as students complete their Ph.D. and leave. Reduction in the number of research

students would also reduce to some extent the pressure on space and also on the time of the staff.

13. The Committee feels that, with the expertise already available and with some additional positions recommended later which could be filled out of the V Plan allocations, the Department could build up viable research programmes in the following areas: (a) Low Energy Nuclear Physics, (b) Spectroscopy and Solid State Physics, (c) Theoretical Physics.

SPECIFIC RECOMMENDATIONS WITH REGARD TO DIFFERENT GROUPS

(a) Low Energy Nuclear Physics: In this area the Department has 1 Reader and 4 Lecturers. 2 Lecturers from the Engineering College and some teachers from local postgraduate Colleges are also participating in the research activities. 11 students have completed their Ph.D. so far in this area. The Department has one 150 KV accelerator. The Department has proposed reconditioning this old accelerator. The equipment available in the department is old and outdated, it will have to be replaced with transistorised electronic units that are now available in the country. With the limited facilities available, nuclear physics work done in the Department so far has been concentrated on a neutron reactions and nuclear spectroscopy. To some extent, the Department has also used the Van-de-Graff facilities at BARC. The Department has now proposed not only reconditioning its present accelerator but also fabrication of 1.5 Mev. Van-de-graff machine with support from Prof. A. Chatterjee of Saha Institute of Nuclear Physics. The Department also proposes to use the Variable Energy Cyclotron (VEC) at Calcutta, when it becomes ready. The Committee is not in favour of the proposal to fabricate Van-de-Graff machine. It would recommend that the focus of the nuclear physics work in the Department should be on the use of VEC and it has recommended certain amount for equipment so as to enable the department to develop the infra-structure necessary for enabling the Department to use the VEC effectively.

b) Spectroscopy and Solid State Physics: Spectroscopy is the biggest group in the Department with a staff of 4 Readers, 5 Lecturers, 3 Senior Research Fellows and 14 Junior Research Fellows. It has several facilities like 21 ft. concave grating, vacuum grating spectrograph, microwave spectrometer, NMR and ER units, U.V. Spectrometer, IR Spectrometer. It also has acquired a 35 ft. concave grating which is being set up. So far the programmes in this group have been very much instrument-based and individual-based. The group now proposes to give a new direction to its research programmes with primary emphasis on Solid State Spectroscopy, which is welcome. The group seems to have programmes with maintenance and spares of major imported equipment, and in spite of the recent grants from the UGC, a case

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was again made to us for further maintenance and spares requirements of equipment acquired under the Dollar Loan programme. The Committee would recommend that with the grant recently given by the UGC and part of the amounts recommended by the present Committee, the group should be able to take care of all its needs of spares and accessories and it should not have to ask for more grants from the UGC for the same purpose. Any expansion of equipment or facilities available should be justified in terms of research programmes rather than as a need arising out of the installation and maintenance of the Dollar Loan equipment.

The group has proposed a laser development programme. The Committee however feels that the group should not try to develop lasers, but should concentrate on building spectroscopic instruments for laser based spectroscopy since the technology needed to develop lasers is quite involved and would require rather large inputs of money and manpower. The committee recommends that an expert in laser spectroscopy should be inducted into this group for this programme.

The group in its proposal has mentioned astrophysical interest of some of the studies involved e.g. spectra of highly ionized atoms, molecular spectra, flash photolysis, electron impact studies etc. From the discussions however, the Committee did not get an impression that there was any substantial interest in the group in astrophysics. The group after discussions with the Committee has stated that the main thrust of research in the group will be on Solid State Spectroscopy. The Committee would support concentration of its efforts in this direction rather than picking up stray problems which may be said to have an astrophysical bearing.

The Department has another group in Solid State Physics which works independently and has developed facilities for studies related to Mossbauer effect. It would be desirable for the Spectroscopy and Solid State Physics Groups to develop close interaction. The small group working on the spectroscopy of highly ionized atoms should also develop a close interaction with the main Spectroscopy Group. If these various groups work together and with the new orientation proposed by the staff members, the Solid State Spectroscopy research should become the main area of work for this group. The Committee understands that the Department has a collaboration programme with U.K. universities under IBUC and that Solid State Physics research has been indicated as a first priority programme under the IBUC programme. The Department should take advantage of this programme to strengthen in the direction of solid State Physics. The Committee also recommends that the V Plan positions be utilised for strengthening Solid State Physics by appointing one or two experts in Solid State theory, another in Solid State Experimental Physics and one Laser Spectroscopy area. It noted that the department already has plans in this direction.

(c) High Energy Physics: This group consists of 1 Professor, 1 Reader, 5 Lecturers, 3 staff members of local colleges and 8 research students. The work is largely based upon use of nuclear emulsions, and there is also some work on building a neutron monitor which has been going on with the assistance of DAE scheme terminated in 1973. They have been able to construct only one module of the neutron monitor out of 4 contemplated, and the work has been going at a rather slow pace. In the meantime, with the availability of large number of space probes, the ground monitor system is fast becoming obsolete, and therefore further work in this direction does not seem to be worthwhile. The Committee therefore cannot recommend support for this aspect of the programme. The module which has been constructed by the group so far could be used as a training experiment for the students after a few additions and modifications. The emulsion work also has a rather limited scope and the Committee noted that some of the work was planned to be phased out. While recommending a marginal support for continuation of the emulsion work, the Committee would recommend greater emphasis on the proposed new programmes viz. studies of heavy nuclei of Cosmic Rays, Nuclear Reactions and dating of rocks using solid state detectors and the proposed 'supernova watch' experiment at Ranikhet. The former involves collaboration with TIFR, and the latter would also involve collaboration or coordination with the DAR group at Gulmarg and TIFR group at Ooty. The Committee however, is not recommending any junior research fellowships for either of these programmes. It recommends that the research fellowships of the CSIR and UGC, which are normally available to the Department may be used for the new programmes rather than for some of the current programmes which are being phased out.

(d) Theoretical Physics: The group consists of 1 Professor, 3 Readers, 1 Lecturer who is a Ph.D., and 11 Research Students including four lecturers. The main requirements of this group are additional grants for books and journals and for computer time. As mentioned earlier, the requirements of the Department for books and journals should be met out of the enhanced grant for this purpose being made available to the University under the V Plan. The committee has made recommendations for a substantial grant for computer use to the Department as a whole.

The group has a small nucleus in Astrophysics, and the Committee considered a proposal to expand its programme including a new optional course on Theoretical Astrophysics at the M.Sc. level. There is also a proposal for an additional teacher in Astrophysics area so as to reduce the teaching load on the group. As mentioned earlier, the Committee found it difficult to support the proposal for the new optional course. It would suggest that such optional courses whether in Astrophysics or in Biophysics should be confined to the M.Phil level. An additional teacher in Astrophysics may however be appointed out of the plan positions, if possible to lend support to astrophysics research. With regard to the proposal for analysis of

data obtained under collaboration with NASA and Solar Satellite Project (Harvard College Observatory) and their publication to a journal from the Physics Department at Aligarh, the committee suggests that such a publication proposal may be taken up with INSA. Regarding the proposal to acquire a 6" telescope to provide some experimental exercises to the postgraduate students, it would be much more rewarding to let these few students spend a few days at an observatory e.g. Mafinital using their contingency grants.

The committee noted that apart from the small theoretical group in Astrophysics, some of the other programmes, especially the new programmes proposed by the High Energy Physics Group, have an astrophysical bearing. The Spectroscopy group has also often mentioned the astrophysical relevance of some of the investigations either being done or contemplated. It would be useful for these people to get together and discuss whether the Department has a whole would like to have an increasing concerted effort in the direction of Astrophysics and Space Physics over the years to come.

(e) Minor Areas: The committee is not making any recommendations for support in these areas. Any research proposal in Biophysics may however, be considered on its merit by the UGC. The committee noted that there is no senior person now to organise the work in Electronics and Plasma Physics area. It understands that the work on Plasma Physics is now being slowly phased out. In Electronics, research on speech analysis is being carried out by a few research students. This group suffers from isolation and inadequate hardware backing. The Department will have to inject a senior person to look after this area out of the positions that may be available to it under the V Plan, unless it decides to phase out this programme also. Any support to this area should be made only after some senior teacher interested in speech analysis joins the group, and then on the basis of a specific proposal.

12. Concluding Remarks

The Committee feels that on the whole the Department has a good potential to develop sound research programmes in the areas mentioned, and has accordingly recommended financial support as indicated in the Annexure. The Committee had extensive discussions with the teaching staff in the Department with regard to consolidation and/or reorientation of the existing programmes. It will help if one of the members of the Visiting Committee is requested by the Commission to keep in continuous touch with the Department, visit it from time to time and on the whole monitor the progress of various programmes for which support has been recommended. In particular, the Department may be requested to resubmit a detailed proposal indicating utilisation of the recommended grant within the ceiling, which should be scrutinised by the UGC in consultation with the monitor mentioned above.

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Appendix

The Committee recommends the following for the development of the research programmes in the Department taking into account the central facility and the staff likely to be available from the V Plan allocations.

A. Non-Recurring

Recommendations

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|----|--|-------------|--|
| 1. | Liquid Nitrogen Plant | 0
0
0 | Needs to be met out of the V Plan allocations. |
| 2. | 40 K W Generator | | |
| 3. | Repairs to existing equipment: | | Rs. 50,000 |
| 4. | Equipment: (*) | | |
| | (a) Multichannel Analyser | | Rs. 1.5 lakhs |
| | (b) Nuclear Physics Group | | Rs. 4 lakhs |
| | (c) Solid State Spectroscopy Group | | Rs. 4 lakhs |
| 5. | Miscellaneous needs like Xerox, Calculating Machine, Mathematical Typewriter, etc. | | Rs.40,000 |
| | Total: | | Rs.10.4 lakhs |

B. Recurring

- | | | |
|-----|---|--|
| 1. | Permanent Teaching Staff | The V Plan positions to be utilised for appointments in the following areas:

Theoretical Solid State Physics, Laser Spectroscopy, Experimental Solid State Physics, Experimental Nuclear Physics, Electronics with specialisation in vacuum technology. |
| 2. | Research Associates (2) | Rs.20,000 per year |
| 3. | Visiting Faculty | Rs. 20,000 per year |
| (*) | 5% of the grant recommended for equipment should be kept apart for maintenance, spares and repairs. | |

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<u>B. Recurring (Contd.)</u>	<u>Recommendations</u>
4. Technical Staff	4 positions (2 Engineers and 2 Technical Assistants) have already been sanctioned by the UGC in connection with the utilisation of the Dollar Loan Equipment and 2 Technical Assistants and 2 Mechanics for the workshop are likely to be available under V Plan. The Committee recommends in addition a Technical Assistant (Programming).
Technical Assistant (Programming)	Es. 7,000 per year
5. Computations, including travel.	Rs.20,000 " "
6. Travel to Symposia, Conferences etc.	Rs.10,000 " "
7. Contingencies and consumables for various groups.	Rs.40,000 " "
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Rs. 1.17 lakhs per year	
C. <u>High Energy Physics Project</u>	
(Plastic Track Detectors & Supernova Watch)	
Non-Recurring & Recurring	Rs. 2 lakhs
(a) "Studies of Heavy Nuclei ...using Solid State Detectors"	
Non-Recurring	Rs.30,000/-
Recurring	Rs.10,000/- per year (1 technician and Rs.5000/- per year for consumables, contingencies and travel).
Total:	Rs.60,000 (3 years)
(b) "Supernova Watch"	
Non-Recurring	Rs.1,20,000
Recurring	Rs. 6,600 per year (1 Technical assistant and Rs.3,000/- per year for contingencies and travel)
Total:	Rs.1,40,000

Annexure-II to Item No.7

Report of the Expert Committee appointed by the Commission to evaluate the proposals for support of research received from Physics Department, Panjab University, Chandigarh.

The proposals received from Physics Department, Panjab University Chandigarh for support of research were considered by the Physics Panel at its meeting held on 28th and 29th October 1974 and the Panel desired that these proposals may be examined by an expert committee which may visit Chandigarh for this purpose. As per above decision an expert committee consisting of following members visited Chandigarh on 8th May, 1975:

1. Professor B.M. Udgaonkar,
Tata Institute of Fundamental Research,
Bombay, Convenor of Physics Panel.
2. Dr. M.K. Mehta, B.A.R.C., Bombay.
3. Professor B.L. Saraf,
Rajasthan University,
Jaipur.

The Committee was accompanied by Shri A.G. Deshmukh, Education Officer, University Grants Commission. The Committee met the Vice-Chancellor and had detailed discussions with the Head of the Department and other staff members. The Committee examined the facilities of equipment etc., available in the Department.

1. General background of the Department:

(a) The present staff of the Department consists of 21 teachers. (4 Professors, 7 Readers and 10 Lecturers). One post of Professor is at present vacant. The Department also normally has 2-3 CSIR Pool Officers working there.

(b) The Department lists the following areas of research:

Major areas:

- i) Nuclear Physics (2 Professors, 1 Reader, 3 Lecturers)
- ii) Particle Physics and Cosmic Rays (1 Professor, 1 Reader, 3 Lecturers)
- iii) Solid State Physics (2 Readers)
- iv) Mass Spectrometry and Radiometric dating (1 Professor, 1 Lecturer)
- v) Theoretical Physics (3 Readers, 2 Lecturers)

Minor areas:

- i) Ionospheric Studies (1 Reader)

(c) There are 27 research students working at present. 7 of those have completed or are nearing completion of their thesis work. The Department has produced 16 Ph.D's so far since 1967 (List attached at Annexure-I). The staff members of the Department have published more than 200 research papers during last ten years.

(d) The Department conducts B.Sc. (Hons. School) and M.Sc. course also. There are about 100 students in these courses, out of these 30 students are in M.Sc. final year. The teaching load of the staff members is on an average about 12 hours per week. The Department is known for its good M.Sc. teaching programme.

The Department has organised several UGC Summer Institutes, and has recently been selected by the UGC for the COSIP-ULP Programme. The Department is considering starting of M.Phil. courses of one year's duration after M.Sc., for its Ph.D. students, during the Fifth Plan period.

(e) Under the University budget the Department gets about Rs.2 lakhs per annum as maintenance grant in addition to salary of staff.

(f) The Department had submitted a proposal involving grant of Rs.71,40,750 for support of research during the Fifth Plan period.

(g) Major inputs into the Department during the last five years or so:

Rs.10 to 12 lakhs	(value of the Cyclotron received from University of Rochester, USA)
Rs.10 lakhs	(from the UGC for installation of the Cyclotron).
Rs. 3 lakhs	(value of Mass Spectrometer on long-term loan from DAE).
Rs. 2 lakhs	(equipment received by Dr. Srivastava from University of Toronto)
Rs.10 lakhs	(from DAE under various schemes)
Rs. 2.5 lakhs	(Dollar Loan)
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Rs.35.40 lakhs (approx.)	
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The Department over the last several years has had over 30 research projects supported by DAE, ESIR, UGC, PL 480 etc.

(h) On going schemes:

Rs.2.00 lakhs		Block Grant from DAE
Rs. .30 "	per year	For Bubble Chamber project from DAE
Rs. .10 "	" "	For Dr. Bhatia's Project from DAE
Rs.4.8 "		For Dr. Trehan's Scheme which has just started under support from PL 480 - NBS
Rs.1.00 "		For Dr. Pathak's scheme from NSF
Rs. .25 "		For Dr. Govil's scheme from CSIR

(i) The expected V Plan allocations are stated to be Rs.3 lakhs for equipment, and the following staff.

1P + 2R + 1L + 1 Technical Assistant, with the provision that the Department undertakes a programme in laser technology.

Also, Rs.18 lakhs for central facilities, including central workshop and liquid nitrogen plant.

(j) Collaboration with other institutions in the country:

There has been a long standing collaboration with TIFR in the Cosmic Rays and experimental Particle Physics areas; there has been a collaboration with CSIO, Chandigarh in fabrication of some bubble-chamber scanning and measuring equipment, and with Jammu University on the Bubble Chamber programme.

(k) Foreign Collaboration:

There exists an agreement with the Joint Institute for Nuclear Research, Dubna, with regard to the Bubble Chamber programme. There are also plans for collaboration with University of Birmingham, U.K. in the Nuclear Physics area.

(l) The Committee noted that the Department has received a substantial support over the year from the UGC (e.g. to set up the Cyclotron obtained as a gift from the University of Rochester in 1967), from the DAE (for the Nuclear Physics, Emulsion, Bubble Chamber, Spark Chamber and Mass Spectrometer programmes) and from PL 480 funds. The Cyclotron is almost ready to be used for experiments, and the Bubble Chamber, Spark Chamber and the Mass Spectrometer should also start giving results, now that the equipment has been built.

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The Department has fairly good workshop facilities, and has been able to collaborate with CSIO, Chandigarh for the fabrication of some equipment.

2. Recommendations:

(a) The committee has given priority for consolidation of the existing programmes with equipment and, if necessary, with personnel. Those programmes, which are based upon items of equipment which have already been acquired under various schemes during the last few years, have been considered for departmental support. These include Cyclotron and other Nuclear Physics programmes, High Energy Physics programme and Mass Spectrometer programme. The Committee would suggest that any other programmes could be considered separately as individual schemes and/or supported out of the basic annual budget of the Department and the V Plan grants.

(b) The major field of investigations in nuclear physics so far has been in B-r spectroscopy as well in theoretical work. The acquisition and installation of the cyclotron would make nuclear physics one of the major areas of work for the department. The Committee recognised the fact that the Cyclotron has been now made operative and noted with commendation the effort that has been expended in bringing the cyclotron to this stage

It is to the credit of the team which was working on the installation of cyclotron that it could be brought to this stage against a number of odds, and in spite of the delay involved. Although it is still not at a stage where experimental programme can begin right away, the committee felt that this was the proper time to consolidate all the nuclear physics work going on with a view to maximum utilization of the cyclotron. It was the opinion of the committee that the utilization of the cyclotron can be planned in such a way that active experimental programmes can be maintained and can be later extended to the VEC which is now being installed in Calcutta. For example, studies of the reaction ($^3\text{He}, p$) offers a good potential with this machine and the expertise gained in this investigation could then be utilised in carrying out programmes of single or two nucleon transfer reactions with heavy ions at the VEC. The expertise and competence developed through the B-r spectroscopy programme so far, could easily generate a nuclear spectroscopy programme through the (p, p, r), (p, r), (p, lr) reactions on the present machine and which can evolve into a similar programme with (l, x, n, r) type of reaction studies at the VEC. The committee would like to emphasise that the planning of nuclear physics programmes now should be pursued with two fold motivation - (1) to have very active programmes on the present machine and (2) proper programmes with VEC which would come out as a natural extension of the programmes with this machine. In this respect as the activity on the cyclotron would increase, some of

the older existing programmes may be phased out gradually. With this in mind the committee has recommended funds for adequate instrumentation to support the consolidated nuclear physics programme. Funds for the support of the theoretical work are recommended separately.

(c) The committee was not in favour of supporting the proposal 'Non-destructive Elemental analysis.....by X-ray fluorescence technique' (setting up of facilities) by P.N. Trehan. It feels that the energies of all nuclear physicists in the department should be concentrated on making an optimal use of the cyclotron, and later they should try to make use of VEC to the extent possible.

(d) The Bubble Chamber programme has been supported by the DAE for several years and this support will come to an end on March 31, 1976. One phase of the programme, of fabrication of scanning and measuring equipment, is over, and the committee recommends that the recurring expenditure (about Rs.60,000 per year) on this programme (on the existing basis plus Rs.15,000 in addition for computation and Rs.10,000 for needs of collaboration with Dubna) be taken over by the UGC from April 1, 1976. In doing so, the Committee does not see any need to take over the Junior Research Fellow. The Department may encourage the present incumbent to apply for the CSIR/UGC/DAE Fellowship.

This group has a collaboration programme with Dubna. The Committee recommends its inclusion by the UGC in the Indo-USSR bilateral programmes.

Bubble Chamber programme is an organisation-intensive competitive activity. Its success will depend on a close collaboration between the Chandigarh group and the Jammu group - neither of which is viable by itself. They will have to ensure that a common programme is worked out, the scanning and measuring responsibilities are shared appropriately, so that an adequate number of pictures are processed within a reasonable period so as to be able to bring out research papers of value. The DAE support over the years has enabled these groups to build the necessary infrastructure. They should now increase the tempo of activity and demonstrate that they can do good physics with it (for which recurring support has been recommended), before their request for adding any more scanning or measuring units can be considered.

(e) Mass Spectrometer: The Department has recently acquired a mass spectrometer from DAE, and this is now functioning, and work on geo-chronology is in progress. The group has proposed modifications in this instrument in order to be able to carry out geo-chronology work with a higher degree of sophistication. The committee felt, however, that the group should be able to provide some good research results with the existing equipment, before their requests for substantial additional investment can be considered. It has, however, recommended

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Rs.50,000/- to enable the group to carry out the present programme and introduce small modifications that may be necessary in the system.

(f) The committee noted that there exists a Vacuum Ultraviolet Spectrometer which has been lying idle for several years. A case was made to the committee that a Readership be made available to the Department so as to be able to use this instrument. The committee, however, feels that programme based on this instrument would not fit the rest of the programmes of the Department, and that instead of starting an isolated activity in this area, the Department should rather give this instrument to the UGC for placement at some other suitable location.

(g) The Committee noted that certain academic personnel would be necessary in order to strengthen the existing programmes e.g. while there are three persons in theoretical Solid State Physics (1 Reader and 2 Lecturers), there is only one person each in theoretical Nuclear Physics and theoretical Particle Physics. It will be desirable for the Department to acquire a theoretician (phenomenologist) in Particle Physics area, so as to give theoretical support to the Bubble Chamber programme. It will also be desirable for the Department to have one or two theoretical nuclear physicists. The positions that will become available to the department under V Plan and the existing vacant positions in the department could be used for this purpose. The Department could also be strengthened with an experienced experimentalist in the Nuclear Physics area so as to make optimal use of the cyclotron. It will also help if an experienced physicist in the bubble chamber area is added. In the view of the committee, strengthening the existing programmes as above should have priority over starting a new area like laser technology under the V Plan. The committee does not see any need to recommend additional academic positions under the departmental research support (over and above the expected positions under V Plan).

(h) The Department should attempt to bring about a greater cohesion in its research programmes. For this purpose, the groups should be held together, and in fact reinforce one another, by the physics they are interested in, rather than be separated by the techniques they employ or topics they study (e.g. High Energy Physics, without undue emphasis on Imulsions, Spark Chamber, Bubble Chamber etc.; or Nuclear Physics instead of cyclotron studies, hyperfine fields, B-spectroscopy etc.). Within each group, there has to be a vigorous seminar activity.

(i) The Committee recommends that the number of research students in the Department should be commensurate with the research facilities available, and should not in any case exceed 25 to 30 including the research fellows who may be under various research schemes.

(j) The Department has made a case for certain floating positions. The Committee recommends that 4 Research Associateships and 4 Junior Research Fellowships may be placed at the disposal of the Department. These may be suitably distributed among the various areas in theoretical and experimental physics. It should always be clearly understood that the Research Associateships are not permanent positions but may be continued only for a period not exceeding 3 years. Further, the purpose of giving the Junior Research Fellowships is to allow for a certain flexibility and to enable the Department to recruit research fellows when students leave after a Ph.D. or when a new programme might suffer if one waits until the allotment of the CSIR/UGC/DAE fellowships. While the Department may make the initial appointments under the Junior Research Fellowships thus provided, efforts must be made to transfer them to UGC/CSIR/DAE Fellowships within a period not exceeding 2 years. If the Junior Research Fellowships are chosen with care, there should be no difficulty in their competing for these open fellowships.

3. Financial recommendations:

4. Non-recurring

Nuclear Physics:

(a) Cyclotron use, including Detection system and Data gathering and Processing Systems.

	Rs.
i) He ³ Pumping System	25,000/-
ii) Scattering Chamber	10,000/-
iii) Digital frequency meter	10,000/-
iv) Flux meter	30,000/-
v) Beam Line	70,000/-
vi) Voltage stabilizer	15,000/-
vii) Diesel generator 20 KVA	50,000/-
viii) Leak Detector	20,000/-

Dectector system:

i) Beam current integrator	5,000/-
ii) Ge-Li Detector (one)	70,000/-
iii) NaI (Tl) one 5" x 5"	55,000/-

iv)	Surface Barrier Detector(2 sets)	20,000/-
v)	Multichannel Analyser 4096	1,50,000/-
vi)	Target making assembly	30,000/-
vii)	Modular Electronics (dE-Egammarays)	
	i) Bin & Power supply-2	15,000/-
	ii) Amplifiers (active filter)-3	18,000/-
	iii) Pre-Amplifiers (3)	12,000/-
	iv) Cross-Over pick off units (3)	12,000/-
	v) Single Channel Analysers (strobed) - 3	15,000/-
	vi) Fast coincidence circuit	6,000
	vii) Time to pulse height convertor (one)	10,000
	viii) Scalers (6)	40,000
	ix) Detector power supplies	15,000
	x) Power supplies	6,000
	xi) Time pick off units (2)	5,000
	xii) Biased amplifiers (1)	5,000
	xiii) Pulse Stretcher (2)	10,000
	xiv) Constant fraction time to pulse height converter	12,000
xv)	Partial identifier (1)	55,000
xvi)	Delayed amplifier (1)	4,000

Rs 7.3 lakhs- Panel recommendation Rs 6.0 lakhs.

b) Nuclear Spectroscopy :

i)	Scalers and Electronics components	30,000
ii)	Protonmultiplier tubes with plastic crystals (2)	12,000
		<u>Rs. 42,000</u>

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c)	Ion Implantation (This is for continuation of work on the development of ion-source, including travel for consultation to BARC etc. Dr. Govil may make a more specific detailed proposal later for consideration of the UGC)	Rs. 25,000 dropped by panel
d)	Hyperfine Fields	Rs.1,00,000
B.	Mass Spectrometry and Geochronology	Rs. 50,000
C.	Central facilities:	
a)	Fast Oscilloscope	Rs. 50,000
b)	Pulse Generator (2)	Rs. 10,000
c)	Transistor Tester	Rs. 25,000
d)	Liquid Nitrogen containers	Rs. 25,000
		<hr/>
		Rs.1.1 lakh

Total non-recurring: Rs.10.5 lakhs this becomes Rs.9.0 lakhs after Panel meeting.

Recurring

a)	Components and contingencies for the Nuclear Physics Programme.	Rs. 50,000 per year
b)	Bubble Chamber Programme (including computations, and needs of collaboration with Dubna and contingencies)	Rs. 60,000 per year
c)	Chemicals, electronics components and contingencies etc. for Mass Spectrometer programme.	Rs. 10,000 per year
d)	Plastics and chemicals and contingencies etc. for plastic detector programme (including balloon flights)	Rs. 6,000 per year
e)	Liquid Nitrogen (Until the Department gets a Liquid Nitrogen Plant which has been recommended under the V Plan)	Rs. 20,000 per year

Annexure III to Item No.7

Draft Report of the Expert Committee appointed to evaluate the departmental research proposals of the Physics Department, University of Poona.

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The Department of Physics, University of Poona submitted a number of research projects, including a departmental project seeking financial support from the University Grants Commission and these were initially considered by the Physics Panel. The Panel recommended that since these proposals required major support and also represented an effort to adopt an integrated departmental approach to the development of research programmes, it would be desirable for a committee of experts to visit the Poona University to evaluate the research programmes and make necessary recommendations. Accordingly a Committee consisting of the following persons visited Poona University on 15/16th May, 1975.

1. Professor B.M. Udgaonkar
T.I.F.R., Bombay.
2. Dr. M.K. Mehta
BARC, Bombay.
3. Professor H.S. Hans
Punjab University
Chandigarh.
4. Professor K.L. Chopra
I.I.T., Delhi.
5. Dr. D. Shankar Narayan

1. General Observations:

- a) The Committee visited the Department of Physics, its various laboratories and workshop facilities and had discussions with the staff members to acquaint itself with the infrastructure facilities available in the department, the on-going research activities, and the development projects, particularly with regard to fabrication of major items of equipment and to evaluate the research projects submitted by different groups in the context of this information.

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b) The Department of Physics has a permanent staff of 2 Professors, 4 Readers, 6 Lecturers, It has 5 post-doctorals, and about 40 research students, including 10 Demonstrators. It also has necessary supporting laboratory and workshop staff.

c) The department, besides offering the M.Sc. and Ph.D. programmes in Physics, has also been invited by the University Grants Commission to take up a University Leadership Project in Physics for improvement of undergraduate Physics instruction in the college affiliated to the Poona University.

d) The Committee saw evidence of active involvement of the department in the ULP programme - the department has prepared Question Banks, and a large number of panel boards in electronics, which would make it possible to perform about 150 experiments in Modern electronics, were being assembled by college teachers working at the department, when the committee visited it.

According to the information furnished by the department, the general programme of development of research in the department is in the field of materials science, organised in the following sub-sections which are mutually interactive.

- (i) Surface Physics
- (ii) Materials Analysis
- (iii) Opto-Electronics
- (iv) Radiation Physics and Chemistry, Radiology and Radiography, Bio-Physics.
- (v) Space and Atmospheric Physics.
- (vi) Instrumentation
- (vii) Theoretical Physics.

Several staff members have an active interest in more than one subsection.

The Dept. gets about Rs.90,000 per year from Poona Univ. earmarked for research.

f) The Committee understands that the V Plan proposals of the University include the development of a liquid nitrogen facility in the First priority. Similarly, a separate committee has considered the development of computer facilities at the University as a joint facility of the

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University, the National Chemical Laboratory, and the college of engineering. The Department is likely to get the following positions under the V plan:

Two Professors (One in Material analysis or Opto Electronics and One in Atmospheric Physics)

Two Readers (One in Instrumentation and One in Radio Physics & Chemistry or Radiology & Biophysics)

Two Lecturers.

It is also likely to get Rs.6.0 lakhs as equipment grant for the V Plan period.

g) The department has had on-going research programmes in X-ray and optical spectroscopy, and aeronomy. Recently, it has started some research on thin films, and on development of lasers (under a UGC scheme). It has recently acquired - 10 - Mev microtron as a gift from University of California at Berkeley: this has been installed and tested in a temporary location, and will be used for research after shifting to a more spacious room (space needs for this could be met from V Plan allocations) and providing the necessary radiation protection (allocation for which is being recommended below). It has also been engaged in building some equipment around the microtron, and in some work on the development of field on and field omission microscopy. Some work has also been done in the direction of the development of an Anger electron spectrometer, during the recent visit to the York University of one of the members, under the Indo-British Universities collaboration (IIBUC) scheme.

h) All the staff members joined in the discussion with the committee and did so freely. The Committee got a general impression of dynamism, drive and coherence of outlook among the staff in the department. The committee also noted a welcome emphasis on developing an instrument building capability, with the philosophy of building the major instruments required for its future research programmes. It was also good to see that some of the M.Sc. students had been involved along

with the Ph.D. students, in these instruments fabrication programmes. With the efforts being made by the department to establish contacts with the industry around Poona, it hopes that many of them will be able to find a career with the industry.

i) The department is now in the process of defining its thrust research area (s), where the instrumentation capability that has been built up (especially in electron and ion spectrometry) and the microtron that has been recently acquired may be effectively utilised. It has certainly reached a stage where it should be enabled to consolidate the instrument-building expertise that has been developed and to channelize it towards well-defined physics objectives, including possibly R & D objectives. Its proposal is to develop a material science research programme using electron and ion spectrometry. The Committee recommends support for further building the infrastructure in this direction. However, it will be essential for the department at this stage to induct a senior physicist (Professor) in the Material Science area, to help it sharpen its objectives in this direction and provide the necessary leadership to the contemplated Material Science research programme. It would help to add another junior person also in this area. The department will also have to be strengthened by the addition of a solid state theorist and another specialist in electronics. The committee recommends that the department should be expected to utilise the V Plan positions for this purpose.

j) The requirements indicated in the proposals placed before the committee related both to the general over all development and consolidation of the department, and to the requirements of specific research programmes, in particular those relating to the utilization of the microtron and fabrication of certain equipment. There were also a few research schemes which did not belong to either of these categories. The committee has included only the first two types of requirements in its recommendations. Individual schemes (i.e. in atmospheric physics or thin films) will have to be considered separately on their own merits.

2. Recommendations

(a) The Committee felt that the Department should be given adequate support.

(i) to enable an effective utilization of the microtron
(ii) to consolidate the instrument building programme
and (iii) to create the base for a meaningful material science research programme using electron and ion spectrometry, which should be able to take off when the Department inducts a senior scientist in this area, which it should do as soon as possible.

(b) For effective utilisation of the microtron, the Department will need a multi-channel analyser, a scattering chamber and other equipment that will be fabricated and radiation protection.

(c) The proposal for the development and fabrication of a position sensitive detection system (Dr. David) also deserves support in the context of the microtron programme. This programme will be helped if an expert in electronics is appointed at Lecturer level. One of the V Plan positions at lecturer level may be used for this purpose.

(d) The proposal for the development of an Auger electron spectrometer deserves support. This major project will be the primary involvement of Dr. Nigvekar for the next few years. In view of this fact, his proposal for 'the study of leghemoglobin and its derivatives with the help of Mossbauer Spectroscopy' is not recommended for support. It is also noted that Dr. Nigvekar's programme in x-ray spectroscopy will continue at most at the present level with the help of research students and will not be expanded.

(e) The amount recommended for the fabrication of equipment includes a small amount to enable the current Field Ion and Field Emission microscopy work to be brought to a stage where it should be possible for the group in due course to formulate a specific research cum development proposal for separate consideration by UGC or other agencies.

(f) Dr. Sathianandan's laser development programme should continue to be supported on the existing basis for two more years. The research fellows on the scheme should however be transferred to the regular research fellows on the scheme should however be transferred to the regular research fellowships of UGC/CSIR/DAE before the termination of the scheme.

(g) On the whole, the Committee anticipates that consolidation of work in the Department with the assistance being now recommended, would involve some redeployment of existing academic staff, including demonstrators and research students and phasing out of some of the existing activities, so as to enable the department to concentrate on a limited number of well-chosen projects. The department should not increase the number of research students, which is already too large, considering the facilities available. Effort should, in fact be made to keep the number of research students (including demonstrators) working towards a Ph.D.) below 30, for the next few years.

(h) In making these recommendations, the Committee has taken into account the fact that the Department has also made some proposals to DAE and SERC, and is likely to get some support from these agencies.

(i) When students are involved in an instrument building programme, it will be useful for the Department to define the objectives more clearly - e.g. whether it is an educational activity or an M.Sc. project for developing certain skills; or it is a project for development of an instrument which will be used in a specific research programme; or it is an instrumentation project for its own sake which, if carried out with sufficient sophistication and innovative inputs, may merit a Ph.D. in technical physics.

3. Financial Recommendations

A. Non-recurring

Liquid Nitrogen Plant	expected to come as a central facility out of the V Plan funds. The Committee supports the inclusion of this facility in V Plan, as a priority item.
Space requirements of Microtron (Approx. 2000 sq. ft.)	to be met out of V Plan allocations.
Multichannel Analyser	Rs. 1.5 lakhs.
Fabrication of Equipment	Rs. 5 lakhs (position sensitive detector - Rs. 1.2 lakhs)

: 7 :

Auger Electron Spectrometer -
Rs. 2 lakhs including the amount
required for transfer of some
equipment built at York.

Other equipment around the
microtron, and for field ion
work -Rs. 1.9 lakh)

Radiation Protection and Health Physics requirements. Rs. 1 lakh

Total Non-recurring: Rs. 7.5 lakhs

B. Recurring (for three years)

For Liquid Nitrogen, including transport (until the central liquid nitrogen facility is created) Rs. 20,000 per year

Technical staff: 2 technical assistants (for Auger electron spectrometer work and position sensitive detector work) Rs. 10,000 per year

Permanent Academic staff: Requirements, as recommended, should be met out of V Plan allocations.

Temporary Academic Staff: One research associate to work on the microtron, and another to help with the material science programme:

Rs. 20,000 per year.

Computer utilisation, including travel: Rs. 15,000/- per year

Contingencies and materials Rs. 10,000/- per year

Total recurring Rs. 75,000/- p.a.

Confidential

University Grants Commission

Meeting:

(92)

Dated: 27-28th October, '75

Item No.8: To consider the report of the Committee appointed by the Commission to examine the proposal of the Banaras Hindu University for setting-up a Computer Centre during the Fifth Plan period.

The Commission at its meeting held on the 9th September, 1974, while considering the recommendations made by the Computer-Committee with regards the computer needs of the universities during the Fifth Plan period, desired that an expert Committee may be appointed to examine the proposal of the Banaras Hindu University. Accordingly, a Committee consisting of the following was appointed:-

- 1) Professor H.N. Mahabala
Head, Computer Centre,
Indian Institute of Technology,
Madras.
- 2) Professor B. Nag,
Computer Centre,
Jadavpur University,
Calcutta.
- 3) Col. A. Balasubramanian,
Electronics Commission
New Delhi.
- 4) Dr.D. Shankar Narayan,
Additional Secretary,
UGC.,
New Delhi.

The Committee visited the Banaras Hindu University on 9th-10th August, 1975. During its visit, the Committee held discussions with the Vice-Chancellor, Deans of various faculties, in this regard. The report submitted by the Committee is attached as annexure.

The main recommendations of the Committee are listed below:-

- 1) The Banaras Hindu University has a vast complex of institutions and faculties and has a sizeable population of research students and faculty members engaged in research programmes.

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As such, adequate computer facility is required. Over the past years, the needs of the University have been partially met by hiring computer-time from other Centres at Kanpur and Delhi. In average per annum Rs.1.2 lakhs have been spent for buying computer-time equivalent to about 600 hours of an IBM-360-44 system

2) The computer Centre should be with a medium size computer system with necessary peripherals with approximate cost as follows:-

i) Non-Recurring

Phase I	Rs.50- 55 lakhs
Phase II	Rs.10 lakhs
Building & air conditioning	Rs.5 lakhs

ii) Recurring:

The ^{personnel} requirements for maintenance and operation of the Computer Centre could be worked out by the Computer Committee on the basis of the Computer system to be obtained. The requirements of the Banaras Hindu University for starting a computer science Department to have necessary academic staff for the purpose should be included by the University in its normal Fifth Plan proposals. The requirements for non-teaching and non-technical staff for the computer Centre may be found by the University within its normal maintenance budget. A major part of the recurring expenditure of running and maintenance of the Computer Centre should be met by the earnings of the Computer Centre by way of (a) charging for the Computer-time (b) savings from the expenditure presently incurred by the University on Computer -time for various purposes (c) consultancy service and selling computer-time to outside users, both educational as well as industrial users. The grant to be paid by UGC could be worked out on a net deficit basis.

3) Till such time, the computer Centre is established

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the University Grants Commission may give an annual recurring grant not exceeding Rs.50,000/- to the University for purchase of computer-time from other Computer-Centres, particularly for its research programmes. This amount may not be utilised for meeting the administrative needs of the University.

The matter is placed before the Commission for consideration.

E.O.(S.R.)

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Annexure to Item No. 8

Report of the Expert Committee appointed to examine the proposal of the Banaras Hindu University for development of computer facilities.

The Banaras Hindu University, earlier in 1972, proposed to set up a Computer Centre by purchase of a suitable computer system required for its research and training programmes. This proposal was initially examined with the help of the Electronics Commission and was considered later by the Standing Committee of the UGC for development of computer facilities in the universities during Fifth Plan period. In accordance with the suggestions made by the Standing Committee, the Commission appointed an Expert Committee consisting of the following members to visit Banaras Hindu University to examine the detailed proposal in this regard and make necessary recommendations to the UGC:-

- (1) Professor H.N. Mahabala,
Head of the Computer Centre,
Indian Institute of Technology,
Madras.
- (2) Professor B. Nag,
Computer Centre,
Jadavpur University,
Calcutta.
- (3) Col. A. Balasubramanian,
Electronics Commission,
New Delhi.
- (4) Dr. D. Shankar Narayan,
Additional Secretary,
University Grants Commission.

The Committee visited Banaras Hindu University on 9th/10th August, 1975. The University had submitted prior to the visit of the Committee a detailed proposal giving information with regard to the various activities of teaching, research and educational administration where computer needs have been felt. This proposal had been prepared by the University with the help of its own committee on the basis of a questionnaire prepared for the purpose of eliciting information justifying the need for development of the Computer Centre in the BHU.

During its visit, the Committee examined the proposal by holding discussions with the Vice-Chancellor and other university authorities, deans of the faculties concerned and other major users of computer facilities in the different faculties. The Committee also visited the different departments to get acquainted with the present level of computer capability, on-going teaching

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and research programmes requiring computer use and also the projected needs for the next few years. The Committee took into account the following criteria in evaluating the University's proposal: (i) Use of computer facility for different purposes, such as, teaching and training, scientific research, consultancy on regional and also on national basis, educational administration (e.g. admissions, examination results and accounting purposes etc.). (ii) extent of computer use already made by obtaining computer time from computer available in the neighbourhood of Varanasi, e.g. IIT Kanpur, Diesel Locomotive Works, Varanasi, TIFR Bombay, Delhi University etc., and the amount spent on hiring such computer time; (iii) nature of research programme undertaken by different departments and the level of computer usage as well as existing computer empability of the faculty (iv) limitations imposed on research programmes due to non-availability of in-house computer facility and (v) management set-up available in the University to ensure maximum utilisation of a computer centre when established in the University. On the basis of these criteria, the Committee made an estimate of the immediate prescriptive needs as well as the projects computer needs for the next five to ten years.

The main observations of the Committee are listed below:

(1) The Banaras Hindu University has a vast complex of institution and facilities, such as, Institute of Technology, Departments of Science and Applied Sciences, Institute of Medical Science, Departments of Business Management, Commerce, Agriculture etc., and has a sizeable population of research students and faculty engaged in research programmes which require adequate computer facility.

(2) The computational needs of the teaching and research community of the Banaras Hindu University have been met partially over the past several years by hiring computer time at the computer centres in Kanpur, Delhi and Bombay. The Department of Electrical Engineering, has recently acquired a TDC-12 System, which besides meeting the needs of the department has also made available sufficient time for research workers from other faculties and departments.

(3) The University and the research workers have spent on an average about Rs. 1.2 lakhs per annum to buy computer time equivalent to about 600 hours of an IBM 360-44 System. In addition to the payment of computer charges, the University has to incur an expenditure of another Rs. 1.00 lakh annually for travel expenses to these computer centres.

(4) The different departments and faculties of the University have over 100 research schemes sponsored by the various agencies, a large number of which require use of appropriate computer systems. The research projects are of a diverse nature and of different levels of computer use. Some of the research programmes involve International collaboration with other countries.

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(5) Lack of an adequate level of computer facilities within the University has imposed apparent limitations on the nature of research programmes undertaken by the faculty.

(6) The small nucleus of computer system in the Department of Electrical Engineering has been fully utilised for its research and teaching programmes. The extent of usage of this small computer system during 1973 and 1974 was approximately 760 hours and 1100 hours respectively. The usage by the Electrical Engineering Department accounted for over 50% of this time. The TDC 12 Computer purchased in 1972, initially had the light duty teletypes; heavy teletypes have been added to enhance the usefulness of the machine continuously.

(7) The University in its proposal has identified well defined programmes for (a) imparting training in computer science to the graduate as well as undergraduate students particularly in the Institute of Technology and the Faculty of Science and (b) to initiate appropriate research programmes as justifiable extensions to existing research activities and requiring use of a medium size computer system. From the routine applications point of view, the University has sufficient load of programmes relating to University admissions, examinations as well as accounting and administrative needs besides cataloguing and information retrieval programmes.

(8) The University has also been able to give due consideration to the level of the computer system to be obtained, including the peripherals and the personal requirements for management of such a computer centre. The University feels that the computer system which can meet the needs of the Banaras Hindu University should be a "general purpose" and "growth-oriented" system. It has also identified the hardware and the software requirements of such a system, which could be developed in two successive phases.

On the basis of the above considerations, examination of the available data furnished by the University and the discussions which the Committee had, during its visit, the Committee makes the following recommendations:

(1) The Committee recognises a fully justified need for development of a computer centre in the Banaras Hindu University. The Computer Centre should be equipped with a medium size computer system with necessary peripherals. An optimum system required for this Centre could be developed in two phases over a period of five years.

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(2) The Computer System with the following features is, therefore recommended to be obtained and the University Grants Commission may make available the grant required for the purpose.

(3) The Computer Centre when developed, besides meeting the needs of the University Departments, should also be available for use by other neighbouring universities particularly Universities in Allahabad, Lucknow Gorakhpur and a few universities in the State of Bihar. It would also have other non-university users particularly industrial users from the industries in the neighbourhood, such as, the Diesel Locomotive Works, Sahu Jain Chemical and Fertilisers, Hindustan Aluminium and Obra Thermal Power Plant.

(4) The personnel requirements for maintenance and operation of the Computer Centre could be worked out by the UGC Standing Committee on the basis of the computer system to be ordered and obtained by the Banaras Hindu University. The Commission may provide necessary assistance for such personnel requirements as well as for installation of the computer system.

(5) The cost of an appropriate building for the Computer Centre and air-conditioning and the installation of the computer should not exceed Rs.5 lakhs.

(6) Requirements of the University for starting a computer science department and to have necessary academic staff for its teaching programmes by utilising the computer centre should be included by the University in its normal Fifth Plan proposals. The expert Committee strongly feels that a postgraduate programme in computer sciences should be initiated at Banaras Hindu University as only with such a programme the inter disciplinary role of the computing facility will be strengthened. The requirements for non-academic and non-technical supporting staff for the Computer Centre should be found by the University within its normal maintenance budget.

(7) A major part of the recurring expenditure of running and maintenance of the computer centre should be met by the earnings of the computer centre by way of (a) charging for the computer time, (b) savings from the expenditure presently incurred by the University on buying computer time for its admissions, examination results, administrative work particularly finances, accounting sections, and also from (c) consultancy services and selling computer time to outside users, both educational as well as industrial

users. Accordingly, the grant to be paid by the University Grants Commission could be worked out on a net deficit basis after determining the personnel requirements of the computer Centre and estimated revenues of the Computer Centre from these different sources.

(8) While utilising the earnings of the Computer Centre to meet partly the maintenance and recurring costs, it would be desirable to set-aside 10% to 15% of such earnings towards building capital fund for adding necessary peripherals and growth of the computer system itself.

(9) Based on the configuration suggested above, the University, in consultation with the Electronics Commission, Government of India and availability of foreign exchange resources may decide upon the manufacture and country of supply for the computer system required for the computer Centre. The system may be developed in two successive phases as indicated above. The appointment of the staff for the Centre may be made progressively with the growth of the use of computer facility.

(10) The Committee would also recommend that until such time the University establishes its own computer centre by purchase of the computer system referred above, the University Grants Commission may give an annual grant not exceeding Rs.50,000/- to the University for purchase of computer time from other computer centres particularly for its research programmes. This amount may not be utilised for meeting its administrative needs of computer facility.

P.T.O.

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APPROXIMATE COST OF
SUGGESTED COMPUTER CONFIGURATION FOR B.H.U.

S. No.	Item	IBM 370/135	R-1030	IRIS-55	ICL 1903 T	B-4700	B-6
<u>Rupees in Lakhs.</u>							
<u>PHASE I</u>							
1.	(a) Central Processor Cycle-time about 1 us.	34.00	36.00	42.00	68.00	60.00	80.00
	(b) Operative Memory 256 K Bytes						
	(c) Associated Selector and Multiplexor Channels.						
2.	Card Reader 1200 or 1000 cards/min.	2.7	1.1	2.83	Individual break up of prices for the ICL and Burroughs computers is not available.		
3.	One-line printer 600-1100 lines/Min.	3.00	2.7	6.2			
4.	Two Magnetic tape Drives with necessary controllers.	6.6	7.9	9.8			
5.	Disc Drives with combined storage of 100M Bytes and corresponding controllers.	7.5	16.4	10.0			
6.	Four Key-Punches and one Verifier	7.5	7.5	7.5	7.5	7.5	7.5
	Total:	<u>55.30</u>	<u>65.60</u>	<u>72.33</u>	<u>69.5</u>	<u>61.5</u>	<u>81.5</u>
	Discount 15%	<u>7.5</u>	<u>9.0</u>	<u>10</u>	<u>10</u>	<u>9</u>	<u>7</u>
		<u>50.0</u>	<u>56.0</u>	<u>62.0</u>	<u>60.0</u>	<u>52.0</u>	<u>74.0</u>

Phase II

	Quantity	Total Price
1. Disc Drive	1	Rs. 3.0 lakhs
2. Key Punch	2	Rs. 0.6 lakhs -
3. Magnetic Tape	250	Rs. 0.6 lakhs -
	Total	<u>Rs. 4.2 lakhs.</u>

Confidential

University Grants Commission

(101)

Meeting:

Dated: 27th & 28th
October, 1975.

Item No. 9: To consider the report of the Committee appointed by the Commission to examine the computer requirements of Panjab University, Chandigarh during the V Plan period.

The Commission at its meeting held on the 9th September, 1974 while considering the recommendations made by the Committee on computers, desired that a committee may be appointed to examine the computer requirements of the Panjab University during the Fifth Plan period. Accordingly, a committee comprising of the following was appointed:-

1. Professor R. Narasimhan,
Head, Computer Group,
Tata Institute of Fundamental Research,
Bombay.
2. Professor H.N. Mahabala,
Indian Institute of Technology,
Madras.
3. Dr.D. Shankar Narayan,
Additional Secretary,
U.G.C.,
New Delhi.

The Committee visited the University on 22nd August, 1975, held discussions with the Vice-Chancellor, various Heads of Departments and representatives of other faculties using computer facilities. The report of the Committee is enclosed as Annexure the main recommendations of the Committee are listed below:-

1. The Computer utilisation in the university at present is quite significant and the computer (IBM-4620) which has served the university over the past 9 years is inadequate in relation to the present level of computer activity, types of research programmes in hand as well as projects for next 5-10 years.
2. The computer needs of the university and other users justify installation of a computer system equivalent to a I.B.M. 360/44 system and which is capable of growth in subsequent phases.

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3. The Committee considered the possibility and desirability of the Panjab University obtaining a computer jointly with other major users in the region. The University could explore this possibility so that about 1/3rd of the cost involved could be found from other agencies and the Commission could provide remaining 2/3rd of the capital cost (say Rs.40-42 lakhs)
4. The Committee has recommended two levels of computer configuration depending upon whether or not funds from other sources could be mobilised by the University.
 - a) System I costing about Rs.40 lakhs could be funded entirely by UGC. This could be further expanded during VI Plan from UGC funds.
 - b) System II could be obtained immediately if the University can find a sum of another Rs.15 lakhs from other sources to supplement the grants given by UGC.
- 5) The University should find necessary space for computer centre within the existing building with some additions and alterations. A sum of Rs.2 lakhs could be provided for installation of computer and additions and alteration in building.
- 6) The needs of the staff and other maintenance costs could be examined separately depending upon system finally acquired by the university. Grants for recurring purposes could be paid on a net deficit basis after estimating the annual income which the university would have by selling computer time.
- 7) The existing computer would be given to some other university in the region after the new computer is installed, as suggested by the Computer Committee.

The financial implications of the recommendations of the Committee would be

I Non-recurring

- | | | |
|----|--|-------------------|
| 1. | Computer | Rs.40 to 42 lakhs |
| 2. | Installation and Building(additions & alterations) | Rs. 2 lakhs |

II. Recurring:

To be decided later depending upon system finally acquired by the University and to be paid on net deficit basis.

The matter is placed before the Commission for consideration

E.O.(SR)

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3. The Committee considered the possibility and desirability of the Panjab University obtaining a computer jointly with other major users in the region. The University could explore this possibility so that about 1/3rd of the cost involved could be found from other agencies and the Commission could provide remaining 2/3rd of the capital cost (say Rs.40-42 lakhs)
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- 5) The University should find necessary space for computer centre within the existing building with some additions and alterations. A sum of Rs.2 lakhs could be provided for installation of computer and additions and alterations in building.
- 6) The needs of the staff and other maintenance costs could be examined separately depending upon system finally acquired by the university. Grants for recurring purposes could be paid on a net deficit basis after estimating the annual income which the university would have by selling computer time.
- 7) The existing computer would be given to some other university in the region after the new computer is installed, as suggested by the Computer Committee.

The financial implications of the recommendations of the Committee would be

I Non-recurring

- | | | |
|----|--|-------------------|
| 1. | Computer | Rs.40 to 42 lakhs |
| 2. | Installation and Building(additions & alterations) | Rs. 2 lakhs |

II. Recurring:

To be decided later depending upon system finally acquired by the University and to be paid on net deficit basis.

The matter is placed before the Commission for consideration

E.O.(SR)

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Annexure to Item No.9

Report of the Expert Committee appointed to examine the proposal of Panjab University, Chandigarh for development of the Computer Centre.

The Panjab University, Chandigarh made a proposal to the University Grants Commission for assistance to acquire for its Computer Centre a larger computer system. The proposal was considered by the UGC Standing Committee for development of computer facilities in the universities during the Fifth Plan period. The Standing Committee noted that the computer needs of Panjab University had grown considerably in recent years and accordingly the existing IBM-1620 Model I Computer was required to be replaced by a better and larger system of the level of a TDC 16. The Standing Committee also felt that the IBM 1620 Computer could be withdrawn and transferred to some other university in the area which may be in need of such a system. This recommendation was considered by the Commission in September, 1974 and it was desired that an Expert Committee may visit Chandigarh to consider the proposal of Panjab University and make necessary recommendations to the Commission. Accordingly a Committee consisting of the following persons visited Panjab University, Chandigarh on 22nd August, 1975:

- (1) Professor R. Narasimhan,
Tata Institute of Fundamental Research,
Bombay.
- (2) Professor H.N. Mahabala,
Indian Institute of Technology,
Madras.
- & (3) Dr.D. Shankar Narayan,
Additional Secretary,
University Grants Commission,
New Delhi.

The Committee had discussions with the Vice-Chancellor, Dean of Instruction, faculty of the Department of Mathematics and Statistics and representatives of other departments using the computer facility. The Committee examined in detail the purposes and extent of usage of the existing computer system 1620-I, present needs of computer facility in relation to the academic training and research programmes as well as educational administration needs of the university and also needs of other institutions and governmental agencies in an around Chandigarh.

The Panjab University, Chandigarh obtained in November 1966 an IBM 1620 Mark I System with a core memory of 20K with 1622 card

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read/punch and 1443 on-line printer as the peripheral units. Other equipment in the Computer Centre includes five automatic punching machines, two verifiers and a sorter. This Computer System has been used by the various faculties and departments of the university as well as research institutions in the region viz., Punjab, Haryana, Himachal Pradesh, Jammu. The number of hours per day of computer use was about 6 hours till 1970 and subsequently it has reached a stable maintenance schedule of 12 hours per day. The Centre felt that with the existing staff and off-line equipment, the 1620 System was being optimally utilised. Nevertheless the computer hours could be extended with appointment of additional staff. The existing computer has served the needs of the university for about nine years so far but the System is in good condition and has probable residual life of another four or five years of optional use. During 1974 about 60% of the computer time was used for academic research and training purposes by research students and staff from about ten departments of the university and the remaining 40% computer time was for miscellaneous purposes including university administration and selling computer time to other users. The number of active jobs on roll currently is 244. The University, since 1973, had an average income of Rs.40,000 per year by sale of computer time to other users.

The Computer Centre, Panjab University located in the Department of Mathematics, has also been engaged in training programmes, both with the purpose of promoting the awareness about the computer system and the usage and also to grow a desired level of technical expertise in programming by research workers and staff. Towards this end, the Centre has provided annually two courses of two weeks duration each in Introductory Fortran and one annual course of about one month in Machine language and SPS mainly to increase the knowledge and versatility in programming and for benefit of research workers. The Centre provides consultation service to non-university users also and has so far built up a library of more than 50 utility programmes in fields, such as, statistical methods, numerical methods, linear programming and CPM/PERT techniques. It also provides a translation facility to users.

According to the information given to the Committee, upto end of 1974 an estimated 53 Ph.D. thesis, 132 M.Sc. dissertations and a large number of research projects and publications were completed with the help of computations done on the existing computer system. The Centre has also realised the limitations to computation with the existing level of computer facilities. The University, therefore, had bought computer time from large computer systems available in Delhi and has spent on an average about Rs.30,000/- for this purpose.

The Committee had some discussions with regard to the nature of research programmes in progress and also the projects research activities of some of the departments. For example, the Department of Physics one of the major users of computer facilities, has a number of research programmes in the areas of theoretical solid state physics, theoretical nuclear physics, experimental nuclear physics and experimental particle physics. The topics of research involve computational problems with minimal memory requirements in the region of 128-K and above. This department itself has an estimate of over 200 hours of computer use per year in terms of an IBM 360/44 System. Similar research programmes have been envisaged in the Departments of Mathematics, Chemical Engineering, Chemistry and some of the Social Science Departments. The other users of the computer system include the Central Scientific Instruments Organisation (CSIR Laboratory), Postgraduate Institute of Medicine, State and Central Government agencies and some industrial, commercial users in the Panjab Region.

On the basis of the discussions, the Committee makes the following observations and recommendations:

- (1) The Panjab University has made use of the existing IBM-1620-I System effectively for its teaching and research programmes and also to build up a recognisable level of computer capability, among its staff and research scholars.
- (2) An IBM 1620-I System which has served the university for the past 9 years is inadequate in relation to the present level of computer activity, types of research programmes currently in progress as well as projected for the next five to ten years.
- (3) The Computer needs of the University and other users sufficiently justify installation of a computer system with larger memory, speed and other related facilities. The present needs would require a system equivalent to a IBM 360/44 System and which is capable of growth in subsequent phases as the computational needs of the University grow in quality and size in future years.
- (4) The University has made a comparative study of the available computer systems, such as, TDC 16, 360/44 and 370/135, R-1030 and other systems available from East Europe, The University desires to obtain R-1040 System, in case it is not possible to get an IBM Computer because of non-availability of foreign exchange required.
- (5) The System configuration suggested by the University would include a CP Unit with 256K bytes operative memory, magnetic tapes of 25M bytes capacity, Magnetic disc units, controls, Card reader, Output card punch, Printer, Plotter etc. The university estimates that the System alongwith necessary peripherals and off-line equipment would cost about Rs.52 lakhs. It has also estimated

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a sum of Rs.10 lakhs for building, air-conditioning, and installation of the System and an annual recurring expenditure of about Rs.2.5 lakhs including the staff for starting courses in computer sciences.

'the (6) The Committee also considered the possibility and desirability of the Panjab University obtaining such a computer jointly with other major users in the region, e.g. the Central Scientific Instruments Organisation of the CSIR and the agencies of the State Government which have a major use of computers for their developmental programmes. The Committee understood that in the case of Poona University, such an effort of joint funding was possible. The university authorities were therefore requested to explore this possibility so that about 1/3rd of the cost involved in the purchase of the computer system could be found by the University through these agencies and the remaining 2/3rds of the capital costs could be provided by the University Grants Commission.(say Rs.40-42 lakhs)

(7) The Committee has accordingly suggested two levels of computer configurations which could be obtained by the University depending upon whether or not funds from other sources could be mobilised by the University. The System I suggested by the Committee could be funded entirely by the UGC at a cost of about Rs.40 lakhs and this System could be subsequently developed in second phase during the Sixth Plan period with further financial support from the UGC. On the other hand, the University could immediately go in for System II suggested by the Committee in case it can find a sum of Rs.15 lakhs from other sources to supplement the grant given by the UGC. As one of the possibilities, besides CSIO, the University could consider giving some of the major non-university users an assured computer time on contract for the next few years and obtain an advance payment and use it towards purchasing the computer system of a higher order i.e. System II.

(8) Although the University has asked for a separate building for establishment of the Computer Centre and has asked for Rs.10 lakhs for the building and installation costs, the Committee does not consider it necessary to provide for a separate building. It should be possible for the University to find necessary space for the Computer Centre within the existing building and perhaps with some additions and alterations. This could be carried out alongwith installation within a sum of Rs.2.00 lakhs.

(9) The needs of staff and other maintenance costs could be examined separately by the Standing Committee depending upon the

system finally acquired by the University. Grant for the recurring purposes could be paid on a net deficit basis after estimating the annual income which the University would have by selling computer time.

(10) The existing 1620-I System could be withdrawn from the University and given to some other university in the region whose computational needs are of the level of this System. This should be done after the new computer is installed.

(11) The actual make, source of supply of computer could be decided in consultation with the Electronics Commission, Government of India, as per usual procedure.

Suggested System Configuration

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	<u>System I</u>	<u>System II</u>
1. Central Processing Unit (See Note 1)	Low performance CPU	High performance CPU
2. Main memory	256 Kilo bytes	256 kilo bytes
3. Disc-pack drives with necessary controller (see Note 2)	3 drives (7.25 Megabytes) each.	3 or 4 29.5 Megabytes each)
4. Magnetic tape drives with controller (Should accept industry compatible tapes, either 7 tracks or 9 tracks. Density of 800 BPI should be available)	2	4
5. Card reader (speed not less than 600 lines per minute)	1	1
6. Line Printer (speed not less than 600 lines per minute)	1	1
7. Disc-packs	10	25
8. Console typewriter	1	1
9. Magnetic Tapes (2400 ft. reels)	50	100

Off-line Equipment

(1) If the available funds limit the purchase to system I shown above, the University should be able to manage with off-line equipment currently available.

(2) If additional funds are available, it will be useful to purchase 3 more key-punches and one verifier.

Calling for Tenders

To obtain good cost estimates and performance comparisons, tenders should be called for and examined at an early date in consultation with the Deptt. of Electronics.

Notes:

Note 1:- R 1030 and Robotron 1040 are the two main contenders for the Poona University Computer Centre. The Polish Computer MERA - ELWRO should also be considered, as it is reported to be quite

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cost-effective. Other East European machines can also profitably be considered.

The 30 as well as the 40 are not available with less than 256 Kilo bytes of memory anymore. The 40 (Robotron) is reported to be distinctly superior in price/performance and this can be verified as soon as the Engineers India machine in Delhi (now under installation) becomes operational.

Minimal 1030 configurations cost between Rs.35 to 40 lakhs and minimal 1040 configurations cost between Rs.50 to 55 lakhs. These estimates assume tax (import duty, sales tax and octroi) exemptions and a 20 to 25% educational discount, all of which should normally be available to any University importing a computer.

Note 2:

The minimum number of drives and the minimum capacity need will vary from manufacturer to manufacturer. The choice should provide for ensuring adequate memory for proper use of the software. A minimum of 3 drives seems essential if the unit capacity is 7.25 Megabytes.

Confidential.

UNIVERSITY GRANTS COMMISSION

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Meeting :

Dated : 27-28th Oct., 1975.

Item No. 10 To consider the proposals regarding implementation of University Leadership Projects in Physics, Chemistry, Biological Sciences and Mathematics under the College Science Improvement Programme (COSIP).

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The University Grants Commission at its meeting held on 10th February, 1975 considered the recommendations made by the Standing Committee on College Science Improvement Programme and agreed that proposals may be invited from the following departments in the Universities mentioned against each for undertaking University Leadership Projects from 1975-76:-

- A. Physics.
- i. University of Bangalore.
 - ii. University of Bombay.
 - iii. University of Gauhati.
 - iv. University of Karnataka.
 - v. University of Kurukshetra.
 - vi. University of Madurai.
 - vii. University of Meerut.
 - viii. University of Ranchi.
 - ix. University of Osmania.
 - x. University of Calicut.
- B. Chemistry.
- i. University of Bangalore.
 - ii. University of Burdwan.
 - iii. University of Gauhati.
 - iv. University of Karnatak.
 - v. University of Saugar.
 - vi. University of Gujarat.
- C. Biological Sciences.
- i. University of Gorakhpur.
 - ii. University of Mysore.
 - iii. University of Sri-Venkateswara.
 - iv. University of Marathwada.
- D. Mathematics.
- i. University of Jodhpur.
 - ii. University of Gorakhpur.
 - iii. University of Saugar.
 - iv. Indian Instt. of Technology, Kanpur-jointly with Kanpur University.

p.t.o.



The proposals from following subject departments of the Universities mentioned against each have been examined and grant have been recommended for undertaking University Leadership Projects:-

- | | | |
|----|----------------------|--|
| A. | Physics. | i. University of Bangalore.
ii. University of Bombay.
iii. University of Madurai.
iv. University of Ranchi.
v. University of Omania.
vi. University of Calicut. |
| B. | Chemistry. | i. University of Bangalore.
ii. University of Karnataka.
iii. University of Gujarat. |
| C. | Biological Sciences. | i. University of Marathwada.
ii. University of Gorakhpur. |

Proposals from other universities will be placed before the Commission in due course.

The proposals indicating certain modifications in the financial requirements, where considered necessary as indicated in Annexure- I to XI are placed before the Commission for consideration.

E.O. (SR)/Addl. Secretary.

(112)

1. Department. Physics.
2. University. Bangalore.
3. Project Coordinator. Prof. K.N. Kuchela,
Head of the Department.
4. No. of participating colleges. 17

5. Activities/Programmes proposed to be undertaken:

Improvement of Curriculum and Courses by modernising syllabus preparation and publication of suitable book material ;improvement in laboratory instruction and organization of refresher and orientation courses for College Teachers. The department also proposes to undertake in service training programme and publication of COSIP News letter. Teachers and bright students from colleges would be provided opportunities for undertaking research work.

6. Financial requirements. (3 Years)

<u>S.No.</u>	<u>Item.</u>	<u>Amount asked for by the Univ.</u>	<u>Amount suggested for acceptance.</u>
<u>(a) Colleges Requirements</u>			
1.	Laboratory Equipment	Rs. 7,99,000	Rs. 2,50,000
2.	Books & Charts	Rs. 34,000	85,000
3.	Stationary for problem sheets, Laboratory instrumentations etc.	Rs. 10,200	10,200
4.	Workshop tools.	Rs. 68,000	68,000
	Total:	<u>Rs. 9,11,200</u>	<u>Rs. 4,13,200</u>
<u>(b) Departmental requirements</u>			
1.	Staff(3 Profs.1 typist One Asstt.Projectionist)	Rs. 2,00,520	Rs. 1,00,000
2.	Honoraria for staff for Summer Programmes.	Rs. 19,800	-
3.	Conveyance charges for inservice programme.	Rs. 51,120	Rs. 51,120
4.	Conveyance charges for Summer programme.	Rs. 40,320	Rs. 40,320
5.	Visit to scientific establishments & industries.	Rs. 3,600	Rs. 3,600
6.	Demonstration equipt.film projector etc.	Rs. 1,60,000	Rs. 50,000
7.	Stationary office, equipt. & publication cost.	Rs. 50,000	Rs. 50,000
8.	contingencies.	Rs. 45,000	Rs. 30,000
		<u>Rs. 5,79,360</u>	<u>Rs. 3,25,040</u>
Grand Total (A +B)		<u>Rs. 14,81,560</u>	<u>Rs. 7,38,240</u> for 3 years.

(113)

2. Department Physics.
 University Bombay
 3. Project Coordinator. Prof.M.C.Joshi,
 Head of the Department.
 4. No. of participating colleges. 41
 5. Activities/Programmes proposed to be undertaken:

Preparation of teaching material for improvement of teaching methods and evaluation system, improvement of laboratory facilities, organization of teachers group meeting. Organization of visits by teachers from the university departments to various colleges, sabbatical programme for college teachers and development of departmental libraries. COSIP Bulletin will also be brought out.

6. Financial requirements:

<u>S.No.</u>	<u>Item</u>	<u>Amount asked for by the Univ.</u> Rs.	<u>Amount suggested for acceptance.</u> Rs.
<u>(a) Colleges requirements:</u>			
1.	Laboratory improvement.	6,00,000	4,00,000
2.	Organization of group meetings for study of special subject.	45,000	45,000
3.	Visit of university teachers to colleges.	15,000	15,000
4.	Development of colleges Libraries.	1,25,000	1,25,000
5.	To bring out COSIP Bulletin	15,000	15,000
		<u>Rs. 8,00,000</u>	<u>Rs. 6,00,000</u>
<u>(b) Departmental requirements.</u>			
1.	Staff (1 Reader, 1 Typist 1 Workshop mechanic, 1 laboratory Technical Assistant)	1,25,000	1,25,000
2.	1 Metal Sheet bonding machine.	5,000	5,000
3.	One almonia printing machine.	6,000	6,000
4.	Workshop tools.	4,000	4,000
5.	Workshop materials.	15,000	15,000
6.	Stationary and Sundry items.	15,000	15,000
7.	Contingency.	30,000	30,000
	Total;	<u>Rs. 2,00,000</u>	<u>Rs. 2,00,000</u>
	Grand Total of (A +B)	<u>Rs. 10,00,000</u>	<u>Rs. 8,00,000 for 3 years.</u>

Annexure-III to Item No. 10

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1. Department. Physics.
2. University. Madurai.
3. Project Coordinator. Prof.K.S.Chandrasekasan,
Head of the Department.
4. No. of participating colleges. 35
5. Activities/Programme proposed to be undertaken.

To conduct basic concept courses and advanced courses on selected topics, development of new experiments, exhibits, demonstrational models, to publish a bulletin, Modernisation of syllabus, examination reforms, Supply of books, equipment to colleges.

6. Financial Requirements:

S.No.	<u>Item.</u>	<u>Amount asked for</u>	<u>Amount suggested for</u>
		<u>by the University.</u>	<u>acceptance.</u>

a) College requirements.

1.	Appointment of substitute lecturers in colleges.	Rs.1,80,000	} } } } }
2.	Distribution of Lab.Kits demonstration equipment, models etc.	Rs.1,80,000	
3.	Distribution of books teaching manuals etc.	Rs. 45,000	
4.	Bulletin.	Rs. 18,000	
5.	Films for distribution.	Rs. 30,000	
6.	Payments to college teachers participating in courses.	Rs.2,44,500	} } } } }
7.	Courses for Technicians.	Rs. 9,000	

b) University requirements.

1.	Publication of equipts., Films etc.	Rs.1,50,000	Rs.1,00,000
2.	Additional teaching and Non-teaching staff.	Rs.1,65,000	Rs.1,05,000
3.	Visiting lecturers, materials components, contingencies etc.	Rs. 78,000	Rs. 30,000

Total:	Rs.10,99,500	Rs. 7,85,000 for 3 years
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Annexure-IV to Item No.

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2419
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1. Department Physics.
2. University Ranchi
3. Project Coordinator. Prof. M.P.Gupta,
Head of the Department.
4. No. of participating colleges. 14.

5. Activities/Programmes proposed to be undertaken:

The Department proposes to strengthen and provide workshop facilities in the participating colleges, invite teachers from participating colleges to spend 3-6 months for research orientation/or for developing instructional materials, bring out information bulletin, provide a bank for different types of instruction of materials. Arranging Summer Schools, Teacher training programmes, refresher courses, improvisation of instructional kits and mobil exhibitions of instructional materials, demonstration kits, books etc. in all the selected colleges.

6. Financial requirements:

<u>S.No.</u>	<u>Item.</u>	<u>Amount asked for by the University.</u>	<u>Amount suggested for acceptance.</u>
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a) College requirements.

1.	Providing workshop facilities and training of workshop personnel.	Rs. 1,21,200	Rs. 1,21,200
2.	Workshop to discuss curriculum reforms, instructional methods & evaluation of answer script of the examinees.	Rs. 1,28,000	Rs. 1,28,000
3.	Bringing out of information bulletin.	Rs. 6,000	6,000
4.	Arranging mobile exhibitions of instructional materials demonstration kits books etc. in selected colleges.	Rs. 10,000	Rs. 10,000
5.	To provide to colleges books audiovisual equipt. and specialised equipment.	Rs. 1,53,600	Rs. 1,53,000
		<u>Rs. 4,18,800</u>	<u>Rs. 4,18,800</u>

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b) Departmental requirements,

1. Providing a bank for different types of instructional material.	Rs. 60,000	Rs. 60,000	
2. Inviting teachers from participating colleges to spend a period of 3-6 months for research orientation/or for developing instructional materials.	Rs. 15,000	Rs. 15,000	
3. Improvisation of suitable instructional kits for undergraduate teaching.	Rs. 1,10,000	Rs. 1,10,000	
4. (i) Honoraria to Project Coordinator	Rs. 9,800	-	
(ii) TA/DA for visiting other ULPS.	Rs. 6,000	6,000	
(iii) TA for inviting distinguished persons from outside to participate in the workshop discussions.	Rs. 9,000	9,000	
Total:	<u>Rs. 2,09,000</u>	<u>Rs. 2,00,000</u>	
Grand Total of (A +B)	<u>Rs. 6,27,800</u>	<u>Rs. 6,18,800</u>	for 3 years

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Annexure-V to Item No.

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|----|--------------------------------|---|
| 1. | Department | Physics. |
| 2. | University | Osmania. |
| 3. | Project Coordinator. | Dr.V.C. Krishna Murty,
Reader in Physics Department. |
| 4. | No. of participating Colleges. | 43 colleges. |

5. Activities/Programmes proposed to be undertaken:

Department proposes to conduct workshop and refresher courses, writing of books covering whole syllabus, fabrication of equipment kits, preparation of laboratory manual and publication of COSIP Bulletin.

6. Financial requirements.

<u>S.No.</u>	<u>Item.</u>	<u>Amount asked for by the Univ.</u>	<u>Amount suggested for acceptance</u>
a) <u>Colleges requirements.</u>			
1.	Laboratory equipment.	Rs. 7,31,000	
2.	Books.	Rs. 86,000	
3.	Workshop tools.	Rs. 1,72,000	
4.	Stationary for problems sheets, Lab. instructions.	Rs. 1,29,000	
5.	Purchase of scientific films.	Rs. 9,000	
6.	Demonstration equipments models, charts for colleges.	Rs. 1,35,000	
	Total	Rs. 12,62,000	
b) <u>Departmental requirements.</u>			
1.	Salary of Coordinator + 20% deputation allowance.	Rs. 72,000	
2.	Salary of 3 Readers.	Rs. 1,26,000	
3.	Administrative and technical staff.	Rs. 95,712	
4.	Stationary, office equipment and publication cost.	Rs. 55,000	
5.	Contingency.	Rs. 30,000	
6.	Honoraria for staff for conducting workshop and refresher courses etc.	Rs. 36,600	
7.	Conveyance charges etc. (TA/DA).	Rs. 1,29,000	
	Grand Total of (A+B)	Rs. 18,03,312	Rs. 8,00,000 for 3 years.

We could agree to ceiling grant of Rs. 8 lakhs and ask the university to indicate the break up.

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P.T.O

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Annexure to item No. 15

Summary of the proposal received for the implementation of University Leadership Project in Physics, University of Calicut.

1. Department Physics
2. University Calicut
3. Project-Coordinator Professor J.C. Palathingal, Head of the Department.
4. No.of participating Colleges 22
5. Activities/Programmes proposed to be undertaken

The major programmes proposed under the project are (i) teachers training (ii) Research participation by selected College teachers; (iii) Curriculum development and examination reform; (iv) preparation of teaching aids and materials and (v) Improvement of facilities in the colleges.

6. Financial requirements(for 3 years)

S.No.	Items	Amount asked for by the Univ.	Amount suggested for acceptance.
		Rs.	Rs.
(a)	<u>College requirements</u>		
i)	Improvement of Laboratory facilities	1,60,000	1,50,000
ii)	Improvement of Library facilities	1,00,000	1,00,000
iii)	Laboratory consumables & fabrication supplies	44,000	35,000
iv)	Miscellaneous	13,000	-
		<u>3,17,000</u>	<u>2,85,000</u>

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(b) Departmental requirements

1) Teachers training.

i) Salary of 3 additional teachers at the University Department.	Rs. 1,15,000	Rs. 1,00,000
ii) Salary of substitute teachers in colleges	Rs. 2,40,000	Rs. 2,00,000
iii) Travel and living costs of teachers on training	Rs. 50,000	Rs. 45,000
iv) Salary of one machinist, one clerk and one Typist.	Rs. 35,000	Rs. 30,000
v) Laboratory Workshop consumables (University Deptt)	Rs. 30,000	Rs. 30,000
vi) Miscellaneous	Rs. 24,000	Rs. 15,000

(2) Research participation by selected college teachers.

i) Salary of substitute teachers in colleges	Rs. 32,000	Rs. 20,000
ii) Travel and living costs of participating teachers.	Rs. 8,000	Rs. 8,000
iii) Computer costs	Rs. 3,000	Rs. nil

3. Curriculum Development & Examination Reform:

i) Salary of one additional teacher at the University Deptt.	Rs. 34,000	nil
ii) Two workshops on curriculum development and examination reforms. (Travel of College teachers & Miscellaneous)	Rs. 20,000	Rs. 20,000
iii) Miscellaneous	Rs. 12,000	Rs. 10,000

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Preparation of teaching
aids and materials

Salary of one additional
teachers of the University
Dept.

Rs. 34,000 Nil

Cost of preparing aids
and distribution:

Rs. 1,11,000 Rs.75,000

Total Rs. 7,48,000 Rs. 5,53,000

Grand total of (a+b) Rs. 10,65,000 Rs. 8,38,000

Annexure IV to Jt. No. 10

1. Department : Chemistry
2. University : Bangalore
3. Project Coordinator: Dr. M. Shadaksharaswamy, Professor and Head of the Deptt.
4. No. of Participating colleges: 20 colleges
5. Activities/Programmes proposed to be undertaken

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The Department proposes to improve the teaching techniques, framing new curriculum, writing of text books, preparation of teachers guide laboratory manuals, Preparations of kits, charts, films, for improving teaching techniques, training of participants in research methodology, arrange special lectures and visits to industries.

6. Financial requirements

(a) Colleges requirements	Amount asked for by them	Amount suggested for acceptance.
(1) Curriculum construction including writing up of text books, teachers guide and lab. manuals.	Rs. 70,880	Rs. 70,880
(2) Faculty improvement Programme	Rs. 1,99,080	Rs. 1,99,080
(3) Improvement of laboratories and workshops of the participating colleges.	Rs. 3,60,000	Rs. 3,60,000
	<u>Rs. 6,29,960</u>	<u>Rs. 6,29,960</u>
 (b) <u>Departmental requirements</u>		
(1) Equipment	Rs. 45,000	Rs. 45,000
(2) Books	Rs. 15,000	Rs. 15,000
(3) Technical Staff	Rs. 12,240	Rs. 12,240
(4) Administrative Staff	Rs. 15,680	Rs. 15,680
(5) Contingencies	Rs. 6,000	Rs. 6,000
Total:	<u>Rs. 91,920</u>	<u>Rs. 91,920</u>
Grand total of (a+b) Rs. 7,21,880		Rs. 7,21,880 for three years.

Annexure to Item No. 10

1. Department : Chemistry
 2. University : Karnatak
 3. Project Coordinator : Dr. E.S. Jaydevappa, Professor and Head of the Deptt.
 4. No. of colleges participating: 49 colleges

5. Programme/activities proposed to be undertaken

The department proposes to undertake faculty improvement programme, short term research projects for colleges teachers in association with University staff, improvement of laboratories, workshop and libraries in colleges. The department also proposes to prepare instruction material, laboratory manuals, model question and question banks.

6. Financial requirements.

7. Colleges requirements	Amount asked for by them	Amount suggested for acceptance
(1) 4 short term courses per year for 30 teachers for 6 days each	Rs. 86,100	Rs. 86,100
(2) Short term research projects for 4 college teachers per year	Rs. 6,000	Rs. 6,000
(3) Special Lectures at colleges(6 teachers)	Rs. 3,510	Rs. 3,510
(4) Improvement of Laboratories, workshops and teaching aid in colleges	Rs. 6,61,500	Rs. 5,00,000
(5) Improvement of college libraries.	Rs. 73,500	Rs. 73,500
(6) Imparting of instruction materials, laboratory manuals, model questions and question bank	Rs. 99,000	Rs. 75,000
Total:	Rs. 9,29,610	Rs. 7,44,110

b) Departmental requirements

(1) Equipment & Books	Rs. 60,000	Rs. 60,000
(b) Academic staff(one Reader, (one Lecturer, 8 part-time lecturers.)	Rs. 1,41,600	Rs. 75,000
(c) Adm. staff & Tech. Staff	Rs. 32,400	Rs. 32,400
(d) Contingencies	Rs. 12,000	Rs. 12,000
	Rs. 2,46,000	Rs. 2,79,400

Grand Total(a+B) 11,75,610

Rs. 9,23,510

1. Department: Chemistry
2. University: Gujarat
3. Project Coordinator: Dr. M.N. Desai, Reader & Head of the Deptt.
4. No. of participating colleges: 31 Colleges

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5. Activities/Programs proposed to be undertaken

The Department proposes to undertake curriculum development examination reform, establishment of question bank, preparation of teachers guide, laboratory manuals supplementary reading materials, Chemistry magazine for teachers and students. Training of teachers from colleges, holding of seminars, Summer School; development of workshop and laboratory facilities in colleges and visits by University teachers to participating colleges are also envisaged by the Department:

(a) Financial requirements

a. Colleges requirements

	Amount asked for per annum Rs. 80,000	Amount recommended per annum Rs. 80,000
1) Improvement of Laboratory facilities (per 10 colleges each year)	Rs. 80,000	Rs. 80,000
2) Library improvement	Rs. 20,000 Rs. 1,00,000	Rs. 20,000 Rs. 1,00,000

(b) Departmental requirements

1) Remuneration to non-teaching staff (one Secretary-cum Clerk, one Lib. Asstt., one Lab. Attendant)	Rs. 16,800	Rs. 16,800
2) Honorarium to Project Coordinator	Rs. 3,600	Rs. --
3) Intensive training	Rs. 45,150	Rs. 41,550
4) Inservice training	Rs. 18,975	Rs. 18,975
5) Seminars-cum-workshops	Rs. 3,400	Rs. 3,400
6) Laboratory expenditure	Rs. 20,000	Rs. 20,000
7) Books for departmental staff	Rs. 3,000	Rs. 3,000
8) Visit by Universities teachers to colleges.	Rs. 1,000	Rs. 1,000
9) Preparation of monographs, teachers guide, laboratory manuals etc.	Rs. 10,000	Rs. 10,000
10) Lecture services by eminent scientists	Rs. 3,000	Rs. 3,000

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11)	Visit to other ULP's	Rs. 2,000	Rs. 2,000
12)	Teaching aids, files and tapes	Rs. 3,000	Rs. 3,000
13)	Research on ject training to participants (6 teachers per year)	Rs. 9,000 <u>Rs. 1,35,325</u>	Rs. 9,000 & <u>Rs. 1,31,725</u>
	Grand total of (a + b)	Rs. 2,35,325	Rs. 2,31,725 per annum

Rs. 6,95,275/- for 2 years.

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Annexure X to Item No. 10

- 1) Departments : Botany & Zoology
- 2) University : Marathwada
- 3) Project Coordinator: Prof. R. Nagabhushanam, Head of the Deptt. of Zoology
- 4) No. of participating Colleges : 35
- 5) Activities/Programmes proposed to be undertaken

To revise and modernize the syllabus, Orient teaching towards experimental side, preparation of lecture materials, teacher guides, To organize refresher courses, supply of equipment, text books to colleges, to provide research facilities to college teachers:

6. Financial Requirements

a) College requirements

Item	Amount asked for by them.	Amount suggested for acceptance
1) Preparation of text material	Rs. 2,00,000	Rs. 50,000
2) Supply of text books	Rs. 1,00,000	Rs. 1,00,000
3) Assistance to teaching & Research	Rs. 50,000	Rs. 50,000
4) CSIP News letter	Rs. 20,000	Rs. 10,000
5) Supply of Equipment	Rs. 2,00,000	Rs. 2,00,000
Total (a)	Rs. 5,70,000	Rs. 4,10,000

b) University Requirements

1) Conferences, refresher courses, seminars etc.	Rs. 2,00,000	Rs. 1,00,000
2) Visiting Lecturers	Rs. 40,000	Rs. 40,000
3) Teaching and Administrative staff	Rs. 2,00,000	Rs. 1,00,000
4) Contingencies	Rs. 60,000	Rs. 60,000
	Rs. 5,00,000	Rs. 3,00,000
Grand Total	Rs. 10,70,000	Rs. 7,10,000

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Answer File Item No. 10

1. Department (1) Botany and (2) Zoology
2. University. Gorakhpur.
3. Project Coordinator Prof. K.S. Bhargava.
4. No. of participating Colleges 25

5. Activities/programmes proposed to be undertaken:

Organisation of training programme, research facilities to be provided to college teachers, improvement of syllabus methods teaching and equipment the participating college departments during the project period.

6. Financial requirements:

1. University Departments needs

- | | | |
|--|------------------|----------------|
| (i) Academic admn. & supporting staff | Rs. 35,000/-p.a. | Rs. 1,05,000/- |
| (ii) Equipment and Library requirements required for COSIP activities. | | Rs. 45,000/- |

Sub to total Rs. 1,50,000/-

- | | | |
|--|----------------------------------|----------------|
| 2. Short term courses etc. | Rs. 50,000/-p.a. | Rs. 11,50,000 |
| 3. Colleges-University contact programmes. | Rs. 10,000/- " | Rs. 30,000/- |
| 4. Research participation by college teachers. | Rs. 10,000/- " | Rs. 30,000/- |
| 5. Preparation & distribution of curriculum materials, demonstration equipment etc. | Rs. 5,000/- " | Rs. 15,000/- |
| 6. Improvement of college (i) Laboratories and (ii) libraries in Botany and Zoology Departments. | Rs. 2,00,000/-
Rs. 1,00,000/- | Rs. 3,00,000/- |
| 7. Other expenses. | | Rs. 25,000/- |

Total: Rs. 7,00,000/-

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UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated :

27th & 28th Oct 1975

Item No. //

To consider the question of revising the amount of honorarium and contingency paid to teachers selected under the scheme 'USRT'.

....

The UGC under its scheme for the utilisation of Services of Retired Teachers pays Rs.6,000/- a year as honorarium and Rs.1000/- a year towards contingent expenditure to an awardee. Against 300 total positions available under the scheme, 182 are filled in and 118 are vacant as on 1-10-1975. The estimated expenditure for 300 positions per year is Rs.21 lakhs. The amount provided in the revised estimate in the current year is Rs.16 lakhs and for 1976-77 it is Rs.20 lakhs.

Prof. N.V. Subha Rao of Csmania University has suggested that in view of the high cost of living these days, the amount of honorarium and contingency grant paid by UGC to its teachers selected under the scheme "USRT" is too meagre to meet the living cost and may be raised from Rs.500/- to Rs.750/- p.m. and contingency grant from Rs.1000/- to Rs.5000/- p.a.. In addition a research fellow may be attached to work under the retired teacher provided the teacher had been a Professor of University Department and involved in research work.

In order to ascertain the position in this regard, the ICAR and CSIR were requested to intimate the rate of honorarium and contingency grant paid by them to scientists working under their Retired Scientists Scheme. The information received from them is as under:

C.S.I.R.

Scheme - Emeritos Scientists grant for superannuated scientists outstanding in their field of specialization; honorarium Rs.1000/- per month, contingent grant Rs.2000/- per annum alongwith services of one or two research fellow.

I.C.A.R.

Scheme for appointment of Emeritos Scientists in the field of agriculture, Animal Husbandry, Fisheries and Allied Services (w.e.f. 1-4-1974). Honorarium Rs.750/- per month in addition to the pension/provident fund + contingent grant of Rs.5000/- per annum for meeting contingent expenditure subject to actual expenditure incurred in a year. A senior/junior research fellow can be engaged to assist in the research work for which the council pays monthly fellowship of Rs.400/-500 depending upon the case.

The matter is placed before the Commission for consideration

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 27th & 28th October, 75

Item No. 12: To consider the question of raising the limit of Rs.750 for the protection of salary of teachers selected for the award of Senior Research Fellowships consequent upon the revision of salary scales of teachers.

.....

The Commission at its meeting held on 4th October, 1972 (Item No.55) desired that protection of emoluments of a teacher upto Rs.750/- p.m. (inclusive of the value of the fellowship may be provided in the rules for award of Senior Research Fellowships. The scales of pay of the teachers have been revised from 1.1.1973, the pay scale of lecturers having been revised to Rs.700-1300 after assessment to Rs.1600. Faculty Improvement Programme provides for Teacher Fellowships under which the sponsoring colleges/institutions are required to protect the total emoluments of the teachers concerned for the period of their academic leave and also give the necessary increment as and when due to enable to pursue higher studies/research leading to M.Phil./Ph.D. The Commission will provide funds to the college/institution concerned for appointing suitable substitute in place of teacher selected for the fellowship. The Commission will also provide living expense allowance of Rs.250/-p.m. in case the selected teacher decides to utilise the fellowship in a university not located in his place of duty.

It may therefore be necessary to raise the ceiling of pay protection in respect of teachers selected for post doctoral work under the UGC scheme of Senior Research Fellowships.

The matter is placed before the Commission for consideration.

AS(RF)/JS.II

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Confidential

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UNIVERSITY GRANTS COMMISSION

Meeting:

Dated : 27 & 28th October, 1975

Item No. 13 : To consider the question of revision of pay scales of academic posts other than Professors, Readers and Lecturers in Central Universities.

.....

1. The pay scales of Professors, Readers, Lecturers Principals of Colleges in Central Universities have been revised with effect from 1.1.1973. Revision of pay scales of certain categories of academic posts in Central Universities is under consideration of the Commission in consultation with the Government of India.

2. There are certain other categories of academic posts for which revisions have yet to be made. These posts have been grouped in two categories as below:

- (a) Posts of Research Assistants, Research Officers, Research Associates, Associate Lecturers, Vice-Principals in Delhi Colleges, part-time Lecturers, part-time Tutors and posts of Research & Reference Assistants in Delhi University.
- (b) Post of Instructor in Music and other related category of posts.

3. The matter was considered and it was desired that a Committee may be appointed to examine the matter and to make recommendations to the Commission. Accordingly, a Committee consisting of the following was constituted:

- (1) Professor R.C. Mehrotra,
Vice-Chancellor
Delhi University.
- (2) Professor A.M. Khusro
Vice-Chancellor
Aligarh Muslim University
- (3) Professor Moonis Raza
Rector
Jawaharlal Nehru University
- (4) Dr. Gopal Tripathi
Director
Plan Co-Ordination
Banaras Hindu University.

p.t.o.

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4. The Committee met on 14th August, 1975. A copy of the minutes of the meeting are attached (Annexure-I). The Committee has made the following recommendations:

(1) Posts of Research Assistants, Research Officers etc. exist in Central Universities with different pay scales. There is a need to rationalize the whole issue.

(2) Pay scales of the following categories of posts may be revised by the corresponding replacement pay scales as recommended by the 3rd Pay Commission with effect from 1.1.1973 as personal for existing incumbents.

<u>Post</u>	<u>University</u>	<u>Existing pay scale</u>	<u>Revised pay scale</u>
1. Research Assistant	AMU JNU BHU	300-350	550-750
2. Research and Reference Assistants in the Deptts. of Human Geography, Urdu, Arabic, Persian, Sociology and Management Studies.	Delhi	325-575	550-900
3. Research Officer	AMU	400-950	700-1350
4. Sr. Research Officer	BHU	700-1250	1100-1600
5. Jr. Research Officer	BHU	400-950	700-1300
6. Associate Lecturers	AMU	350-650	650-960
7. Sr. Research Fellow	AMU	250-500	400-750
8. Investigator	BHU	250-300	425-600

9. Coordinator NSS Studies	Delhi	700-1250	1100-1600
10. Case Analyst	Delhi	400-950	700-1300
11. Editor Publication	JNU	700-1250	1100-1600
12. Musician	Delhi	400-950	700-1300
13. Sarangi Player Table Accompanist Violin Accompanist Mirdhangum Accompanist	Delhi	200-280	330-560
14. Tanpura Player	Delhi	110-180	260-400
15. Instructor/ Music & Dance	AMU	250-450	425-700
16. Instructor Tabla/Sitar	AMU	130-256	330-400
17. Instructor in Music (Vocal/Ins- trumental) Accompanist	BHU	300-600	550-900
18. Artist	VB	275-650	550-900
19. Accompanists	VB	175-425	440-750

3. Research Associates:

Wherever selections have been made through properly constituted bodies, like those of Lecturers, posts of Research Associates may be converted into that of Lecturers and the appointments and the scales revised accordingly. In cases where appointments as Research Associates are for a fixed duration the scale may be revised for Rs. 400-950 to Rs. 700-1300. In all other cases, Research Associates may be filled in with the new policy of the U.G.C., according to which, the emoluments of Research Associates are fixed between Rs. 700-1100.

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4. Vice-Principals:

The pay scale of Vice-Principals of evening classes may be revised from Rs.700-1200 to Rs.1200-1900 without any special allowances. In the case of Vice-Principals of extended day colleges, the Vice-Principals may be placed in the revised scale of Lecturers i.e. Rs.700-1600 along with an allowance of Rs.200 p.m..

The revised emoluments of the Senior Research fellowship in Banaras Hindu University may be kept as Rs.600/- as for Senior Research Fellowship awarded by the UGC. The post of Research assistant in Aligarh Muslim University at Rs.250 p.m. fixed may be converted into that of a Juniro Research Fellow.

The matter regarding revision of pay scales, as recommended by the committee, is placed before the Commission for consideration.

AS/DS(D-5)

Annexure to Item No. 13

Minutes of the meeting of the Committee on revision of pay scales of academic posts other than Professors, Readers and Lecturers in Central Universities held on 14th August, 1975.

Present:

1. Prof. R.C. Mehrotra
2. Prof. A.M. Khusro
3. Prof. Moonis Raza
4. Dr. Gopal Tripathi
5. Dr. M.L. Mehta

The Committee made the following observations and recommendations:

1. It was noted that posts of Research Assistants, Research Officers etc. exist in Central Universities with different pay scales. The Committee was of the view that there is a need to rationalize the whole issue.

2. The Committee recommended that pay scales of following categories of posts may be revised by corresponding replacement pay scales as recommended by 3rd Pay Commission with effect from 1.1.1973 as personal for existing incumbents.

<u>Post--</u>	<u>University</u>	<u>Existing -- pay scale</u>	<u>Revised -- pay scale</u>
1. Research Assistant	AMU JNU BHU	300-350	550-750
2. Research and Reference Assistants in the Depatt.s of Human Geography, Urdu Arabic, Persian Sociology and Management Studies	Delhi	325-575	550-900

p.t.c.

Post	University	Existing pay scale	Revised pay scale
3. Research Officer	AMU	400-950	700-1300
4. Sr. Research Officer	BHU	700-1250	1100-1600
5. Jr. Research Officer	BHU	400-950	700-1300
6. Associate Lecturers	AMU	350-650	650-960
7. Sr. Res. Fellow	AMU	250-500	400-750
8. Investigator	BHU	250-300	425-600
9. Coordinator NSS Studies	Delhi	700-1250	1100-1600
10. Case Analyst	Delhi	400-950	700-1300
11. Editor Publication	JNU	700-1250	1100-1600
12. Musician	Delhi	400-950	700-1300
13. Sarangi Player Tabla accompanist Violin " Mirdhangum "	Delhi	200-280	330-560
14. Tabura Player	Delhi	110-180	260-400
15. Instructor/ Music & Dance	AMU	250-450	425-700
16. Instructor Tabla/Sitar	AMU	130-256	330-400
17. Instructor in Music (Vocal/Instrumental) accompanist	BHU	300-600	550-900
18. Artist	VB	275-650	550-900
19. Accompanists	VB	175-425	440-750

(3) It was noted that posts of Research Associates exist in Departments recognised as Centres of Advanced Studies/Departments of Special Assistance. Posts of Research Associates for purposes of pay scales and other conditions of service etc. have been considered by some Central Universities as equivalent to those of Lecturers. The Research Associates participate in teaching and research programmes of Departments. It was also

observed that in some Universities appointments were made through regular statutory Selection Committees as provided under Statutes for recruitment to the posts of Lecturers. The Committee was also of the view that wherever selections have been made through properly constituted bodies, like those of Lecturers, posts of Research Associates may be converted into those of Lecturers and the scale revised accordingly. In cases, where appointments as Research Associates are for a fixed duration, the pay scale may be revised from Rs. 400-950 to Rs. 700-1300.

In all other cases, Research Associates may be filled in with the new policy of the UGC, according to which, the emoluments of Research Associates are fixed between Rs. 700-1100.

(4) Part-Time Teachers:

The Committee noted the present rate of emoluments for such category of teachers. It was felt that there is a need to review the policy relating to appointment of part-time teachers in Central Universities. The Committee was of the view that persons of the status of Lecturers and Readers may in future be included under this category. The question regarding honorarium to be paid may be reviewed later keeping in view the mode of recruitment and work load etc.

(5) Vice-Principals in Delhi Colleges:

It was noted that posts of Vice-Principals exist in the Colleges of Delhi University. The Vice-Principal incharge of evening colleges were appointed in the grade of Rs. 700-1250 after advertisements and on the recommendation of a Selection Committee constituted for the purpose. They are also paid an allowance of Rs. 150 p.m. The Vice-Principals of the extended day colleges are Lecturers in the selection grade (Rs. 700-1250) and are also paid an allowance of Rs. 150/- p.m. The committee was of the view that pay scale of the Vice-Principals of the evening classes may be revised from Rs. 700-1250 to Rs. 1200-1900 without any special allowance. In the case of Vice-Principals of extended day colleges, the Committee recommended that the Vice-Principals may be placed in the revised scale of Lecturers Rs. 700-1600 along with an allowance of Rs. 200 p.m. The Committee also recommended that the allowance of the Bursars in the Colleges of Delhi University may also be raised to Rs. 200 p.m.

(6) It was noted that post of a Research Assistant at Rs. 250/- p.m. fixed exist in AMU. It was felt that the post may be converted into that of J.R.F. It was also noted that a post of a S.R.F. at Rs. 500/- p.m. fixed exist in the Department of Zoology, BHU. The Committee was of the view that the revised emoluments for this be Rs. 600/- as for S.R.F. awarded by the University Grants Commission.

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UNIVERSITY GRANTS COMMISSION

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Meeting :

Date : 27th & 28th Oct. 1975

Item No.: 14: To consider the recommendations made by the Panel on Economics regarding the use of books purchased by the teachers under short-term projects after completion of the projects.

According to the rules, books and journals obtained by a teacher under the scheme of support for short-term projects may be retained by him if he so desires. The Panel on Economics has recommended that books and documents obtained by a teacher with the help of the grant sanctioned by the University Grants Commission should be returned to the library of the University/College/Department after the completion of the project. It may be mentioned in this connection that all approved projects have a provision for books and journals and that in most cases this provision forms a major component of the total approved grant. The Economics Panel felt that increasing investment in books under the scheme would be better utilized if the Scholars are required to hand over such books and journals to their parent institutions for use by other Scholars and teachers.

The matter is placed before the Commission for consideration.

AS(HR)

(137)

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting: 27th-28th Oct. 1975

Date:

15

Item No. . To consider the decision of the University of Mysore to relax the conditions of eligibility for admission to courses run by the Institute of Correspondence Course and Continuing Education in respect of candidates over 50 years of age.

.....

On an enquiry made by the Office of the Commission, the University of Mysore has informed that the Academic Council at its meeting held on 2nd/3rd August 1975 relaxed the conditions of eligibility for admission to various undergraduate/postgraduate courses run by the Institute of Correspondence Course and Continuing Education in respect of candidates who have attained the age of 50 years. This has been assented to by the Chancellor, vide office letter No. GS-114-MUM-75 dated 12th August 1975. The University of Mysore/the Institute of Correspondence Course and Continuing Education an Open university system.

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The Institute of Correspondence Courses and Continuing Education was established by the University of Mysore in 1969-70. It is at present offering courses leading to two years pre-university course in Arts and Commerce, three year B.A. and B.Com. degree courses, B.Ed., Bachelor of (general) Law, M.A. in Kannada, English History, Sociology and Political Science, Diploma in Kannada, Diploma in English, Diploma in Journalism, Certificate course in Kannada, for non-Kannada speakers through English and Hindi medium and certificate course in Journalism and many other short term continuing education courses. The Commission is providing assistance limited to Rs. 5,00,000 for a period of four years on net deficit basis towards the undergraduate course viz PUC B.A. and B.Com. The Commission has also agreed to provide assistance for earmarked programmes for the M.A. course in Kannada. The M.A. course in English is to be reorganised by the University in accordance with the suggestions of a Visiting Committee. Other courses have been started by the university without the concurrence of the University Grants Commission.

As an autonomous body, the university could waive the minimum qualifications for entry into correspondence courses of persons over 50 but the question to be considered is that of the responsibility of the University Grants Commission in regard to the determination and coordination of standards. From this point of view, the university could have consulted both the University Grants Commission and the Association of Indian universities before taking a decision in the matter.

The matter is placed before the Commission for consideration.

DS(ER)/AS(ER)

UNIVERSITY GRANTS COMMISSION

Confidential

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Meeting:

Dated : 27th & 28th Oct., 1975

Item No. 16: : To consider further the ^{proposal} of the Roorkee University for enhancement of the value of stipend paid by the University to the students selected for training at the Water Resources Development Training Centre.

The University Grants Commission at its meeting held on 14th July, 1975 considered the proposal of the Roorkee University for enhancement of the value of stipend paid by the University to the students selected for training at the Water Resources Development Training Centre. A copy of the note placed before the Commission is attached (Annexure-I). The Commission regretted its inability to accept the proposal and suggested that the University may approach the agencies which sponsor such in service personnel for training to provide the enhanced stipends.

The Roorkee University has intimated that the students for whom enhancement in the stipend has been sought are not sponsored trainees but those trainees who join the Centre at their own cost after getting leave as may be due to them (including leave without pay) or study leave (for $\frac{1}{2}$ pay period only). A copy of the letter dated 23.8.75 received from the Roorkee University is attached (Annexure-II).

In the annual recurring expenditure approved for maintenance of the W.R.D.T.C. there is a provision of Rs.79,000/- p.a. for payment of stipend and T.A. to the trainees in the Centre. These students are presently paid at the following rates:-

1. Category IV trainees (on leave other than study leave)
Rs.250/- p.m.
2. Category III trainees (on study leave at half pay)
Rs.100/- p.m.

The University has proposed that the stipend to the category IV trainees (on leave other than study leave) may be raised from Rs.250/- p.m. to Rs.400/- p.m. and that the stipend to category III (trainees on study leave at half pay) may be raised from Rs.100/- p.m. to Rs.200/- p.m. This increase has been suggested in the wake of Commission increasing the value of P.G. Scholarships in Engineering & Technology from Rs.250/- p.m. to Rs.400/- p.m. and the senior Research fellowship from Rs.400/- to Rs.500/- p.m. for the first two years and to Rs.600/- p.m. thereafter on proper academic assessment.

P.T.O.

(139)

In view of the fact that the stipends of Rs.250/- and Rs.100/- p.m. to these two categories of trainees are being met out of the U.G.C. provision of Rs.79,000/- p.a., it is for consideration if the values of the stipends may be increased to Rs.400/- and Rs.200/- p.m. respectively w.e.f. 1.7.74 within the provision of Rs.79,000/- p.a.

The matter is placed before the Commission for consideration.

E.O.(CE)

Annexure I to Item No.16

Copy of the note placed before the Commission at its meeting held on 14th July, 1975 (vide item No.23)

The University Grants Commission at its meeting held on 8th July, 1974 considered the report of the Visiting Committee appointed to review the progress made by the M.R.D.T.C. and its further requirements of funds. It was agreed that the ceiling of the recurring grant payable to the Roorkee University for maintenance of the W.R.D.T.C. may be raised to Rs.7.45 lakhs from Rs.5.20 lakhs p.a. during 1974-75. The Commission further agreed that since assistance towards W.R.D.T.C. has already been provided to the university for considerably a long period; the Govt. of India may be approached to treat this as committed expenditure. Accordingly the matter has been taken up with the Government of India.

In the annual recurring expenditure approved for maintenance of the W.R.D.T.C. there is a provision (of Rs.79,000/-) for payment of stipend and T.A. to the trainees in the Centre. (The expenditure on this account during 1973-74 was however Rs.37,000) These students are presently paid at the following rates.

1. Cat. IV trainees (on leave other than study leave) Rs.250/-p.m.
2. Cat.III trainees (on study leave at half pay) Rs.100/- p.m.

The University has proposed that the stipend to the Cat IV trainees (on leave other than study leave) may be raised from Rs.250/- to Rs.400/- and that the stipend to the Cat. III (trainees on study leave at half pay) may be raised from Rs.100/- to Rs.200/-. This increase has been suggested in the wake of the Commission increasing the value of the P.G. Scholarships in Engineering and Technology from Rs.250/- to Rs.400/- and that the senior research fellowship from Rs.400/- to Rs.500/- for first two years and to Rs.600/- thereafter on proper academic assessment.

It may be stated in this connection that the W.R.D.T.C. provide advance training and P.G. diploma and degree course extension services and research facilities through phased programmes and established development viz. investigation, planning, design and construction to in-service engineers from India and other countries of Asia and Africa. The above stipend are payable to people who are already in service elsewhere and are mainly sponsored trainees. In view of this it is for consideration whether the value of the stipend payable at the W.R.D.T.C. for its trainees may be raised as suggested by the University.

The matter is placed before the Commission for consideration.

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Copy of letter No. WR/A-5/2419 dated the 23rd August, 1975 received from Shri V.N. Kak, Registrar, University of Roorkee, Roorkee addressed to the Secretary, University Grants Commission, New Delhi.

Kindly refer to the U.G.C.'s letter No. F.22-1/66(T) dated July 29, 1975, intimating the inability of the Commission to accept the proposal for increase in the value of stipend paid to sponsored students for training at the Water Resources Development Training Centre and suggesting that the University move the sponsoring agencies to provide the enhanced stipends.

In this connection it may be stated that the proposal contained in this office letter No. WR/S-14/1700 dated March 14, 1975, was not for sponsored trainees and foreign students but for those trainees who join the Centre at their own cost after getting leave as may be due to them (including leave without pay) or study leave (for $\frac{1}{2}$ pay period only). The pay and allowances of trainees officers sponsored by Government or other agencies are met by the sponsoring authorities and no stipend is paid to them by this Centre. The University Grants Commission were moved in Vice Chancellor's letter No. WR/E-1(G)/18 dated January 3, 1963, to agree to the payment of study tour expenses and stipend to trainee officers joining the Centre at their own cost (after being sanctioned leave for the training period by their employers) at the following rates :-

- (i) Cat. III trainees -- Those on study leave for the period they draw half pay Rs.100/- p.m.
- (ii) Cat. IV trainees - Those on leave as due or on leave without pay for training period Rs.250/- p.m.

The proposal for grant of stipend to Cat. III and Cat. IV trainees was approved by the Commission in their letter No. F.24-21/58(T) dated February 28, 1963, for which the necessary reallocation of the ceiling grant was also made. Later, when the M.E. course was made of two years duration, proposal was made in Vice Chancellor's letter No. WR/E-1(G)/VC/621 dated June 8, 1965, that such trainees as are sponsored for the 12-month training period only, i.e. for the first year of the M.E. course and are sanctioned leave as due for the remaining period in order to enable them to obtain M.E. degree, may also be treated as Cat. IV trainees after the first year of training and granted a stipend of Rs.250/- p.m. This proposal also was approved by the Commission in their letter No. F-24-21/58(T)Pt.II dated January 20, 1966.

It would thus be seen that the principle of grant of the amount of scholarship to Cat. IV trainees of the Centre at par with M.E. students in other departments of the University and a reduced

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scholarship of Rs.100/- p.m. to Cat. III trainees was accepted by the Commission over 12 years ago and has been in force ever since. When the Commission increased the scholarship for M.E. students of the University to Rs.400/- p.m. in their letter No.F.2-9/74(T/CET) of March, 1975 effective from the beginning of the 1974-75 session, it was considered appropriate to extend similar facilities to WRDTC non sponso trainees as well. Accordingly, the Cat. IV trainees were allowed stipend at the enhanced rate of Rs.400/- p.m. from July 1, 1974 (or from the date of joining, if later) and the UGC were moved for approval enhancement of scholarship of Cat. III trainees from Rs.100/- to Rs.200/- p.m. Keeping in view the financial stringency it was intimated that the expenditure would be kept within the present provision of Rs.79,000/ (this amount was approved in the old annual ceiling of Rs.5.11 lacs and was proposed for the revised ceiling of Rs.7.45 lacs) by restricting the number of scholarships suitably.

In view of the position explained above, it is hoped that the Commission would review their earlier decision since it concerns unsponsored trainees, and agree to the payment of scholarships to Cat. III and Cat. IV trainees at the revised proposed rates.

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UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated 27th-28th Feb. 1975

Item No. 17 To consider further the proposal regarding taking over of the Dyal Singh College by the University of Delhi - Transfer of assets and liabilities to the University.

....

The University Grants Commission at its meeting held on 11th February, 1974, vide item No.14 considered the proposal of the University of Delhi to take over the Dyal Singh College to be run as a University-maintained Institution and resolved as follows:-

"The Commission agreed to the Delhi University taking over Dayal Singh College on the following conditions in addition to those laid down by the Government of India:

- (1) the University, while acquiring the assets of the College, would also agree to meet the liabilities and reimburse to the Commission the amount due from the Dyal Singh College to the Commission.
- (2) the College would incur no unapproved expenditure."

2. The University of Delhi was informed accordingly, on 18.2.1974. The University had in reply informed the Commission as follows:-

"Your letter was reported to the Executive Council at its meeting held on 26.3.1974 and it was specially brought to its notice that there are at present 7½ teachers in excess and also it was stated that this excess had occurred as a result of all in the enrolment of Science Students. I quote below the observations made by the Executive Council:

"In this connection the Vice-Chancellor observed that the University should make efforts to accommodate the surplus teachers in some other colleges or in the University Departments. It was also suggested that the College could be allowed to start new courses such as B.Sc. (General) in the evening classes, B.A. (Hons.) in some subjects and Science based

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vocational courses so that surplus teachers could be absorbed as far as possible, and that if it did not become possible to absorb the surplus teachers, the Dean of Colleges and the Director, South Campus might negotiate with the University Grants Commission Officer on the questions of absorption of such number of teachers as may be found surplus."

Also in case all efforts to provide alternative jobs to any of the surplus teachers fail, notices will be served on those of them who remain in excess and their services will be terminated so that it will be seen that no surplus teachers remains in the college on or after 1.2.75.

I am also enclosing herewith a statement of the outstanding liabilities of Dyal Singh College which have to be paid to the parties concerned.

In addition to the above College has also received an excess maintenance grant from the U.G.C. As for this excess grant, the balance for the year ending 31.3.74 can be struck only after the U.G.C. has scrutinised the annual Accounts for the year 1973-74 after the same have been received.

In addition some amount is also payable to various creditors for the year ending 31.3.74 and which has not been paid because of the non-availability of funds with the college. A statement of the expenditure incurred by the College on this account is also being enclosed.

So far as the cash assets with the College are concerned the Dyal Singh College Trust has agreed to pay the Endowment Fund in its possession to the University.

You are requested to kindly agree to re-imburse to the University the balance of outstanding liabilities over the assets and to approve of the transfer of the College to the University of Delhi w.e.f. 1.4.74 and also of the payment of salaries of the excess teachers upto 31st January, 1975 at the most."

3. The University of Delhi, in reply to its above referred letter was informed on May 18, 1974 that

- a) it would not be possible for the Commission to agree to the college having excess number of teachers from the date the college is taken over by the University.
- b) the University should pay to the Commission the excess grant received by the college from its own funds after meeting the liabilities from the Endowment fund and the balance being

+ Not enclosed

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used for meeting the excess of grant payable to University Grants Commission. If, however, the University could not provide this from its own funds it may approach the Government of India for the same.

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4. The Government of India in the Ministry of Education & Social Welfare regretted its inability to give grant to the University of Delhi for refunding to the Commission the excess grant received by the Dyal Singh College. Subsequently, the Pro-Vice-Chancellor, University of Delhi discussed the matter with the Chairman, University Grants Commission on 13.9.1974 where the following points emerged:-

i) the University may write to the UGC forwarding therewith a statement of assets and liabilities of the Dyal Singh College with a request to provide additional funds to liquidate the liabilities so that the proposal to take over the College could be finalised as early as possible; and

ii) the University may satisfy itself after examining the accounts of the Trust whether the College had an endowment fund of Rs. 2.40 lakhs or Rs. 2.25 lakhs and inform the Government of India and the UGC of the correct position."

5. The Delhi University has since intimated that the College had informed the University that it had not any excess number of teachers since the commencement of the academic session 1974-75.

6. A statement indicating the assets and liabilities of the Dyal Singh College as furnished by the Delhi University is at Annexure-I. A statement indicating the funds collected from students and utilised is at Annexure-II.

In addition to the cash liability of Rs. 1,27,646.14 as worked out by the University as per Annexure-I the college has also received from the Commission an excess grant of Rs. 9,21,757/- towards the maintenance expenditure during 1968-74 (as detailed below) which neither the college is able to refund to the Commission nor the University is able to reimburse to the Commission consequent upon the take-over of the college:-

1968-70	Rs. 80,500/-
1970-71	Rs. 1,05,721/-
1971-72	Rs. 4,56,166/-
1972-73	Rs. 2,08,380/-
1973-74	Rs. 70,990/-
	<hr/>
	Rs. 9,21,757/-

1974-75

Audited Accounts yet to be received and actual grant due to be determined.

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7. The college has an Endowment fund of Rs. 2,25,284.61 as against Rs. 2,40,000/- intimated earlier which would be transferred to the university with the 'take-over' of the college.

8. It is for consideration whether the University may be permitted to take-over the Dyal Singh College without the condition, as per its earlier decision, to reimburse to the Commission the amount of the maintenance grant paid in excess during the past years (including for the year 1974-75 for which the Accounts are yet to be received and finalised) together with the cash liability of Rs. 1,27,646.14 as worked out by the Delhi University. The overall position of the liability, after adjusting the endowment to be transferred to the university will be as under:-

(a) Cash liability as worked out by the university as per Annexure-I	=	Rs. 1,27,646.14
(b) Excess maintenance grant said by the Commission during 1968-74	=	Rs. 9,21,757.00
		<hr/>
		Rs. 10,49,403.14
Less Endowment Fund to be transferred to university	=	Rs. 2,25,284.61
		<hr/>
		Rs. 8,24,118.53

+ excess grant, if any, paid during 1974-75, which may come to light on finalisation of the account for 1974-75.

9. It is presumed that if the above is agreed to by the Commission, the university would not approach the Commission to reimburse the students funds utilised by the college (at Annexure-II).

Statement indicating the assets and liabilities of the Dyal Singh College

.....

LIABILITIESDAY CLASSESASSETSA. Payable to U.G.C.

1. Grant for Semi-Micro equipment. Rs. 5,000/- This amount was sanctioned by the U.G.C. vide its letter No. F.19-3/72(CU-II) dated 22.2.72 for the purchase of Semi-Micro equipment but was utilized for maintenance of the college.
2. Students' Welfare Grant. Rs. 3,349.50 A sum of Rs. 6,000/- was sanctioned by the U.G.C. vide letter No. F.28-8/70(SA-I) dated 20.3.70 for students welfare programme. While out of this a sum of Rs. 2650.50 was spent for the purpose for which it was meant, the balance of Rs. 3,349.50 refundable to U.G.C. was utilized for other purposes.

1. The cost of land Rs. 87,000.00
2. The cost of construction of college building Rs. 12,37,957.77
3. The cost of construction of the Canteen Rs. 67,704.35
4. Non-consumable articles in the Botany, Zoological and Geography Laboratories along with cost. Rs. 2,51,772.10
5. Number of Library books along with cost. Rs. 3,66,098.74
30926 (Books)
6. Other non-consumable articles with costs. Rs. 82,930.15

 Rs. 20,93,462.15

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LIABILITIES

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ASSETS

B. Payable to University

- | | |
|----------------------------|--------------|
| 1. University Union
Fee | Rs. 2,031.50 |
| 2. Enrolment Fee | Rs. 2,437.00 |
| 3. Ath. Ass. Fee | Rs. 1,686.50 |

C. Payable to College
Architect

- | | | |
|---|--------------|--|
| 1. In respect of
college canteen
(Bill No. B-62-1/
19-70/72 dated
10.8.72). | Rs. 449.00 | Out of a total of
Rs. 2,598.05, a
balance of Rs. 449/-
is yet to be paid. |
| 2. In respect of
college building | Rs. 8,440.00 | Out of a total of
Rs. 45,440/- balance
of Rs. 8,440/- is
yet to be paid. |

D. Payable to
Chartered Accountant.

- | | |
|---|------------|
| 1. In respect of
college building
(Bill No. 323/282/42
dt. 10.6.66) | Rs. 500.00 |
| 2. In respect of
college canteen
(Bill No. 231/1024
dated 18.11.71). | Rs. 200.00 |

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LIABILITIES

E. Payable to Contractors
of College Canteen

- | | | |
|---|--------------|---|
| 1. Delhi Sanitary and
Water Supply Co.
(Plumbers) Bill No.
5JR/70 dated 9.3.71 | Rs. 345.68 | Out of a total of
Rs. 6,745.68 a
balance of
Rs. 345.68 is yet
to be paid. |
| 2. M/s. Banga & Co.
(Conts) | Rs. 614.42 | Out of a total of
Rs. 53,514.42 a
balance of Rs. 614.42
is yet to be paid. |
| 3. M/s. J.J. Electricals
(Elect. Contractor) | Rs. 1,088.50 | Out of a total of
Rs. 4,591.25 a balance
of Rs. 1,088.50 is
yet to be paid. |

F. Payable to
Contractors of
College building

- | | | |
|--|------------|---|
| 1. M/s. Delhi Sanitary
& Water Supply Co.
(Plumbers) Bill No.
SIR/63/bill dt.
5.10.64. | Rs. 769.20 | Out of a total of
Rs. 28,249.20 a
balance of Rs. 769.20
is yet to be paid. |
|--|------------|---|

- | | | |
|----------------------------------|--------------|-----------------------------|
| G. <u>Payable to L.&D.O.</u> | Rs. 9,448.58 | Ground rent upto
14.1.63 |
|----------------------------------|--------------|-----------------------------|

- | | | |
|----------------------------|---------------|--|
| H. <u>Gratuity Payable</u> | Rs. 35,195.00 | |
|----------------------------|---------------|--|

ASSETS

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LIABILITIES

ASSETS

I. Payable to Students

1. Caution Money	Rs. 16,950.00
2. Library security	Rs. 16,950.00
3. Lab. Security	Rs. 3,545.00
	<hr/>
	Rs. 37,445.00
Less available with the Bank	Rs. 9,310.00
	<hr/>
	Rs. 28,135.00

J. Payable to other parties

1. Shri V.P. Kohli's Advocate Bill (in respect of Dr. I.P. Gupta Vs. University of Delhi.)	Rs. 454.83
2. Shri Charan Dass (for supplying wooden black boards Bill No. 701 dated 25.8.73)	Rs. 620.00
3. Salary of late Sh. S.V. Aggarwal from 1.7.73 to 8.8.73.	Rs. 1,162.23

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LIABILITIES

4. Associated Typewriter
Bill No. 4697 dated
15.11.74 Rs. 179.20

5. Associated Typewriter
Bill No. 5719 dated
18.3.74 Rs. 120.00

TOTAL Rs. 1,02,226.14

ASSETS

B/F 20,93,463.11

EVENING CLASSES

A. Gratuity Payable Rs. 25,420.00

Furniture and
Equipment Rs. 43,078.81

Grand Total Rs. 1,27,646.14

Grand Total Rs. 24,36,541.92

STATEMENT INDICATING THE
FUNDS COLLECTED FROM STUDENTS

DAY CLASSES

- | | | | |
|--|-----|-------------|---|
| a. Students Medical Welfare Fund. | Rs. | 12,391.69 | Collected from the students during 1972-73 and 1973-74. |
| b. Students Fund | Rs. | 1,67,442.94 | Collected from the students during 1959 to 1971. |
| c. Securities lapsed and forfeited | Rs. | 41,570.26 | Collected from the students during 1959-to 1972. |
| d. Securities claimed but cheques not collected. | Rs. | 1,945.00 | |

EVENING CLASSES

- | | | | |
|------------------------------------|-----|------------------|---|
| 1. Securities lapsed and forfeited | Rs. | 33,694.67 | |
| Less Bank Balance | Rs. | 13,015.60 | |
| | Rs. | <u>20,679.07</u> | |
| 2. Students fund | Rs. | 55,726.92 | This amount was utilised to meet the deficit during 1958 to 1968. |

University Grants Commission
Bahadur Shah Zafar Marg
New Delhi

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Meeting :
Dated : 27 & 28th October,
1975.

Item No.18 : To further consider a reference from Berhampur University regarding relaxation in minimum enrolment in colleges to be eligible to receive grants from the University Grants Commission under the Rs.5 lakhs scheme.

The University Grants Commission at its meeting held on 14-15th July, 1975 (item No.18) considered the question of financial assistance to colleges under Rs.5 lakhs scheme and agreed that in the case of colleges located in backward areas, as defined by the Planning Commission, the eligibility conditions with regard to enrolment and the faculty strength will be as below :-

	Minimum Enrolment	Faculty strength
Three Year Degree Course	300 (instead of 400)	15 (instead of 20)
Two Year Degree Course	200 (instead of 270)	10 (instead of 15)

The proposals received from various colleges are being processed in the light of the above decision. Proposals which do not fulfil the conditions of minimum enrolment are not being accepted.

The Berhampur University has in this connection requested the Commission that the condition of minimum enrolment as decided above may be further relaxed in the case of colleges affiliated to Berhampur University. It should either be fixed at 100 or the students strength of the second year of the intermediate classes may also be taken into account to be included as part of minimum enrolment. The University has further informed that if the students' enrolment of 200 in two year degree classes is adhered to, to enable a college to become eligible for assistance from UGC, only three out of 15 colleges would become eligible for assistance from the U.G.C.

....2/-

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The University has in this connection invited the attention of the Commission (1964-66) which has indicated that in the State of Orissa the enrolment in higher education per thousand of population was only 0.8. Further the areas served by the Berhampur University are in a backward condition so far as higher-education is concerned and consequently there is need for starting more and more colleges in areas where communications are still in a very undeveloped stage.

/to the recommendation of the Education Commission

Since the declared policy of the Government is to extend necessary facilities for higher-education in backward areas to enable them to come up to the level of the more prosperous areas of the country, the university has desired that the UGC would do its best to extend to the university very special consideration and exempt the college from the operation of the rule that they should have a particular minimum enrolment strength to become eligible for UGC assistance.

It may also be stated in this connection that the minimum enrolment condition under the Book Bank scheme which was 250 in the degree classes has been relaxed by the Commission as 100 since July, 1975. It is for consideration whether the condition of minimum enrolment in the degree classes under the Rs. 5 lakhs scheme be relaxed from 200 to 100 in the case of colleges having 2 year degree courses and located in backward areas and from 300 to 150 in the case of colleges having three year degree courses.

The matter is placed before the Commission for its consideration.

E.O.(CP)

University Grants Commission
Bahadur Shah Zafar Marg
New Delhi

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Meeting :
Dated : 27 & 28th October, 75

Item No.19 : To consider the question of eligibility of Law Colleges, Colleges of Physical Education and other institutions for assistance under Rs.5 lakhs scheme.

Under the Rs.5 lakhs scheme for improvement of undergraduate education facilities in affiliated colleges during the Fifth Five Year Plan, the Commission at present considers proposals received from Arts, Science and Commerce colleges. A number of colleges and universities have sought clarification from the Commission as to whether Law colleges, colleges of Physical Education, Institutes of Home Science/Social Work, Colleges of Fine Arts/Music and similar other institutions could also be eligible for assistance under this scheme.

In the guidelines for preparation of development proposals communicated to colleges and universities in this connection, it has been indicated that assistance will be given to undergraduate programmes of education in Humanities, Social Sciences, Sciences, Commerce etc., in the colleges. It has also been indicated that the eligibility conditions like minimum enrolment and staff strength would be relaxed in the case of -

- i) Colleges with innovative educational programmes;
- ii) Colleges located in backward areas;
- iii) Colleges for women students; and
- iv) Professional colleges.

In the case of Teacher Training Colleges the Commission has already decided that such colleges would be assisted under a separate scheme and the Commission's assistance will be limited to Rs.1.5 lakhs per college for the plan period.

In the case of Law Colleges and colleges of Physical Education, the Commission has been giving assistance to such institutions under the Rs.3 lakhs scheme in the Fourth Plan. A few institutes of Home Science/Social Work have also been assisted under this scheme.

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In view of the fact that there is no other programme under which these colleges can be assisted, it is for consideration whether (i) these institutions may be assisted under Rs.5 lakhs scheme, if so, the limit of assistance that may be allowed to each of such institutions or alternatively (ii) as in the case of Teacher Training Colleges, only an assistance upto Rs.1.5 lakhs as UGC contribution per college, may be agreed to. The eligibility criteria prescribed in either case, could be followed, as may be decided.

The matter is placed before the Commission for its consideration.

E.O.(CP)

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UNIVERSITY GRANTS COMMISSION

Meeting: 27/10/75

Dated:

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Item No. To consider the reports of the Visiting Committees which assessed the V Plan needs of universities in Maharashtra and Postgraduate Centre, Panaji (Goa).

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Two Committees were constituted to assess the Fifth Plan needs of the Universities in Maharashtra and the Postgraduate Centre, Panaji (Goa). The Committees consisted of the following:-

- | | |
|---|---|
| I. Bombay, Nagpur and S.N.D.T. Women's Universities, Tata Institute of Social Sciences, Bombay and Postgraduate Centre, Panaji (Goa). | II. Poona, Shivaji and Marathwada Universities. |
| 1. Professor V. Krishnamurthy (Convener)
Department of Mathematics,
Birla Institute of Technology
& Science,
Pilani. | 1. A.R.V. Murthy (Convener)
Head of the Department of
Inorganic & Physical Chemistry,
Indian Institute of Science,
Bangalore. |
| 2. Dr. (Miss) Durga Deulkar,
Principal,
Lady Irwin College,
New Delhi.
(for S.N.D.T. Women's
University only). | 2. Professor H.S. Hans,
Head of the Department
of Physics,
Panjab University,
Chandigarh. |
| 3. Professor S.M. Ranade,
School of Social Work,
Delhi University,
Delhi. | 3. Professor Reayat Khan,
Head of the Department
of Botany,
Aligarh Muslim University,
Aligarh. |
| 4. Professor Moonis Raza,
Professor of Geography,
Jawaharlal Nehru University,
New Delhi. | 4. Professor R. Pakshpal,
Department of Zoology,
Lucknow University,
Lucknow. |
| 5. Professor S.M. Alam,
Department of Zoology,
Aligarh Muslim University,
Aligarh. | 5. Professor S.S. Merh,
Head of the Department of
Geology,
M.S. University of Baroda,
Baroda. |

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|-----|--|-----|---|
| 6. | Professor S.K. Bannerji,
Department of Chemistry,
Birla Institute of
Technology & Science,
Pilani. | 6. | Professor S.C. Misra,
Head of the Department
of History,
M.S. University of Baroda,
Baroda. |
| 7. | Professor Harnam Singh,
Department of Political
Science,
Delhi University,
Delhi. | 7. | Professor K.S. Murty,
Head of the Department
of Philosophy,
Andhra University,
Waltari. |
| 8. | Professor A.L. Nagar,
Department of Economics,
Delhi University,
Delhi. | 8. | Professor K. Seshadri,
Head of the Centre for the
Study of Political Development,
Jawaharlal Nehru University,
New Delhi. |
| 9. | Professor D.M. Desai,
Department of Education
M.S. University of Baroda,
Baroda. | 9. | Professor A. Ramaswamy,
Head of the Department
of Economics,
Annamalai University,
Annamalainagar. |
| 10. | Professor B.L. Saraf,
Department of Physics,
Rajasthan University,
Jaipur. | | <u>Secretary to the Committee.</u> |
| 11. | Professor V.P. Pande
(for Nagpur only)
Department of Economics,
Saugar University,
Sagar. | 10. | Shri E.P. Kwatra,
Assistant Secretary,
University Grants Commission,
New Delhi. |
| | <u>Secretary to the Committee</u> | | |
| 12. | Shri S.P. Gupta,
Deputy Secretary,
University Grants Commission,
New Delhi. | | |

The Visiting Committee for Nagpur, Bombay and S.N.D.T. Women's Universities, Tata Institute of Social Sciences and Postgraduate Centre, Panaji (Goa) visited the institutions from 17th to 25th February 1975. The Visiting Committee for Poona, Shivaji, and Marathwada visited the Universities from 22nd to 28th February, 1975. The reports have been approved by all members. Discussions with the representatives of the Maharashtra State Government were held at Bombay by the first Visiting Committee on 25th February and the second Visiting Committee on 1st March, 1975. The Visiting

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Committee under the convenership of Professor A.R.V. Murthy also met the Chief Minister of Maharashtra at Bombay on 1st March 1975. (158)

Maharashtra State covers an area of 307,762 sq.km. with a total population of 504 lakhs (1971 census). Literacy is about 39%. There are 26 districts; 10 universities, 1 institution deemed to be university and 549 colleges (The reports of the Visiting Committees on all but agricultural universities are given in the Annexure). The total enrolment of students in colleges and universities is about 4 lakhs.

The Government of Maharashtra announced the new Higher Secondary Education Scheme in August 1974. It consists of two distinct parts - academic and vocational. The two-year higher secondary course would be given at 600 schools and 400 colleges. In the schools it will be a part and parcel of the secondary school and not a separate unit.

Of the 549 colleges in Maharashtra, 24 are university colleges and 525 are affiliated colleges. Of the affiliated colleges 46 colleges are under the State Government and 479 under private management. The Nagpur University has the largest number of colleges (136) under it, and most of them (122) are under private management.

The Universities in Maharashtra State are making efforts towards improvement of curriculum development and examination reform. The Poona University is one of the 15 universities selected by UGC for assistance towards introducing reforms in the examination system. In the science faculty of the Poona University, semester system and grading system have been introduced. The Bombay University has introduced a new scheme of evaluation through internal assessment combined with a university examination. The Academic Council of Bombay University has approved the introduction of following reforms. There will be internal assessment in the non-core topics of a subject and university examination in the core topics. The system of grading will be introduced, and the system of Question Bank for 15% of the portion in each subject will be introduced on experimental basis. Some of the problems which are common to the universities under report and relevant observations of the Visiting Committees are indicated below:-

1. Marathi is the medium of instruction and examination in most of the subjects at the undergraduate level. Besides Marathi, the students have the option to write answers in the examination in Hindi and English at Nagpur, Bombay and Poona Universities. At the SNDT Women's University the medium of instruction and examination is Gujarati, Hindi, Marathi, as well as, English. The students, when they enter postgraduate classes, feel difficulty in pursuing studies in English. Some of the students at Marathwada University suggested that the medium of instruction should be either Marathi right up to postgraduate level or they should be given instruction in English right after higher secondary so that they may not feel difficulty

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while pursuing their studies at the postgraduate level. Quite a large number of books have been published in Marathi in various subjects but at the postgraduate level the number of quality books available in Marathi is still limited. So is the case with Gujarati and Hindi. At the SNDT Women's University, an effort has been made to supply lecture notes in regional languages to the students in all subjects. It was suggested to the State Government authorities to strengthen their programme of production of University level books in Marathi which will go a long way in the improvement of standards.

2. There is an urgent need for strengthening students services at the universities and colleges particularly in the areas covered by Shivaji University, Nagpur University and Marathwada University. The Visiting Committee to Shivaji University was happy to note the participation of students in earn-while-learn scheme whereby, the students have not only constructed hostel through Shramdan but also saved an amount of Rs.65,000/- by running a cooperative flour mill. Under the Graduate Voluntary Scheme, students of Bombay University have done useful service to the rural community. Students are helping in running the study centre at Poona University which remains open from 8 AM to 11 PM.

3. Some of the universities are facing the problem of two campuses. The Nagpur University has a new campus which is outside the Nagpur University but does not yet provide accommodation for some departments and the Central Library. The University administrative office is also situated in the City. The new campus needs a number of improvements. The Bombay University has a new campus at Kalina. Some of the departments have moved to the new campus but quite a number are still in the Fort area. The University Administrative Office and the Central Library are also situated in the Fort area. Students face great difficulty in moving from one place to the other in spite of a skeleton bus service between the Fort area and Kalina.

4. The universities under Maharashtra have a system of contributory teaching by which teachers in the affiliated/constituent colleges are recognised by the universities for postgraduate teaching in the University departments. The teachers come to the departments one or twice a week and are given TA & DA for the purpose. Poona University is spending more than a lakh of Rupees per annum on this account. However, the Committees noted that the recognition given to the teachers of colleges is more or less mechanical as it is based on length of experience and some of the outstanding teachers who have higher qualifications are left out for want of sufficient experience.

5. There is hardly any collaboration among the universities or even among the departments of the same university. There is need for integral approach to postgraduate teaching by which certain subject or topic is taught by one department for the students of several

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departments. For example at Bombay University, a course in Econometrics is given by the Economics department and the Statistics department separately to its students. Similar is the case with other universities.

6. There is hardly any inter-action between university departments and the affiliated colleges of the various universities except Poona which has University-Leadership Projects in Chemistry and Physics. At Poona also the teachers from colleges suggested that it would be better if teachers from university departments could also go to the affiliated colleges to deliver lectures at least one or twice a week.

The Visiting Committee under the Convener'ship of Professor A.R.V. Murthy had a discussion with the Chief Minister of Maharashtra State on 1st of March 1975, at Bombay. The Chief Minister pointed out that the approach of the State Government towards higher education in the State during the Fifth Five Year Plan would be mainly on consolidation and improvement of the existing facilities. However, in the backward regions, the area covered by Marathwada University, additional inputs would be necessary in order to provide a variety of courses for the people of the region. The Chief Minister further said that several proposals had been received by the State Government for establishment of new universities particularly at Nasik and Nanded. He, however, agreed that in case the UGC, on academic considerations, desires that instead of universities, postgraduate centres could be set up at Nasik and Nanded, State Government would welcome it. The demands put forward by the students and teachers were also brought to the notice of the Chief Minister who said that the State Government is conscious of the difficulties experienced by the students and teachers and has been trying its utmost to solve their problems and would continue to do so.

The financial implications of the recommendations of the Visiting Committees are given below University-wise:

1. Financial implications of the recommendations - Marathwada University:-

A.	Spill over	...	Rs. 43 lakhs
B.	New allocations	...	Rs. 7837 lakhs
	i) Books & Journals	...	Rs. 1910 lakhs
	ii) Equipment	...	Rs. 2925 lakhs
	iii) Buildings	...	Rs. 1510 lakhs
	iv) Research Fellowship	...	Rs. 2.00 lakhs
	v) Visiting Professorship	...	Rs. 0.00 lakhs
	vi) Staff	...	Rs. 12.2 lakhs
			(estimated for 3P, 10R, 10L and 7 others).

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Of the above staff 3P, 9R and 6 others are in the first priority, 1R, 4L and 1 other in second priority and 1L in third priority. The share of the State Government in all the three priorities for recurring expenditure is estimated at Rs.1.00 lakh during the V Plan period and for non-recurring expenditure Rs.15 lakhs (Approximately).

The ceiling for the Marathwada University is Rs.100.00 lakhs. The distribution of this amount in three priorities including spill over is as follows:

<u>Ist Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Rs.58.28 lakhs	Rs.17.00 lakhs	Rs.9.52 lakhs

3. Financial implications of the recommendations -
Poona University

A. Spill over	...	Rs. 6.95 lakhs
B. New allocations	...	Rs.116.58 "
i) Books & Journals	...	Rs.19.98 " } Including
ii) Equipment	...	Rs.48.11 " } basic grant
iii) Building	...	Rs.20.51 "
iv) Research Fellowship	...	Rs. 2.00 "
v) Visiting Professor-ship	...	Rs. 0.50 "
vi) Staff	...	Rs.25.48 "

(estimated for 13P, 17R, 15L and 4 others).

Of the above staff 13P, 13R, 6L and 3 others are in first priority, 4R, 7L and 1 other in second priority and 2L in third priority. The share of the State Government in all the three priorities for recurring expenditure is estimated to be Rs.1.50 lakhs during V Plan period and for non-recurring expenditure Rs.20.00 lakhs (approximately).

The ceiling for Poona University is Rs.150.00 lakhs. The distribution of this amount in three priorities including spill over is as follows:-

<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Rs.83.66 lakhs	Rs.22.77 lakhs	Rs.17.10 lakhs

3. Financial implications of the recommendations -
Shivaji University

A. Spill over	...	Rs. 3.09 lakhs
B. New allocations	...	Rs.65.77 lakhs

i)	Books & Journals	...	Rs. 9.19 lakhs	including
ii)	Equipment	...	Rs.23.30 lakhs	basic
iii)	Buildings	...	Rs.20.00 lakhs	grants
iv)	Research Fellowships	...	Rs. 2.00 lakhs	
v)	Visiting Professorships	...	Rs. 0.50 lakhs	
vi)	Staff	...	Rs.10.73 lakhs	

(estimated for 7P, 6R, 4L and 6 others).

Of the above staff 7P, 4R, 2L and 4 others are in first priority, 2R, 2L in second priority and 2 others in third priority. The share of the State Government in all the three priorities for recurring expenditure is estimated to be Rs.0.40 lakhs during the V Plan period and for non-recurring expenditure Rs.14.30 lakhs (approximately).

The ceiling for Shivaji University is Rs.100.00 lakhs. The distribution of this amount in three priorities including spill over is as follows:-

<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Rs.49.15 lakhs	Rs.13.82 lakhs	Rs.5.89 lakhs

4. Financial implications of the recommendations - Nagpur University

A.	Spill over	...	Rs. 4.54 lakhs	
B.	New allocations	...	Rs.131.52	"
	i) Books & Journals	...	Rs. 30.00	" including
	ii) Equipment	...	Rs. 42.40	" basic
	iii) Building	...	Rs. 26.60	" grants.
	iv) Research Fellowships	...	Rs. 5.00	"
	v) Visiting Professorships	...	Rs. 1.00	"
	vi) Staff	...	Rs. 26.52	"

(estimated for 13P, 15R, 14L and 5 others).

Of the above staff 13P, 4R, 1L and 2 others are in first priority, 7R, 6L and 2 others in second priority and 4R, 4L and 1 other in third priority. The share of the State Government in all the three priorities for recurring expenditure is estimated to be Rs.1.40 lakhs during the V Plan period and for non-recurring expenditure Rs.26.60 lakhs (approximately).

The ceiling for Nagpur University is Rs.150.00 lakhs. The distribution of this amount in three priorities including spill over is as follows:-

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<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Rs.76.49 lakhs	Rs.33.97 lakhs	Rs.25.60 lakhs

5. Financial implications of the recommendations - Bombay University

A. Spill over	...	Rs. 1.14 lakhs
B. New allocations	...	Rs.233.71 lakhs
i) Books & Journals	...	Rs. 36.60 lakhs
ii) Equipment	...	Rs. 47.55 lakhs
iii) Buildings	...	Rs.104.00 lakhs
iv) Research Fellowships	...	Rs. 5.00 lakhs
v) Visiting Professorships	...	Rs. 1.50 lakhs
vi) Other schemes	...	Rs. 12.85 lakhs
vii) Staff	...	Rs. 26.21 lakhs

(estimated for 13P, 22R and 16L).

Of the above staff 11P, 16R, 5L are in first priority and 2P, 3R, 3L in second priority and 3R, 8L in third priority. The share of the State Government in all the three priorities for recurring expenditure is estimated at Rs.1.60 lakhs during the V Plan period and for non-recurring expenditure at Rs.104.00 lakhs (approximately).

The ceiling for Bombay University is Rs.250.00 lakhs. The distribution of this amount in three priorities including spill over is as follows:-

<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Rs.126.95 lakhs	Rs.54.86 lakhs	Rs.53.04 lakhs

6. Financial implications of the recommendations - Postgraduate Centre, Goa

A. Spill over	...	Rs. 0.46 lakhs
B. New allocations	...	Rs.50.47 "
i) Books & Journals	...	Rs. 9.28 " (including
ii) Equipment	...	Rs. 7.90 " (basic grants.
iii) Buildings	...	Rs.19.95 "
iv) Research Fellowships	...	Rs. 0.75 "
v) Visiting Professorships	...	Rs. 0.50 "
vi) Staff	...	Rs.12.09 "

(estimated for 4P, 9R and 14L)

Of the above staff, 4P, 8R and 9L are in first priority and 1R and 5L in second priority. The share of the Union Territory of Goa in the two priorities for recurring expenditure is estimated at Rs.1.40 lakhs during V Plan period and non-recurring expenditure at Rs.20.00 lakhs (approximately).

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The ceiling of the Postgraduate Centre at Goa is Rs.50.00 lakhs. The distribution of this amount in two priorities including spill over is as under:-

I Priority

Rs.35.93 lakhs

II Priority

Rs.15.00 lakhs

7. Financial implications of the recommendations -
Tata Institute of Social Sciences, Bombay.

A.	Spill over	...	Rs. 4.48 lakhs	
B.	New allocations	...	Rs.36.66	"
	i) Books & Journals	...	Rs. 8.00	" (including basic
	ii) Equipment	...	Rs. 3.05	" grants
	iii) Buildings	...	Rs. 8.41	"
	iv) Research Fellowships	...	Rs. 2.00	"
	v) Visiting Professorships	...	Rs. 1.00	"
	vi) Other schemes	...	Rs. 2.00	"
	vii) Staff	...	Rs.12.20	"

(estimated for 3P, 4R, 6L, 16 others and 1 Librarian).

Of the above staff 2P, 2R, 1 Librarian, 2L and 6 others are in first priority, 1P, 2R, 3L and 9 others in second priority and 1L and 1 other in third priority. The share of the Institution in all the three priorities for recurring expenditure is estimated at Rs.0.60 lakhs during the V Plan and for non-recurring expenditure Rs.3.41 lakhs.

The ceiling of the Tata Institute of Social Sciences, Bombay is Rs.50.00 lakhs. The distribution of this amount in three priorities including spill over is as under:

I Priority

Rs.25.46 lakhs

II Priority

Rs.9.68 lakhs

III Priority

Rs.6.00 lakhs

8. Financial implications of the recommendations - SNET
Women's University

A.	Spill over	...	Rs.88.45 lakhs	
B.	New allocations	...	Rs.13.47	"
	i) Books & Journals	...	Rs. 7.65	" (including basic
	ii) Equipment	...	Rs. 4.20	" grant)
	iii) Building	...	Rs. 1.12	"
	iv) Others	...	Rs. 0.50	"

The share of the State Government in respect of new allocations is estimated at Rs.0.38 lakhs.

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It may be pointed out that the spill-over in case of SNDT Women's University, Bombay amount to Rs.88.45 lakhs due to unavoidable delay in the construction of the composite building for library, hostel department of Education, department of Home Science etc. at the Juhu Campus. The Committee has therefore, recommended that the entire allocation of Rs. 100 lakhs may be given under the first priority. After the visit of the Visiting Committee, the Vice-Chancellor SNDT Women's University intimated that it is possible to provide additional 15 rooms on the 4th floor of the composite building and thereby increase the capacity of the hostel from 102 seats to 127 seats. The proposed addition will cost about Rs.1,42,000 inclusive of furniture. The Vice-Chancellor has stressed that the proposed addition will be of great help to the colleges of the university which are coming up on the Juhu Campus, as this is the only hostel, that is under construction there. In the case of Nagpur University, Bombay University Poona University, Shivaji University and Marathwada University, the financial implications of the recommendations of the Visiting Committees are less than the proposed Fifth Plan allocation for these universities. The uncovered amounts have been left for additional facilities, the details for which had not been submitted by the universities in advance.

The reports are placed before the Commission for consideration.

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The UGC appointed a Visiting Committee consisting of the following to assess the Fifth Plan requirements of the Bombay University:-

1. Professor V.Krishnamurthy .. Convener
Department of Mathematics
Birla Institute of Technology & Science,
Pilani.
2. Professor Moonis Raza
Rector
Jawaharlal Nehru University
New Delhi.
3. Professor A.L.Nagar
Department of Economics
Delhi University
Delhi.
4. Professor S.N.Ranade
Delhi School of Social Work
Delhi University
Delhi.
5. Professor Harnam Singh
Department of Political Science
Delhi University
Delhi.
6. Professor S.M.Alam
Department of Zoology
Aligarh Muslim University
Aligarh.
7. Professor S.K.Banerji
Department of Chemistry
Birla Institute of Technology & Science
Pilani.
8. Professor B.L.Saraf
Department of Physics
Rajasthan University
Jaipur.

Secretary to the Committee

Shri S.P.Gupta
Deputy Secretary

The Visiting Committee visited the University of Bombay on 19th and 20th February 1975. The departments in the Fort area and the library were visited on the 19th while the other in the Kaline campus were visited on the 20th. There was one meeting with the Principals of the affiliated colleges, one with

the representatives of the teachers, and one with some representatives of the students and there were two meetings with heads of departments in one of which the representatives of State Government were also present.

The Bombay University Act was amended in 1974 and the amendment came into force with effect from 20th May 1974. Under the Act the University area has been extended. It now comprises of (1) Greater Bombay, (2) Kolaba district (3) Thana district and (4) Ratnagiri district. The number of affiliated colleges is 113 including 77 colleges in the Thana, Kolaba and Ratnagiri districts. The University has 22 postgraduate departments and 9 Faculties viz. Arts, Science, Technology, Law, Medicine, Commerce, Dentistry, Ayurvedic Medicine and Fine Arts.

The total number of students enrolled in the University in 1974-75 was 1,38,441 (90,442 men and 47,999 women) as compared to 1,18,955 (78,451 men and 40,504 women) as on 1st August 1973. The increase in the enrolment of students is partly due to the extension of the jurisdiction of the University. The number of students belonging to Scheduled Castes, Scheduled Tribes and other backward classes is 6,629.

There are 546 foreign students studying in the University. The number of students in the University departments is 3,424 (2441 men and 983 women). The total number of sanctioned posts of the teachers in the University departments as on 1.4.1974 was 60 Professors, 97 Readers, 77 Lecturers and 12 others.

The University of Bombay has a large educational complex with a century old tradition and buildings. Basic facts and figures of the university for 1974-75 are enclosed as Appendix I. Its problems are rather unique and are not usually found in smaller or newer universities. According to the Vice-Chancellor, due to unstable situations in many other universities, the University has an enormous pressure on its admissions. The "contributory" system of teaching which is prevalent in almost all postgraduate departments of the University has its own advantages and challenges. The advanced centres in Economics and in Mathematics were also visited by the Committee. The objective of the Fifth Plan programme has been declared to be mainly:

1. The strengthening of the science departments;
2. The strengthening of social science area, in particular taking forward the progress already made by the economic departments;
3. The emphasis on an interdisciplinary attitude in the social science area with a special thrust by means of the establishment of a Research and Training Centre which involves the exploration of learning processes through participatory action;

- (4) Strengthening of the physical base in the new campus already created at Kalina;
- (5) Creation and development of a Life Sciences Departments at the University; and
- (6) Strengthening of Students facilities.

In general, those areas which are particularly useful and linked with the development of the State and the Nation are to be encouraged in the Fifth Plan. In the meeting with the students, it came to light that hostel buildings in the new campus especially a women's hostel should be given priority. In the discussions with the NSS group, who have already done useful work under the Graduate Volunteer Scheme, it was clear that here was a group of people committed to social services and to link education in the University with national development. The experience that they have gathered in the various schemes in this connection is now planned to be projected back into the learning process by designing a curriculum which will properly blend such participatory action in outside world with class-room learning of academic fundamentals. In such an objective, fears were expressed by members of the Committee that the constraint of academic learning may have to be kept in mind in designing this curriculum. The detailed proposals submitted by the University in this direction were scrutinised by the Committee. The Committee feels that, in this matter, though the general principles are fairly clear, the details of such a programme would have to await further investigation depth by a proper team of experts. While commending the University's laudable objective in this programme, the committee notes that the significant budget of about 2½ lakhs of rupees for this endeavour would have to come, if at all, from outside the plan allocation already fixed by the U.G.C. The Committee strongly recommends that this may be explored.

Library

The Library of the Bombay University comprises two units, the main Library at the old campus and the Kalina Unit at the new campus. Both together have about 3,75,000 books and 1,760 periodicals. The number of journals subscribed during 1973-74 was 1160 and the annual recurrent expenditure on books and journals was over Rs.5 lakhs. The number of reading seats is 650. On an average number of books issued per week to students and staff is 1,300 for home reading and 3,450 consulted on the premises. The Library also offers bibliographical and documentation services.

University Employment Information and Guidance Bureau -

The Bureau has been helping deserving and needy students by securing for them short-period jobs during the summer vacation.

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It also arranges visits to employers and career lecturers. It collects useful information and publishes guidance literature for the benefit of students. The University Department of Applied Psychology conducts the psychological testing of the registered students of the Bureau. It helps the students in getting their aptitude assessed. At the same time it provides the training opportunity for the senior students of Psychology.

Electronic Data Processing Centre Faculty members, research students and those studying for postgraduate degrees in various faculties use the computer. The Centre also conducts classes in Forstran Programming and Computer Concepts. The results of University examinations are also processed by the Centre.

Students Facilities - The University has five hostels for male students only which provide accommodation to about 600 students. They are situated at Churchgate, Matunga and at the new campus at Kalina.

Students Welfare Activities -

Sports
Health Centre
NCC
NSS

Examination Reform: A new scheme of evaluation through internal assessment combined with a University examination was introduced by the University in 1973 at the MA and M.Sc. degree examinations. At the MA examination, 60 marks in each paper of 100 marks are assigned to internal assessment. Out of these 60 marks 20 marks are allotted to a written assignment and 40 marks are allotted to one or more tests. For the M.Sc. 40% marks in each paper and in the practicals together are assigned to internal assessment and 60% marks are assigned to University examinations. The Academic Council of the Bombay University in December 1974 approved in principle introduction of the following reforms in the examination system:

- (i) Internal assessment and continuous evaluation -
According to the scheme, the subjects prescribed for an examination will be divided into two categories viz. (a) the core topics and (b) the non-core topics. There will be internal assessment in the non-core topics and University examination in the core topics.
- (ii) The system of grading will be introduced. This system will also be introduced for assessment of the performance of the candidates in practicals in the subjects of Physics, Chemistry and Biology at the Intermediate Science Examination.

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- (iii) The system of Question Bank will be introduced for setting question papers by drawing lots. Initially questions on 15% of the portion in each subject will be set and drawn from the Question Bank on an experimental basis.
- (iv) The system of moderation will be introduced in all the examinations leading to the first degrees in Arts, Science and Commerce.
- (v) The semester system will be introduced.

With effect from the first year Arts examination to be held in March/April 1975, students of the First Year Arts have been permitted, at their option, to answer their papers, except the language papers, in English and in any of the other three media viz. Marathi, Hindi and Gujarati.

Progress in the IV Plan

An allocation of Rs.149.38 lakhs was made in the IV Plan which consisted of Rs.123.91 lakhs as non-recurring and Rs.25.47 lakhs as Recurring expenditure. Of this, the University incurred a total expenditure of Rs.140.67 lakhs. The following buildings have already been constructed and commissioned into service : Science Block, Humanities Block, Lecture Halls & Seminar Rooms, Hostel at new campus for 50 men, staff quarters of 12 units, International Students House, Staff quarters-cum-hostel at Matunga, Students' Centre at new campus.

Equipment of about Rs.17 lakhs were obtained against the allocation of Rs.18 lakhs. Posts of 14 Professors, 19 Readers and 16 Lecturers had been approved. Of these, 10 posts of Professors, 20 of Readers and 15 of Lecturers were filled in (vide details given in the appendix - II).

Correspondence Courses

The University has extended the benefit of the University's Correspondence courses to the whole of the Maharashtra state. In addition to I.A., I.Com., B.A. and B.Com. courses the University has started M.Sc. degree course by correspondence for teachers of secondary schools. Certificate courses in Financial Management and Operations Research for Management were also started in 1974-75.

General Observations:

The University of Bombay, in many departments where it does not have a viable strength, conducts its postgraduate teaching involving teachers from the various affiliated colleges in the city. In this connection it is remarkable that some of the affiliated colleges have well established faculty in certain departments or areas. The question, of balancing this competence in the colleges with the strength (or weakness) of a university department was uppermost in the discussions of the committee in almost every department. It is not possible or desirable to look for a unique or rigid solution to this question with respect to every department. There are areas like Commerce where the colleges are very strong and there are other areas like Mathematics and Economics where the university department has established itself. Any further investment in Bombay University should take account of these factors and should continue the thrust forward. The development of viability of a faculty team is too crucial a matter to be sacrificed at the altar of small conveniences like faculty being near to a campus, spaces being available and so on.

The overall planning of the university, especially at this stage when it is shifting to a new campus, has to be done from a long-range point of view. The Committee in tune with this philosophy would not, therefore, agree, for example, in further

construction of buildings in the Fort area even if it be a women's hostel. Again in developing the library in the new campus, mundane problems arise like keeping duplicate copies of books in these two centres or shifting them back and forth from one to the other. These problems have to be solved by firmly making up one's mind that ultimately the campus will be at Kalina and any inconvenience that has to be faced in the immediate future is only transitory. This necessitates a large investment on building construction and the committee recommends therefore greater than 25% allocation for this purpose.

The Committee has one other global comment to make before it gets into the details of the different allocations. Education, especially higher education in modern times, has become so much interlinked that the conventional barriers of departments within the four walls of which we were all working have to be rejected in order that not only education can be integrated and given as one entity but also the investment in education can be used optimally. Very often we find in universities, Bombay University not excepted, that the same subject with almost the same content is being taught by more than one department to different clientele. Econometrics which is taught in both Statistics and Economics Departments is one such example. The Committee very strongly feels about the matter and would like to emphasize that the waste of money and energy implicit in such duplication is not in the best interests of the university. The Committee strongly urges the faculty of the University to explore the possibility of first identifying courses that are marginally equivalent in the entire spectrum of the various department offerings and then of merging or modifying those courses so that the clientele for the same type of course will sit together and get the same treatment.

A few guiding principles that the Committee kept before itself in making the recommendations, are :

1. Encourage effort that lead to integration of disciplines.
2. Go slow in investment in university departments where the participating colleges are already quite strong in faculty and/or equipment.

V Plan Proposals :

The total estimated expenditure involved in the V Plan proposals amounted to Rs.367 lakhs (of which the Commission's share Rs.250 lakhs) distributed as follows :

Spill-over	..	Rs. 3 lakhs
Staff	..	Rs. 48.85
Books	..	Rs. 27.10
Equipment	..	Rs. 41.65
Buildings	..	Rs.228.00
Others	..	Rs. 18.60

The proposals relate to consolidation and development of the existing departments and to open new departments of philosophy, Commerce, Music and Life Sciences.

Department of Humanities & Social Sciences

Among the existing departments the Committee has special comments to make about the Departments of Economics, Sociology, Civics & Politics, Applied Psychology and Law. In view of the total objective of the university to carry the thrust already made in the social sciences area, with which objective the committee agrees, investments in Languages are not recommended in any significant measure. Wherever there is a dire need to add a faculty member or two in the Language areas, the need to encourage the discipline of Linguistics and the attitude of integration of the studies in various languages must be kept in mind. With this view, the Reader in Marathi which is recommended under first priority may be chosen to be one in the area of Linguistics also especially in view of the fact that in Linguistics, no help is available from the participatory college teachers. The Readership in the department of Sindhi may be shifted to the third priority. The post of one Professorship in the Department of Education is not considered an urgent need at this point of time. On the other hand, the Committee recommends the post of Readership and Lectureship in Education may be in the first priority. The post of Readership in the Department of Foreign Languages is recommended to take care of the need to add a senior person in Persian. The Professorship in the Department of English should not be limited to any special area.

(1) Economics

This department was established in 1921 and till 1956 was a part of the School of Economics and Sociology. The department has at present nine sections viz. General Economics, Agricultural Economics, Monetary Economics, Demography, Econometrics, Planning & Development Centre in Public Finance and Industrial Economics, Transport Economics, and Economics of Education. The faculty comprises 8 Professors, 8 Readers and 3 Lecturers. It has about 320 students in M.A. classes and 80 students working for the Ph.D. degree. It is stated to have trained nearly 20% of the estimated total of 1200 Ph.D.'s in Economics produced in India since 1920. The department was selected by the UGC as a Centre of Advanced Study.

The major areas of research in the department are Value & Distribution Theory, Macro-Economic Theory, Fiscal Economics, Growth & Development Theory, International Trade & Finance, Mathematical Economics & Econometrics, Industrial Economics, Agricultural Economics, Population, Transport, Economics of Education, Indian Economy etc.

This department is one of the most prestigious departments of the University and has a fairly strong faculty. The gaps are in the areas of (i) International Economics, (ii) Economic Development and (iii) Quantitative Economics. The two professorships that have been asked for in the first priority,

one in the second priority and two Readerships in the third priority are legitimate and may be sanctioned. But the Professorship so created should not be tied especially in a well established department like this one, in specific area, so as to provide greater flexibility for the future. It is desirable to strengthen the Quantitative Economics area and make efforts to instegrate teaching in this area with the teaching of special subjects like Econometrics in the Statistics Department. The Department has proposed the starting of M.Litt programme. The sanctioning of the above post will be of help for such a programme and also meet the needs of the people already working in various institutions like Banks etc.

2. Sociology

The Department of sociology was established in 1919 and has on its staff 1 Professor, 5 Readers and 2 Lecturers, and the enrolment of students is 156 in M.A. and 35 in Ph.D. The department has been granted Special Assistance in developing research in Urban and Industrial Sociology. It proposes to develop the studies of Anthropology considering that Western India has a large tribal population now under the process of transition.

This is one of the oldest departments in Sociology in the country. Though the department is not involved in undergraduate education, it has taken the initiative in introducing courses at the intermediate level which have proved very popular. However, the department should make efforts to have closer contact with the teachers of Sociology in participant colleges and give them the necessary help to keep them abreast of modern developments in Sociology. In 1972 under the special assistance programme the department was sanctioned posts of one Professor and one Reader and two lecturers in Industrial Sociology. These have not been filled up yet. The department also gets help from the Population Council of New York for the establishment of Social Demography unit. The Committee feels that the proposal of the department to have one Professor and one Reader in the first priority (with the Professorship in Cultural Anthropology) is reasonable and may be accepted. The Readership may have to get to the area of Social Demography in view of the need to sustain the demography unit.

3. Applied Psychology

The department was established in 1959. It has at present on its staff 1 professor, 2 Readers and 2 Lecturers. There are 50 students in M.A. and 11 students working for Ph.D. The department undertakes research and counselling work and have several research projects recently, on industrial psychology, clinical psychology etc. The main thrust has been in the applied branches of psychology: The proposal of the department mainly relates to strengthening of the faculty, and related facilities.

This is a relatively new department. The department did not receive any assistance from the University Grants Commission during the 3rd and 4th Five Year Plans. The Committee noted that the department is keen to development in the areas of Industrial and Clinical Psychology and also take note of the fact that the members of the department were actually actively engaged in research in these areas. The request of the department for one Reader in the first priority may be accepted. In making these recommendations the Committee would further like to emphasize :

- (i) The department needs to interact with other departments and build up a collaborative relationship. It should be possible in the first instance for students of the departments to obtain instructions in statistical tools and techniques from the department of statistics.
- (ii) The Laboratory in the department which is on two floors is an unsatisfactory arrangement and the university may consider shifting the laboratory to one floor.

4. Civics & Politics

The Department was established in 1948 and has at present 2 Professors, 4 Readers and 2 Lecturers on its staff. The enrolment of students is 109 in M.A. and 11 in Ph.D. The Department proposes to strengthen its teaching programme with special reference to Political Theory, Politics of Asian Countries etc., and research programmes in Indian politics and administration, Attitude of minorities towards legislation and social change etc.

The one post of Professor ship in the first priority which has been proposed may be sanctioned and one post of Readership may be shifted from the third priority to the first priority. The post of a Professor may have to be in Public Administration and the post of Readership may take account of the need to have a specialist in International Law, since it is not possible to have a good comprehension in International politics. Organisation and Diplomacy without having an understanding of International Law. In this context the fact that International Law is being taught in the department of Law may be taken into account.

5. Law

The department established in 1959, has on its staff 2 Professors, 2 Readers and 2 Lecturers. The enrolment of students in LL.M. is 400 and 24 in Ph.D. The department conduct periodical seminars on Legal Research Methodology for the benefit of law teachers and research students.

The department of Law has on its rolls 400 students including 24 Ph.D. students. Bulk of the teaching is being done by part-time teachers drawn from the legal profession around 30 in number.

This arrangement is very unsatisfactory. Since the number of such participatory part-time professionals is out of proportion to the number of full-time teachers, further participation in the research activity suffers. It is suggested that one post of Professor, and one post of Reader may be sanctioned to the first priority and two posts of Lecturers in the second priority. The post of Professorship may be in the specialisation of Commercial Law since this will help the department of Commerce which is being planned.

6. Library Science: The Department was established in 1964. The staff of 1 Professor, 1 Reader and 2 Lecturers. The enrolment of students is 42 in B.Lib.Sc. 5 in M.Lib.Sc. and 2 in Ph.D.
7. English: The department, established in 1962 has on its staff 1 Professor 2 Readers and 1 Lecturer. The number of students is about 77 in MA and 6 in Ph.D. The major areas of research are Elizabethan period literature, American Literature, Literary Criticism and Aesthetics, etc. The department has conducted several summer school and courses on English language teaching.
8. Sanskrit: The department established in 1963, has on its staff 1 Professor 1 Reader and 2 Lecturers. The present enrolment of students is 28 in M.A. The research conducted in the department relates to Vedas, Puranas, and Pali and Ardhamagadhi literature.
9. Linguistics: The department was established in 1964 and has 1 Professor 1 Reader and 1 Lecturer on its staff at present. The enrolment of students is 95 in M.A. and 4 in Ph.D. The department has a scheme to study dialects of Marathi spoken in and around Bombay, lexico-statistical study of Indo-Aryan dialects etc.
10. Foreign Languages: The department established in 1964 has 1 Professor, 3 Readers and 7 Lecturers. It conducts certificate, diploma and M.A. courses in German, French, Russian, Arabic and Persian.
11. Marathi: The department was established in 1969 and has on its staff 1 Professor, 1 Reader and 2 Lecturers. There are 128 students in M.A. and 8 students working for Ph.D. The department is active in research in the fields of literary criticism, old and modern Marathi literature, etc. and utilise the facilities of the library of the Mumbai Marathi Granth Sangrahalaya.
12. Gujarati: The department was established in 1970 has the sanctioned staff of one Professor and one Reader. The enrolment of students in M.A. is 90 and there are 9 students registered for Ph.D.
13. Hindi: The department was established in 1970. The sanctioned strength of the staff in the department is one Professor and one Reader. There are 167 students in M.A. and 10 working for Ph.D. The major areas of research are modern Hindi literature and contribution of non-Hindi regions to the development of Hindi language and literature.
14. History: The department, established in 1969 has the sanctioned strength of staff of one Professor, one Reader and two Lecturers. The enrolment of students in M.A. is 127 and 15 students are working for Ph.D. The major areas of research are History of Maharashtra and History of India.

Contd...

15. Education: The department was established in 1974 and has one Professor, one Reader and one Lecturer on the staff. The major areas of research in the department are Educational Psychology Measurement & Testing, Teacher efficiency, Teacher adjustment, Examination & Learning.

16. Sindhi: The Department has been established only recently.

New Departments under Humanities & Social Sciences: Among the new departments suggested namely, Philosophy, Commerce and Music, the Committee does not favour the starting of the Department of Philosophy at this point of time. In view of the nucleus of strength and equipment in the Music Centre a Department of Music is recommended with one Readership in the first priority to start with. The top priority among new departments in Humanities and Social Sciences is, however, to be given to Commerce where the need has been felt very intensely in terms of enrolment and the large commercially interested clientele in the city of Bombay. One Professorship and one Readership in the first priority may be sanctioned for Commerce along with one Readership in the second priority. The Professorship may be earmarked for specialist in Finance or Trade and the Readership in the first priority for Banking.

Departments of Science.

Statistics: The department was established in 1948 and has on its staff one Professor, one Reader and 3 Lecturers. There are 49 students in M.A./M.Sc. classes and 6 students working for Ph.D. The major areas of research are Operations Research, Industrial Statistics, Design of Experiments, Statistical Analysis of Clinical Trials, etc. The department is equipped with 80 calculating machines and Sorter & Tabulator (I.C.L.).

This is one of the oldest department of the university. Since there is no proposal for development in the fifth plan period in this department by the University, the Committee has no comments other than to reemphasize the need already mentioned, to coordinate teaching in the Statistics Department with teaching in the Economics, Psychology and other social sciences departments.

Mathematics: The department established in 1963, has 3 Professors, 3 Readers, 2 Lecturers and 2 Research Associates including the posts under the Centre of Advanced Study in Mathematics. There are 39 students in the M.A./M.Sc. classes and 2 students registered for Ph.D.

The advanced centre in Mathematics has built a solid reputation for itself in Combinatorial Mathematics and Graph Theory which is its strong point. In view of the fact that the nucleus which has been built around the internationally known Prof. Shrikhande, should not be allowed to wither away after his retirement (due in another three years) the Committee recommends that the Readership proposed by the university for this department in the third priority should be shifted to the first priority and the Readership be filled up by a specialist in the area of Combinatorics and Graph Theory. The only strong school in Combinatorics in the country is here in Bombay. But the awareness of the 'relevance' of this area of mathematics to users of mathematics seems to be lacking in even the internal environment of Bombay University. For example, the Statistics Department living next door does not appear to have utilised either the expertise or the man-power available in the Mathematics Department in the field of 'Block' designs'. This is one other example of departments living in entire isolation from the rest of the community, much more the immediate environment. It would not be desirable to afford such luxury of isolation.

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Chemistry: The department was established in 1966 and has on its staff one Professor, 2 Readers and 5 Lecturers. There are 91 students in the M.Sc. and 14 students working for Ph.D. The major areas of research in the department are Synthesis Organic Chemistry, Solid State Chemistry, Analytical applications of organic reagents, etc. It has been taking up research schemes of CSIR, Ministry of Defence, and Directorate of Industries. The Department is equipped with various types of Spectrophotometers, NMR, Gas Chromatograph, Combustion Apparatus etc. It also uses the facilities of the BARC, TIFR and NCL.

The provision of six service facilities on the working benches in the Chemistry Lab. is unique and commendable. The department needs the strengthening of physical and inorganic sections. One Professor and two Readers in these areas are recommended in the first priority and two Lecturers in the third priority. The input of candidates with Bachelor degree in Chemistry without Mathematics is highly unsatisfactory arrangement. It is strongly recommended that the university may explore possibilities of having remedial mathematics for such students before they begin serious professional course in quantitative chemistry.

Physics: The department, started in 1971 has on its staff one Professor, one Reader and Three Lecturers. There are 50 students in the areas of Nuclear Physics, Solid State Physics and Electronics. It proposes to develop research in the fields of Heavy Ion Implantation in Solids, and Atomic Excitation caused by heavy ions. It has BARC and an Electron Microscope donated by the Cancer Research Centre, Bombay. It is building a 200 KeV Heavy Ion Accelerator and an X-ray Generator. It also uses the facilities at the Department of Chemical Technology, TIFR etc.

A provision of one Professor and two Readers in the first priority and two Lecturers in the third priority is recommended.

Geography: The Department, established in 1969 has one Professor, one Reader and one Lecturer on its staff. There are 76 students in the M.A./M.Sc. classes and 6 in the Ph.D. The major areas of research in the department are Geomorphology, Urban Geography, is equipped with cartographic equipment, topographical maps, thematic maps etc.

The Department of Geography, though barely four years old and having a very small faculty of three, is already emerging as a significant group on the academic map of the country. The group needs to be substantially strengthened in order to make it academically viable not only for the proper and all sided development of the discipline on the campus but for enabling it to provide ancillary service to other disciplines and to interdisciplinary programmes like Integrated Area Development and Area Studies. It is our view that an addition of four faculty positions should be provided in the first priority. Since the academic leadership provided by Prof. Dashpande would continue to be available for about three years it is recommended that the new faculty may be one Reader and 3 Lecturers. It is suggested that the additional faculty may be selected from the following areas:

- i) Geography of Water Resources/Agricultural Geography.
- ii) Quantitative Cartographic and Field Methods.
- iii) Urban Geography/Industrial Geography.
- iv) Social Geography/Tribal Studies.
- v) Social Geography/Tribal Studies.

Contd.....

It is suggested (i) and (iv) should be particularly requested to take part in the integrated area development programme. It is further suggested that each faculty member of the department should be requested to select a region in either USSR or Africa for some work so that their contribution in that direction may become an input into the Area-Studies programme of the Bombay University.

New Department of Life Sciences:

Regarding the establishment of the Department of Life Sciences, the following documents were placed before the Committee and the Committee read them carefully.

1. Printed 'Note on the proposal for the establishment of the Department of Life Sciences'.
2. Report of UGC Expert Committee, October 1969.
3. Report of UGC Expert Committee, July, 1972.
4. Copy of letter dated 13th November, 1969 from Dr. Siddiqui addressed to the Vice-Chancellor with an enclosed note on "The organisation of a division of biological sciences at the University of Bombay".

The Committee also had a special meeting in which along with the Vice-Chancellor, the Dean of the Faculty of Science and the Chairman of the Boards of Studies in Botany, Zoology, Biochemistry, Microbiology, Applied Biology and Bio-Physics were present. The vicissitudes of the past events in terms of the establishment of the department of life sciences were fully explained to the Committee. After all this interaction the Committee itself deliberated and came to the following conclusions :

1. The proposal of the University to establish the Department of Life Sciences be accepted and encouraged.
2. An immediate thrust be given to this establishment by sanctioning in the first priority three professors, two Readers and one Lecturer. Further in the second priority one Reader and three Lecturers may be sanctioned and as a third priority two Lectureships be sanctioned.
3. While the recruitment for the above positions is made, the university may keep two sets of parameters before itself: one, the cross-section of specialisation in the three disciplines of Plant life, Animal life and micro-organisms; the other namely, the cross-section of specialisation in the areas of Cell Biology, Developmental Biology, Molecular Biology, Microbiology, Genetics and Ecology.

4. The matrix of these two parameters be sufficiently represented by carefully selecting people will simultaneously represent one area under the first parameter and at least one area in the second parameter.
5. This decision be implemented without any further vacillation. In view of the fact that the already fully developed separate disciplines in the colleges will never produce an atmosphere for a comprehensive department of Life Sciences on their own.

The Committee wishes to thank the Vice-Chancellor, members of the staff, students etc. for their help and cooperation in the work of the Committee.

Appendix-I

Bombay University

Basic facts and figures of the University
for the 1974-75 (1st August 1974 to 31st March,
1975).

General Information

1. Total number of University Departments 22***
2. Total number of colleges 113 (inclusive of
14 colleges in Goa,
10 colleges in
Thana district,
4 colleges in
Kolaba district
and 10 colleges
in Ratnagiri Distt.)
3. Total number of recognised institutions 31 (inclusive of 1
Institution in Goa)
Under S.52 13)
Under O.97 18)

4. Management of Colleges and Recognised Institutions

	<u>Colleges</u>	<u>Recognised Institution</u>
University	1	4
State Government	13*	6 (inclusive of
Central Government	3**	1 Institution in in Goa)
Bombay Municipal Corporation	4	-
Private	92@	21

*Including 1 college in Kolaba and 1 college in Ratnagiri.

**Colleges in Goa

@Including 11 colleges in Goa, 7 colleges in Thana,
3 colleges in Kolaba, and 9 colleges in Ratnagiri.

5. Classification of Professional Colleges:

<u>Type</u>	<u>Number of Colleges</u>
Engineering ..	3
Architecture ..	1
Medicine ..	5
Ayurvedic ..	3
Dentistry ..	2
Nursing ..	1
Pharmacy ..	3
Law ..	6
Education ..	13
Physical Education ..	1
Commerce ..	20

Fine Arts Painting	..	1
Total	..	<u>59</u>

*** Besides there is a Centre of Postgraduate Instruction & Research, Panaji, Goa.

+Number of Students in the University:	Men	Women	Total
1. University Departments	2434	978	3412
2. Centre of Post-graduate Instruction & Research Panaji, Goa.	155	86	241*
3. Directorate of Correspondence Course	1558	956	2514
4. University Music Centre	4	12	16
5. Extension Programmes in Management studies	327	10	337
6. Colleges	83635	45859	131494
7. Institutions recognised under S.52	279	87	366
8. Institutions recognised under 0.97	50	11	61
Total:	<u>90442</u>	<u>47999</u>	<u>138441</u>

+ Figures for the position as on 1st August 1974 are given. As there were late admission during this year the final enrolment figures will be larger to some extent.

* Figures for the year 1974-75 are not available. Figures for 1973-74 are given.

(C) Faculty-wise enrolment of students:

<u>Name of the Faculty</u>		Men	Women	Total
Art	Arts	24908	29886	54794
	Science	19249	8464	27713
	Commerce	34547	7121	41669
	Law	3510	365	3875
	Technology	3486	192	3678
	Medicine	3805	1623	5428
	Dentistry	671	194	825
	Shuddha Ayurveda	274	140	414
	Fine Arts	32	14	46
Total :		<u>90442</u>	<u>47999</u>	<u>138441</u>

(D) Number of Postgraduate students	5608	2614	8222
(E) Number of Undergraduate Students	84834	45384	130219

Total :	<u>90442</u>	<u>47999</u>	<u>138441</u>
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Note: As there were late admission during the year 1974-75, enr figures (actual) will be larger to some extent. In the case of the following department/Colleges (where there is comparatively large variation), the figures for the last year (1973-74) are as follows :

<u>Department/College</u>	<u>Men</u>	<u>Women</u>	<u>Total</u>
1. Government Law College	1071	396	1467
2. New Law College	1143	208	1351
3. Siddharth College of Law	1421	110	1531
4. Mahadevrao Salgaocar College of Law, Goa	307	24	331

BOMBAY UNIVERSITY

IV PLAN

<u>Department</u>	<u>Posts Sanctioned</u>			<u>Posts filled in</u>		
	P	R	L	P	R	L
1. Economics	1	1	-	1	1	-
2. Sociology	-	2	-	-	2	-
3. Civics & Politics	1	1	-	1	1	-
4. English	-	1	1	-	1	1
5. Sanskrit	-	1	-	-	1	-
6. Foreign Languages	1	1	-	1	1	-
7. Linguistics	1	-	1	1	-	1
8. History	1	1	2	-	1	2
9. Marathi	1	1	2	1	1	2
10. Gujarati	1	1	.	-	2	-
11. Hindi	1	1	-	-	2	-
12. Education	1	1	1	1	-	-
13. Law	1	2	-	1	2	-
14. Geography	1	1	1	1	1	1
15. Chemistry	1	2	5	1	2	5
16. Physics	2	2	3	1	2	3

Spill-over Statement - Bombay University

<u>S.No.</u>	<u>Scheme</u>	<u>Approved cost.</u>	<u>Grant paid upto 31-3-74</u>	<u>Spill-over.</u>
1.	Appointment of Additional Staff (Humanities).	11,41,914	11,00,000	41,914
2.	International Students House.	6,25,000	6,17,000	8,000
3.	Men's Hostel	2,82,000	2,40,000	42,000
4.	Staff Salary (Science)	7,84,315	7,81,515	2,798
5.	Construction of Science Block	28,93,707	28,73,000	18,707
			Total	<u>1,13,419</u>

<u>Staff</u>	<u>Bombay University</u>			<u>(UGC Share only; Rs. in lakhs)</u>	
<u>Department/Priority</u>	I	II	III	Remarks	
<u>I. Humanities & Social Sciences</u>					
Marathi 1R	0.57	-	-		
Sindhi 1R	-	-	0.57		
Education 1R+1L	0.87	-	-		
Foreign Language 1 R	-	0.57	-		
English 1P	-	0.69	-		
Economics 3P+2R	1.38	0.69	1.14	(2P in priority I 1P in priority I)	
Sociology 1P+1R	1.26	-	-	2 R in Priority	
Applied Psychology 1R	0.57	-	-		
Civics & Politics 1P+1R	1.26	-	-		
Law 1P+1R+2L	1.26	-	0.60	(1P+1R in Priority I + 2L in Priority III)	
Music 1R	0.57	-	-		
Commerce 1P+2R	1.26	0.57	-	(1P+1R in Priority I and 1R in Priority	
<u>II Science.</u>					
Maths 1R	0.57	-	-		
Chemistry 1P+2R+2L	1.83	-	0.60	(1P+2R in Priority I and 2L in Priority III)	
Physics 1P+2R+2L	1.83	-	0.60	-do-	
Geography 1R+3L	1.47	-	-		
Life Sciences 3P+3R+6L	3.51	1.47	0.60	(3P+2R+1L in Priority I, 1R+3L in Priority II and 2L in Priority III)	
Total: 13P+22R+16L	18.11	3.99	4.11		

Vth Plan Bombay University

Other Proposals (Rs.in lakhs, UGC share)

<u>Item/Priority</u>	I	II	III
Library - Professional staff	-	2.25	-
Central Workshop	0.60 (R) 1.00(NR)	2.25	-
Archival Cell	-	1.50	-
Inter-disciplinary Centre	5.00	-	-
Bus	1.50(NR)	-	-
	<u>8.10</u>	<u>3.75</u>	<u>1.50</u>

UNIVERSITY OF BOMBAY - Books & Journals and Equipment

Name of the Department	Books			Equipment		
	I	II	III	I	II	III
<u>Departments in Humanities and Social Sciences:</u>						
<u>Existing Departments:</u>						
Department of Economics	1.25	0.63	0.62	0.33	0.17	0.17
Department of Sociology	0.40	0.20	0.20	0.10	0.05	0.05
Department of Civics & Politics	0.40	0.20	0.20	-	-	-
Department of Library Science	0.15	0.08	0.07	-	-	-
Department of Applied Psychology	0.63	0.31	0.31	1.00	0.50	0.50
Department of Law	0.87	0.44	0.44	0.10	0.05	0.05
Department of English	0.25	0.13	0.12	-	-	-
Department of Sanskrit	0.13	0.06	0.06	-	-	-
Department of Linguistics	0.25	0.13	0.12	-	-	-
Department of Foreign Languages.	0.13	0.06	0.06	-	-	-
Department of Marathi	0.10	0.05	0.05	-	-	-
Department of Gujarati	0.08	0.04	0.03	0.05	0.03	0.02
Department of Hindi	0.10	0.05	0.05	-	-	-
Department of History	0.25	0.13	0.12	0.07	0.04	0.04
Department of Education	0.15	0.08	0.07	0.05	0.03	0.02
Department of Sindhi	0.08	0.04	0.03	-	-	-
Language Laboratory (for Language Departments and Linguistics Department)	-	-	-	1.00	0.50	0.50
University Library	7.00	4.00	4.00	-	-	-
Total: A:	12.22	6.63	6.55	2.73	1.37	1.35

contd....

Name of the Department	Books			Equipment		
	I	II	III	I	II	III
<u>B. New Departments:</u>						
1. Department of Commerce	0.10	0.05	0.05	0.05	0.03	0.02
2. Department of Music	0.05	0.03	0.02	0.25	0.13	0.12
Total B:	0.15	0.08	0.07	0.30	0.16	0.14
TOTAL A+B	12.37	6.71	6.62	3.03	1.53	1.49
<u>II. Departments in Science</u>						
<u>A. Existing Departments:</u>						
1. Department of Statistics	0.25	0.13	0.12	0.25	0.13	0.12
2. Department of Mathematics	0.25	0.13	0.12	0.25	0.13	0.12
3. Department of Chemistry	1.25	0.63	0.62	2.50	1.25	1.25
4. Department of Physics	1.00	0.50	0.50	2.50	0.75	0.75
5. Department of Geography	0.20	0.10	0.10	0.75	0.38	0.37
TOTAL A:	2.95	1.49	1.46	6.25	2.64	2.61
<u>B. New Departments:</u>						
1. Life Sciences Total B:	2.50	1.25	1.25	5.00	2.50	2.50*
				7.50	3.75	3.75**
Total A + B	5.45	2.74	2.71	18.75	8.89	8.86

* For animal house and other facilities.

** For equipment.

V Plan - Bombay University

(Allocation for buildings (UGC share Rs. in lakhs))

<u>Item/Priority</u>	I	II	III
Science Block	10.00	5.00	15.00
Humanities Block	5.00	7.50	-
Lecture Halls and Seminar rooms	-	7.50	-
Library	10.00	5.00	11.00
Class IV quarters	3.50	-	-
Staff quarters	3.00	-	3.00
Women's Hostel at Kalina	9.00	-	-
Men's Hostel	6.00	-	-
Guest House	1.50	-	-
University Press	-	2.00	-
TOTAL:	48.00	27.00	29.00

BOMBAY UNIVERSITYFifth Plan allocation (Rs. in lakhs, U.G.C. Share).

Item/Priority	I	II	III	Total
1. Spill-over	1.14	-	-	1.14
II. Recurring				
(a) Teaching Staff	18.11	3.99	4.11	26.21
(b) Other proposals	6.60	3.75	-	10.35
(c) Junior Fellowship	5.00	-	-	5.00
(d) Visiting Professorship	1.00	0.25	0.25	1.50
III. <u>Non-Recurring</u>				
(a) Books	17.82	9.45	9.33	36.60
(b) Equipment	26.78	10.42	10.35	47.55
(c) Building	48.00	27.00	29.00	104.00
(d) Other proposals	2.50	-	-	2.50
Total	<u>126.95</u>	<u>54.86</u>	<u>53.04</u>	<u>234.85</u>

Uncovered balance 15.15

Grant Total Rs. 250 lakhs.

The new campus of the University spreads over an area of 250 acres. The buildings for the Basic Sciences and Humanities departments have been constructed and the departments of Mathematics, Chemistry, Physics, Botany, Zoology, Pharmacy and Humanities have shifted to the new campus. The accommodation available to these departments on the new campus is given in the Annexure-1.

The University permits students to write papers in undergraduate examinations in Arts and Commerce in Marathi, Hindi and English. The number of candidates offering Marathi, Hindi and English media at the 1972-73 exam. is given below :-

<u>Exam.</u>	<u>Medium</u>	<u>Students</u>
B.A.	Marathi	6064
	Hindi	828
	English	333
B.Com.	Marathi	3947
	Hindi	367
	English	286

During 1972-73, 49 candidates qualified for the Ph.D. degree. The present total enrolment in the postgraduate departments of the University is about 1,500 and in the postgraduate colleges about 4,000. The number of teachers in the PG departments of the University is 141 of whom there are 19 Professors, 47 readers and 75 Lecturers.

The breakup of students and teaching staff, departmentwise and categorywise, is given below :

1. Enrolment of Students.

<u>No. of students</u>	<u>As on 1.4.66</u>	<u>As on 1.4.74</u>
Undergraduate	44,274	86,465
Postgraduate	1,927	5,544 (includes 4,086 in colleges)
Research (Major Areas)	12	56
Total :	46,213	92,065

2. Postgraduate Students and Teaching Staff

<u>Department</u>	<u>Postgraduate students</u>			<u>Teaching Staff</u>		
	<u>As on 1.4.66</u>	<u>As on 1.4.74</u>				
1	2	3	4			
1. Ancient Indian History & Culture	6	6	1	1	3	
2. English	72	70	1	2	3	

1	2	3	4
3 Economics	94	163	1 1 3
4 Marathi	35	67	1 1 3
5 Library Science	66	58	- - 1
6 Sanskrit	15	21	1 1 3
7 Hindi	30	20	1 1 3
8 Pali & Prakrit	1	7	- - 2
9 Psychology	51	27	- 1 4
10 Philosophy	10	15	- 1 3
11 Political Science & Public Admn.	109	209	1 3 5
12 Sociology	69	43	- 1 2
13 History	34	54	- 1 3
14 Journalism	-	30	- 1 -
15 Foreign Languages	-	43	- 1 4
16 Biochemistry	42	29	1 2 4
17 Zoology	15	60	1 3 3
18 Chemistry	23	38	1 4 4
19 Botany	18	43	1 1 5
20 Geology	37	37	1 2 9
21 Physics	32	57	1 4 4
22 Mathematics	25	92	1 2 4
23 Pharmaceutical Sciences	75	164	2 5 12
24 Law	9	25	- 2 2
25 Home Science	-	34	- 2 4
26 Business Management	-	45	- 1 -
	868	1458	16 44 93

Progress during Fourth Plan

All projects continuing from the third plan were completed during the Fourth Plan except some development work of the new campus. The development works are in progress and are likely to be completed soon. On the recommendation of the Fourth Plan Visiting Committee, an allocation of Rs.73 lakhs had been made. Most of the schemes approved during the Fourth Plan were completed though part of the expenditure remained to be released after 31st March 1974. The construction work of the Students hostel could not be undertaken.

During the Fourth Plan, additional posts of 8 Professors, 15 Readers and 21 Lecturers were sanctioned. All these posts, except of 2 Readers, were filled in by the University. Similarly the equipment grants for science departments were fully utilised. A statement of spillover to Fifth Plan is given as Annexure II.

Fifth Plan Proposals and Observations

The Visiting Committee had meetings with the Vice-Chancellor, members of the Development Committee; Heads of the Department on university campus; Principals of local colleges in the faculties of arts, social sciences, science, commerce and education; a meeting with representatives of three teachers' associations and a meeting with the representatives of students. The objective of the Fifth Plan proposals was discussed by the Committee and was finally evolved to be consolidation rather than expansion. The University is now grappling with the problem of a new campus which is yet to be developed in terms of residential quarters, library etc. Certain departments are still in the city. The university is naturally keen on integrating their new campus without scattering any further energy and resources in its various buildings in the city. One of the ambitions which therefore emerged as a major ambition is to integrate the central library and create the necessary facilities at the new campus. The plan for such an integration is valid and the committee has, therefore, taken all efforts to pool all the resources that can be made available and earmark it to the library. The books and journals that have been planned under various departmental heads will therefore be pooled and credited to the development of the Central library rather than the departmental libraries as at present. The Central Library will procure the books and journals and loan to the respective departments as necessary. The recommendations that have been made have therefore taken into consideration the need to consolidate rather than to expand.

1. Central Library

The Central Library of the Nagpur University is situated in the city area at a distance of two to three miles from the new campus of the University. It has a rich collection of more than two lakh books and it subscribes to about 823 journals every year. The annual recurring expenditure on books and journals amounts to Rs.14.12 lakhs.

The library remains open from 8 AM to 10 PM, and it provide 150 reading seats. On an average 812 books are issued to students and teachers per week. The library provides bibliographical and documentation services to research scholars and teachers and is well-equipped for the purpose.

On the new campus a Reading Hall has been provided on the second floor of the Arts Block for students of all faculties.

2. Students' Hostel and Other Facilities

The University has two hostels each for men and women students which provide accommodation to 244 and 149 students respectively.

There is a Board of Physical Education & Recreation which conducts all sports activities in the University. The University playground covers an area of 8 acres which has smaller playgrounds for football, hockey, cricket, basketball, tennis etc. There are indoor courts for badminton and table-tennis and also a swimming pool situated in the premises of the Laxminarain Institute of Technology. Recently a gymnasium hall has been constructed on the University playground.

There is an Employment, Information & Guidance Bureau in the University to keep up to date information about educational/vocational guidance, counselling, placements etc. The Bureau collects information about foreign studies, scholarships, loan and travel grants and helps the students by providing information and securing admissions in India and abroad. 78 colleges under the jurisdiction of the University are provided with the branches of the Bureau. The Bureau publishes every month a bulletin entitled "Nagpur Vidyapeeth Patrika."

There is a Hobby Workshop where the students prepare a variety of jobs in various crafts.

3. Staff Quarters:

There are 24 quarters for Lecturers and none for Readers or Professors.

4. University Printing Press

The press has been working for the last 17 years. In addition to the routine work of the printing and binding of prospectuses, annual Reports, journals etc., it prints textbooks, research reports and monograms.

The University departments which have done good work during the last five years are: Geology, Chemistry, Biochemistry, Psychology, Political Science and Law and in allotting funds in the Fifth Plan period the thrust already made by these departments should be taken into account and consolidated. In view of this, the Committee is unable to agree to the starting of new departments like Fine Arts and the Department of Mass-communication. Since the Tagore Professor in Fine Arts has already been provided, until he takes charge and creates a viable nucleus the department of Fine Arts can not be a priority. The department of Journalism which proposes to convert itself into a department of Mass-Communication, in the opinion of the Committee, has to go a long way before it is ready to embark on plans of a programme of teaching and research

in mass communication. The Master's degree in Public Administration does not appear to be viable and the university is recommended rather to integrate their work in the departments of Public Administration and in Political Science by having a programme which will take care of the needs of both and the competence of both in a coordinated way. Except for these, other requirements that have been detailed by the University seem to be reasonable. The University may also keep in mind the following general comments in its development, consolidation and future expansion. These comments are more in the nature of an impression of an impartial third party rather than a case for tilting the priorities in any one direction.

1. Ancient Indian History is one of the good points of the University and its museum facilities require attention. Whether more accommodation can be created by a redistribution of the offices, class-rooms and exhibits in the same building, should be explored.

2. The Law Department seems to be doing good work both in teaching and research. It would be worthwhile if the teaching staff is strengthened so as to offer more options which is very essential because the present good work of the department needs to be kept up. The present position of engaging the local practising lawyers as part-time teachers is not a very satisfactory arrangement.

3. The Economics Department is a big department having about 163 students in both parts. At present there appears to be little restriction on admission since students even with minimum pass marks may be admitted. The Department needs to be strengthened on the statistical and mathematical side. The paper on Statistics is optional in M.A. while in the undergraduate classes Statistics is not taught at all. The Committee would like to suggest that in view of the significance of statistics for Economics, the university may introduce this as compulsory subject in M.A. Similarly one paper each in Economics and Mathematical statistics may be introduced as optional in the postgraduate classes.

4. The Philosophy Department is doing good work, especially on Symbolic Logic which has even been introduced in the undergraduate curriculum.

5. The Psychology Department has a fairly good laboratory and its work is impressive. The Department proposes to start a students counselling Unit. The Committee feels that this proposal may be supported within the financial constraints.

6. In the faculty of science, the physics department need strengthening Theoretical Physics to a level of competence to undertake research and this can be met by the appointment of a theoretical physicist at a senior level.

7. The Geology Department is doing good work but it is felt that the research activities of the department need strengthening.

8. The University chemistry department is possibly the best developed department in the faculty in the time span of its existence. It is fairly well equipped, in terms of physical facilities for its present activities. The teaching faculty needs strengthening in Theoretical/Inorganic and Quantum Chemistry so that lead could be given in these directions.

9. The Biochemistry department is one of the oldest department of the University. It is not only doing good work in training biochemists, but also provides expertise to institutions around. Strengthening areas of metabolism seems to be the urgent need of the department and this can be done by having a senior position in the area.

10. The department of Zoology, Botany and Biochemistry need closer collaboration and coordination in view of the fact that modern life sciences area is more an integrated area than a collection of narrowly specialised areas.

11. Each department having a separate workshop of its own is a tendency which could be curbed. This prevents the university going in a more sophisticated central workshop which can optimise space and utilise resources in an optimal way.

12. As most of the science departments are in the same campus, the Committee recommends that the University should have a central instrumentation facility. This would help in avoiding duplication of efforts in terms of men and material.

13. The New Mathematics programme of the education department should be encouraged because this is one of the areas where the university can meet the needs of larger schooling system at the base.

14. The department of Mathematics needs to orient itself towards modern applications like Operations/to go in for experts in these areas; but the Committee feels that there is enough talent in the department to interest itself in these new areas and slowly get out of its attitude of isolation. It may be desirable to be chosen in the modern areas of applications of mathematics rather than in a conventional area.

15. In its meeting with the teachers representatives, a number of grievances were alleged like delayed payments of salaries in colleges, payment of smaller salaries received against larger amounts and certain other grievances regarding recruitment methods. The Vice-Chancellor was quick to assure the Committee that these matters would be enquired into by proper authority. The Committee places its special request on record for the university to pursue these matters.

The detailed recommendations of the Committee for the departments are as follows :

Faculty of Science

1. Department of Physics:

The Physics Department, established in 1963, has one Professor, 4 Readers and 4 Lecturers on the staff. The annual intake of students in the M.Sc. class is 30. There are 15 scholars working for Ph.D. The major areas of research in the department are X-ray spectroscopy, Nuclear magnetic resonance, Theoretical Physics, Gas discharge, Electronic devices, Heat Transfer, Electro and thermo-luminescent and Ultrasonics. It has been doing research schemes sponsored by Department of Industries, Maharashtra, CSIR, NCERT etc. It has done considerable instrumentation work in NMR, Ultrasonics and Microwaves and has other departments and institutions in building, testing and calibrating their electronic equipment. It is well-equipped with X-ray spectrometers, monochromator, UV spectrograph, spectroline scanner etc. A broadband NMR apparatus has been set up and used to study association in liquids and the magnetic behaviour of complexes. An 100-cm X-ray Spectrometer has also been fabricated and used in the study of electronic structure of inter-metallic compounds. The department cooperates in interdisciplinary work with other departments and institutions and has given help and academic guidance to the local electronic industries.

In the opinion of the Committee this Department needs strengthening Theoretical Physics to a level of further competence for research and this can be met by the appointment of a Theoretical physicist at a senior level. This tendency of the departments to have small workshop units of their own serves only the duplication of efforts, and the university as a whole loses the possibility of a good centralised workshop. The Committee recommends that a central workshop be developed well with necessary technical personnel and equipment. There does not seem to be any justification for more space for the Physics Department at present.

Recommendations: Building	-	5,000 sq.ft.
Equipment	-	Rs. 4 lakhs
staff	-	1 Professor, 1 Lecturer

For the Central Workshop the Committee recommends the post of an Engineer and other technical staff and Rs.2 lakhs for equipment.

2. Department of Chemistry

The Department of Chemistry was started in 1963 and shifted to its building in 1963. It has the staff strength of 1 Professor, 4 Readers and 4 Lecturers. There are 23 research students including some teachers from affiliated colleges. The annual intake of students in the M.Sc. classes is 30.

The major areas of research in the department are Synthesis, organic heterocyclic Chemistry, Organic Reaction Mechanisms and Physical Organic Chemistry, Studies in Ultrasonic velocities in solutions, Coordination Chemistry, Analytical Chemistry, Nuclear and Radiation Chemistry, Theoretical Chemistry, Analytical Chemistry Nuclear & Radiation Chemistry, Theoretical Chemistry including Thermodynamics of Solutions. The department undertakes research schemes supported by different agencies like CSIR, UGC etc. The research and teaching staff have been utilising the analytical and instrumental facilities, available at IIT Kanpur, Regional Research Laboratory, Hyderabad, Central Drug Research Institute, Lucknow etc.

The M.Sc. syllabi have been revised and project-work has been included in the curriculum. Laboratory work with emphasis on the use of modern techniques and instruments have been introduced in M.Sc. work programme.

To the Committee it appeared to be one of the best developed departments in the Faculty of Science considering the time span of its existence. It is fairly well-equipped in terms of physical facilities for its present activities. The teaching faculty needs strengthening in Theoretical/Inorganic/Quantum Chemistry so that lead could be given in these directions. There is a genuine need for additional space to facilitate better working conditions.

Recommendations:	Building	..	5,000 sq.ft.
	Equipment	..	Rs. 4 lakhs
	Staff	..	1 Professor and 1 Lecturer

3. Department of Biochemistry

The Biochemistry department was established in 1946 and has on its staff 1 Professor, 1 Reader and 4 Lecturers. The annual intake of students in M.Sc. is 20 and there are 13 students working for Ph.D. The major areas of research in the department are Vitamins in relation to protein and lipid metabolism, Diabetes and Atherosclerosis, Hormonal regulations, Neuro-chemistry, Food sciences etc. It has been conducting research on projects sponsored by ICMR, CSIR, ICAR etc. It is provided with the necessary equipment like Spectrophotometers, Preparative Ultracentrifuge, Cold Centrifuge, Warburg Apparatus etc. At the same time it uses the facilities available at the Central Public Health Engineering Research Institute, Nagpur, Laxminarayan Institute of Technology, Nagour University, and the Indian Bureau of Mines, Nagpur.

The Committee is of the view that strengthening areas of metabolism is the urgent need of the department and this can be done by having a senior position in this field. The department has been doing commendable work in training biochemists and providing expertise to institutions around, like the Medical College,

Department of Pharmacy, Department of Zoology, Jaximinarayan Institute of Technology. It should also have collaborative programmes of work with the above mentioned departments and institutions.

Recommendations :	Building	..	1,250 sq.ft.
	Equipment	..	4 lakhs
	Staff	..	1 Professor

4. Department of Botany

The Department of Botany was established in 1963 and has on its faculty 1 Professor, 1 Reader, 5 Lecturers and 17 Ph.D. scholars. The major areas of research in the department are cytogenetics, Embryology and Mycology and offers special papers in these branches for the M.Sc. course. The annual intake to M.Sc. course is 20 students. It has the necessary equipment like research microscopes, centrifuge, Deep fridges, electrophoresis apparatus, gas flow counter etc. It also makes use of the facilities available at the Institute of Science, Bombay, Botanical Survey of India, IARI etc. Research workers of other departments of the University as also of other universities take advantage of its research facilities. The department proposes to develop in the field of irradiation for inducing mutations etc. for which a person with specialisation in plant physiology and employing tracer techniques will be necessary. The Committee recommends the post of a Reader for the same, and a laboratory and class room for Rs.50,000/-.

Recommendations :	Building	..	1,250 sq.ft.
	Equipment	..	Rs.3 lakhs
	Staff	..	1 Reader

5. Department of Zoology

The department of Zoology, established in 1963, has 1 Professor, 2 Readers and 2 Lecturers in its staff. There are 15 students working for Ph.D. The annual intake of students in the M.Sc. course is 20. The major areas of research in the department are Entomology, Ichthyology and Animal Physiology. It has been undertaking research supported by CSIR, ICAR etc.

The major items of equipment in the department are research microscopes, microtomes, Warburg Apparatus, Electrophoresis apparatus etc. The research and teaching staff of the department make use of the facilities available at the Institute of Science, Bombay, Aligarh Muslim University, Vikram University, Ujjain etc.

The department does not have insectory, insect farm or animal house for breeding and rearing insect animals is very essential for continuous supply of material for physiological work. For building, the Committee recommends an amount of Rs.50,000/-.

As for the tissue culture laboratory, one of the halls at the first floor may be used for this purpose. The Committee also recommends a Lecturer and a Professor with specialisation in Ichthyology.

Recommendations :	Building	..	1,250 sq.ft.
	Equipment	..	Rs. 3 lakhs
	Staff	..	1 Professor and 1 Lecturer

6. Department of Geology :

This department, established in 1946, is one of the oldest departments of the University. It has 1 Professor, 2 Readers and 9 Lecturers on the staff. The annual intake of students in the B.Sc. course is 20, 10 in M.Sc. (Pure Geology) which is a two-year course and 10 in M.Sc. Applied Geology which is a three-year course. The major areas of research in the department are Ore deposits and related petrology, Exploration Geochemistry, Hydrogeology, Mineral Economics and Coal Petrography. There are ten research scholars working for Ph.D.

The department is well-equipped with research microscopes, metallurgical microscopes, spectrophotometer, surveying instruments Goniometer etc. Research workers from the Hindustan Copper Corporation, Geological Survey of India, State Directorate of Geology & Mining, Central Fuel Research Laboratory, Groundwater Survey and Development Agency, Maharashtra have been using the laboratories of this Department. It proposes to strengthen the Mineral Prospecting and Exploration Geochemistry. This department has the advantage of being situated in areas of oldest rocks which generally contain non-ferrous and rare metals. The Committee recommends posts of two Readers and one Lecturer for the Department.

7. Department of Mathematics

The Department of Mathematics, established in 1963, has at present 1 Professor, 2 Readers and 4 Lecturers on the staff. The annual intake of students in MA/M.Sc. is 70 students, and there are 4 scholars working for Ph.D. The major areas of research in the department are Fluid Dynamics, Topological Vector Spaces and Operator Theory, Visco-elasticity, and Transforms. The Department has done considerable work towards the reform of Mathematics education at the school and college levels. The Committee is of the view that the department needs to orient itself towards modern application of mathematics like Operations Research, Applied Mathematics etc. It may not be possible to go in for experts in these areas but the Committee feels that there is enough talent in the department to interest itself in the new areas and slowly get out of its attitude of isolation. One post of a Professor and Reader each is recommended. They should belong to modern areas of applications of mathematics rather than to conventional ones.

Recommendations: ..

Building	..	1,250 sq.ft.
Equipment	..	Rs.0.60 lakhs
Staff	..	1 Professor and 1 Reader

8. Department of Home Science

The Department of Home Science was established in 1968 and has 2 Readers and 4 Lecturers on the staff. The annual intake to M.Sc. course is 10 and 3 scholars are working for Ph.D. The area of specialisation of the department is Home Management. It has some equipment like Centrifuge, Colorimeters etc. In the opinion of the Committee the immediate need of the department is that of a Professor who can lead the department to progress in this branch of learning.

Recommendations: Equipment	..	Rs. 1 lakh
Staff	..	1 Professor

Faculty of Humanities & Social Sciences

1. Department of Economics

This department was established in 1958 and has at present 1 Professor, 1 Reader and 5 Lecturers on its staff. The number of scholars working for Ph.D. degree is 13. This is a big department having about 163 students in both parts of M.A. (105 students in M.A. Part I). At present there appears to be little restriction on admission since students with even with minimum pass marks may be admitted. The department needs to be strengthened on the statistical and mathematical side. The paper on Statistics is optional in M.A. while in the undergraduate classes Statistics is not taught at all. The Committee would like to suggest that in view of the significance of Statistics for Economics, the university may introduce this subject as a compulsory subject in M.A. Similarly one paper each in Econometrics and Mathematical Statistics may be introduced as optionals in the postgraduate classes. The Committee recommends two posts of Readers for the department in view of the foregoing observations and Rs.20,000/- for equipment.

2. Department of Political Science and Public Administration

The departments of Political Science and Public Administration are two departments academically independent with separate Boards of Studies. They are merged together for administrative purposes since 1964. The departments provide instruction leading to M.A. in Political Science, M.A. in Public Administration and Diploma course in Local-Self-Government with intakes of 60, 50 and 10 respectively. There are 20 candidates working for Ph.D. The departments have modernised the courses, initiated inter-disciplinary studies and provided opportunities to teachers for professional

development through seminars, summer institutes and refresher courses. A number of research projects have been undertaken which have either been completed or are in progress e.g. A study of the contribution of village agencies to the development programme in Vidarbha (sponsored by Planning Commission), a study of the developing party system in the context of the Fourth General Elections (sponsored by the Planning Commission).

The proposals of the departments relate to additional teaching staff, research fellowship, and grant for books and equipment. The existing staff is 1 Professor, 2 Readers and 3 Lecturers in Public Administration. The Committee is of the view that the Master's degree in Public Administration does not appear to be viable and the university is recommended rather to integrate the work in the departments of Public Administration and in Political Science by having a programme which will take care of the needs of both and the competence of both in a coordinated way. The Committee recommends Rs.10,000 for equipment and posts of 1 Professor and 1 Lecturer for the Department of Public Administration, and Rs.5,000/- for equipment and 1 Reader for Political Science Department.

3. Department of Ancient History & Culture

The department was established in 1955 and has at present 1 Professor, 1 Reader and 3 Lecturers on its staff. There are 6 students in Ph.D. and 6 in M.A. classes. The major areas of research in the department are Excavations, Temple Survey, Iconographical Studies, Prehistoric explorations in Vidarbha and Maharashtra etc.. The department is well equipped with photographic surveying and drawing equipment. The University sanctions annually a substantial amount to the department for excavations and explorations. This department is one of the best departments of the University. Its museum facilities require attention. However, whether more accommodation can be created by a redistribution of the offices, class-rooms and exhibits in the same building should be explored by the University. An equipment grant of Rs.60,000/- is recommended.

4. Department of History

The Department of History, established in 1958, has 1 Reader and 3 Lecturers on its staff at present. There are also 5 part-time lecturers. There are 54 students in M.A. and 6 in Ph.D. The Committee recommends the post of a Professor for the department for toning up teaching and research, who should preferably be an expert in modern history.

5. Department of Psychology

The Department of Psychology, established in 1963, has 1 Reader and 4 Lecturers on the staff at present. There are 27 students in M.A. in both parts. The department has a fairly

Pol.Sc.
1 Reader
Lect.
Pub.
n.

good laboratory and its research work is impressive. It proposes to start a students counselling unit. Intensive training in psychological testing is already imparted to the students of psychology with facilities of one-way glass fittings for observation, communication system for instruction and tape-recording of the entire testing session. The department needs senior staff for toning up teaching, research, counselling etc. The Committee recommends 1 Professor and 1 Technical Assistant besides Rs.60,000/- for equipment for the department.

6. Department of Philosophy

The Department of Philosophy, established in 1958, has at present 1 Reader and 3 Lecturers on its staff. There are 15 students in M.A. The major areas of research carried out in the department are Modern Symbolic Logic and Indian Philosophy especially the Vedantic system. Symbolic Logic has been introduced in the undergraduate curriculum and Advanced Symbolic logic in M.A. . Research work in Modern and Indian logic is proposed to be expanded. The Committee supports the proposal of the University for the post of a Professor in the Department.

7. Department of Sociology

The Department of Sociology was established in 1963 and has at present 1 Reader and 2 Lecturers on its staff. The annual intake of students in M.A. is 25 and 4 candidates are working for Ph.D. The major areas of research are Industrialisation, Urbanisation, Social Progress of Scheduled Tribes and Scheduled castes etc. The department at present has only two recognised guides and therefore many students are denied admission for Ph.D. The Committee recommends the post of a Professor for toning up teaching and research. The department also needs calculating machines etc. for which a grant of Rs.20,000/- is recommended.

8. Department of Journalism

The Department of Journalism has 30 students and 1 Reader. Part-time teachers and professionals contribute to the teaching in the department. The Committee recommends additional posts of one Reader and one Lecturer for this department as well as Rs.40,000/- for equipment etc.. However the Committee does not support the proposal of the University to convert this into Department of Mass communication since the Department of Journalism has to consolidate and stabilise itself before expanding into other fields of mass communication.

9. Department of Linguistics & Foreign Languages

The department was established in 1969 and has 1 Reader and 2 Lecturers in Teaching of English, 1 Reader and 1 Lecturer and Linguistics, 2 Lecturers in Telugu and Bengali and one

teacher in Russian. There are parttime teachers in German and French. The number of students in Diploma and Certificate Courses in German, Russian and French respectively are about 94, 34 and 89. The department also runs a Diploma course in teaching of English (30 students). Over 300 college and school teachers have been trained under this programme during the last ten years. A junior Diploma Course in Teaching of English for middle school teachers is also given in the department (23 students). In the PG Diploma Course in Linguistics there are 7 students. Besides there are the Diploma Course in English Language with 100 students and the Higher Diploma Course in English language with 63 students. The Committee feels that the department should have some full-time staff of its own in foreign languages and therefore recommends the posts of 1 Reader and 3 Lecturers, as also an equipment grant of Rs.60,000/-.

10. Department of Library Science

This department was established in 1956 and has one Professor and 3 part-time Lecturers. The annual intake of students in B.Lib. course is 35. The students of the department compile bibliography on various subjects. In addition, internship programme of a duration of thirty working days has been introduced. The Committee recommends the post of a Reader for this department to take care of the subject of documentation in Sciences and Social Sciences.

11. Department of Law

This department was established in 1963 and has at present 2 Readers and 1 Lecturer on the staff. It has an annual intake of 20 students in the LL.M. class. It has also started taking scholars for Ph.D. The department seems to be doing good work both in teaching and research. It would be worthwhile if the teaching staff is strengthened so as to offer more options, which is essential now a days. The present good work of the department needs to be kept up. The present position of engaging the local practising lawyers as part-time teachers is not a satisfactory arrangement.

At present the department has to hold classes on a make-shift B.Ed. barracks. The Committee recommends a provision of Rs.2.10 lakh for building space for this department and teaching staff of 1 Professor, 2 Readers and 2 Lecturers.

12. Education

The University College of Education was established in 1945 and has 1 Principal and 15 Lecturers on its staff besides a Coordinator of extension services and a Director of physical education. There are about 200 students in B.Ed. and 50 in M.Ed. classes. Research is conducted in Educational Psychology,

Psychometry, Abilities, Aptitudes, Attitudes etc. The Committee supports the proposal of the University to start a postgraduate course in New Mathematics because this is one of the areas where the University can meet the needs of larger schooling systems at the base, and therefore recommends posts of 1 Professor, 2 Readers and 2 Lecturers.

13. Language Departments

This group has the departments of Marathi, Hindi, Sanskrit, Pali & Prakrit and English.

The Department of Marathi, established in 1958, has 1 Professor, 1 Reader and 2 Lecturers on the staff at present. There are 67 students in M.A. and 9 working for Ph.D.

The Department of Hindi, established in 1958, has 1 Professor, 1 Reader and 2 Lecturers on the staff. There are 20 students in M.A. and 20 working for Ph.D.

The Department of Sanskrit was established in 1958 and has 1 Professor, 1 Reader and 3 Lecturers on the staff. There are 21 students in M.A. 6 working for Ph.D.

The Department of Pali & Prakrit, established in 1958, has 2 Lecturers on the staff. There are 7 students in M.A. and 6 working for Ph.D.

The Department of English, established in 1958, has 1 Professor, 2 Readers and 3 Lecturers on the staff. The number of students: 70 in MA and 9 in Ph.D.

All the departments under the Faculty of Humanities are engaged in research work. Many subjects of specialisation have been introduced in the PG courses. There is shortage of staff in the departments of Sanskrit and Pali & Prakrit. The Committee therefore recommends the posts of 1 Lecturer in Sanskrit and 1 Reader in Pali/Prakrit.

Fine Arts

The need of the Nagpur University at present is to consolidate than to expand. In view of this the Committee is unable to support the proposal of the University to start a department of Fine Arts. The University would better make use of the post of the Tagore Professor Fine Arts to create a nucleus for the proposed department.

Departments of Business Management and Pharmaceutical Sciences

These departments come under the field of technical education and their requirements may be assessed with the help of the AICTE

Central Instrumentation and Data Processing Centre

The Nagpur University has a number of science departments and affiliated colleges like the Institute of Science, Regional College of Engineering, Medical College where teachers and students are actively engaged in research. However every department cannot have all costly and sophisticated equipment, involving heavy foreign exchange, for research. The proposal of the University to have a centralised research instruments facility to be availed of by all the deptts of the University as well as neighbouring institutions is in the right direction. A start may be made with the instrumentation facilities and later on data processing facilities may be added to the Centre. The Centre may also give training and courses in instrumentation to students besides providing for instrumentation and fabrication of items required for research and development. This Centre should work in close collaboration with the Central Workshop of the University and the workshops of the Engineering College and Laxminarain Institute of Technology. The Committee recommends grants of Rs.6 lakhs for building (15,000 sq.ft.) Rs.15 lakhs for equipment and 1 Engineer and other technical staff.

Statement showing buildings/Projects located at
University Campus of Nagpur University, Department wise.

Sr. No.	Name of the Department	Area	Class rooms	Laborato-ries.	Research rooms.
1.	2.	3.	4.	5.	6.
1.	Building for Physics & Mathematics Deptts.				
	<u>DETAILS</u>				
	a) Physics Deptt.	GF 14820 Sq.ft.	4	2	3
	b) Maths. Deptt.	FF 10470 Sq.ft.	2	6	1
2.	Chemistry Building:	GF 14445 Sq.ft.	2	11	4
	(i) Gas plant	FF 9684 Sq.Ft.			
		GF 201 Sq.ft.	-	-	-
3.	Bldg. for Zoology	GF 7761 Sq.ft.	2	5	2
		FF 5511 Sq.ft.			
4.	Bldg. for Botany.	GF 7761 Sq.ft.	2	7	-
		FF 5768 Sq.ft.			
5.	N. R. S. C. Building	GF 3500 Sq.ft.	-	-	-
		FF 2250 Sq.ft.			
6.	Bldg. for Pharmacy Deptt.	GF 13603 Sq.ft.	3	7	2
	<u>Subsidiary structures.</u>				
	i) Animal House	GF 1205 Sq.ft.	-	-	-
	ii) Workshop.	GF 638 Sq.ft.	-	-	-
	iii) Baby Boiler House	GF 132 Sq.ft.	-	-	-
	iv) Gas plant	GF 132 Sq.ft.	-	-	-
	v) Inflammable Store.	GF 126 Sq.ft.	-	-	-
7.	Guest House Bldg.	GF 3733 Sq.ft.	-	-	-
		FF 2090 Sq.ft.			
8.	Home Science Bldg. a)	GF 5170 Sq.ft.	4	5	1
	b)	GF 1816 Sq.ft.			
	c)	FF 5170 Sq.ft.			
9.	V.C.'s Bunglow	GF 2758 Sq.ft.	-	-	-
		FF 890 Sq.ft.			
	<u>Subsidiary structures.</u>				
	i) Servants' quarters	GF 725 Sq.ft.	-	-	-
	ii) Garage	GF 440 Sq.ft.	-	-	-
	10. Office Store.	GF 890 Sq.ft.	-	-	-
	11. Elevated Reservoir	903 Sq.ft.	-	-	-
	12. Central workshop.	GF 3050 Sq.ft.	-	-	-
	13. Building for Humanities Deptt.	FF 2340 Sq.ft.			
		FF 4670 Sq.ft.			

Contd....

1.	2.	3.	4.	5.	6.
<u>GROUND FLOOR.</u>					
a) History Department	-	-	2	-	2
b) English Department	-	-	3	-	1
c) Marathi Department	-	-	-	-	-
d) Sanskrit Department	-	-	2	-	1
e) Economics Department	-	-	5	-	-
f) Hindi Department	-	-	1	-	-
<u>FIRST FLOOR.</u>					
g) Public Administration Department.	-	-	2	-	1
h) Political Science Deptt.	-	-	3	-	1
i) Sociology Department.	-	-	2	-	1
j) Psychology Department	-	-	2	3	1
k) Pali & Prakrit Deptt.	-	-	2	-	1
l) Philosophy Deptt.	-	-	2	-	1
<u>SECOND FLOOR.</u>					
(Common for all faculties)	-	-	-	-	-
Total numbers.			<u>26 Nos.</u>	<u>3 Nos.</u>	<u>10 Nos.</u>

Theatres.	Dark Rooms.	Preparation rooms.	Staff rooms.	Muse-ums.	Animal House.	Libra-ry.	Common rooms.	Remarks.
7	8	9	10	11	12	13	14	15
1.						*		One building is combined for both Departments.
a)	3	-	6	-	-	1	-	
b)	2	-	6	-	-	-	-	
2)	1	.	1	-	-	1	2	
1)	-	-	-	-	-	-	-	
3)	-	-	1	1	-	-	1	
4)	1	-	2	1	-	1	2	
5)	-	-	-	-	-	1	1	
6)	1	1	3	1	1	1	1	
1)	-	-	-	-	-	1	-	
1)	-	-	-	-	-	-	-	
1)	-	-	-	-	-	-	-	
v)	-	-	-	-	-	-	-	
w)	-	-	-	-	-	-	-	
y)	-	-	-	-	-	-	2	
3)	-	-	6	-	-	1	-	
9)	-	-	-	-	-	1	-	
1)	-	-	-	-	-	-	-	
1)	-	-	2	-	-	-	-	
1.	-	-	-	-	-	-	-	75000 gallons Capacity.
2.	-	-	1	-	-	-	-	
3.	-	-	-	-	-	-	-	
a)	-	-	5	-	-	-	1	
b)	-	-	2	-	-	-	1	
c)	-	-	4	-	-	-	-	
d)	-	-	4	-	-	-	-	
e)	-	-	4	-	-	-	-	
f)	-	-	4	-	-	-	-	

Contd.

7	8	9	10	11	12	13	14	15
g) -	-	-	4	-	-	-	-	-
h) -	-	-	4	-	-	-	-	-
i) -	-	-	3	-	-	-	-	-
j) -	1	-	4	1	-	-	-	-
k) -	-	-	2	-	-	-	-	-
l) -	-	-	4	-	-	-	-	-
<u>Second floor</u> (Common to all faculties)								
1(Assembly Hall)						1(Reading Hall)		
No.	No.	Nil	4Nos.	Nil	Nil.	-1No.	2 Nos.	

SPILL-OVER STATEMENTANNEXURE-II

S.No.	Scheme.	U. G. C. Share.	Grant paid upto 31.3.74	Spill over to Vth Plan.
1.	Salaries of the staff.			
	a) Science Departments.	6,57,984.40	4,20,302.40	2,37,682
	b) Home Science Deptts.	1,48,556.31	1,50,762.60	-
2.	Central workshop.	98,441.00	90,000.00	8,441/-
3.	Home Science building and Const. of 1st floor of existing bldg. for Home Science.	3,50,000.00	2,95,000.00	55,000/-
4.	Construction of Vice- chancellor House.	30,000.00	27,500.00	2,500/-
5.	Construction of Women's Hostel.	3,59,325.00	3,55,000.00	4,325/-
6.	Additional staff for Humanities and Social Sciences.	4,90,935.00	3,55,000.00	1,35,935/-
7.	Construction of Arts Block.	8,00,000.00	7,90,000.00	10,000/-
			Total:	<u>Rs. 4,52,883/-</u>

NAGPUR UNIVERSITY-VTH PLAN.

(Staff - (UGC Share Rs. in Lakh)

Category/priority	I	II	III
Sanskrit L-1	-	0.30	-
Pali & Prakrit R-1	-	-	0.57
Political Science R-1	-	0.57	-
Public Administration P-1, L-1	0.69	-	0.30
Economics R-2	0.57	0.57	-
Library Science R-1	-	-	0.57
Zoology P-1	0.69	-	-
Psychology P-1, Tech. Asstt.	0.69	0.30	-
History P-1	0.69	-	-
Journalism R-1, L-1	-	0.57	0.30
Foreign Languages & Linguistics R-1, L-3	0.57	0.60	0.30 (2 Lecturers in priority II and 1 Lecturer in priority III)
Chemistry P-1, L-1	0.69	-	0.30
Physics. P-1, L-1	0.69	-	0.30
Central workshop Engineer & other technical staff.	1.00	0.50	0.50
Botany R-1	-	-	0.57
Mathematics P-1, R-1	0.69	0.57	-
Geology. P-1, L-1	0.69	0.30	-
Geology R-2, L-1	-	0.87	0.57 (1 Reader & 1 Lect. under priority II & 1 Reader in priority III)
Biochemistry P-1	0.69	-	-
Home Science P-1	0.69	-	-
Law P-1, R-2, L-2	1.25	0.87	0.30 (1P+1R under priority I, 1R+1L under priority II and 1L under priority III)
Education (PG course in new Maths) P-1, R-2, L-2	1.25	0.30	0.57 (1P+1R under priority I, 1L under priority II and 1R+1L under priority III)
Philosophy P-1	0.69	-	-
Central Instrumentation Centre Engineer & other staff.	1.50	0.75	0.75
Total P-13, R-15, L-14 Engineer-2	12.81	6.57	6.20

Nagpur University - V Plan Allocation

(U.G.C. Share. Rs. in lakh)

<u>Item/Priority</u>	<u>I</u>	<u>II</u>	<u>III</u>	<u>Total:</u>
Spill-over	4.54	-	-	4.54
Staff	13.75	6.57	6.20	26.58
Equipment	18.70	11.85	11.85	42.40
Books	20.00	5.00	5.00	30.00
Research Fellowships	2.00	2.00	1.00	5.00
Visiting Professorship	0.50	0.25	0.25	1.00
Building	17.00	8.30	1.30	26.60
	<u>76.49</u>	<u>33.97</u>	<u>25.30</u>	<u>156.06</u>

Uncovered balance 13.94
Grant total Rs.150 lakh

NAGPUR UNIVERSITY - V PLAN.(Equipment (Rupees in lakh, U.G.C.Share)

<u>Humanities & Social Sciences.</u>	<u>PRIORITY</u>		
	<u>I</u>	<u>II</u>	<u>III</u>
Public Administration	0.05	0.05	-
Political Science.	0.05	-	-
Economics.	0.10	0.05	0.05
Sociology.	0.10	0.05	0.05
Psychology.	0.30	0.15	0.15
Ancient History & Culture.	0.30	0.15	0.15
Journalism.	0.20	0.10	0.10
Linguistics.	0.30	0.15	0.15
Total:	<u>1.40</u>	<u>0.70</u>	<u>0.70</u>
<u>Sciences</u>			
Chemistry	2.00	1.00	1.00
Physics.	2.00	1.00	1.00
Central Workshop.	1.00	0.50	0.50
Botany.	1.50	0.75	0.75
Maths.	0.50	0.15	0.15
Zoology.	1.50	0.75	0.75
Geology.	1.50	0.75	0.75
Biochemistry.	2.00	1.00	1.00
Home Science.	0.50	0.25	0.25
Central Instrumentation	5.00	5.00	5.00
Total:	<u>17.30</u>	<u>11.15</u>	<u>11.15</u>
Grant Total:	18.70	11.85	11.85

NAGPUR UNIVERSITY

Building (U.G.C. Share rupees in lakhs)

1. <u>Science</u>	<u>PRIORITY</u>		
	<u>I</u>	<u>II</u>	<u>III</u>
Chemistry (5000 sft.)	2.00	-	-
Physics.	2.00	-	-
Botany.	0.50	-	-
Mathematics.	-	0.50	-
Zoology.	0.50	-	-
Biochemistry.	0.50	-	-
Central Instrumentation	4.00	1.00	1.00
2. Law	1.50	0.30	0.30
3. Teachers Hostel	3.00	-	-
4. Staff quarters.	-	3.50	-
5. Students Hostels	3.00	3.00	-
Total:	<u>17.00</u>	<u>8.30</u>	<u>1.30</u>

The Committee visited the SNDT Women's University, Bombay on 24th and 25th February 1975 and held discussions with the Vice-Chancellor, Registrar, Members of the teaching staff, Principals, students etc.

The SNDT Women's University was started by Dr. D. K. Karve in 1916 as a small institution with a two-fold purpose - the purpose of educating women for economic independence and the release from social bondage of the then widowed women. It got its present name in 1920 after Shrimati Nathibai, the mother of Sir Vithaldas Thackersey. In 1951, the institution flowered into a full fledged Statutory University. The SNDT Women's University is a distinct type of University with the sole concern and commitment to the advancement of higher education of women. With the advent of social changes and the changing trends in education, the university has aptly restructured its educational programmes and has kept the emphasis on the "education of women". It is hoped that in planning its future programmes, the university would take the progressive approach towards introducing short courses at the level of postgraduate diplomas or certificates which have the potential of employment and of generating employment possibilities.

The SNDT Women's University has no departments in the traditional sense. It has at present 8 university colleges and 14 colleges affiliated to it. As far as the teaching aspect is concerned, both undergraduate as well as postgraduate teaching is carried on under a common administration of the college and the senior faculty members teach at both the levels. The 8 colleges run by the university are as follows :-

<u>Sl. No.</u>	<u>Particulars</u>	<u>Facilities available</u>	<u>Media</u>
1.	Arts College	Teaching and research in English Gujarati, Hindi, Marathi, Music Arts & Paintings, Sociology and teaching only in Economics	Gujara Marath
2.	Education College	Teaching, research and training in Audio-visual Education, extension, Guidance and Counselling.	Gujara Marath
3.	Home Science College	Teaching and research in Foods nutrition, child development and family relations, textiles and clothing	Gujara Marath Engli
4.	Nursing College	B.Sc. Nursing	Engli
5.	School of Library Science.	B.Lib.Sc.	Engli

II. POONA CAMPUS

1. Arts College	Teaching and research in Hindi and Marathi.	Marathi
2. Education College	Teaching upto postgraduate level and research	Marathi
3. Home Science	B.Sc.Home Science	Marathi & English

Enrolment

During the Fourth Five Year Plan, the enrolment of students was more than doubled at undergraduate, postgraduate and research levels. The enrolment during 1965-66 and 1973-74 in the various faculties of the university were as follows :

Enrolment of students

1965-66

Faculty	U.G.	P.G.	Ph.D.	Private	Total
Arts	4175	101	11	3310	7597
Education	-	268	-	50	318
Home Science	525	13	-	-	538
Nursing	49	-	-	-	49
Lib.Sc.	-	29	-	-	29
Total	4749	411	11	3360	8531

1973-74

Arts	10694	406	33	5845	16978
Education	-	348	6	171	525
Home science	976	33	-	-	1009
Nursing	167	-	-	-	167
Lib.Sc.	-	43	-	-	43
Total:	11837	830	39	6016	18722

During the same period the number of teachers, however, did not increase much as would be evident from the following figures:

Category	No. of posts as on 1.4.1966	No. of posts as on 1.4.74	No. of teachers in position as on 1.4.1974
<u>A. Faculty of Arts:</u>			
1. Professors	-	6	6
2. Readers	4	10	7
3. Lecturers	24	48	40
4. Others	43	51	50
Total:	74	115	103
<u>B. Faculty of Basic Science:</u>			
1. Professors	-	3	3
2. Readers	5	6	4
3. Lecturers	10	17	14
4. Others	38	52	47
Total:	53	78	68
<u>C. Faculty of Education</u>			
1. Professors	-	4	4
2. Readers	3	5	4
3. Lecturers	8	20	14
4. Others	16	25	24
Total:	27	54	47
<u>D. Faculty of Nursing:</u>			
1. Professor	-	-	-
2. Reader	1	2	1
3. Lecturer	4	4	3
4. Others	10	23	23
Total:	15	29	27

Fourth Plan Schemes:

During the Fourth Five Year Plan, the Commission approved development schemes of the SNDT Women's University involving an expenditure of Rs. 89.00 lakhs as UGC's share. Against this, grants amounting to Rs. 49,24,501 were actually released upto 31-3-74. The most important project taken up by the University during Fourth Plan, was the construction of a composite building at Juhu to provide accommodation for (i) Department of Home Science, (ii) Department of Education, (iii) Library and (iv) Students Hostel. The original estimated cost of this building was Rs. 74.52 lakhs, UGC's share being Rs. 52.64 lakhs. However, as the progress of the construction work being carried out of the Contractors was very slow, the university was forced to terminate the contract and award the work of completing the project to a new contractor. But during this period, there was a sharp increase in the cost of building materials, so much so, that the building is now estimated to cost of Rs. 1,32,63,000/-. This has resulted in a spill over of Rs. 70.64 lakhs. Adding to this, the spill over of other schemes, the total spill over comes to Rs. 88,44,766/- (Annexure I).

For academic programmes, the University concentrated its efforts on consolidating and strengthening the existing departments. This has helped the University in raising the standard of teaching and research during the Fourth Plan period.

Fifth Plan proposals:

For the Fifth Five Year Plan, the U.G.C. had tentatively suggested to the SNDT Women's University to frame development proposals to the extent of Rs. 100 lakhs. The University was also asked to put the proposals under these priorities. The first Priority proposals were supposed to include all the spill-over schemes from Fourth Plan to Fifth Plan and the grants sanctioned during Fifth Plan before the visit of the Committee. As shown in Annexure I, the total of such schemes comes to Rs. 88,44,766/-. Since this large spillover has resulted due to unavoidable circumstances, the Committee recommends that the entire allocation of Rs. 100 lakhs may be given under First Priority.

The Committee visited the various departments and library and had detailed discussions with the Vice-Chancellor, members of the teaching staff, students and the Registrar on the various aspects of development proposals.

(I) College of Education at Bombay:

The Fifth Plan proposals of this College mainly relate to the strengthening and further development of the existing departments viz. (i) Department of Guidance and Counselling (ii) Department of Language Teaching and Language Laboratory, (iii) Department of Audio-Visual Education and (iv) Research Cell. After

discussions with the teachers of the college, the Committee was impressed with the quality of work being done in the college. There appears to be a clear preparation of goals and a fairly good realisation of the means to achieve the goals. The B.Ed. degree programme of the College of Education is quite strong. It is one of the most effective programmes being offered by the Colleges of Education in Maharashtra and Gujarat. However, the M.Ed. programme of the college needs to be strengthened. The Ph.D. programme has not yet found its gear. The Committee, therefore, feels that the Commission's support during the Fifth Plan should be directed to help the University to maintain the quality of the B.Ed. programme and for expanding and strengthening the M.Ed. and Ph.D. programmes. To achieve this, the infra organisation of the College of Education at Bombay needs to be reorganised on the following lines :

The college should have the following internal departments under the direction and control of the Principal. No single department is to be conceived as a separate isolated entity - each would be inter-related, signifying only the different focal points and organizational set up to perform leadership function and planning in its specific sphere. The staff would be operated relation to each Department so far as it has professional and academic competence.

Departments:

- (1) Teacher Education (B.Ed. teacher training).
- (2) Post-Graduate Teaching and Research.
- (3) Department of Educational Administration
- (4) Department of Inservice Teacher Education
(Extension Services to the Practising Schools)
- (5) Department of Audio-Visual Education
- (6) The Language Laboratory
- (7) Department of Counselling and Guidance.

Each Department may have to be placed in charge of a senior person possessing competence and leadership capabilities in its field.

Some of these Departments will have links with other institutions of the University, viz.,

- (1) B.Ed. Teacher training department with the Staff College proposed to be set up.
- (2) Post-Graduate Teaching and Research Department with Centre of Research on Women's Education proposed to be set-up.
- (3) Department of Inservice Education with the Department of Continuing Education in the University.

- (4) Department of Guidance and Counselling with Dean of Students' establishment in the University.

The departments of B.Ed. Teacher Training, Audio-Visual Instruction and Language Laboratory should have more organic relationship as the latter two Departments can contribute vitally to the effectiveness of the B.Ed. teacher training. Further, the staff should have teaching assignments both in the B.Ed. and M.Ed. classes and some staff should not be exclusively set aside for the B.Ed. programme unless they are not adequately academically and professionally equipped to teach the post-graduate class.

The College should have the benefit of Visiting Professors from outside the University to teach in the M.Ed class and also provide assistance in the Ph.D. guidance work especially in Educational Administration, Philosophy of Education, History of Education and Planning, Economics and Finance of Education.

(a) Department of Post-graduate Teaching and Research :

To strengthen post-graduate teaching and research an amount of Rs.50,000 may be provided during the Fifth Plan period for inviting Visiting Professors, data-processing tools and other reference materials and publications.

(b) Language Laboratory:

The Language Laboratory can be strengthened by providing one Technical Assistant and funds for the purchase of the equipment. This should be possible with an amount of Rs.50,000.

(c) Department of Guidance and Councillng:

This Department should be assisted to offer the following services to the clientele of the College. Viz., the local practising schools and to the sister institutions in the University :

- (a) Career information
- (b) Training of career masters.
- (c) Purchase of test materials for measuring abilities and interests of students.
- (d) Developing a 'guidance' corner for the College as well as the University Students.

For these activities a grant of Rs.20,000 is recommended.

(d) Department of Audio-Visual Education

Audio-Visual materials and aids are considered as most essential ingredients of effective instruction. The department can contribute in making class instruction in schools and colleges varied and concrete. The Department should, therefore, be helped to enrich its library of instructional and educational films,

building up a Tape Library, dubbing English educational films in Gujarati, Hindi and Marathi, and materials needed in the preparation of Graphic Aids.

A grant of Rs.30,000 is recommended for the Department
College of Education, Poona :

The University proposes to set up a Unit for 'Improvement of Examinations' at the College of Education, Poona. The objectives of the proposed unit are :-

- (i) To assist Boards of Studies in different subjects to improve upon the question papers in the subjects by way of introduction of objective type of questions.
- (ii) To undertake analysis of question papers set at the examinations and suggest ways of improvement based on the findings of such analysis.
- (iii) To enable Boards of Studies in different subjects to prepare a 'pool of questions' and thus to establish a 'Question Bank'.
- (iv) To undertake experimentation and research in respect of changes in the system of examinations e.g. Introduction of 'internal assessment' at different levels, 'Adoption of the Grade System in lieu of marks etc.
- (v) To assist Boards of Studies to prepare reliable and valid entrance examination/tests to ascertain the fitness of a student for a particular course.
- (vi) To guide the cooperating schools to effect improvement in their examinations.

Requirements of the University for this unit are as follows :

(i) Reader	One	
(ii) Lecturer	One	
(iii) Research Asstts.	Two	
(iv) Clerk-cum-Typist	One	
(v) Peon	One	
(vi) TA/DA for field work		Rs. 3,000/-
(vii) Printing, Stationery & Publication.		Rs. 4,000/-
(viii) Furniture & Equipment		Rs. 18,000/-

The Committee feels that if such a Unit is to be set up, it should be in the University itself i.e. at Bombay rather than at Poona and should take the form of Central Examinations Reforms Unit. For this, the university may approach the U.G.C. for assistance under the scheme of Improvement of Examination System.

Staff College:

To improve the quality of teaching, the university is conducting several programmes for the faculty members of the Colleges conducted by and affiliated to the university. The university desires to make some permanent arrangement to offer such programmes to faculty members and with this end in view has proposed to set up a Staff College. This programme is crucial in Perspective of the growing needs to orient the university teachers. The university has interalia asked for two Lecturers, and Rs.14,000/- p.a. for payment of honorarium, T.A. and D.A. to guest lecturers. The Committee feels that in view of the importance of this programme, the Commission may provide the assistance as above as a part of the plan or if possible, under the Faculty Improvement Programme.

Arts College, Bombay:

The University proposes to start new degree course in Social Work and postgraduate courses in Geography, History, Political Science and Library Science. The Committee feels that instead of expansion, there is greater need to strengthen and consolidate the existing courses. In this direction, the Committee recommends that the University may be provided Rs.1,25,000/- for departmental books and Rs.2,50,000/- for books and journals for the Central Library, as indicated in Annexure II.

As regards proposals for additional staff for strengthening the existing facilities, the Committee feels that the University may, in the first instance, fill in the posts lying vacant.

Home Science: The University is running undergraduate and postgraduate courses in Home Science at Bombay and only undergraduate course at Poona. In view of shortage of accommodation, the Fourth Plan Visiting Committee had recommended that the undergraduate courses in Home Science (both Marathi and Gujarati) being run at Bombay, may be shifted to the new campus at Juhu. It is hoped that it would be possible to shift the undergraduate courses to the Juhu Campus when the composite building gets ready some time in 1976. Though, on the whole, the programme in Home Science is well conducted, there is scope for modifying the curriculum at the B.Sc. level, especially the core subjects offered in the 4th year and also the number of diversified subjects added in the first two years. However, the Visiting Committee was informed that the University has plans to revise the basic structure of the curriculum in relation to the 10+2+3 pattern of education. The Committee recommends that the Commission may provide Rs.1,50,000/- for equipment and Rs.50,000/- for books and journals for the Home Science College, Bombay and Rs.75,000/- for equipment and Rs.40,000/- for books and journals for the Home Science College, Poona.

Centre of Women's studies:

The University has been doing pioneering work in the field of women's education. In this direction the university has developed the programme of continuing education, provided facilities to students appear as external students and designed some courses which are specific to women's problems. The university has already set up a Research Unit in Women's studies with an Hon. Director and Two Research Assistants and has asked for Rs.6.08 lakhs for recurring and non-recurring expenses during the Fifth Plan period. The Committee feels that this proposal of the university may be considered by the Commission under the Special Assistance Programme or as a Research Project through the Humanities Research Council.

Composite Building at Juhu: The Committee also visited the Juhu Campus of the SNDT Women's University, the Composite building being constructed there. In the portion to be used as students hostel, it was pointed out that it would be necessary to provide slabs, Partitions etc. This would involve an additional expenditure of Rs.1,50 lakhs. The Committee recommends that this may be taken into account while determining the total cost of the building.

Library: During the Fourth Plan, about 26000 books were added to the university library at Bombay and about 11000 books to the university library at Poona. The total number of books available in the libraries at the end of the Fourth Plan were 86065 at Bombay and 23402 at Poona. The University libraries provide reading seats for about 250 students at Bombay and 120 students at Poona. The libraries remain open for 64 hours a week from August to April and 58 hours a week from May to July. On an average about 2330 books are issued per week to the students at Bombay and 880 books per week to the students at Poona. The Committee recommends that in addition to the departmental book grants, the university may be given Rs.2.5 lakhs for the Central Library for books and journals.

Meeting with the Staff: There was general demand from the teachers for early implementation of the new UGC scales of pay, better research facilities and more residential accommodation. The Maharashtra State Government has since agreed to implement the new pay scales. For better research facilities, the teachers were told that they could apply to the UGC separately, for specific research projects or for general assistance for the purchase of books and journals or urgently needed chemicals under the scheme of Financial Assistance to Teachers. However, for residential accommodation, the staff may have to wait because of the heavy spillover of the University from Fourth Plan to Fifth Plan.

Meeting with the students:

The students appeared to be more or less satisfied with the services being provided in the form of hostel facilities, scholarships, ~~ships~~, Text Books, Students Aid Fund and Games and Sports. However, on the academic side there is a demand for providing facilities to pursue various courses in Hindi medium. The Committee recommends that the University may consider this demand sympathetically as this would also help the University to become an all-India institution.

Other schemes:

The university has included several other schemes like construction of Vice-Chancellor's Residence, Guest House, Establishment of University Press etc. in its Fifth Plan proposals. However, since the university has a large spill over of over Rs.91 lakhs against a possible allocation of Rs.100 lakhs, the Committee recommends that the Commission may consider these proposals favourably in case it is possible to provide additional funds to the university.

General suggestions:

1. The nomenclature 'Conducted College', 'principal', etc. is rather confusing, University Colleges may be redesignated as 'Department' and the Principal as 'the head'.
2. The teachers of affiliated Colleges should have more involvement and participation in university affairs so that they can develop greater identification with the University.
3. Within the departments of the University and in the functional relationship between the University Administration and individual department or the College of the University, an open climate should obtain.
4. The University would do well to establish a Council of Postgraduate Study and Research with representation of all disciplines which would include adequate representation from the affiliated colleges.
5. The University is in a more favourable position to introduce Semester System and Grade-Credit System in Home Science, Education and Library Science.
6. The University should also set up an Academic Planning Board to develop courses and programmes that can better meet the needs of women.
7. The demand for introduction of Hindi as a medium of instruction, in addition to Marathi and Gujarati needs sympathetic consideration by the University.

S.N.D.T. WOMEN'S UNIVERSITY

Position of Spill Over from IV Plan Schemes.

S.No.	Scheme	U.G.C. Share.	Grand paid upto 31.3.74	Spill over to the Vth plan.
1.	Staff Salary (Humanities)			
i.	(Addl. Staff. Hum. & Soc. Sciences).	6,42,592/-	5,70,000/-	72,592/-
ii.	Addl. Staff in Central Library.	48,669/-	35,000/-	13,669/-
iii)	Staff Education Department.	2,18,000/-	80,000/-	1,38,000/-
iv)	Comperative Study of Literature Linguistics & Socio-Political aspects of Gujarati & Marathi Lit. of 19th Century.	35,000/-	20,000/-	15,000/-
2.	Extension of Women's Students Hostel.	28,188.48	10,000/-	18,188.48
3.	Const. of 4 Staff Qrs.	95,000/-	80,000/-	15,000/-
4.	N.R.S.C.	70,000/-	55,000/-	15,000/-
5.	Students Home at Poona.	1,00,000/- 24,000/- (furniture)	90,000/- 12,000/-	10,000/- 12,000/-
6.	Extension of Women's Students Hostel at Poona.	37,591.10	30,000/-	7,591.10
7.	Const. of Women's Hostel at Poona.	9,18,345/-	-	9,18,345/-
8.	Const. of Class rooms.	2,50,000/-	-	2,89,350/-
9.	Additional Class rooms at Poona.	10,465/-	10,000/-	465/-
10.	Const. of Library Bldg.	1,07,000/-	1,06,000/-	1,000/-
11.i)	Purchase of stacks for Library.	34,000/-	30,000/-	3,914.75
ii)	Central Library equipment.	8,000/-	5,400/-	2,600/-
iii)	Addition & Alteration to Central Library.	13,000/-	5,000/-	8,000/-
12.	Const. of Home Science building at Poona			
	Ist Phase.	3,97,040/-	3,85,000/-	12,040/-
	IIInd Phase.	2,62,510/-	2,35,000/-	27,510/-

Cont d.....

1.	2.	3.	4.	5.
13.	Const. of Composite bldg. for Science Departments.	81,12,361/-	17,85,000/-	63,27,361/-
14.	Const. of Teacher's Hostel (9 units at Bombay).	1,14,920/-	90,000/-	24,920/-
15.	Staff for various Deptts. of Science			
	i) P.G. Home Science at Bombay.	-	1,97,085/-	9,584/-
	ii) U.G. Home Science at Poona.	-	1,03,920/-	43,636/-
16.	Teachers Education Programme.			
	(Poona Centre)	-	15,000/-	
	(Bombay Centre)	-	19,000/-	8,57,000/-
17.	<u>Equipment</u>			
	Psychology.	4,000/-	2,000/-	2,000/-
			Total:	<u>Rs. 88,44,766.33</u>

S.N.D.T. WOMEN'S UNIVERSITY

Financial implications of the recommendations of the Fifth Plan
Visiting Committee

Sl. Department No.	Books	Equipment	Building		Others		Remarks
			Total	UGC share	Total	UGC share	
<u>I. Humanities & Social Sciences</u>							
1. Economics	10,000						
2. Education	20,000	1,00,000*			50,000	50,000	For Visiting Professors
3. English	10,000						
4. Fine Arts	10,000						
5. Geography	5,000						
6. Gujarati	10,000						
7. Hindi	10,000						
8. History	10,000						
9. Political Sc.	10,000						
10. Psychology	10,000						
11. Sociology & Social work	10,000						
12. Library Science	10,000						
<u>II. Home Science</u>							
(i) Bombay Campus	50,000	1,50,000					
(ii) Poona Campus	40,000	75,000					
(iii) Central Library	2,50,000	-	1,50,000	1,12,500			
(iv) Composite Blds.			1,50,000	1,12,500			
	4,65,000	3,25,000	1,50,000	1,12,500	50,000	50,000	

* Rs.50,000 for Language laboratory, Rs.20,000 for Guidance and Counselling & Rs.30,000 for Audio Visual Education.

PART IV

REPORT OF THE FIFTH PLAN VISITING COMMITTEE
FOR TATA INSTITUTE OF SOCIAL SCIENCES, BOMBAY

...

The UGC appointed a Visiting Committee consisting of the following to assess the requirements of the Tata Institute of Social Sciences, Bombay for the Fifth Plan period :

1. Professor V.Krishnamurthy .. Convener
Department of Mathematics
Birla Institute of Technology &
Science
Pilani.
2. Professor S.N.Ranade
School of Social Work
Delhi University
Delhi.
3. Professor B.L.Nagar
Department of Economics
Delhi University
Delhi.
4. Professor Moonis Raza
Professor of Geography
Jawaharlal Nehru University
New Delhi.
5. Professor S.M.Alam
Department of Zoology
Aligarh Muslim University
Aligarh.
6. Professor S.K.Banerji
Department of Chemistry
Birla Institute of Technology & Science,
Pilani.
7. Professor Harnam Singh
Department of Political Science
Delhi University
Delhi.

Secretary to the Committee

Shri S.P.Gupta
Deputy Secretary
University Grants Commission.

The Committee visited the Tata Institute of Social Sciences, Bombay on the 23rd February 1975 and held discussions with the Director, members of the teaching staff, students etc.

The Institute was established in 1936 as the Sir Dorabji Tata Graduate School of Social Work. It was renamed as the Tata Institute of Social Sciences in 1944 and the change of name reflected the widening interest of the Institute in the broader area of social sciences particularly in their application to

social services. The Institute strives as a postgraduate institution to maintain a high academic standard through research and training and in developing services to the community.

The current objectives of the Institute are broad based and the scope of its activities is as follows:

1. To organise teaching in the social sciences with a view to providing professional personnel in social work, social service, personnel administration and allied professional fields;
2. To organise social research and to train students in the methods of social research with a view to promoting the growth of knowledge in the subjects studied at the Institute and to contribute to the formulation of social policies;
3. To publish books, monographs, periodicals, papers in the subjects studied at the Institute;
4. To arrange lectures, seminars, conferences, symposia, etc. for the benefit of those who are interested in the subjects studied at the Institute;
5. To co-operate with other organisations in such manner and for such purposes as the Institute may determine; and
6. To undertake such other activities as may be deemed to be necessary to promote understanding and better professional practice in the areas of social work, social services, personnel administration and allied fields.

The Institute has the following departments, research units and programmes :

1. Criminology and Correctional Administration
2. Family and Child Welfare
3. Medical and Psychiatric Social Work
4. Urban and Rural Community Development
5. Social Research
6. Social Welfare Administration
7. Department of Personnel Management and Labour Welfare;
8. Unit for the Sociology of Education
9. Unit for the Urban Child and Youth.
10. Extra-mural programmes consisting of short-term, part-time, refresher courses
11. Doctoral Programmes.
12. Programme for Library development
13. Programme of Publication of Research Monographs and Teaching materials.

The strength of the teaching staff in the Institute is as follows :

Director	..	1
Professors	..	3
Readers	..	7
Lecturers	..	12
Total:		<u>23</u>

The enrolment of students is as follows :

Research	..	25
(Social Work and Social Sciences)	..	10
M.A.		
Personnel Management		47
Social Work		120
		<hr/>
Total:		202

Progress during Fourth Plan

During the Fourth Five Year Plan, the Commission provided development grants for Rs.18 lakhs. The programmes included -

- (a) Advanced teaching programme at the Post-M.A. level in Social Work and Personnel Management and Labour Welfare;
- (b) Expansion of the existing programme at the M.A. level;
- (c) A two-year M.A. course in Criminology (in addition to the existing training programme in correctional administration); and
- (d) Institutional programmes of doctoral studies.

The advanced teaching programme at the Post-M.A. level in Social Work and Personnel Management has not been taken up so far for a variety of reasons. However, the Post-M.A. programme in Personnel Management and Labour Welfare has been initiated on a trial basis from (1973-74) with the filling of the post of Professor of Personnel Management and Labour Welfare.

The existing programmes at the M.A. level have expanded considerably. This will be evident from the fact that the total student enrolment during the IV Plan Period increased to 346 from 238 in the III Plan period.

The Institute started a two-year programme leading to M.A. in Social Welfare Administration in July 1971 with six students mostly nominees of State Governments and by the end of the IV Plan period, 19 students are expected to complete their programme of M.A. in Social Welfare Administration.

During the Fourth Plan, posts of 2 Professors, 1 Reader, 5 Lecturers, 5 Faculty Assistants had been sanctioned. Of these, the University filled in the posts of 2 Professors, 1 Reader, 4 Lecturers and 4 Faculty Assistants. Some of the building programmes could not be completed before the end of the Fourth Plan. The extension of the teaching block is almost complete. The construction of the teachers hostel could not be taken up due to temporary ban on constructions. A statement of spill-over grants to Fifth Plan is given in Annexure-1.

Observations & Recommendations

1. Department of Criminology and Correctional Administration

The department introduced a master's programme in 1953 and a doctorate programme in 1968. Both programmes deal with varied problems faced at different levels in the structure of criminology and correctional services. The Committee noted that there is a strong demand for training of shorter durations because it is difficult to get experienced people for training for a period of two years. The Committee recommends that more short term courses and seminars may be offered by the Department depending upon the facilities available and the requirements of outside institutions.

2. Department of Family and Child Welfare

The MA degree programme in family and child welfare trained 67 social workers during the Fourth Plan as against 40 during the Third Plan period. There is a further demand for trained social workers as a result of increase in the number of child-care institutions and family planning units. The Department also conducts short term courses for the administrative officers and training personnel in the relevant areas.

3. Department of Medical and Psychiatric Social Work

The Department is engaged in equipping the specialisation group with necessary knowledge, teaching of methods courses and case work to meet the requirements for medical psychiatric, social workers in hospitals, clinics, community centres etc. The full time child guidance clinic at Parel and the part-time clinic at Chembur have been rendering services to the community by treating children suffering from behaviour problems. These agencies also serve as field work agencies for the specialisation group.

4. Department of Urban and Rural Community Development

The various authorities are now required to tackle problems presented by large cities experiencing the impact of industrialisation. The department trains social workers in the field of urban and rural community development activities. It trained 37 students during Fourth Plan period against 13 during the Third Plan.

5. Department of Social Research

The department offers a one year postgraduate certificate and a two year MA degree course with specialisation in social research. Eighteen and fifty students completed the MA programme during the third and Fourth Plan period respectively. The Department also conducts short-term programmes of about two month duration. The name of the department has been recently changed to Department of Research Methodology.

6. Department of Social Welfare Administration

The Department was established in 1971 and offers a two year programme of training in social work with specialisation in social welfare administration. There are three students working for Ph.D. degree. The Department has also undertaken research projects. It has been able to get funds for research projects from ICSSR. The Committee agrees to the proposal of the Institute to establish a unit for research and consultation in social welfare policy and administration.

7. Department of Personnel Management and Labour Welfare

Since the establishment of the Department in 1948, specialised curricula has been evolved in the fields of labour welfare, industrial relations and personnel and management. The Department has trained more than 500 postgraduates with an average annual intake of about 20 students. The department also organises from time to time refresher courses, seminars and symposia for professional people. The Committee supports the proposal to organise post-MA programmes of short durations in different aspects of personnel management and industrial relations, besides strengthening the Ph.D. and research programmes.

8. Research Units

The Commission agrees with the proposal of the Institute to extend research work in the areas in which the Institute has been active. The Unit for the Sociology of Education has been doing research and case studies, in the field of Sociology of Education and teaching the basic course in general sociology. It has done an intensive study on the problems of education of the Scheduled Castes in Maharashtra, as well as, on the factors responsible for the drop out of Scheduled Caste students in higher education in Bombay City, financed by the ICSSR. It provides consultation to several individuals and organisations.

The Unit for the study of Urban Child and Youth has been working since 1969 and has been financed by the United Nations Children Emergency Fund (UNICEF) and in 1974-75 by UGC. The Unit has so far conducted four field studies. It is also connected with the proposed project of integrated services for children and youth in urban areas, work on which has been initiated by the Department of Social Welfare, Government of India. The Committee recommends that the Unit may be supported by the UGC in the V Plan.

The Committee felt that absence of a Cartographic Unit in the Institute was not making it possible for full analysis and presentation of the vast amount of data that is collected and interpreted. It is therefore recommended that a Cartographic Unit be set up in the Institute which should be manned by a trained Cartographer/Geographer and a Technical Assistant also trained in Cartography/geography.

The Review Committee appointed by the Governing Board of the Institute suggested two type of changes in the activities of the Institute: (1) Reorientation in courses recollecting of faculty and renaming of departments and programmes etc. (2) New programmes like : (a) A whole set of extra-mural programmes consisting of short-term, part-time and refresher courses, workshops, seminars et (b) A provision within the annual budget for research work to ensure continuity of research. (c) The establishment of additional research units, (d) The development of rural field work facilities, and (e) A specialisation programme for workers among the physically handicapped.

The Visiting Committee agrees with the recommendations of the Review Committee regarding changes in the activities of the Institute.

9. Library

The Library of the Institute has a collection of more than 33,000 books and volumes of periodicals. It also has a Periodics Centre which brings out regularly documentation lists and renders other bibliographical services. The Committee supports the propose of the Institute for dumcnetation of books and journals and for a post of Senior Librarian in Deputy Librarian's scale. The Committee noted that the Library is cramped for space. On both sides of the Reading seats stacks have been placed which prevent light and ventilation. The Committee, therefore, recommends a grant of Rs.2.70 lakhs (UGC share 50%) to add a meznine floor to the library building.

The Institute publishes research monographs and teaching materials. It has published the following during the Fourth Plan period :

(1) Research Articles	..	4
(2) Research Reports	..	55
(3) Other books	..	9
(4) Case work records	..	16

The Committee recommends that such an activity may be support during the Fifth Plan, as well.

The Committee felt that there is an urgent need for data processing equipment in the Institute. This will involve an expenditure of Rs.5.35 lakhs for equipment, Rs.0.70 lakhs for airconditioning and expenditure on technical staff (Programmer, Key-punch Operators and technicians). The Committee was informed that the ICSSR would give an assistance of Rs.4 lakhs for equipment. In view of this the Committee recommends that towards the balance grants for equipment, airconditioning and staff assistance may be provided by the Commission.

The Committee met student representatives and was happy to note that the students felt proud of their Institute despite certain common problems. The Director assured that the problems will be looked into by the Institute and staff members, and efforts will be made to solve them with the co-operation of students as early as possible.

The financial recommendations of the Committee are enclosed as Annexure-2.

The Committee wishes to place on record its sincere thanks to the Director, Members of the Staff and students for their help in facilitating the work of the Committee.

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-2-

TATA INSTITUTE OF SOCIAL SCIENCES, BOMBAY

Fifth Plan Recommendations - Summary

<u>Item</u>	<u>Priority</u>	I	II	III	Remarks
1. Spill over		4.48	-	-	
2. Building		6.16	-	2.25	
3. Staff		6.17	5.43	0.60	
4. Field Work & Contigencies		0.50	0.50	0.50	
5. Books & Journals		3.00	3.00	2.00	
6. <u>Equipment</u>					
Data Processing		2.05	-	-	includ air-con
Teaching departments		0.50	0.30	0.20	
7. Research fellowships		2.00	-	-	
8. Visiting Professorship		0.50	0.25	0.25	
9. Publication		0.10	0.20	0.20	
Total:		25.46	9.68	6.00	
Grand Total:			Rs. <u>41.14</u> lakhs		
Uncovered Balance ..			Rs. <u>8.86</u> lakhs		

Appendix-1

POST-GRADUATE CENTRE, GOA

Enrolment of students in postgraduate
courses and research during 1974-75

<u>Subject</u>	<u>M.A./M.Sc. by papers</u>	<u>M.A./M.Sc. by research</u>	<u>Ph.D.</u>
Economics	64	-	-
Pol. Science	46	-	1
Sociology	20	-	-
History	41	2	4
Philosophy	20	1	3
English	36	-	1
French	6	-	-
Portuguese	6	-	1
Hindi	20	-	1
Marathi	22	-	2
Mathematics	27	-	1
Physics	13	-	1
Chemistry	42	5	6
Microbiology	7	-	-
Biochemistry	4	1	-
Animal Physiology	2	2	-
Commerce	52	-	-
Education	18	-	-

Appendix-II

Postgraduate Centre, Goa

<u>Department</u>	<u>IV Plan Posts Sanctioned</u>			<u>Posts filled in</u>		
	<u>P</u>	<u>R</u>	<u>L</u>	<u>P</u>	<u>R</u>	<u>L</u>
1. Economic	1	-	2	-	-	1
2. Mathematics	1	1	1	1	1	-
3. Physics	1	1	2	-	1	2
4. Microbiology	1	2	2	-	2	1
5. French & Portuguese	-	1	-	-	1	1
6. English	-	1	1	-	1	1
7. History	-	1	-	-	1	-
8. Philosophy	-	1	-	-	1	-
9. Sociology	-	1	1	-	-	1
10. Pol.Science	-	1	1	-	-	1
11. Hindi	-	-	1	-	-	1
12. Chemistry	-	1	1	-	-	1
13. Marathi	-	1	1	-	-	1

Annexure-I

POST-GRADUATE CENTRE, GOA

V Plan Allocation (Rs. in lakhs. UGC share)

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<u>Item/Priority</u>	<u>I</u>	<u>II</u>
Spillover (Staff only)	0.46	-
Staff	10.02	2.07
Books & Journals	6.00	3.28
Equipment	5.40	2.50
Building	13.05	6.90
Research Fellowship	0.75	-
Visiting Professorship	0.25	0.25
Total:	<u>35.93</u>	<u>15.00</u>

Grand Total: Rs. 50.93 lakhs

Annexure-II

Equipment

<u>Department/Priority</u>	<u>I</u>	<u>II</u>
Portuguese	0.20	-
History	0.10	-
Geography	0.50	0.30
Physics	1.00	0.25
Chemistry	1.00	0.25
Microbiology	0.50	-
Botany	0.50	0.30
Zoology	0.50	0.30
Marine Biology	0.30	0.15
Statistics	0.20	-
Oceanography	0.60	0.20
Workshop	-	0.75
	<u>5.40</u>	<u>2.50</u>

Annexure-III(Rs. in lakhs, UGC share)

<u>Item/Priority</u>	<u>I</u>	<u>II</u>
Science Block 1800 sq.m.	3.60	1.80
Humanities Block 2100 sq.m.	3.60	2.70
Staff quarters 1800 sq.m.	3.60	1.80
Boys Hostel 300 sq.m.	0.90	-
Girls Hostel 300 sq.m.	1.35	-
Workshop shed 150 sq.m.	-	0.60
	<u>13.05</u>	<u>6.90</u>

Post-graduate Centre, GoaAnnexure-Staff - V Plan(Rs. in lakhs, UGC share)

<u>Dept./Priority</u>	<u>I</u>	<u>II</u>
Hindi (1R)	0.57	-
French (1R)	0.57	-
Portuguese (1L)	0.30	-
History (1L)	-	0.30
Economics (1P+1R+1L)	0.69	0.87 (1R+1L)
Political Sc. (1P+1L)	0.69	0.30
Sociology (1R)	0.57	
Commerce (1R+1L)	0.87	
Geography (1R+1L)	0.87	
Chemistry (1P+2L)	1.29	
Mathematics (1L)	-	0.30
Statistics (1R+1L)	0.87	-
Marine Biology(1R+1L)	0.87	
Botany (1L)	0.30	
Zoology (1P)	0.69	
Microbiology (1L)	-	0.30
Oceanography (1R+1L)	0.87	-
	<u>10.02</u>	<u>2.07</u>

: 1 :

University Grants Commission

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Report of the Visiting Committee to University of Poona
for assessing its Fifth Plan development proposals.

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To examine the development proposals of the University of Poona for the Fifth Five Year Plan period, the University Grants Commission appointed a Visiting Committee consisting of the following members:-

1. Professor A.R.V.Murthy .. Convenor
Deptt. of Inorganic & Physical Chemistry
Indian Instt. of Science
Bangalore.
2. Professor H.S.Hans .. Member
Head of the Department of Physics
Panjab University
Chandigarh.
3. Professor Reayat Khan .. -do-
Head of the Deptt. of Botany
Aligarh Muslim University
Aligarh.
4. Professor R.Rakshpal .. -do-
Department of Zoology
Lucknow University
Lucknow.
5. Professor S.S.Merh. .. -do-
Head of the Department of Geology
M.S.University of Baroda
Baroda.
6. Professor S.C.Misra .. -do-
Head of the Department of History
M.S.University of Baroda
Baroda.
7. Professor K.S.Murthy .. -do-
Head of the Department of Philosophy
Andhra University
Waltair.
8. Professor K.Seshadri .. -do-
Head of the Centre for the Study
of Political Development
Jawaharlal Nehru University
New Delhi.
9. Professor A.Ramaswamy .. -do-
Head, Deptt. of Economics
Annamalai University
Annamalai Nagar.

Contd.....

10. Shri B.R.Kwatra,
Asstt. Secretary
University Grants Commission
New Delhi.

Secretary to the Committee.

The Committee visited the Poona University on 22nd, 23rd and 24th February, 1975 and had discussions with the Vice-Chancellor, Members of the Executive Council, Heads of Department, Principals of Colleges, representatives of the staff and students. The Committee also visited the departments, laboratories, Central Library, Study Centre, Health Centre and Students' hostels.

Welcoming the Committee, the Vice-Chancellor explained that the actual needs of the University required assistance far beyond the allocation of Rs. 150 lakhs proposed by the Commission. However, the University had scaled down the requirements of the various departments so as to keep within the proposed ceiling but it would be helpful if the Commission could relax the constraints imposed on expenditure. The University would, however, keep in view the suggestions made by the Committee which could be academically and rationally justified.

Background,
jurisdiction &
other basic
facts.

Poona University was established in 1949. It has a campus of about 411 acres in the Ganeshkhind area of Poona. Till the end of the IV Plan the University had jurisdiction over the districts of Poona, Ahmednagar, Nasik, Kolaba, Thana, Jalgaon and Dhulia. The Poona University Act was amended in 1974 whereby Kolaba and Thana Districts have been taken away from its jurisdiction. The total number of constituent/affiliated colleges of the University as on 31.12.1974 was as follows:-

<u>District</u>	<u>No. of Colleges</u>
1. Poona	33
2. Nasik	23
3. Ahmednagar	18
4. Jalgaon	15
5. Dhulia	13

Total:- 102

One more college i.e., R.A.Podar Medical College (Ayurvedic), Warli, Bombay is affiliated to Poona University.

The total enrolment and distribution of students as on 1.4.1966 and 1.4.1974 is given below:-

	<u>As on 1.4.1966</u>	<u>As on 1.4.1974</u>
1. Undergraduate	37,702	77,482
2. Postgraduate*	2,505	4,541
	<u>40,207</u>	<u>82,023</u>

Contd.....

As on 1.4.1966As on 1.4.1974* Departmentwise break-up

1. Sanskrit	16	77
2. Marathi	39	491
3. Hindi	41	282
4. English	25	174
5. Modern European Languages	6	6
6. Urdu/Persian	4	11
7. Linguistics	11	24
8. Philosophy	20	49
9. History	22	226
10. Economics	66	390
11. Political Science	36	211
12. Sociology	20	62
13. Psychology	38	74
14. Archaeology	5	50
15. Anthropology	10	62
	<u>359</u>	<u>2189</u>
1. Chemistry	129	156
2. Physics	58	247
3. Mathematics/Statistics	68	107
4. Botany	36	66
5. Zoology	24	47
6. Geology	26	47
7. Geography	36	60
	<u>377</u>	<u>730</u>
Grand Total:	<u>736</u>	<u>2919</u>

(Rest of the postgraduate students belong to Medicine, Commerce, Agriculture and Engineering etc.).

The staff position as on 1.4.1966, additional staff provided during the IV Plan and the staff in position as on 1.4.1974 is as follows:-

SI No.	Designation	No. of posts as on 1.4.66	Additional posts sanctioned during IV Plan.	Total	No. of teachers in position as on 1.4.74
1.	Professor	18	8	26	22
2.	Readers	28	25+6*	53+6	51
3.	Lecturers	65	25	91	84
4.	Others	56	16+3*	72+3	99**

* Sanctioned under Special Assistance Programme

** Includes extra posts from University's own resources.

Contd....

The total income and expenditure of the Poona University, year-wise, during the Fourth Plan was as under:-

<u>Year</u>	<u>Income</u> Rs.	<u>Expenditure.</u> Rs.
1969-70	1,67,46,136	1,71,50,112
1970-71	1,90,97,391	1,88,66,582
1971-72	2,13,41,029	2,06,83,101
1972-73	2,41,20,369	2,45,59,078
1973-74	1,86,99,170	1,86,15,544

The position of funds, received and utilised by the Poona University for various purposes, during the Fourth Five Year Plan is as follows:

<u>Purpose</u>		<u>Amount</u> <u>received</u> Rs.	<u>Amount</u> <u>utilised</u> Rs.
1. Additional teaching staff.	UGC	30,65,230	30,25,470
2. Library Books & Journals.	UGC	5,00,000	4,98,102
3. Equipment	UGC	13,70,000	13,75,618
4. Teaching Blocks/Labs.	UGC	22,91,000	21,62,973
<u>Central Library.</u>			
a) Building	UGC	22,00,000	1,59,682
	State	1,00,000	79,841
b) Addl. Staff	UGC	17,643	62,375
	State	17,643	62,375
c) Books	UGC	4,00,000	4,00,000
d) Equipment/furniture.	UGC	40,000	39,644
	State	20,000	19,822
<u>6. Students hostels.</u>			
a) For Men students (80 addt.seats)	UGC	2,78,915	2,77,241
	State	2,78,915	2,77,241
b) For Women students (Improvements to the existing hostel & 10 addl. rooms)	UGC	90,000	1,05,367
	State	30,000	35,122

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7. Staff Quarters (For 22 Lecturers)	U.G.C.	6,00,000	5,54,940
	State	6,00,000	5,54,940
8. Building for Federal Co-operative store	U.G.C.	50,000	46,063
9. Publication of approved research work including Doctoral theses.	U.G.C.	50,000	24,247
10. Library Books for Mofusil Centres.	U.G.C.	1,50,000	99,993
	U.G.C.	<u>97,14,793</u>	<u>94,96,774</u>
	State	10,59,675	10,42,247

During the Fourth Plan, the University Grants Commission approved development schemes of the Poona University to the extent of Rs. 98.00 lakhs. These included starting of a new department of History. The University started this department in 1969.

A statement indicating the schemes approved during the Fourth Plan but which could not be completed upto 31.3.1974 is enclosed as Annexure.I.

Fifth Plan Proposals and Recommendations

Humanities & Social Sciences:

I. Extension to Humanities Building:

At present, the University departments of (1) Politics and Public Administration (2) Philosophy (3) Law (4) Sociology and Anthropology and (5) Defence Studies are housed in one building called the 'Humanities Building'. In addition to providing accommodation for the increased number of students and additional staff, lecture rooms, service rooms etc., the university proposes to shift the History Department to this building. The present building covers an area of 19046 sq.ft. and the university desires to extend the present building so as to provide an additional accommodation of 9210 sq.ft. In view of the fact that some of the lecture rooms could also be used as Seminar Rooms and all the additional staff may not be available, the Committee recommends an additional accommodation of 5000 sq.ft. This could be best provided by constructing additional rooms on the existing two storeyed building. The estimated cost of this extension including furniture etc. would be about Rs. 2,50,000/- out of which the Commission's share would be Rs. 1,25,000/-.

(3) Extension to Arts Faculty Building:

This building has an area of 17,253 sq.ft. and is being used by the university department of (1) Marathi (2) Hindi (3) English and (4) Experimental Psychology. Besides providing additional accommodation for the new staff to be appointed during the fifth plan, the university desires to provide one Seminar Room for each Department, three Lecture Rooms, an Animal Laboratory, Animal experimentation rooms etc. for the Department of Experimental Psychology. The Committee recommends that an

additional accommodation of 5000 sq.ft. may be provided for extension to the Arts Faculty Building. The estimated cost of this extension including furniture and fittings, would be Rs. 2,50,000/- and the Commission's share would be Rs. 1,25,000/-.

(3) Department of Marathi:

The Department of Marathi has at present, one Professor, one Reader, two Lecturers and one Research Assistant. The major areas of research in the department are literary criticism, literary history, Medieval Marathi Literature, Linguistic Study of Old works, modern forms of Literature viz., Novel, Drama, Short Story, Autobiography etc. The department has taken up preparation of a Dictionary of Medieval Marathi Literature (1100 AD to 1800 AD). This involves collection of words from various texts, indexing scrutinising and analysing the history of each word. To strengthen the research activities of the department, the Committee recommends the following assistance:-

(1) Reader	One	First Priority.
(2) Equipment	Rs. 10,000	-do-
(3) Books	Rs. 10,000	-do-
	Rs. 25,000	Second Priority.
	Rs. 25,000	Third Priority.

(4) Department of Hindi:

The Department of Hindi was established in 1960 and has at present, one Professor, one Reader, three Lecturers and one Research Assistant. While the post of Reader sanctioned by the Commission was filled in from 1.3.1971, one the three posts of Lecturers in the Department remained vacant for about two years till March 1974. The Department is also taking the help of five recognised teachers of the constituent colleges for teaching. Two of these are also guiding research work. During the last 14 years, 34 research scholars have been awarded Ph.Ds and 48 are registered for the Ph.D. At M.A. level, the number of students during 1974-75 was sixty. The total teaching workload in the Department is about 33 periods per week i.e., 21 lecture periods, 4 seminar periods and 8 tutorials.

The major areas in which research work has been done in the department are:-

1. Comparative study of Hindi and Marathi Language and Literature.
2. Critical study of life and works of some unknown authors with special reference to their achievements in the field of poetical and Philosophical Theories.
3. Editing of rare Hindi manuscripts.
4. Contribution of Maharashtra to the development of Hindi Literature and
5. Comparative Poetics.

During the fifth plan, the department proposes to (a) introduce about seven additional papers, in addition to the eight compulsory papers in the syllabus for M.A., (b) strengthen the research work on contribution of Maharashtra to Hindi Language and Literature, (c) Collection and editing of rare manuscripts and (d) Translation of books on Poetics from Marathi and English into Hindi. Under (b) the approach is to discover the contribution made by the saint Poets of Maharashtra to Hindi language and literature

After the 7th century A.D. and under (c) to get the manuscripts from outside Poona or to get their Microfilm copies. For these activities, the Committee recommends one Readership, Rs. 50,000/- for books and journals and Rs. 4,000/- for equipment as detailed below:-

I Priority.	Reader	-	One
	Books	-	Rs. 30,000/-
III Priority	Books	-	Rs. 20,000/-
	Equipment	-	Rs. 4,000/-

One of the suggestions of the Committee for research programme would be to explc.
5) Department of English: the scientific content in Hindi literature.

This department came into existence in 1961. Before that, post-graduate teaching in English was the collective responsibility of the postgraduate teachers in the subject in constituent colleges recognised for the purpose, by the University. The sanctioned strength of the department is one Professor, two Readers and one Lecturer. One of the Readerships has been lying vacant for a considerably long time. Till 1969, the postgraduate course was mostly a literature course. In 1969, a compulsory paper on "The Structure of Modern English" including spoken English" was introduced. An oral test was also introduced as a part of this paper. Two optional papers on (1) Linguistic introduction to the Study of English literature and (2) The teaching of English in India were also introduced. The department has also introduced a certificate course and a Diploma course in English. At research level, the department has been concentrating on (a) Literature written in English by Indians (b) Comparative poetics, (c) Shakespeare and (d) Modern English Literature. During the fifth plan, the university proposes to reorganise the M.A. syllabus further with equal emphasis on English language and English Literature as recommended by the Gokak Committee on the Study of English in India. The department plans to provide facilities for specialisation in (a) English Linguistic and English Language teaching (b) English Studies, (c) Comparative Literature and poetics and (d) Commonwealth Literature. The Committee feels that the University department of English should provide leadership to the English departments of affiliated colleges by organising refresher courses, seminars etc. The Committee recommends the following assistance for the department:-

I Priority	Professor	1	(English Language & English Teaching).
			Books & Journals Rs. 30,000/-
II Priority.			Books & Journals. Rs. 30,000/-
III Priority.			Lecturers 2 (one for language and one for Literature).
			Books & Journals Rs.40,000/-

While making recruitments, the University may ensure that there is fair distribution of staff between language and literature.

6) Department of Experimental Psychology:-

This Department has one Professor, one Reader and two Lecturers to man the four sections i.e., (1) Experimental and Comparative Psychology,

(2) Psychometry, (3) Applied Social Psychology and (4) Clinical Psychology. Two Research Assistants, one Demonstrator and two Contributory Teachers are helping the four members of the staff in teaching and research. The major areas of research going on in the department are (i) Human Learning and Memory (Experimental Psychology), (ii) Social Problems (Applied Social Psychology) and (iii) Psychological Testing. At present, four Research Scholars are doing research work for their Ph.D. The experimental learning base in the department is proposed to be strengthened and widened in animal experimentation and general laboratory work. Besides additional accommodation for the department which has been recommended in the Arts Faculty building, the Committee recommends the following:-

I Priority	Equipment	Rs. 50,000/-
	Books & Journals	Rs. 50,000/-
II Priority	Books & Journals	Rs. 25,000/-
	Lecturer - 1	(in measurement).
	Reader - 1	(in Applied Psychology).

7) Department of Politics & Public Administration:-

The Department has at present two Professors (Mahatma Gandhi Professor of Politics and Public Administration and Lokmanya Tilak Professor of Politics and Public Administration), Two Readers, Two Lecturer and Two Research Assistants. The department has about 100 students at the M.A. level and 17 research scholars are working for their Ph.D. The major areas of research in the department are:-

- i) Political Behaviour.
- ii) Elite Studies.
- iii) Election Studies.
- iv) Local Government
- v) Development Administration.
- vi) Bureaucracy and Political Ideology.
- vii) Public Administration - Advanced Administrative Theory.

While most of the research work is being carried on under the guidance of the two Professors i.e., 8 Research Scholars each, the Committee feels that the other members of staff in the department should also be encouraged to participate in the research activity by teaching a few research scholars to work under their guidance.

The future programmes of the Department include research work in (a) Political Sociology - Student unrest and Politics (b) Political Thoughts in Maharashtra (c) Modernisation of the syllabii at the Post-graduate and Undergraduate levels and (d) Introduction of a Diploma Course in Public Administration. Since there is not much of student unrest or student politics in Poona, the Department may consider whether it would be worthwhile undertaking research work in this field. However, there is a rich field for research in political thoughts in Maharashtra. Modernisation of the syllabii is also very important and it should be done as quickly as possible. The University should rather see that this is made a continuous process by revising the syllabii in all fields after some specific intervals. To carry out these programmes, the Committee recommends one additional post of lecturer (with research experience) and Rs. 60,000/- for books as detailed below:-

I Priority	Lectuer 1 (with research experience)	
	Books & Journals	Rs. 20,000/-
II Priority	Books & Journals	Rs. 20,000/-
III Priority	Books & Journals	Rs. 20,000/-

8) Department of Philosophy:

Only during the last year of the Third Five Year Plan a Professor was appointed as Head of this Department. Prior to this, it was headed by one of the senior teachers selected from among those in the Constituent Colleges. The sanctioned strength of the department is one Professor, ~~one~~ Reader, two Lecturers and one Nyaya Pandit (equivalent to a Lecturer). It goes to the credit of the present Head (who joined only in June 1970) that during these five years the department has become one of the good departments in this subject in the country and one of the best in Western India. The number of students taking Philosophy at the M.A. level is going up every year. Five students have already taken their Ph.D., and ten are registered for Ph.D. under the guidance of Professor. However, it is desirable that other staff members of the department also should take active part in the research activities of the department, and that the individual research work of all teachers accelerated.

The department has modernised the syllabi both at degree and postgraduate levels. To improve the quality of teachers in the university and the colleges, the department organised:-

- i) A summer Institute in symbolic Logic for six weeks in 1972.
- ii) An all India Summer Institute in Symbolic Logic and Analytical Philosophy in 1973 and
- iii) A workshop in Predicate Logic in 1974.

The department has also been publishing a journal called 'Indian Philosophical Quarterly' in collaboration with the Poona University, Pratap Centre in Philosophy, Amalner. This is the oldest and more regular journal in the subject, and perhaps the only one devoted to Indian Philosophy as such, excluding religion and culture. The Head of the department also put before the Committee a proposal for an assistance of Rs. 25,000/- for the publication of Indian Philosophical journal. The Committee feels that this is a useful and important activity which should be supported, but it must be ensured that this activity is not discontinued after the Commission's assistance ceases at the end of the fifth Plan. The journal should have an Editorials Committee consisting of members drawn from different universities, suggested by the U.G.C. Panel on Philosophy, and the Committee should formulate editorial policies, and its members consulted in the selection of articles for publication.

The Philosophy department proposes to study Budhist Logic,

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Jain Logic and Nyaya Logic with a view to understanding the common points and differences with the Western Symbolic Logic and Philosophy of Science. To enable the department pursue these activities, the committee recommends one Readership in Logic or Moral Philosophy, two Lecturers with research experience and an amount of Rs. 28,000/- for books and equipment as detailed below:-

I. Priority	Reader	One
	Lecturer	One
	Equipment	Rs. 8,000/-
	Books.	Rs. 10,000/-
	Indian Philosophical quarterly"	Rs. 25,000/-
II Priority	Lecturer	One
	Books.	Rs. 5,000/-
III Priority	Books & Journals	Rs. 5,000/-

8.(ii) Pratap Centre of Philosophy:

In June 1972, the University of Poona acquired as a gift with all its assets and liabilities the Indian Institute of Philosophy at Amalner, Distt. Jalgaon. The Institute now known as University of Poona, Pratap Centre of Philosophy has an area of about ten acres of land for its campus and a library containing about 3700 books. The buildings of the Centre are stated to be in a dilapidated condition.

The University has asked for Rs. 27,500/- for buildings: Rs. 10,000/- for equipment and Rs. 35,000/- for books. Due to shortage of time and the long distance between Poona and Amalner, the Committee could not visit the Centre. However, since the activities at the Pratap Centre are confined to research only, the Committee suggests that the proposals regarding the Pratap Centre may be referred to the Philosophy Panel of the U.G.C.

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9. Department of Law:

The University Department of Law was established in June 1966. It has a staff strength of one Professor, one Reader, one Lecturer and one Research Assistant. Teaching in the Department is at the postgraduate level only as undergraduate teaching is being done in the Law College, Poona. The enrolment during the last five years was 37 in 1969-70, 35 in 1970-71, 28 in 1971-72, 38 in 1972-73 and 26 in 1973-74. Besides this, nine students are doing research work leading to Ph.D. - five under the Professor, three under the Reader and one under the Lecturer. The specialisations offered in the Department are (1) International Law, (2) Constitutional Law, (3) Administrative Law, (4) Family Law (5) Criminology and (6) Torts. It is proposed to introduce additional specialisations in (1) Labour Laws, (2) Personal Laws and (3) Commercial Laws. While the Department has done good work during the short period of eight years and needs encouragement, the committee feels that it should also provide leadership to the local law college as well as other affiliated colleges providing facilities for instructions in law. It should help them in reorganising and modernising the courses. The committee recommends the following assistance for the University Law Department:-

Following assistance for the University Law Department:-

	I Priority	II Priority	III Priority.
Reader	One	-	-
Lecturer	One	-	-
Books and Journals.	23,000/-	-	72,000/-

10. Department of History:

The University department of History is comparatively a younger department, having been established only in 1969. It has one Professor, one Reader, one Lecturer and one Research Assistant on the staff. The number of students in the department during 1973-74 was 118 in M.A.Part.I and 47 in M.A.Part.II. During the last five years, five students obtained Ph.D. degree and ten are at present doing research work for their doctorate.

Of the three History Departments visited by this Committee i.e., at Poona, Kolhapur (Shivaji University) and Aurangabad (Marathwada University) the History Department of Poona University appears to be the most well developed. The major areas in which research work is being carried on in the department are History of Western India, Socio-Economic aspects and Maratha History. For this, there is ample scope in Poona with its vast and as yet largely untapped reservoir of source material. As such, while diversification of teaching may be encouraged, research should be primarily directed towards Maratha History. Poona will thus become a Centre specialising not only in regional history but specifically in Maratha History, understood as the history of this land in the 17th, 18th and early 19th century, when Maratha power emerged as a major factor in India History. However, since the Deccan College has also been doing work in Maratha History and Medieval Indian history, the University may consider the possibility of integrating the two departments. There is also need for close

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collaboration between the History Department and the Department of Archeology.

(The Committee recommends the following assistance for the History Department:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority.</u>
Lecturer	One	-	-
Reader (with research experience in Maratha History).	One	-	-
Books	Rs. 10,000/-	Rs. 5,000/-	Rs. 15,000/-
Equipment	-	Rs. 5,000/-	Rs. 13,000/-

II. Department of Linguistics:

The Department of Linguistics has been recognised by the University Grants Commission as a Centre of Advanced Study. It has a staff strength of one Professor, three Readers and four Lecturers. The major areas of teaching/research in the department are Lexicography, Structural Linguistics, Dialect Surveys, teaching of various aspects of Linguistics including Technology, contrastive studies and teaching material and Bibliography of Linguistic studies. In its fifth plan, the department has included the following research schemes:-

- (1) Continuation of the survey of Marathi dialect.
- (2) Tribal dialects of West Bengal.
- (3) Preparing a book on Phonetics and
- (4) A survey of Tanjore Marathi and its influence on the speakers in the neighbouring states.

For these research projects, the University has asked for an assistance of Rs. 99, 200/-. The Committee suggests that the University may submit these research projects to the U.G.C. who would get them examined by the experts and provide funds outside the Plan allocation of the University. For development of the existing facilities, the Committee recommends the following assistance:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority.</u>
Reader in Dravidian Linguistics.	-	One	-
Books & Journals	Rs. 10,000	-	Rs. 20,000/-

12. Department of Modern European Languages:-

This department was established in 1958 and it is at present conducting courses leading to (1) M.A. in language and literature as an advance course for would be teachers of German, French and Russian (2) Diploma in Literature (3) Diploma in Language and (4) Certificate Courses in German

French and Russian. During 1973-74, the number of students in the Department was as follows:-

	<u>German</u>	<u>French</u>	<u>Russian</u>	<u>Total</u>
1. Certificate	343	179	89	611
2. Diploma in Language.	67	39	14	120
3. Diploma in Literature.	25	16	2	43
4. T.Y.B.A.	7	5	-	12
5. M.A.	17	6	4	27
6. Ph.D.	2	-	-	2
	<u>461</u>	<u>245</u>	<u>109</u>	<u>815</u>

The staff strength of the department is one Readership in German and French and one Lecturer each in German, French and Russian. In addition to these, the department has one teacher each in German and French and two in Russian on temporary assignments from Germany, France and U.S.S.R. With the meagre facilities available, the department has two students working for their Ph.D. in German. The department is making use of the facilities available in the Departments of Linguistics, Physics, and the Language Laboratory of the Max Mueller Bhawan, Poona. The department has already introduced continuous internal assessment in the examinations conducted for its students.

During the fifth plan, the Department of Modern European Language proposes to (1) prepare course books, rapid reading texts and bilingual dictionaries for Indian and foreign languages; (2) introduce courses in translation for science research scholars, commercial correspondence in foreign languages; short-term (intensive) acquaintance courses and long-term (correspondence) courses for introducing the foreign language. These programmes are laudable indeed. However, priorities have to be fixed as the resources available are limited.

As the number of students shown, the department has become quite popular and needs to be strengthened. The Committee, therefore, recommends one Professorship in German, one Readership in Russian, an amount of Rs. 15,000/- for equipment and Rs. 65,000/- for books as details below:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
i) Professor in German	One	-	-
ii) Reader in Russian	One	-	-
iii) Books	Rs. 15,000/-	-	Rs. 50,000/-
iv) Equipment	-	Rs. 15,000/-	-

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13. Department of Journalism:

This department was started by the Poona University in 1964 with a part-time two year Diploma course for graduates in various Faculties. In 1968 the part-time Diploma course was discontinued and one year full-time Diploma Course was started. From June 1973 the present one year Degree Course in Journalism came into existence. The Department is looked after by one Reader and one Lecturer only but the services of about seven contributory teachers are being utilised by paying them some honorarium. The department prepares students for English journalism and Marathi Journalism. During 1973-74 the students in the department brought out four issues of Vritta Vidya, one of which was in Marathi, two in English and one in both Marathi and English. Besides, the department invited a good number of working journalists to address the students.

The department has made good efforts since 1973 but it has not been possible for it to develop due to lack of planning and leadership. It is, therefore, necessary to appoint a Professor who could plan and develop the department on proper lines. The department has some equipment which could be more usefully utilised if it is transferred to the University Press. The Committee recommend the following assistance for the department:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Professor	One	-	-
Equipment	Rs. 20,000/-	Rs. 20,000/-	-
Books	Rs. 20,000/-	Rs. 20,000/-	-

14. Department of Sociology & Anthropology:-

This department came into existence in 1968. Though Sociology and Anthropology are two separate disciplines, the department has been kept as one entity. The reason for this perhaps, is that it was a combined department in the Deccan College since 1939. The Sociology wing of the department has at present, a staff of one Professor, one Reader and two Lecturers while Anthropology has two Readers (one for Physical and one for Cultural) and three Lecturers. The specialisations offered in the department are:-

<u>Sociology</u>	<u>Anthropology</u>
(1) Educational Sociology:	Applied Anthropology (Medical & Educational fields).
(2) Bureaucracy & Agricultural Development.	Demography.
(3) Sociology of Religion:	Growth studies.
(4) Social Change:	Urban Anthropology.
(5) Social Stratification:	
(6) Sociology of Occupations:	
(7) Role Conflicts of Women.	

Over 25 students were awarded Ph.D. in Sociology while about 15 are currently working for Ph.D. on the Anthropology side. Some 10 students are carrying on work for Ph.D. But this activity is confined to a few staff members of the department. The Committee feels that the other staff members also should be encouraged to participate in the research work. For better development and performance, the Committee feels that the University may consider separation of the two wings into two full fledged departments of Sociology and Anthropology but ensuring close collaboration between the two, in case this does not become possible, the University may consider developing some inter-disciplinary Course in Sociology and Anthropology.

For the existing common department the committee recommends the following assistance:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Reader (in Research Methodology).	One	-	-
Technical Assistant (for Anthropology)	One	-	-
Books	Rs. 20,000/-	Rs. 30,000/-	-
Equipment.	-	-	Rs. 18,000/-

15. ✓ Department of Sanskrit & Prakrit Languages:

Like Linguistics, the Department of Sanskrit and Prakrit Languages is also recognised as Centre of Advanced Study by the University Grants Commission. At the M.A. level, it provides teaching facilities for the following:-

- (i) Sanskrit Pali.
- (ii) Sanskrit Prakrit.
- (iii) Sanskrit Marathi.
- (iv) Sanskrit Linguistics.
- (v) Sanskrit Ancient Indian Culture.
- (vi) Sanskrit Hindi.
- (vii) Sanskrit English.

At research level, the department is concentrating its efforts on Veda and Vyakarana, but teaching and research are undertaken also in the fields of Mimamsa, Dharmasastra and Sahitya Pancharatna. In 1973-74 the number of students was 38 at the M.A. level and 36 were registered for Ph.D. The staff strength of the Department is one Professor and three Lecturers besides other staff sanctioned by the U.G.C. for the Centre of Advanced Study in Sanskrit.

The main difficulties being experienced by the Department are the low quality of students who join for M.A. and Ph.D. and the non-availability of eminent scholars who have devoted several years of study to a particular field like Mimamsa or Nyaya. These difficulties are likely to be aggravated

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because recently Sanskrit has been made an optional subject at the Secondary School and P.D. levels. It is, therefore, feared that the proficiency in Sanskrit expected from students who may join university classes will further decline. To cope with this situation, the Department has decided to revise its syllabus completely. Accordingly, at the M.A. level, classical Sanskrit literature and Nyaya are proposed to be introduced. This is a step in the right direction.* The Committee recommends that two additional posts of Readers - one each in Nyaya and Mimamsa and a book grant of Rs. 10,000/- may be given to the department as detailed below:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Reader	One	One	-
Books	Rs. 5,000/-	Rs. 5,000/-	-

16. Department of Defence Studies:-

For the last ten years, this department has been engaged in teaching at the undergraduate level only. However, from 1974-75 the Department was upgraded into a postgraduate department by introducing the following four papers for the M.A. (Part I).

- Paper.I Development of Stratetic Thought and Doctrines.
Paper.II Logistic Management of National Defence.
Paper.III Organisation and Weapon systems of Indian and Foreign Armed Fo
Paper IV. Decisive c mpaings of Modern History.

From 1975-76 the Department is going to introduce the following four papers for the M.A. (Firal):-

- Paper V Defence requirements and
Defence production.
Paper VI Defence Finance.
Paper VII. Geopolitics
Paper VIII. Weapons and equipments under changing technologies.

At the degree level, teaching is being done in the areas of (1) Evolution of Warfare under the Marathas and (2) Growth and trends in Indian Defence Finance (1947-72). At present, the Department has only one Reader and one Lecturer on its staff.

and the National Defence A

and the
Academy.

Poona being the headquarters of the Southern Command, the Committee feels that greater advantage should be taken of the expertise available at the Southern Command Headquarters. The Department should also provide theoretical instruction in Air Warfare, Sea Warfare and Nuclear Warfare. The Committee recommends a post of Professor (with experience of Defence Studies in Army, Navy and Air Force), one Technical Assistant, a book grant of Rs. 7,000/- and Rs. 4,000/- for equipment as detailed

* One of the suggestions of the Committee for research programmes to be undertaken by this Department would be to explore the Scientific content in Sanskrit literature.

below :-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Professor	One	-	-
Books	Rs. 2,000/-	Rs. 3,000/-	Rs. 2,000/-
Equipment	Rs. 1,000/-	Rs. 2,000/-	Rs. 1,000/-
Technical Assistant.	-	One	-

17. Department of Archeology:-

The Department of Archeology which was established in 1959 was put in the charge of Professor H.D.Sankalia, who was also head of the Department of Archeology, Deccan College, Poona. The Department continued to function under his headship till 1968 when a Reader in Pre-history was appointed in the Department. It has one more Lecturer on its staff.

The Archeology Department of the Deccan College, Poona has been a Premier centre of Archeological research and teaching the country with Dr.Sankalia, the doyen of Indian Archeologists, as its head. It has been recognised by the U.G.C. under the Special Assistance Programme. The University Department of Archeology, also located in the Deccan College, functions in close liaison with the Archeology Department of the Deccan College. Nevertheless, it has the responsibility of running an eight paper M.A. course and has a field work programme of its own. The Committee feels that it would be preferable to integrate the two units into a single one and make this single unit responsible for the teaching and research in Archeology in the University. The University appears to be conscious about it but has been held back by a law suit which is at present pending in a Court.

The University has asked for a Professorship, Rs. 75,000/- for Explorations and Excavations and Rs. 26,000/- for publications. While the Committee recommends the first two, it feels that assistance for publications may be given only after the manuscripts have been examined by experts.

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority.</u>
Professor	One	-	-
Exploration & Excavations	Rs. 20,000/-	Rs. 40,000/-	Rs. 15,000/-
Publications	-	-	Rs. 26,000/-

18. Department of Library Science.

During 1958-59 the University started a one year Diploma course in Library Science. From 1965-66 this Diploma course was changed into a full

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time degree course and during the fifth plan, the university desires to start M.Lib. course also. About 25 students are being admitted to the B.Lib. course every year.

This department has no staff of its own. The University Librarian, Shri K.S.Hingwe is the Head of the Department and two Senior Assistants in the Jayakar Library act as Lecturers. The department is located in the University library. The Committee feels that the present system of combining the professional and teaching responsibilities is not satisfactory and the university may consider separating the two. It is true that the Library acts as Laboratory for the students of Library Science but this could be achieved by locating the Department in close proximity to the Library or even in the Library itself if no separate building can be provided at present, and also draw upon the expertise available in the library. For proper organisation of the Department, the Committee recommends an assistance of Rs. 34,000/- as U.G.C. share for additional accommodation (including furniture); one Reader and one Lecturer and Rs. 20,000/- for Books and Journals as detailed below:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Reader	One	-	-
Lecturer	-	One	-
Building and Furniture.	Rs. 34,000/- (as U.G.C. Share)	-	-
Books	Rs. 5,000/-	Rs. 5,000/-	Rs. 40,000/-

Faculty of Science.

19. Department of Chemistry.

The Department of Chemistry is one of the oldest and the largest departments in the University and has a staff of one Professor, eight Readers and eleven Lecturers. Besides, it has three Readers and three Research Fellows under the U.G.C.'s Special Assistance Programme. This Department has been chosen by the U.G.C. as one of the eleven Departments selected for Indo-British Collaboration in Chemical Education and Research. Under the programme, the Department is planning collaboration with the Universities of London, East Anglia and Manchester. It was also given a University Leadership Project for the improvement of Chemistry teaching at the Undergraduate level in the constituent and affiliated colleges of the Poona University. The Department is making use of the facilities available in the N.C.L. and other agencies like I.D.R.A., T.I.F.R. etc.

The Department admits 75 to 80 students to the two year M.Sc. course in Physical, Organic, Inorganic and Biochemistry with a special paper in Chemistry of Explosives, High Polymers, Nuclear and Radiation Chemistry, Chemical Spectroscopy, Molecular Biology, Theoretical Chemistry and the Chemistry of Natural Products. About 30 students are at present working for their Ph.D. The University has revised the M.Sc. syllabus

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and introduced the following optional papers:-

<u>Physical Chemistry.</u>	<u>Inorganic Chemistry.</u>	<u>Organic Chemistry.</u>	<u>Biochemistry.</u>
1. Nuclear & Radiation Chemistry.	Analytical Chemistry.	Biochemical Mechanism.	Molecular Biology.
2. Theoretical Chemistry.	Solid State Chemistry.	Theoretical Organic Chemistry.	Advances in Enzymology.
3. Polymer Chemistry.	Chemical Spectroscopy	Chemistry of Explosives.	Medical Biochemistry.
4. Physical Chemistry of Solid State.	Bio-Inorganic Chemistry.	Aromaticity.	Food, Nutrition and Environmental Sciences.
5. Advances in Analytical Techniques.			Biochemical Process and Bio-Chemical Engineering.

With an overall expansion of the Department during the Fourth Plan and to meet the growing needs during the Fifth Plan, the pressing needs of this Department are additional accommodation and additional staff at the senior level. However, it is observed that the present Head of the Department is already on extension. It is, therefore, desirable that another Professor is appointed at the earliest to provide leadership to the Department. It is also desirable to have a Professor in each branch of the well-recognised disciplines in Chemistry, namely, (1) Inorganic, (2) Organic, (3) Physical and (4) Bio-Chemistry. At present there is only one Professor for Physical Chemistry. The Committee recommends two more Professorships to be sanctioned, one each for Inorganic and Organic. The Chair for Bio-Chemistry and Bio-Physics is also very essential. The Committee recommends the following grants for this department during the fifth plan period:-

<u>Purpose.</u>	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority.</u>
i) Building (including furniture)	Rs. 1,25,000 (as U.G.C.'s 50% share)	-	-
ii) Equipment	Rs. 5,00,000	Rs. 2,00,000	Rs. 2,00,000
iii) Books & Journals	Rs. 30,000	Rs. 15,000	Rs. 15,000
iv) Staff	Three Professors (one each in Organic Chemistry, Inorganic Chemistry, and Biochemistry).	-	-

20. Bio-Chemistry & Biophysics:-

On 24th February 1975, when the Committee was to leave, the University submitted a proposal for the establishment of a new Department of Bio-Chemistry and Biophysics. Since the Committee could not examine the proposal

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*establishment
of a separate
Department. 21.

in detail, the Committee suggests that adequate funds should/ under the first priority allocation of the University and the U.G.C. may get this proposal examined by experts in Bio-chemistry and Biophysics. However, the committee feels that the proposal for setting up a separate department of Bio-Chemistry and Bio-Physics is reasonable and justified. The Committee recommends that a Professor of Bio-chemistry should be appointed to plan

Department of Physics:

/admitted to

This Department was established in 1952 i.e., in the third year after the establishment of the Poona University. Unto the end of the Third Five Year Plan, the Department was enrolling about 20 students per year for the M.Sc. and traditional subjects like Spectroscopy, Radio Physics and Wireless were taught. It was only during the Fourth plan that the Department developed into its present shape under the dynamic leadership of Professor M.V. Bhide, the present Head of the Department. The number of students in the Department has gone upto 60 per annum or 120 for the two year M.Sc. course and there are about 30 research scholars registered for the Ph.D. A number of innovations have been introduced at the Undergraduate (under the University leadership Project of the U.G.C) and Postgraduate levels. The special subjects now being offered in the Department are:-

- (1) Nuclear Physics.
- (2) Solid State Physics.
- (3) Theoretical Physics.
- (4) Spectroscopy including N.M.R., E.P.R., E.S.R. etc.
- (5) Space & Upper Atmospheric Physics.
- (6) Electron & Ion Physics.
- (7) Electronics (with a bias of pulse techniques).
- (8) Computer Science.
- (9) Biophysics.

Research work in the Department is going on in the fields of (1) Surface Physics; (2) Material Analysis, (3) Opto Electronics, (4) Radiation Physics and Chemistry, Radiology and Biophysics, (5) Atmospheric Physics; (6) Instrumentation and (7) Theoretical Physics. The staff strength of the Department is two Professors, four Readers and six Lecturers. The Department organised two Summer Institutes for College teachers and one for Laboratory technicians.

The University has been able to get a donation of about Rs. 15 lakhs from Khosla Foundation, Poona which would be used for strengthening the research programmes in physical sciences. Out of this donation, the University is constructing an extension to the present Physics Department building.

The future research programme of the Physics Department includes strengthening the existing laboratory facilities in the newly developing areas of Electron and Ion Spectrometry, and their application to the

investigation of materials research. In this direction, the department has developed several items of equipment and has also acquired a 10 ME V Microtron from Berkeley, U.S.A. The Committee feels that the Department has a potentiality and should be encouraged to carry out its programmes. The Committee recommends the following grants for the Department:

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Building including furniture.	Rs. 1,25,000 (as U.G.C.'s 50% share).	-	-
Equipment, Books and Journals.	Rs. 3,00,000 Rs. 50,000	Rs. 2,00,000 Rs. 25,000	Rs. 1,00,000 Rs. 25,000

Staff:

Professors	Two (One in Material Sciences Opto-Electronics and one in Theoretical Solid State Physics).	-	-
Readers	Two (One in Instrumentation and one in Radiation Physics & Chemistry or Radiology & Biophysics).	-	-
Lecturers.	Two	-	-

22. Department of Botany:

The Department of Botany is admitting about 40 students every year to M.Sc. course and has a staff strength of one Professor, three Readers and six Lecturers. It is providing facilities for research in Morphogenesis; Embryological studies on Angiosperms; Palynology; Phycology; Plant Physiology and Tissue Culture, Mycology, Cytogenetics and Plant Breedings; Palaeobotany and Comparative Anatomy of living and fossil plants. Twenty students are doing research work for Ph.D.

Besides strengthening the existing facilities, the Department proposes to pursue advanced research in Plant Physiology, Cytogenetics Tissue culture, Cryptogamic botany, Pollution and Environmental Biology. The Department of Botany has a good research potential which should be exploited by taking up specific research projects for which the Committee was told the U.G.C. provides assistance outside the plan allocation. For strengthening the existing facilities and for introducing new specialisations, the Committee recommends the following grants for the Botany Department for the Fifth Plan period:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
1) Buildings including furniture.	Rs. 55,000/- (As UGC's 50% share).	-	-
2. Cold Room	Rs. 38,000/- (As UGC's 50% share).	-	-

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	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
iii) Books & Journals	Rs. 35,000/-	Rs. 20,000/-	Rs. 20,000/-
iv) Equipment	Rs. 2,00,000/-	Rs. 50,000/-	Rs. 50,000/-

v) Staff:

Professor (Experimental Botany)	One	-	-
Lecturers (One in Pharmacognosy and one in Taxonomy and Physiology of Micro-organisism.)	-	two	-

25. Department of Zoology.

The annual intake of the Department, at present is 50 for the M.Sc. course. Fifteen students are working for their Ph.D. The staff strength of the Department is one Professor, three Readers and six Lecturers. At the M.Sc. level, greater stress is still laid on traditional papers like Entomology and Embiology. The University now proposes to introduce ecology and genetics as new specialisations for the M.Sc. degree. At the research level, it is proposed to strengthen and expand the research facilities in applied experimental embryology/Developmental biology and Entomology. The Department has a good Museum which is badly in need of more furniture and some exhaust fans. This Museum could also be utilised as a Seminar Hall if properly furnished. The Committee recommends a grant of Rs. 26,000/- (as UGC's 50% share) for furniture and providing exhaust fans etc. for the Museum.

Since the Botany Department is proposing to introduce new specialisation in Water and Air Pollution and the Zoology Department is planning to introduce a new paper in Experimental Ecology, the Committee suggests that the Department of Botany and Zoology may examine the possibility of starting a new and common M.Sc course in Ecology. The Zoology Department should also try to introduce more optionals which are relevant to present day needs.

The Committee recommends the following assistance for this Department:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
i) Building (including furniture. (As UGC's 50% share)	Rs. 50,000	-	-
ii) Equipment.	Rs. 1,00,000/-	Rs. 50,000/-	Rs. 50,000/-
iii) Books & Journals.	Rs. 30,000/-	Rs. 10,000/-	Rs. 10,000/-
iv) Staff professor (Entomology)	One	-	-
v) Professor (Insect Physiology)	One	-	-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
vi) Technical Asstt. for Museum.	-	One	-
vii) Furniture for Museum.	Rs. 26,000/- (As UGC's 50% share).	-	-

24. Department of Mathematics & Statistics:

The Department of Mathematics & Statistics is one of the oldest departments of the University of Poona having been established in 1950 i.e., soon after the Poona University came into existence. This department has had the privilege of a long-association and leadership of Professor V.S.Hazurbazar. This department is also covered under the special assistance scheme of the U.G.C.

The major areas in which research has been carried on and is in progress in the department are as follows:-

Statistics: Statistical Inference, Theory of Probability, Non-parametric methods, stochastics Processes, Applied Probability, Multi-variate Analysis, Theory of Queues, Demography, Statistical Quality Control.

Mathematics: Relativity, Cosmology, Homological Algebra, Magneto-hydro-dynamics, Functional Analysis, Real and Complex Analysis, Algebraic K-Theory.

The sanctioned strength of staff-of the department is four Professors, (one Professor of Mathematics & Statistics, one in Applied Mathematics and two in Statistics, four Readers (two in Statistics and two in Mathematics) and nine Lecturers (five in Mathematics and four in Statistics). At present two Professorship and four Readerships/ lying vacant. The department has done very good work during the last plan not only by carrying on research work within the Department but also by providing leadership to the teachers of Mathematics and Statistics in the affiliated Colleges of the Poona University. It has also organised a number of summer schools and seminars for this purpose. It goes to the credit of the department that it could revise the syllabus after every 4-5 years - the first revision was made in 1959, the second in 1963 third in July, 1967 and fourth in 1972. It was in 1972 that semester system of examinations was also introduced in the Department. The number of students in the department during 1973-74 was as follows:-

<u>M.A./M.Sc.</u>	<u>Mathematics</u>	<u>Statistics.</u>
M.A./M.Sc. Semester I.	37	37
M.A./M.Sc. Semester II.	23	34
M.A./M.Sc. Semester III.	16	18
M.A./M.Sc. Semester IV.	16	22

The department is suffering due to acute shortage of accommodation so much so that some lectures have to be organised in other department buildings such as the Art Faculties and the department of Botany and Geology. With the introduction of Biometry course from July 1974, the position has become more acute. The department has asked for additional accommodation of about 4,000 sq.ft to meet existing needs and the expansion envisaged during the Fifth Plan.

The Committee feels that this demand is justified and a grant of Rs. 1,00,000/- (as U.G.C. 50% share) may be given for this purpose.

Many of the existing calculating machines in the department are more than fifteen years old and are required to be replaced. The department also needs two electrically operated calculating machines and one automatic collector (40 columns). For this purpose, the committee recommends a grant of Rs. 75,000/- for books and journals, the department has asked for a grant of Rs. 2,93,000/-. The committee feels that the demand for latest books and journals is reasonable and the department may be assisted to the extent of Rs. 2,50,000/- for this purpose. As regards staff, the department has asked for one Professor and four Readers. The committee accepts the justification given for a Professorship in Pure Mathematics but recommends that one of the Professorships lying vacant may be filled in by a person having specialisation in Pure Mathematics. Against the four posts of Readers asked for, the committee recommends that the department may have one Reader with specialisation in Biometry/Operations Research (Applied Statistics) and one in Applied Mathematics. The financial implications of the recommendations of the committee for this department will be as follows:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
i) Building	Rs. 1,00,000/- (As UGC share)	-	-
ii) Books.	Rs. 1,00,000/-	Rs. 1,00,000/-	Rs. 50,000/-
iii) Equipment.	Rs. 50,000/-	Rs. 25,000/-	-
iv) Reader.	One	One.	-

25. Department of Geology:

This Department is offering facilities for research in Petrology and Structural Geology; Ground water and Engineering Geology; Economic Geology; Photogeology and Geomorphology; Palaeontology and Stratigraphy and Petroleum Geology. During 1973-74 there were 41 students studying for M.Sc and 15 were registered for Ph.D. The Department has a staff of one Professor, two Readers and four Lecturers. This includes one Professor, one Reader and two Lecturers sanctioned by the Commission during the Four Five Year Plan. The Department organised a Symposium on various aspects of Indian Ocean in 1973 and an all India Advanced Level special Summer Institute in Prospecting for Groundwater in May 1974.

During the fifth plan, the Department proposes to expand and intensify the research programmes with special emphasis on applied aspects. It has a number of research schemes in view, which the Committee feels should be submitted to the U.G.C. for assessment outside the plan allocation. Besides, the University also proposes to start the following courses:-

- a) One year M.Sc. (Tech) Course in Mineral Exploration for students having M.Sc. degree in Geology.
- b) One year Diploma course in Prospecting for Ground-water for Science graduates.

The Committee feels that these courses, though useful, should be started only after the syllabi etc. have been carefully prepared. Before starting these courses, it would be better if the University seeks the advice

of the U.G.C. Panel on Earth Sciences.

During the 4th plan, an area of 20,000 sq.ft. was sanctioned by the U.G.C. for housing the Geology and Geography Departments. Out of this, 13,000 sq.ft. were allotted to Geology Department and 7000 sq.ft. to Geography Department. However, when the construction of the building was taken up, it was found that with the funds allotted for the purpose, a building over an area of 15,400 sq.ft. could be completed. Out of this, the University allocated 6500 sq.ft. to Geography and only 8900 sq.ft. to the Department of Geology. Thus, the Department needs additional accommodation very badly. The Department of Geography also needs additional accommodation, particularly for Museum. The Committee feels that it would be better if both the Departments have a common museums. The Committee, therefore, recommends an additional area 6000 sq.ft. mainly for the Department of Geology but which would also meet the accommodation requirements of the Department of Geography. The Committee recommends the following assistance for the Department of Geology:-

	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Building including furniture.	1,50,000 (As U.G.C.Share)	-	-
Equipment (including Museum equipment).	2,00,000	1,25,000	1,00,000
Books and Journals	25,000	15,000	10,000
<u>Staff:</u>			
Lecturer	-	One	-
Museum Asstt.	One	-	-

26. Department of Geography:

The Department of Geography started postgraduate teaching in 1954-55. During the Second and Third Five Year Plans, the Department continued to offer some basic courses only. But in 1966, the situation changed with the introduction of semester system when the syllabuses were streamlined. In the initial stages, research and specialisation were confined to Economic and Human Geography but with the growing importance of Geomorphology, the Department now also provides facilities for research in Geomorphology to doctoral students.

During 1973-74, 54 students were studying for the M.A. degree and 56 for the M.Sc. degree in Geography. Fourteen students were pursuing research work for the Ph.D. The Department has a staff of one Professor, two Readers, and four Lecturers and is providing research facilities in Economic Geography; Geomorphology; Climatology; Rural and Urban Settlements in India and teaching of Geography.

During the fifth plan, the Department proposes to strengthen studies and research in Geomorphology by revising the syllabus and providing facilities for advanced courses in fluvial and coastal Geomorphology and Geomorphology of the Tropical humid areas, it is also proposed to develop a Centre for collection and documentation of maps. Besides additional accommodation recommended for the Department under the Department of

Geol
men^d the committee recommends the following assistance for the Depart^{ment}
Geography during the fifth plan:-

	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Equipment	40,000	10,000	14,000
Books & Journals	30,000	10,000	10,000
<u>Staff:</u>			
Professor (in Geomorphology)	One	-	-
Lecturer	-	One	-
Museum Asstt.	-	One	-

27. GENERAL SCHEMES

Central Library.

The Central Library which is also known as Jayakar Granthalaya has a collection of about 1,76,000 books which includes about 1500 copies of text books. The University is spending, out of its own resources, about Rs. 4 lakhs per annum towards the purchase of books and subscriptions to 939 periodicals. It is also getting about 436 journals as gifts or on exchange basis. The Library provides 250 reading seats and remains open from 7 a.m. to 8 p.m. daily from Monday to Friday: 8 A.M. to 6 P.M. on Saturday and 8 A.M. to 10 P.M. during the examination season. About 6000 books are issued per week to students and teachers. To accommodate the growing library collection and to provide better library services to the readers, the Committee recommends the following assistance for the Central Library:-

	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Extension to the present building & furniture.	75,000 (As UGC share)	30,000	30,000
Books & Journals	1,50,000	75,000	75,000

28. Central and Hobby Workshop:-
and Common facilities Centre.

The Central and Hobby Workshop is serving all the departments in the Arts and Science faculties. A large number of students and staff take advantage of the facilities offered in the Central and Hobby Workshop. The proposed development of the workshop is intended to achieve the following subjects:-

- i) Drawing and Designing of equipment & parts.
- ii) Fabrication of equipment as per requirement and design.

The Committee feels that with the limited resources available, it would be better to develop the existing central and Hobby Workshop and also establish a Common Facilities Centre to serve the needs of all departments in the University. In addition to looking after the maintenance of Air-Conditioners, Refrigerators and other equipment available in the departments and also fabrication of small items of equipment, the Workshop should have a full-fledged Glass Blower in the scale of Rs. 700-1300. Besides, the Workshop would need a Foreman and an Electronics Engineer who would look after the sophisticated items of equipment to be installed at the Centre. Some of the major items of equipment, like N.M.R. Spectrometer, Liquid Nitrogen Plant, Electron Microscope should be installed at the Common Facilities Centre. The Centre should also provide Photographic Facilities for all the departments. For proper functioning of the Central Workshop and the Common Facilities Centre, the University should set up a Users Committee. One of the Members of the Committee may act as Convener of the Committee for one year by rotation. The Departments may also pool some of the major items of equipment at the Common Facilities Centre. The Committee recommends the following assistance for the Central and Hobby Workshop and the Common Facilities Centre:-

<u>Purpose.</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Building	50,000 (as UGC's 50% share)	-	-
Air-conditioning of rooms having costly equipment of	50,000	-	-
Equipment	9,00,000	3,00,000	3,00,000
<u>Staff</u>	(Rs. 700-1300)		
i) Workshop Foremen.	One	-	-
ii) Glass Blower	One	-	-
iii) Electronics Engineer.	-	One	-

in their proposals.

28(a) A large number of departments have included appointment of Research Assistants. The university is getting some funds from the U.G.C. for the award of Junior Fellowships at the university level. However, it was found that with the limited funds being given to the university, the university is unable to award more than two or three junior fellowships in a year and the funds made available are enough only for continuing the old awards. To help the university to strengthen its research activities, the Committee recommends that an amount of Rs. 2 lakhs may be given for the Fifth Plan period for the award of junior fellowships at the University.

29. Health Centre.

The present Health Centre was constructed in the University Campus in 1961. It is a two storeyed building, on the ground floor of which there is a dispensary looked after by a full-time Medical Officer who is residing on the upper floor. A small laboratory, 20 m. X-Ray Unit, a small Operation Theatre and two rooms with two beds each for the observation of patients are also provided. The Medical Officer is also assisted by an honorary lady doctor who visits the Centre twice a week. About 150 patients visit the OPD every day. The University has decided to establish a sub-Centre

at the Ranade Institute building for the benefit of the students and the employees of the University residing in the City area. For providing required in the Sub-Centre and the main Health Centre, the University has asked for an assistance of Rs. 1,07,800/- and Rs. 2 lakhs for building. The Health Centre which is looking after the teaching, non-teaching staff and the students in the University Campus is doing useful work and needs to be strengthened. However, the Committee was told that the scheme of Health Centre is being reviewed by the UGC and as soon as the review is over, assistance for Health Centre will be provided outside the Fifth Plan allocation of the University.

50: Extra-Mural Studies.

The University of Poona is conducting a useful programme of extra-mural studies and has set up a Board to make provision of facilities for Extra - Mural Adult Education within the Poona University area. Several centres have been set up in various towns under the jurisdiction of the University and the following facilities are provided at those Centres:

1. About 5 short courses of 2 to 3 Lectures* for the Liberal Education of Adults.
2. Summer and Winter schools for primary and secondary teachers .
3. Extra-mural Camps* to provide opportunities to teachers and other interested adults for short periods of intensive study and readings, writing and discussion under the guidance of University teachers and other experts.

For this programme the university has asked for Rs. 60,000/- for T.A. e Rs. 10,000/- for equipment and 1 Technical Assistant to look after the audio Visual equipment. The Committee recommends that an amount of Rs. 35,000/- may be given for T.A., D.A. to be paid to the teachers under this programme and Rs. 5,000/- for equipment. For staff, the university may utilise the service of Technical Assistant available at the Central Workshop:-

	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
	Rs.	Rs.	Rs.
T.A., D.A.	15,000	10,000	10,000
Equipment	5,000	-	-

31: University Press.

The University Press has, at present, only one mono-machine and the work of printing English, as well as Marathi books is required to be done on the same. The Press machinery was purchased in 1957 and has become rather old. Annual turn-over in the University Press is about Rs. 13 lakhs. The Press helping the Department of Journalism also in various ways. The Committee recommends that an assistance of Rs. 1,25,000/- (as UGC 50% share) may be given under I Priority for the purchase of a Mono-Casting and Mono-operating machines.

32: Students Hostel.

The Poona University has at present three men's and one women's hostel providing accommodation for about 230 Boys and 64 girls. The total

postgraduate strength of the University being more than 3000 and about 1500 students coming from Moufossil areas, the present hostel accommodation is very limited. The University is constructing 18 single seated rooms for men students out of funds provided by the Poona Municipal Corporation. The University has asked for an additional hostel for 80 postgraduate men students. The Committee, however, feels that the University may be given assistance for additional hostels for 40 men students and 40 women students. This will involve the following expenditure:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Men's Hostel (as UGC's 50% share).	75,000	25,000	25,000
Women's Hostel (as UGC's 75% share).	1, 00,000	50,000	37,500

33. Teachers' Quarters.

At the end of Fourth Five Year Plan, the University had a staff of 45 Professors, 41 Readers and 86 Lecturers i.e, 162 in all. The present accommodation available with the University is 65 units. The University has asked for assistance for construction of 50 quarters more involving an expenditure of Rs. 9 lakhs. In view of the fact that the University Campus is about 5 miles away from the City, the Committee feels that the requirement of additional accommodation is reasonable and the University may be given assistance for this purpose as follows:-

	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
U.G.C.50% share	2,25,000	1, 12, 500	1, 12, 500

34. Extension to the University Guest House.

The present University Guest House was constructed during the Third Five Year Plan and has four 2 seated rooms. With the expanding academic activities of the University, it is required to provide accommodation to a number of visitors who come to attend seminars, symposia, summer schools etc. and it has become necessary to extend the present guest house. The Committee recommends the following assistance for this purpose as UGC's 50% share.

	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
	50,000	25,000	25,000

15 Meeting with the students:-

The student community in the Poona University appeared to be by and large satisfied with the facilities available. However, the representatives of students who met the Committee requested for more attention on the following points:-

- a) Better maintenance of hostels.
- b) Need for more hostel accommodation.

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- (c) Eating facilities for day scholars-
- (d) Strengthening of departmental libraries and improvement of inter-departmental library lending systems, particularly journals.
- (e) Provision of more copies of the text-books in the library
- (f) Extension of working hours of the library and the Study Centre.

The students from Deccan College complained that there was no common room in the College and if possible a non-resident student centre should be provided immediately.

36. Meeting with the Teachers:

The Committee met the representatives of teachers in the University departments, as well as, from the affiliated colleges. The major demand of the teachers was immediate implementation of the U.G.C. scales (this has since been accepted by the State Government). The teachers further desired that facilities should be provided for sabbatical leave, for merit promotion and in-service improvement of college teachers. The Principals of some of the colleges suggested that there should be workshop for Principals and the Commission should provide assistance for this. It was also suggested that just as College teachers come to the University for postgraduate teaching, it would be better if the University teachers also go to undergraduate colleges for conducting a few periods per week. The Committee feels that these suggestions need sympathetic consideration by the U.G.C. and the University authorities.

The Committee also met the ministerial and other supporting staff of the University. The staff representatives represented for more residential accommodation and facilities for in-service training. The Committee recommends that these may be considered sympathetically by the University authorities. The U.G.C. should consider that this is an important limb of the higher education programme and make provision for their welfare.

37. General observations/Recommendations:

(i) The Poona University in one of the 12 universities selected by the U.G.C. for improvement in system of examinations. The scheme has not been implemented so far. However, in the science faculty semester system and grading system have been introduced and are working well. However, the Heads of Humanities and Social Science department claimed that they would need more staff, if the examination system is to be improved. It was pointed out to the Heads of Departments that the introduction of semester system need not be linked up with the improvement in the system of examination and if the Science faculty could bring about improvements without any additional staff, efforts should be made in the humanities and social sciences departments also to bring about improvements with the present complement of staff.

(ii) A large number of teachers from affiliated colleges are recognised by the University for post-graduate teaching in the University departments. The University spends a lot of money on payment of T.A., DA to such teachers. However, the Committee noted that the recognition for post-graduate teaching is conferred on the teachers in a somewhat mechanical way as no attempt is made to see that a teacher has kept himself up-to-date in his subject at the time recognition is granted.

(iii) A large number of teachers in Lecturer's and Reader's cadres are held up at the maximum of their scales of pay. The Committee feels that the University should introduce the personal promotion scheme initiated by the U.G.C. a few years ago. This was also discussed with the State Government

representatives and representatives of the University who said that the Govt./University would consider it sympathetically after the recommendations of the Committee are available.

iv) The University has included in its Fifth Plan proposals a number of posts of Research Assistants. The Committee feels that the research assistants by themselves, as an addition to the staff of a department, are not desirable. The research assistants should be a part of a definite research projects and for definite period. However, to help the University carry on its research activities the Committee respects that the University would be able to award ten more Junior Research Fellowships with the assistance of Rs. 2,00,000/- recommended above.

A summary of the financial implications of the recommendations of the Visiting Committee is enclosed as Annexure.II.

The Committee wishes to thank the Vice-Chancellor and members of the staff for providing all facilities for the work of the Committee.

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Position of the Spill-over schemes approved during
the IVTH Plan Period.

OCNA UNIVERSITY:

No.	Scheme.	Approved Cost.	U.G.C. Share.	Grant paid.	Spill-over
1.	Extension of Physics Department building.	1,25,454	1,00,000	95,000	3,329-00
2.	Extension of Botany Deptt. building.	1,08,600	1,00,000	70,000	13,454-00
3.	Extension of Zoology Deptt. building.	1,32,622	1,00,000	1,20,000	9,402-00
4.	Staff Salaries (Science Departments)		16,94,242.74	15,75,000	1,19,243-00
5.	Const. of extension to ladies hostel.	1,52,780	1,14,585	70,000	29,952.52
6.	Purchase of living room furniture for women hostel	2,500	1,875	-	1,807.50
7.	Const of 18 Lecturers Qrs.	9,43,251.11	4,71,625.55	4,15,000	22,713.76
8.	Const of 4 additional quarters.	2,65,280.47	1,32,640.24	75,000	48,609.70
9.	Const of Federal co-operation Consumers' Stores.		50,000.00	15,000	34,893.00
10.	Improvement of Hostel facilities.		10,000.00	-	9,990.00
11.	Const of Composite bldg. for Modern European languages	3,32,238.00	2,24,447.00	1,25,000/-	99,447.00*
			*1,00,000.00	(outside IV Plan).	1,00,000.00 for Stud Home
12.	Staff salaries (Humanities Deptt)		13,48,666.00	11,28,000/-	2,20,666.00
13.	Staff Salary (Library).		62,375.00	57,000/-	5,375.00
14.	Humanities and Social Sciences Building.		7,50,000.00	6,90,000/-	4,976.30
15.	Closing the basement of the Humanities & Social Sciences.		16,789.00	10,000/-	6,657.51
16.	Publications of Res. work including doctoral thesis.		1,00,000.00	34,247.24	64,836.03

Rs. 6,95,352.32

Financial implications of the recommendations of the
Visiting Committee which assessed the fifth plan proposals
of the University of Poona.

Departments	Ist Priority				Total
	Staff	Building	Books	Equipment	
<u>Humanities & Social Sciences.</u>					
1. Extension to Humanities Building.	-	1,25,000	-	-	1,25,000
2. Extension to Arts Faculty Building	-	1,25,000	-	-	1,25,000
3. Marathi	57,000	-	10,000	10,000	77,000
4. Hindi	57,000	-	30,000	-	87,000
5. English	69,000	-	30,000	-	99,000
6. Experimental Psychology	-	-	50,000	50,000	1,00,000
7. Politics & Public Administration	30,000	-	20,000	-	50,000
8. Philosophy	87,000	-	10,000	8,000	1,05,000
9. Law	87,000	-	23,000	-	1,10,000
10. History	87,000	-	10,000	-	97,000
11. Linguistics	-	-	10,000	-	10,000
12. Modern European Languages.	1,23,000	-	15,000	-	1,41,000
13. Journalism	69,000	-	20,000	20,000	1,09,000
14. Sociology & Anthropology	65,000	-	20,000	-	85,000
15. Sanskrit & Prakrit Languages.	57,000	-	5,000	-	62,000
16. Defence Studies	69,000	-	2,000	1,000	72,000
17. Archeology	69,000	-	-	20,000 (Exploration & Excavation)	89,000
18. Library Science	57,000	34,000	5,000	-	96,000
Total	9,86,000	2,31,000	2,60,000	1,09,000	16,59,000

Department	H. Priority				Total
	Staff	Building	Books	Equipment	
<u>Humanities & Social Sciences.</u>					
Extension to Humanities Building.	-	-	-	-	-
Extension to Arts Faculty Building	-	-	-	-	-
Marathi	-	-	25,000	-	25,000
Hindi	-	-	-	-	-
English	-	-	30,000	-	30,000
Experimental Psychology	87,000	-	25,000	-	1,12,000
Politics & Public Administration	-	-	20,000	-	20,000
Philosophy	30,000	-	5,000	-	35,000
Law	-	-	-	-	-
History	-	-	5,000	5,000	10,000
Linguistics	57,000	-	-	-	57,000
Modern European Languages.	-	-	-	15,000	15,000
Journalism	-	-	20,000	20,000	40,000
Sociology & Anthropology	-	-	30,000	-	30,000
Sanskrit & Prakrit Languages.	57,000	-	5,000	-	62,000
Defence Studies	18,000	-	3,000	2,000	23,000
Archeology	-	-	-	40,000 (Explorations & excavation)	40,000
Library Science	57,000	-	5,000	-	62,000
Total	3,06,000	-	1,73,000	82,000	5,61,000

Department	III Priority				Total
	Staff	Building	Books	Equipment	
<u>Humanities & Social Sciences</u>					
1. Extension to Humanities Building	-	-	-	-	-
2. Extension to Arts Faculty Building.	-	-	-	-	-
3. Marathi	-	-	25,000	-	25,000
4. Hindi	-	-	20,000	4,000	24,000
5. English	60,000	-	40,000	-	1,00,000
6. Experimental Psychology	-	-	-	-	-
7. Politics & Public Administration	-	-	20,000	-	20,000
8. Philosophy	-	-	30,000 (Including Rs. 25,000 for Philosophical Journals)	-	30,000
9. Law	-	-	72,000	-	72,000
10. History	-	-	15,000	13,000	28,000
11. Linguistics	-	-	20,000	-	20,000
12. Modern European Languages	-	-	50,000	-	50,000
13. Journalism	-	-	-	-	-
14. Sociology & Anthropology	-	-	-	18,000	18,000
15. Sanskrit & Pr-krit Languages	-	-	-	-	-
16. Defence Studies	-	-	2,000	1,000	3,000
17. Archeology	-	-	26,000 (Publication)	15,000 (Excavation & Excavation)	41,000
18. Library Science	-	-	10,000	-	10,000
	60,000	-	3,30,000	51,000	4,41,000

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Department	Priority				Total
	Staff	Building	Books	Equipment	
(B) Faculty of Sciences					
1. Chemistry	2,07,000	1,25,000	30,000	5,00,000	8,62,000
2. Physics	3,12,000	1,25,000	50,000	3,00,000	7,87,000
3. Botany	69,000	93,000 (including Rs. 38,000 for cold room.)	35,000	2,00,000	3,97,000
4. Zoology	1,26,000	50,000 (26,000 for furniture for museum)	30,000	1,00,000	3,32,000
5. Mathematics & statistics	57,000	1,00,000	1,00,000	50,000	3,07,000
6. Geology	18,000	1,50,000	25,000	2,00,000	3,93,000
7. Geography	69,000	-	30,000	40,000	1,39,000
	8,58,000	6,69,000	3,00,000	13,90,000	32,17,000

(C) General Schemes

1. Central Library	-	75,000	1,50,000	-	2,25,000
2. Central & Hobby Work- shop & Common facilities centre.	70,000	1,00,000 (includes Rs. 50,000 for air-conditioning)	-	9,00,000	10,70,000
3. Extra. Mural Studies (T.A., & D.A.)	15,000	-	-	5,000	20,000
4. Men's Hostel	-	75,000	-	-	75,000
5. Women's Hostel	-	1,00,000	-	-	1,00,000
6. Teachers Quarters	-	2,25,000	-	-	2,25,000
7. Extension of Guest House.	-	50,000	-	-	50,000
8. Visiting Fellowship	50,000	-	-	-	50,000
9. Junior Research Fellowships	2,00,000	-	-	-	2,00,000
	3,35,000	6,25,000	1,50,000	9,05,000	20,15,000

Department (B) Faculty of Sciences	II Priority				Total
	Staff	Building	Books	Equipment	
1. Chemistry	-	-	15,000	2,00,000	2,15,000
2. Physics	-	-	25,000	2,00,000	2,25,000
3. Botany	60,000	-	20,000	50,000	1,30,000
4. Zoology	18,000	-	10,000	50,000	78,000
5. Mathematics & Statistics	57,000	-	1,00,000	25,000	1,82,000
6. Geology	30,000	-	15,000	1,25,000	1,70,000
7. Geography	48,000	-	10,000	10,000	68,000
	2,13,000	-	1,95,000	6,60,000	10,68,000

(C) General Schemes

1. Central Library	-	30,000	75,000	-	1,05,000
2. Central & Hobby Workshop & Common facilities centre	20,000	-	-	3,00,000	3,20,000
3. Extra Mural Studies (T&DA)	10,000	-	-	-	10,000
4. Men's Hostel	-	25,000	-	-	25,000
5. Women's Hostel	-	50,000	-	-	50,000
6. Teachers Quarters	-	1,12,500	-	-	1,12,500
7. Extension of Guest House.	-	25,000	-	-	25,000
8. Visiting Fellowship	-	-	-	-	-
9. Junior Research Fellowships	-	-	-	-	-
	30,000	2,42,500	75,000	3,00,000	6,47,500

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Department	III Priority				Total
	Staff	Building	Books	Equipment	
<u>(B) Faculty of Sciences.</u>					
1. Chemistry	-	-	15,000	2,00,000	2,15,000
2. Physics	-	-	25,000	1,00,000	1,25,000
3. Botany	-	-	20,000	50,000	70,000
4. Zoology	-	-	10,000	50,000	60,000
5. Mathematics & Statistics	-	-	50,000	-	50,000
6. Geology	-	-	10,000	1,00,000	1,10,000
7. Geography	-	-	10,000	14,000	24,000
	-	-	1,40,000	5,14,000	6,54,000

<u>(C) General Schemes.</u>					
1. Central Library	-	30,000	75,000	-	1,05,000
2. Central & Hobby-work shop & Common facilities centre.	-	-	-	3,00,000	3,00,000
3. Extra Mural Studies (T & DA)	10,000 (T & DA)	-	-	-	10,000
4. Men's Hostel	-	25,000	-	-	25,000
5. Women's Hostel	-	37,500	-	-	37,500
6. Teachers Quarters	-	1,12,500	-	-	1,12,500
7. Extension of Guest House.	-	25,000	-	-	25,000
8. Visiting Fellowship	-	-	-	-	-
9. Junior Research fellowships	-	-	-	-	-
	10,000	2,30,000	75,000	3,00,000	6,15,000

POONA UNIVERSITYSUMMARY

Department	I Priority				Total
	Staff	Building	Books	Equipment	
(A) Humanities and Social Sciences	9,86,000	2,84,000	2,60,000	1,09,000	16,39,000
(B) Sciences Department	8,58,000	6,69,000	3,00,000	13,90,000	32,17,000
(C) General Sciences	3,35,000	6,25,000	1,50,000	9,05,000	20,15,000
	21,79,000	15,78,000	7,10,000	24,04,000	68,71,000

Department	II PRIORITY				Total
	Staff	Building	Books	Equipment	
(A) Humanities and Social Sciences	3,06,000	-	1,73,000	83,000	5,61,000
(B) Sciences Deptt.	2,13,000	-	1,95,000	6,60,000	10,68,000
(C) General Schemes.	30,000	2,42,500	75,000	3,00,000	6,47,500
	5,49,000	2,42,500	4,43,000	10,42,000	22,76,500

Department	III Priority				Total
	Staff	Building	Books	Equipment	
(A) Humanities & Social Sciences	60,000	-	3,30,000	51,000	4,41,000
(B) Sciences Deptt.	-	-	1,40,000	5,14,000	6,54,000
(C) General Schemes	10,000	2,30,000	75,000	3,00,000	6,15,000
	70,000	2,30,000	5,45,000	8,65,000	17,10,000

(i) Spill over	=	Rs. 6,95,300
(ii) Basic grants (Books 3 l*lhs Equip. 5 l*lhs)	=	8,00,000
(iii) I Priority	=	68,71,000
(iv) II Priority	=	22,76,500
(v) III Priority	=	17,10,000
Grand Total		1,23,52,800 or say 1,23,53,000

PART VII

UNIVERSITY GRANTS COMMISSION

Draft report of the Visiting Committee to Shivaji University
Kolhapur for assessing its Fifth Plan development proposals.

.-.-.-.-

To examine the development proposals of the Shivaji University,
Kolhapur for the Fifth Five Year Plan period, the University Grants
Commission appointed a Visiting Committee consisting of the following:-

1. Professor A.R.V.Murthy .. Convenor
Head of the Deptt. of Inorganic & Physical Chemistry
Indian Institute of Science
Bangalore.
2. Professor H.S.Hans .. Member
Head of the Department of Physics
Panjab University
Chandigarh.
3. Professor Reayat Khan .. -do-
Head of the Department of Botany
Aligarh Muslim University
Aligarh.
4. Professor R.Rakshpal .. -do-
Department of Zoology
Lucknow University
Lucknow.
5. Professor S.S.Merh .. -do-
Head of the Department of Geology
M.S.University of Baroda
Baroda.
6. Professor S.C.Misra .. -do-
Head of the Department of History
M.S.University of Baroda
Baroda.
7. Professor K.S.Murthy .. -do-
Head of the Department of Philosophy
Andhra University
Waltair.
8. Professor K.Seshadri .. -do-
Head of the Centre for the
Study of Political Development
Jawaharlal Nehru University
New Delhi.
9. Professor A.Ramaswamy .. -do-
Head, Deptt. of Economics
Annamalai University
Annamalai Nagar

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10. Shri B.R.Kwatra
Asstt. Secretary
University Grants Commission
New Delhi.

Secretary.

The Committee visited the Shivaji University on 25th and 26th February, 1975 and had discussions with the Vice-Chancellor, Local Members of the Executive Council, Heads of the Department, Principals of Colleges, representatives of the staff and students. The Committee also visited the departments, laboratories, Central Library, Study Centre and Students' hostels.

Welcoming the Committee, the Vice-Chancellor said that since the university started functioning at the middle of the Third Plan, most of the development work of the university was started during the Fourth Plan period. The basic needs of the university were development of the campus and completion of the building construction work which was very essential to start its activities. Therefore, the major attention of the university was confined to development of the campus, construction of buildings and equipping the laboratories etc.

Background
jurisdiction
and other
basic facts.

The Shivaji University was inaugurated in 1962 but it started functioning from 1963. The University campus covers an extensive area of 470 acres to the east and 590 acres to the west of Pona-Bangalore National Highway. Till the end of the Fourth Plan, the university had jurisdiction over five districts of Southern Maharashtra i.e., Kolhapur, Ratnagiri, Sangli, Satara and Sholapur. The Shivaji University Act was amended in 1974 whereby the Ratnagiri District has been taken away from its jurisdiction and the colleges in this district are now affiliated to Bombay University. The jurisdiction of the university is now spread over an area of about 40,000 sq. Kilometers having a population of over 8 million. The total number of colleges affiliated to Shivaji University as on 31st December, 1974 was as follows:-

<u>District</u>	<u>Number of Colleges</u>
Kolhapur	13
Sangli	17
Satara	16
Sholapur	15
Total:-	<u>61</u>

The total enrolment of students at undergraduate and postgraduate levels as on 1.4.1966 and 1.4.1974 was as follows:-

<u>Students:</u>	<u>As on 1.4.66</u>	<u>As on 1.4.74</u>
i) Undergraduate	25,456	64,029

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ii) Postgraduate (Department-wise).

	<u>As on 1.4.66</u>	<u>As on 1.4.74</u>
1. History	24	93
2. English	- 5	51
3. Economics	-	110
4. Politics	-	366
5. Sociology	-	54
6. Mathematics	20	69
7. Physics	35	91
8. Chemistry	44	141
9. Botany	16	63
10. Zoology	23	60
11. Geography	-	151
	<u>162</u>	<u>909</u>

The staff position as on 1.4.1966, additional staff provided during the IV Plan and the staff in position on 1.4.1974 is as follows:-

	No. of posts as on 1.4.66 (third Plan)	Additional posts sanctioned by UGC after 31.3.66 (IVth Plan)	No. of posts filled after 31.3.1966	Number of teachers in position as on 1.4.1974.
	1	2	3	4
Professor	4	2	3	3
Reader	4	9	5	5
Lecturer	7	19	23	23

The financial assistance provided by the University Grants Commission to the Shivaji University during the Fourth Plan and the amount utilised are as follows:-

Sr No.	Purpose	Amount received	Amount utilised
		Rs	Rs
1.	Additional staff (Science)	7,68,243	6,70,882
2.	Additional staff (Humanities & Social Sciences)	5,08,275	4,27,873
3.	Library Books & Journals	6,50,000	6,50,207
4.	Equipment	7,34,280	7,36,349
5.	Humanities Building	5,00,000 (UGC share)	11,76,792
6.	Men Students' Hostel	2,73,000 (as UGC share)	5,98,000

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SI No.	Purpose	Amount received	Amount utilised
		Rs	Rs.
7.	Teachers Hostel	1,50,000	3,85,912
8.	Health Centr	1,50,000	2,06,958
9.	Botanical Garden	25,000	25,000
10.	Printing Press	1,21,000	3,58,696

The amount received by the University from Maharashtra State Government towards maintenance expenditure during the last five years is as follows:-

1969-70	15,00,000
1970-71	23,52,674
1971-72	32,17,933
1972-73	17,00,000
1973-74	21,00,000

A statement indicating the schemes approved during the Fourth Plan but which could not be completed upto 31st March, 1974 is enclosed as Annexure. I.

During the Fourth Plan the Commission approved development proposals of the University to the extent of Rs. 53 lakhs. This included starting of new departments of Geography, Politics and Sociology. The University could utilise most of the assistance provided but the opposition additional posts sanctioned and appointments made was not very satisfactory as will be seen from the following table:-

Sr No.	Department	Posts sanctioned				Posts filled in			
		P	R	L	O	P	R	L	O
1.	Physics	1	-	1	-	-	-	-	-
2.	Chemistry	-	2	2	-	-	-	2	-
3.	Botany	-	1	2	-	-	-	3*	-
4.	Zoology	-	1	2	-	-	1	2	-
5.	Mathematics	-	1	2	-	-	-	2	-
6.	Geography	-	1	2	1	-	1	2	1
7.	English	-	-	2	-	-	-	-	-
8.	Economics	1	1	2	4	-	1	2	1
9.	Politics	-	1	2	-	-	1	2	-
10.	Sociology	-	1	2	-	-	-	3*	-
11.	History	-	-	-	1	-	-	-	1
		2	9	19	6	-	4	18	3

* One Lecturer against the approved post of Reader.

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Fifth Plan Proposals and recommendations.

Against an allocation of Rs. 100 lakhs made by the University Grants Commission, the Shivaji University has submitted proposals involving a total expenditure of Rs. 1,21,94,500/- under the three priorities as detailed below:-

<u>Ist Priority</u> Rs	<u>IIInd Priority</u> Rs	<u>III Priority</u> Rs	<u>Total</u> Rs
69,39,888	28,46,896	24,07,716	1,21,94,500 (this includes Rs. 21,94,500 as State Govt. share).

The Fifth Plan proposals relate to (1) Strengthening and expansion of the existing departments, (2) Creation of new departments, (3) Construction of buildings. The university desires to take up on selective basis the following schemes during the Fifth Plan:-

- (1) Teacher Education
- (2) Examination Reform
- (3) Continuing Education
- (4) Library Building and books at each Postgraduate District Centre.
- (5) Scholarships and Fellowships.
- (6) Museums
- (7) Inter-disciplinary course in Biometrics.

In the financial estimates for the Fifth Plan, the University has included opening of new departments of (1) Business Administration and Commerce, (2) Geology, (3) Marathi, (4) Biochemistry and (5) Physical Education. During the course of the visit of the Committee, the Vice-Chancellor also mentioned that university would like to start a Postgraduate Department of Education. For all these proposals relating to the establishment of new departments, the Committee suggested that the University may draw up detailed proposals (indicating specialisations to be offered etc.) and submit the same to the U.G.C.

For the existing departments, the proposals submitted by the university and the recommendations of the Visiting Committee are as follows:-

Faculty of Science

(1) Department of Physics:

The Physics Department building covers a built-up area of 30020 sq. ft. It also houses the Mathematics Department of the University. The University has asked for an extension to the Physics Department building and also construction of a new building for the Department of Mathematics. The Committee feels that if the Mathematics Department is given a new building, the space vacated by this department would be enough to meet the accommodation requirements of the Physics Department.

The department has 40 students in M.Sc (Part I) and 41 in M.Sc. (Part.II). Besides, 11 students are registered for the Ph.D. It has a staff strength of one Reader, eight Lecturers and eight Demonstrators.

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During the Fourth Plan, the U.G.C. sanctioned additional posts of one Professor and one Lecturer. Against the post of Professor, the University appointed Dr.V.S.Patankar from 1.7.1967 to 30.6.1969 and Dr. A.V.Narliker from 10.7.1969. But Dr.Narliker left the University on 16.3.1972 and since then the post of Professor is lying vacant. The post of Lecturer also sanctioned by the U.G.C. is lying vacant since 1.6.1973.

The major areas in which research facilities are available in the Physics Department are: (i) Materials Research and Crystal Growth, (ii) Semi Conductors; (iii) Theoretical Physics (Molecules and Particle) and (iv) Luminescence. The future programme of the Department includes strengthening of the present research activities and to undertake research work on problems of Solid State. For this the University has asked for 2 Professorships and one Readership. The Committee feels that the Professorship should not be left vacant for such a long time and the University should take steps to fill in the vacant posts (all) as early as possible. For the Fifth Plan, the Committee recommends one Professorship (in Theoretical or Experimental Solid State Physics or Material Sciences) one Readership and assistance for books and equipment as detailed below:-

Purpose	<u>I Priority</u> Rs	<u>II Priority</u> Rs	<u>III Priority</u> Rs.
i) Books & Journals	40,000	20,000	20,000
ii) Equipment	1, 50,000	50,000	50,000
iii) Staff:			
Professor	One	NIL	NIL
Reader	One	NIL	NIL

2. Department of Chemistry:

The Department of Chemistry is offering facilities for teaching and research in (i) Organic Chemistry: (ii) Inorganic Chemistry: (iii) Physical Chemistry: (iv) Analytical Chemistry and (v) Biochemistry. The student enrolment in the Department during 1974-75 was 80 in M.Sc. (Part.I) and 64 in M.Sc (Part.II). Besides, 25 students were registered for the Ph.D. The Department has a staff strength of one Professor (Organic Chemistry), three Readers (one each in Organic, Inorganic and Physical) and seven Lecturers. During the Fourth Plan, the U.G.C. sanctioned the posts of two Readers and two Lecturers. The University filled in all the posts but the two Readers left in September, 1972 and April 1973 and till April 1974 both the posts were lying vacant. The Department plans to provide facilities in Sugar Chemistry, Polymer Chemistry, Stereo-Chemistry and Industrial Chemistry. The Committee feels that since the Kolhapur area has a large cultivation of sugarcane and there is a Sugar Mill nearby the Department should give first priority to the development of the Sugar Chemistry Section. To meet the requirements of growing number of students, for strengthening the existing facilities and for providing new facilities, the Committee recommends the following assistance for the Department of Chemistry

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during the fifth five year plan:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
i) Buildings including furniture & fittings.	1,00,000 (as UGC share)	-	-
ii) Books and Journals.	40,000	20,000	20,000
iii) Equipment	1,20,000	50,000	50,000
iv) Staff:			
Professor (in Sugar Chemistry)	One	-	-
Lecturer	One	-	-

3. Department of Botany:

The Department of Botany specialises in Plant Physiology and Mycology which are offered as special papers and for research work leading to Ph.D. The Department has so far produced ten Ph.Ds sixteen students are at present working for their doctorates. At the M.Sc level the Department had 60 students on roll (30+30) during 1974-75. It has a staff strength of one Professor, one Reader, five Lecturers, four Demonstrators and one Research Assistant. This includes the posts of one Reader and two Lecturers sanctioned by the U.G.C. during the Fourth Plan. The Readership remained vacant till 1.12.1973 when the university could appoint only a Lecturer against this post.

The Department of Botany desires to develop branches like Palaeobotany, angiosperms, cytogenetics, microbiology, environmental biology, cell physiology etc. By concentrating so far on Mycology and Plant Physiology, the Committee feels that the Department has done good work and needs encouragement to expand its activities. To meet the needs of accommodation for the growing number of students, for strengthening the existing facilities and for providing new facilities, the Committee recommends the following assistance for the Botany Department during the fifth plan:-

<u>Purpose</u>	<u>Ist Priority</u> Rs	<u>IInd Priority</u> Rs	<u>IIIrd Priority</u> Rs.
i) Building including furniture etc.	1,00,000 (as U.G.C. share)	-	-
ii) Books & Journals	30,000	15,000	15,000
ii) Equipment	80,000	40,000	40,000

Contd....

<u>Purpose</u>	<u>Ist Priority</u> Rs	<u>IIInd Priority</u> Rs	<u>IIIrd Pri</u> <u>ty</u> Rs.
iv) Staff:			
Readers	One	One	-
(at least one in Plant) Breeding.			
Technical Asstt.	-	-	One
v) Botanical Garden	-	50,000	-

4. Department of Zoology:-

This Department is offering facilities for teaching and research in Cell Biology and Physiology (including Reproductive Physiology) and Marine Biology. The annual intake of the Department for M.Sc course is 30 students. During the last ten years, eleven students obtained their Ph.D and 25 students are at present doing research work leading to the doctorate degree. The Department proposes to introduce Endocrinology as a special subject at the M.Sc level and provide facilities for research work in Cytology, Cell Physiology, biochemistry, cytochemistry and endocrinology. The aim of the Department is to develop into a good school of Cell Biology. The staff strength of the Department is one Professor, one Reader and five Lecturers. The Department of Zoology like its sister Department of Botany was established in 1964 and has come up well during the fourth plan. But the major item whose absence is noticed by any visitor to the Department is a proper Animal House.

To meet the requirement of the Department of Zoology during the fifth plan the Committee recommends the following assistance:-

<u>Purpose</u>	<u>I Priority</u> Rs	<u>II Priority</u> Rs	<u>III Priori</u> Rs
i) Building including furniture etc.	50,000	25,000	25,000
ii) Animal House	1,00,000	-	-
iii) Books & Journals	30,000	15,000	15,000
iv) Equipment	80,000	35,000	35,000
v) <u>Staff:</u>			
Professor (in Cell Biology)	One	-	-
Technical Assistant.	-	-	one

5. Department of Mathematics:

The Department of Mathematics which is, at present located on the first

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floor of the Physics Department building, has 30 students in M.A/M.Sc. (Part.I) and 34 in M.A./M.Sc. (Part.II). Besides, 11 students are doing research work for their Ph.D. Facilities for teaching and research available in the Department are in the fields of (i) General Theory of Relativity: (ii) Special Functions; (iii) Functional Analysis and (iv) Magneto-hydrodynamics, Category Theory. It has a staff strength of one Reader and nine Lecturers. During the fourth Plan, the U.G.C. sanctioned an additional staff of one Reader and two Lecturers. The post of Reader, unfortunately, remained unfilled till the end of the fourth plan. The Committee feels that the posts sanctioned by the U.G.C. should be filled in as early as possible.

The Department plans to provide research facilities in :-

- i) Elastic Behaviour of Neutron Stars.
- ii) Stability problems in Magneto-hydrodynamics.
- iii) Magnetized Deformable Media.
- iv) Application of Functional Analysis to Quantum Mechanics, Prediction Theory.
- v) Categories of complexes.
- vi) Integral Transforms etc.

The Committee feels that to meet the accommodation requirements of growing number of students in the Departments of Physics and Mathematics, it would be justified to provide a separate building for the Department of Mathematics. For the academic work of the Department, it also needs a Professorship in Pure Mathematics and a Readership in Applied Mathematics. However, the person to be appointed as a Reader should be chosen in a manner that he could be useful to the department of Physics in developing their Theoretical Physics Group. The Committee therefore, recommends the following assistance for the department of *

Purpose	<u>I Priority</u> Rs	<u>II Priority</u> Rs	<u>III Priority</u> Rs.
i) Building including furniture.	1,00,000 (as U.G.C. share)	-	-
ii) Books & Journals	30,000	15,000	15,000
iii) Equipment	10,000	5,000	-
iv) <u>Staff:</u>			
Professor in Pure Mathematics.	One	-	-
Reader in Applied Mathematics.	-	One	-

§. Department of Geography:

The Department of Geography was started by the Shivaji University during the fourth five year plan when the U.G.C. provided assistance for

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accommodation, books, equipment and staff (one Reader, two Lecturers and one Cartographer). This Department provides facilities for studies and research in (i) Economic Geography (Land utilization studies and Agricultural Geography) (ii) Urban Geography and (iii) Biogeography. It has 80 students studying for M.A./M.Sc. (Part.I) and 66 for M.A./M.Sc. (Part.II). It has a staff of one Reader, four Lecturers and three Demonstrators. It is at present, housed in the Humanities Building even though it comes under the Faculty of Science. The research development plan of the Department includes provision for studies in (A) Land utilization, Regional Planning and Development and (B) Aerial-Photo-Interpretation. For this, the Department needs some stereoscopes and Air-Photographs. But above these, it needs a Professor to provide leadership and planning and a building over an area of about 5000 sq.ft. The Committee therefore, recommends the following assistance for the Department of Geography during the fifth plan:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs	<u>III Priority.</u> Rs.
i) Building including furniture.	-	1,00,000	-
ii) Books & Journals	20,000	5,000	5,000
iii) Equipment	15,000	5,000	5,000
iv) Staff:			
Professor	One	-	-

Faculty of Arts

7. Department of English:

This Department was established during the third five year plan. It has 51 students studying for their M.A. and 10 students doing research work for their Ph.D. The staff in the Department has one Professor, one Reader, three Lecturers and one Language Laboratory Assistant. Research work in the Department has been going on in Indian Anglian Literature; American and British 20th Century Literature and English Language. The Department organizes a Seminar on American Literature in 1969, a Summer Institute in English in 1970 and a Proficiency course in English in 1973-74. Students in this area of Maharashtra not being very proficient in English, the Department has been doing good work. The Department plans to set up a Language Laboratory and has asked for an assistance of Rs. 75,000/- for this purpose. The Committee feels that this demand is reasonable and may be accepted. This should, however, be on the condition that other language Departments in the University will also be allowed to make use of the Language Laboratory. The present stage of development of the Department does not justify any additional staff:-

<u>Purpose</u>	<u>Priority I</u> Rs	<u>Priority II</u> Rs.	<u>Priority III</u> Rs.
i) Language Laboratory	50,000	25,000	-
ii) Books & Journals	15,000	5,000	5,000

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8. Department of Sociology:

The Department of Sociology has 33 students in M.A. Part.I and 18 in M.A. Part.II. It has one Reader and three Lecturers on the staff. The department has been working, namely, on Indian Sociology and some of the areas in which research has been done are (1) Social Change among the Balutedars of Maharashtra; (2) Changing status of a Depressed Caste in Maharashtra; (3) Study of Famine Stricken Village in Maharashtra and job Aspirations among the College Students. A Seminar on Sociology was conducted in the department in May 1972. The department is interested in the Study of Rural Social Change due to rapid industrialisation and urbanisation particularly during the last two decades, in western Maharashtra. A rural social change is an important area of study and the committee feels that it should cover economic and political aspects also. The committee suggest that the university may consider the possibility of setting up a Centre for Rural Studies which may pool the expertise available in the departments of Economics, Political Science and Sociology. The University may frame a detailed proposal in this regard and submit it to the U.G.C. for assessment and support.

The committee also feels that the department should have a Professor to organise the academic programmes on proper lines.

The committee recommends the following assistance for the Department of Sociology during the Fifth Five Year Plan:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Books & Journals	15,000	10,000	7,000
<u>Staff:</u>			
Professor	One	NIL	NIL
Lecturer	One	NIL	NIL

9. Department of Political Science:

The Department of Political Science is comparatively a younger department. It has 21 students in M.A. Part.I and 17 in M.A. Part.II and a staff of one Reader and two Lecturers. The major areas of research in the department are problems concerning Indian Constitution, Foreign Policy of India, Labour Movement in India and non-Brahmin Movement in India.

The department desires to take up research ^{on} problems like voting behaviour, participation of people in Panchayati Raj etc. To coordinate and guide the teaching and research activity of the department, the committee feels that it should have a Professor. The Department would also need another post of a Lecturer but the university should see that the person to be appointed has some research experience in the fields in which research activity is going on in the department. The committee recommends the following:-

<u>Purpose</u>	<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Books & Journal	Rs. 15,000/-	Rs. 10,000/-	Rs.7,000/-

Staff :

Professor	One	Nil	Nil
Lecturer	Nil	One	Nil

10. Department of History

The Department of History has confined its activities so far to Maratha History. It has a section of Ancient Indian History and Culture but greater stress has so far been laid to the study of History of Marathas and Modern Maharashtra.

The number of students in this department went up from 24 in 1966 to 93 in 1974. It has a staff of one Reader, three Lecturers, one Research Assistant and a Director for the Research Section. Four students are at present carrying on research for their Ph.Ds. The committee feels that during the Fifth Plan, the department should offer more facilities for the study of Ancient Indian History & North Indian History. It would be better to take out the department from its isolation for Maratha History. The post of Director for research should be converted into that of a Reader. The vacant post of Professor should also be filled in as early as possible. The committee also feels that the department of History and the Maratha History should be integrated into one.

The committee recommends the following assistance for this department during the Fifth Five Year Plan:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Books & Journals	15,000	10,000	5,000

Staff:

Reader (in Ancient Indian History or North Indian History).	One	Nil	Nil
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11. Department of Economics:

The Department of Economics with 110 students at M.A. level and five doing research work for their Ph.D. is the largest Department in the Faculty of Arts. It has a staff of one Reader, three Lecturers and one Research Assistant. The post of Professor sanctioned by the U.G.C. during the fourth plan was filled in, in April 1967 but ever since September 1968 when the Professor left, the post is lying vacant. The post of Reader and three posts of Research Assistants (out of four) sanctioned by the Commission could not be filled in during the entire fourth plan period. The Committee feels that it is not in the interest of academic work to allow so many posts to remain vacant for such a long time.

The major areas in which research activity is going on in the Department, are (i) Public Finance; (ii) Co-operation and (iii) Monetary Economics. The Department has recently completed a research project

"A study in Cooperative Finance for Agricultural Development in Kolhapur District". The Department desires to concentrate on these specialisations during the fifth plan. The Committee, however, feels that there is urgent need to bring the syllabus at the M.A. level upto-date and comparable with the syllabi adopted by some of the advanced institutions. The Committee, therefore, feels that the Department needs a Reader with specialisation in Mathematical Economics. The Committee recommends the following assistance for this Department, during the Fifth Plan:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Books & Journals	15,000	10,000	5,000
Equipment (calculating machines)	10,000	-	-

Staff:

Reader	One	-	-
Lecturer	-	One	-

General

12. Central Workshop and Common Facilities Centre

The University has no proper workshop to look after maintenance and repair of scientific instruments. Some of the sophisticated items of equipment acquired by the University under the 12 million dollar loan programme are lying unused for want of spare parts etc. Some other items remain unserviceable for quite long time till somebody could come from Bombay or Poona to repair those instruments. The Committee, therefore, feels that there is an urgent need to establish a Central workshop which should look after the repair and maintenance of scientific instruments acquired by all the Science departments and also have a common facility centre where costly and sophisticated instruments already purchased by some departments and to be purchased, could be pooled, so that all the departments could make use of such instruments. To look after the CM/CFC the university should set up a users Committee consisting of all Heads of Department taking advantage of the facilities offered at the workshop Centre. One of the members of the user's Committee could act as its convener for one year by rotation. The Committee, therefore, recommends the following assistance for Central workshop/Common Facilities Centre.-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Building	1.75 lakhs (as U.G.C. share)	-	-
Equipment	5 lakhs	3 lakhs	2 lakhs

Staff: (Rs. 700-1300)

Electronic Engineer	One	-	-
Mechanical Engineer	One	-	-
Mechanics	Two	-	-

This should be supported by other technical staff by the University.

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13. Humanities Building

Since the present Arts Faculty building has become somewhat congested, the Committee recommends a grant of Rs. 2,50,000/- as U.G.C.'s 50% share (under first priority) for construction of an extension to the present building.

14. Central Library.

The University library has a total area of 7,332 sq.ft and stock of about 1 lakh books and journals. It is subscribing to 475 journals and is receiving 105 journals on exchange basis. The library provides 375 reading seats. Its working hours are 6.00 hrs. to 24.00 hrs for the reading room; 11 AM to 6 PM for the Circulation Section and 8 AM to 8 PM for the periodical section. The average number of books issued per week to students and teachers is 1700.

The Department of Library Science of the University is also located in the Library building and mostly library staff is performing the teaching duties in the Department of Library Science. The Committee feels that the present library building should be extended so as to meet the accommodation requirements of the growing number of books and journals. The University should also see that necessary steps are taken to separate the functions of teaching and library work being performed by the library staff at present. Apart from the grants recommended for each department individually a general grant of Rs. 1 lakh may be given for the University library to develop its stock of books and journals. Overall the Committee recommends the following assistance to the University Library:

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Extension to Library building.	-	2 lakhs (as UGC share)	-
Books	50,000	25,000	25,000

15. Hostel.

The University has at present three hostels for men students and one for women students. The total capacity of these hostels is 350 students. Since the hostel accommodation available for women students is not sufficient to meet the requirements, the Committee recommends a grant of Rs. 2,50,000 (as UGC's 75% share) for this purpose under the first priority.

16. Hostel/Staff Quarters.

The Shivaji University situated as it is away from the City has to provide residential accommodation to the teaching staff. One of the reasons why the University is unable to get persons for various posts is, lack of residential accommodation on the university campus. The Committee, therefore, recommends the following assistance for this purpose:

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Teachers' Hostel	2,0 lakhs (as UGC share)	-	-
Staff-Quarters for Readers.	-	2 lakhs	-

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17. Students Services:

In addition to the 4 hostels mentioned above, the University has constructed an additional hostel known as Vidyarathi Bhavan which was built by the students under the Shramdan scheme. Under this scheme, students from all the colleges came in batches and offered shramdan for the construction of these buildings. This hostel has got 36 rooms and nearly 50 MA/M.Sc. students are admitted in this hostel who take their education under the earn and learn scheme. This scheme provides for cultivation of 40 acres of land, running of a high way canteen and a flour mill. These activities are run by the students concerned and the earnings of these schemes are utilised for the subsistence of the resident students of the Vidyarathi Bhawan. At the flour mill the students have earned a profit of about Rs. 65,000/- which the Committee was told the students would like to utilise as matching contribution for the extension of the Canteen. The University has a study centre also on the campus which provides 250 reading seats and remains open from 6.00 hrs to 24.00 hrs on all days including Sundays and holidays. The University has recently completed a students home-cum-health centre which is providing medical facilities to students and staff of the University.

17.(a) Junior Fellowships.

A large number of departments have included appointment of Research Assistants. The University is getting some funds from the U.G.C. for the award of Junior fellowships at the University level. However, it was found that with the limited funds being given to the university, the university is unable to award more than two or three junior fellowships in a year and the funds made available are enough only for continuing the old awards. To help the university to strengthen its research activity, the committee recommends that an amount of Rs. 2 lakhs may be given for the Fifth Plan period for the award of junior fellowships at the university.

18. General Observations & Recommendations.

- i) The teaching load of the university teachers is generally 4-6 periods per week. In some cases, the senior teacher take 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 time-table in such a way that there is fair distribution between teaching and other responsibilities of the 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 required to be provided to the colleges by the university departments requires to be given greater stress and importance. There should be inter-change 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.

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- iii) The collaboration between the postgraduate departments in the university also needs to be strengthened. Some of the sophisticated items of equipment required by the Science departments can be put to better use if these are transferred to the common facilities centre recommended by the Committee.
- iv) The University has a number of research assistants holding post-graduate qualifications, but unfortunately these research assistants are not allowed to register themselves for the Ph.D. Since the avenues open to research assistants are very limited it would be only proper if they could be allowed to register themselves for Ph.D.
- v) The Committee feels that the University should implement the person promotion scheme whereby some of the senior staff members who are stuck up at the maximum of a particular scale, could be given person promotion. But to implement the scheme, care will have to be taken to ensure that a person is fit to take higher responsibilities.

The financial implications of the Committee's recommendations are given in Annexure.II.

The Committee would like to record its thanks for the cooperation offered by the Vice-Chancellor and members of the teaching and administrative staff of the University.

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SHIVAJI UNIVERSITY.

SPILL-OVER STATEMENT

S.No.	Scheme	Approved cost. Rs.	U.G.C.Share. Rs.	Grand paid Rs.	Spill-over Rs.
1.	Construction of Men's Hostel	5,43,000	2,71,500	2,65,000	6,500
2.	Staff Salaries " (Humanities Department)		4,27,872.97	4,15,000	12,872./97
3.	Construction of 50 Women Students Hostel.	4,62,695.18	2,74,737/00	-	2,74,737
4.	Construction of Men Students Hostel.	5,46,000.00	3,10,700/00	2,90,000	3,000/00
5.	Staff Salaries Science Departments.	-	6,70,882/00	6,66,750	4,132/00
6.	Employment of Trained Coaches.	-	18,005/09	10,000	8,005/00
					<u>3,09,246/97</u>

ANNEXURE II

Financial implication of the recommendations of the Visiting Committee which assessed the V Plan proposal of the Shivaji University.

Ist Priority

<u>Department</u>	<u>Staff</u>	<u>Building</u>	<u>Books</u>	<u>Equipent</u>	<u>Total</u>
<u>A) Faculty of Science</u>					
1. Deptt. of Physics	1,26,000	-	40,000	1,50,000	3,16,000
2. " Chemistry	99,000	1,00,000	40,000	1,20,000	3,59,000
3. " Botany	57,000	1,00,000	30,000	80,000	2,67,000
4. " Zoology	69,000	1,50,000 (Animal House Rs. 1,00,000)	30,000	80,000	3,29,000
5. " Mathematics	69,000	1,00,000	30,000	10,000	2,09,000
6. " Geography	69,000	-	20,000	15,000	1,04,000
	<u>4,89,000</u>	<u>4,50,000</u>	<u>1,90,000</u>	<u>4,55,000</u>	<u>15,84,000</u>
<u>B) Faculty of Arts</u>					
1. Deptt. of English	-	50,000 (Language lab)	15,000	-	65,000
2. " Pol. Science	69,000	-	15,000	-	84,000
3. " Sociology	99,000	-	15,000	-	1,14,000
4. " History	57,000	-	15,000	-	72,000
5. " Economics	57,000	-	15,000	10,000	82,000
	<u>2,82,000</u>	<u>50,000</u>	<u>75,000</u>	<u>10,000</u>	<u>4,17,000</u>
<u>C) General Schemes</u>					
1. Central Work Shop	1,30,000	1,75,000	-	5,00,000	8,05,000
2. Humanities Bldg.	-	2,50,000	-	-	2,50,000
3. Central Library	-	-	50,000	-	50,000
4. Women's Hostel	-	2,50,000	-	-	2,50,000
5. Teachers Hostel	-	2,00,000	-	-	2,00,000
6. Staff Quarters	-	-	-	-	-
7. Visiting Fellowship	50,000	-	-	-	50,000
8. Fellowships (Junior)	2,00,000	-	-	-	2,00,000
Total	<u>3,80,000</u>	<u>8,75,000</u>	<u>50,000</u>	<u>5,00,000</u>	<u>18,05,000</u>

II PRIORITY

<u>Department</u>	<u>Staff</u>	<u>Building</u>	<u>Books</u>	<u>Equipment</u>	<u>Total</u>
<u>A) Faculty of Science</u>					
1. Deptt. of Physics	-	-	20,000	50,000	70,000
2. " Chemistry	-	-	20,000	50,000	70,000
3. " Botany	57,000	50,000 (Botanical Garden)	15,000	40,000	1,62,000
4. " Zoology	-	25,000	15,000	35,000	75,000
5. " Mathematics	20,000	-	15,000	5,000	40,000
6. " Geography	-	1,00,000	5,000	5,000	1,10,000
	<u>77,000</u>	<u>1,75,000</u>	<u>90,000</u>	<u>1,85,000</u>	<u>5,27,000</u>
<u>B) Faculty of Arts</u>					
1. Deptt. of English	-	25,000 (Language Lab)	5,000	-	30,000
2. " Pol. Science	30,000	-	10,000	-	40,000
3. " Sociology	-	-	10,000	-	10,000
4. " History	-	-	10,000	-	10,000
5. " Economics	30,000	-	10,000	-	40,000
	<u>30,000</u>	<u>25,000</u>	<u>45,000</u>	<u>-</u>	<u>1,30,000</u>
<u>C) General Schemes</u>					
1. Central workshop	-	-	-	3,00,000	3,00,000
2. Humanities Bldg.	-	-	-	-	-
3. Central Library	-	2,00,000	25,000	-	2,25,000
4. Women's Hostel	-	-	-	-	-
5. Teachers Hostel	-	-	-	-	-
6. Staff Quarters	-	2,00,000	-	-	2,00,000
	<u>-</u>	<u>4,00,000</u>	<u>25,000</u>	<u>3,00,000</u>	<u>7,25,000</u>

III PRIORITY

<u>Department</u>	<u>Staff</u>	<u>Building</u>	<u>Books</u>	<u>Equipment</u>	<u>Total</u>
<u>A) Faculty of Science</u>					
1. Deptt. of Physics	-	-	20,000	50,000	70,000
2. " Chemistry	-	-	20,000	50,000	70,000
3. " Botany	20,000	-	25,000	40,000	75,000
4. " Zoology	20,000	25,000	15,000	35,000	95,000
5. " Mathematics	-	-	15,000	-	15,000
6. " Geography	-	-	5,000	5,000	10,000
	<u>40,000</u>	<u>25,000</u>	<u>90,000</u>	<u>1,80,000</u>	<u>3,35,000</u>
<u>B) Faculty of Arts.</u>					
1. Deptt. of English	-	-	5,000	-	5,000
2. " Pol. Science	-	-	7,000	-	7,000
3. " Sociology	-	-	7,000	-	7,000
4. " History	-	-	5,000	-	5,000
5. " Economics	-	-	5,000	-	5,000
	<u>-</u>	<u>-</u>	<u>29,000</u>	<u>-</u>	<u>29,000</u>
<u>C) General Sciences</u>					
1. Central workshop	-	-	-	2,00,000	2,00,000
2. Humanities Bldg.	-	-	-	-	-
3. Central Library	-	-	25,000	-	25,000
4. Women's Hostel	-	-	-	-	-
5. Teachers Hostel	-	-	-	-	-
6. Staff Quarters	-	-	-	-	-
	<u>-</u>	<u>-</u>	<u>25,000</u>	<u>2,00,000</u>	<u>2,25,000</u>

Summary of Financial implications.

I PRIORITY

<u>Department</u>	<u>Staff</u>	<u>Building</u>	<u>Books</u>	<u>Equipment</u>	<u>Total</u>
Faculty of Science	4,89,000	4,50,000	1,90,000	4,55,000	15,84,000
Faculty of Humanities & Social Sciences.	2,82,000	50,000	75,000	10,000	4,17,000
General Sciences	3,80,000	8,75,000	50,000	5,00,000	18,05,000
	<u>11,51,000</u>	<u>13,75,000</u>	<u>3,15,000</u>	<u>9,65,000</u>	<u>38,06,000</u>

II PRIORITY

Faculty of Science	77,000	1,75,000	90,000	1,85,000	5,27,000
Faculty of Humanities & Social Sciences.	60,000	25,000	45,000	-	1,30,000
General Sciences	-	4,00,000	25,000	3,00,000	7,25,000
	<u>1,37,000</u>	<u>6,00,000</u>	<u>1,60,000</u>	<u>4,85,000</u>	<u>13,82,000</u>

III PRIORITY

Faculty of Science	40,000	25,000	90,000	1,80,000	3,35,000
Faculty of Humanities & Social Sciences	-	-	29,000	-	29,000
General Sciences	-	-	25,000	2,00,000	2,25,000
	<u>40,000</u>	<u>25,000</u>	<u>1,44,000</u>	<u>3,80,000</u>	<u>5,89,000</u>

(i) Spill Over	=	Rs. 3,09,000	:
(ii) Basic grants	=	8,00,000	: Rs. 5,00,000 Equipment : Rs. 3,00,000 Books :
(iii) V Plan Proposals	=	38,06,000	I Priority
		13,82,000	II Priority
		5,89,000	III Priority
		<u>68,86,000</u>	

PART VIII

Report of the Visiting Committee to Marathwada University
for assessing its Fifth Plan development proposals.

To examine the development proposals of the Marathwada University for the Fifth Five Year Plan, the University Grants Commission appointed a Visiting Committee consisting of the following members:-

- 1) Professor A.R.V. Murthy,
Head of the Department of .. Convener.
Inorganic & Physical Chemistry,
Indian Instt. of Science,
Bangalore.
- 2) Professor H.S. Hans,
Head of the Department of Physics, .. Member.
Panjab University,
Chandigarh.
- 3) Professor Reayat Khan,
Head of the Department of Botany, .. "
Aligarh Muslim University,
Aligarh.
- 4) Professor R. Rakshpal,
Department of Zoology, .. "
Lucknow University,
Lucknow.
- 5) Professor S.S. Merh,
Head of the Department of Geology, .. "
M.S. University of Baroda,
Baroda.
- 6) Professor S. C. Misra,
Head of the Department of History, .. "
M.S. University of Baroda,
Baroda.
- 7) Professor K.S. Murty,
Head of the Department of Philosophy, .. "
Andhra University,
Waltair.
- 8) Professor K. Seshadri,
Head of the Centre for the Study .. "
of Political Development,
Jawaharlal Nehru University,
New Delhi-57
- 9) Prof. A. Ramaswamy,
Head of the Department of Economics .. "
Annamalai University,
Annamalainagar.

- Secretary to the Committee.
10. Shri B.R. Kwatra,
Assistant Secretary,
University Grants Commission,
New Delhi.

The Committee visited the Marathwada University on 27th & 28th February, 1975 and had discussions with the Vice-Chancellor, the Registrar, Heads of the University Departments, Principals of Colleges, representatives of the staff and students. The Committee also visited the departments, laboratories, Central Library and Students' hostels.

Welcoming the Committee, the Vice-Chancellor said that he had recently taken over and he was trying to put right certain things which had gone out of gear during the last one year. This was particularly so because of adverse reports which appeared in the press against Marathwada University. The Vice-Chancellor further said that after putting the university back on the rails, his next priority would be to consolidate and strengthen the existing departments and then to pursue the proposals relating to the starting of new departments.

Background jurisdiction and other basic facts:

The Marathwada University which caters to the needs of higher education of the most backward area of Maharashtra was established in 1956. It is an affiliating-cum-teaching university. The university has jurisdiction over the five districts of Aurangabad, Osmanabad, Nanded, Parbhani and Bhir. It has 26 undergraduate colleges and 21 postgraduate colleges affiliated to it. These are the colleges covered under Section 2 of U.G.C. Act. The total number of colleges, however, is 82. The examination results for the last three years are as follows:-

Year	B.A.	B.Sc.	B.Com.	M.A.	M.Sc.	M.Com.
1972-73	65%	48%	60%	45%	87%	50%
1973-74	61%	85%	46%	57%	61%	40%
1974-75	67%	49%	57%	51%	85%	43%
Average result for all university examination.	64%	60%	54%	51%	77%	74%

The number of students in the university as on 1.4.1966 and during 1974-75 was as follows:-

	1965-66	1974-75
Undergraduate students in affiliated colleges.	13,467	71,832
Postgraduate students in the University.	584	7474

Post-graduate students in Affiliated Colleges:

The number of post-graduate students in affiliated colleges during 1974-75 was 3223. The number of research students in the various faculties of the university at the beginning of Fourth Plan and Fifth Plan was as follows:-

Sr.No.	Name of the Department.	Research students as on 1.4.1966.	Research students as on 1.4.1974.
1.	Marathi	12	23
2.	English	4	23
3.	Hindi	-	53
4.	Foreign Languages.	-	-
5.	Economics	6	13

6.	History	5	22
7.	Political Science.	7	21
8.	Public Administration	-	-
9.	Sociology.	-	12
10.	Commerce.	-	15
11.	Drama	-	-
12.	Journalism.	-	-
13.	Zoology.	10	103
14.	Botany.	9	68
15.	Chemistry.	10	49
16.	Physics.	-	14
17.	Mathematics & Statistics.	9	26+2
18.	Other Departments.	20	27
Total:		92	471

The staff position as on 1.4.1966, additional posts sanctioned during the Fourth Plan and the number of teachers in position as on 1.4.1974 is as follows:-

S.No.	Designation	Number of posts as on 1.4.1966.	Additional posts sanctioned during IV Plan.	Total	Number of posts filled after 31.3.1966.
1.	Professor	8	7	15	1
2.	Readers	8	7	15	1
3.	Lecturers	10	28	38	23
4.	Others	28	37	65	19

The maintenance grant received by the university from the State Government during the last five years was as follows:-

<u>Year</u>	<u>Amount</u>
198-69	12,90,000
199-70	25,94,000
190-71	26,17,000
191-72	34,64,000
192-73	36,66,000

During the Fourth Five Year Plan, the Commission made an allocation of Rs.67,00,000/- to the Marathwada University. Against this, grants amounting to Rs.45.42 lakhs were actually released.

A statement showing the spill-over of Fourth Plan schemes to Fifth Five Year Plan is enclosed as Annexure I.

During the Fourth Five Year Plan, it seems the university was in a great hurry to expand as some of the departments like Dramatics and Journalism were started even without the prior approval of the Academic Council of the University. The University did not consult the U.G.C. also before starting these departments, with the result that their growth has been somewhat unplanned. The University also started evening courses for M.A., M.Sc., (Mathematics), M.Sc.(Zoology) at Aurangabad.

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The intention of the university was to provide facilities for higher education to the employed teachers but the condition of employment was stretched to cover each and everybody who could produce a certificate of employment from any firm. While evening courses in Humanities and Social Sciences have come up at several universities, the provision of M.Sc. courses in the evening is something unheard of. The purpose of starting these courses having been more or less fulfilled, as almost all the teachers in schools desirous of doing postgraduate studies having availed of the facility, the Committee feels that the university should discontinue these courses and provide additional seats, if necessary, in the main university departments.

The university has also started a Mini-Post-Graduate Centre at Nanded providing facilities in Life Sciences, Sociology and Business Management.

Fifth Plan Proposals & Recommendations.

Against an allocation of Rs.100 lakhs, the university originally submitted proposals involving an expenditure of Rs.134.14 lakhs as U.G.C. share. The university was asked to revise the proposals and the revised proposals given at the time of the visit of the committee amount to Rs.131.15 lakhs.

Post-graduate Centre at Nanded: Nanded, which is about 250 Kms. from Aurangabad, has a cluster of good colleges offering facilities for post-graduate teaching in Arts and Science subjects. One of the colleges is all covered under the College Science Improvement Programme of the U.G.C. Distance being the major factor, it appears, there is not much of co-ordination between the university departments and the post-graduate departments in affiliated colleges in Nanded. The standard of teaching in the colleges, therefore, leaves much to be desired. The university has started post-graduate teaching on its own in one of the colleges by appointing two teachers each in Life Sciences, Sociology and Business Management. This, however, again is not a satisfactory situation. This problem was also discussed by the committee with the Chief Minister of Maharashtra at Bombay on the 1st of March and the Chief Minister also appeared to be concerned about it. The Chief Minister said that the State Government has been considering the question of setting up of one or two more universities in the State, out of which one could be at Nanded but he would be glad if the committee could suggest some other arrangements. The committee, therefore, suggested that the University/State Government may consider the question of setting up a Postgraduate Centre of the Marathwada University at Nanded. Care will have to be taken to see that there is no duplication of efforts between the teaching departments at Aurangabad and the teaching department at the Post-graduate Centre, Nanded i.e. the specialisations being offered at Aurangabad need not be duplicated at Nanded. The Committee suggested that the university may draw up a detailed proposal for the establishment of a Postgraduate Centre and submit it to the Commission for separate assessment. The committee, however, recommends the idea of setting up a Post-graduate Centre at Nanded.

New Departments: The university had earlier submitted a proposal for the setting up of a new department of Urdu but during the course of the visit of the committee, the university changed this to a new department of Sanskrit. After visit of the committee, university, however, again sent a proposal for the setting up of Department of Urdu and Sanskrit both. The Fifth Plan proposals of the Marathwada University include the creation of new departments of (1) Urdu, (2), Sanskrit, (3) Pali, (4) Law,

(5) Library Science, (6) Bio-Chemistry and (7) Statistics. Since no detailed proposals had been drawn up for the establishment of these departments, the committee felt handicapped to comment on these proposals. Like Dramatics and Journalism, the university had already started a degree course in Library Science and established a Department of Bio-Chemistry by appointing professor of its own. The committee feels that the university may be asked to submit detailed proposals for the establishment of new departments and these may be thoroughly examined by another committee consisting of experts in the relevant fields. For this purpose, the committee decided to leave some amount uncovered out of the total Fifth Plan allocation of Rs.100 lakhs.

Another aspect which the university may perhaps to consider is the provision of courses in Arabic/Persian, as the Marathwada University caters to the needs of a large number of Muslims in the area. It was also understood that quite a good number belonging to the minority community go to Arab countries every year.

Faculty of Humanities & Social Sciences:-

(1) Department of Marathi Language & Literature: The Department of Marathi Language and Literature was established just one year after the establishment of the university. Since the medium of instruction in the university is Marathi upto degree level, the department had to bear greater responsibility, as more and more books have to be written translated into Marathi. Apart from some work in this direction, the major work done by the department has been the study of Marathi language and literature. During the last ten years, the Marathi department has collected a huge material concerning Mahanubhav Literature from the whole of Marathwada region and a few articles of utensils etc. utilised those days. To preserve these materials and to get the manuscripts properly edited it would be better if the materials collected are kept in a common museum with the History Department.

The total number of students studying in the department is 167, out of whom 9 are working as research students for the Ph.D. degree. Three students have so far obtained Ph.D. degree in Marathi Language & Literature. The staff strength of the department is one Professor, three Readers and two Lecturers. The posts of two lecturers are vacant but are likely to be filled up soon. The university has made a modest demand of one lecturership and Rs.30,000/- for library books and journals. The department has also asked for Rs.50,000/- for the setting up of a Language Laboratory. The committee feels that assistance may be provided only for one Language Laboratory in the Department of English where the Marathi Department could also avail of the facilities available. The financial implications of these recommendations will be as follows:-

<u>Purpose</u>	<u>Priority-I</u>	<u>Priority-II</u>	<u>Priority-III</u>
Books & Journals	Rs.10,000/-	Rs.10,000/-	Rs.10,000/-
Staff			
Lecturer	Nil	Nil	One

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2. Department of English: The University Department of English was established in the year 1965. It has a student enrolment of 241 including 15 research students working for their Ph.D. degree. Three students of this department got the Ph.D. degree during the last five years. The staff strength of department is one Professor, three Readers and four Lecturers. The major areas of research in the Department are English Language and Literature, American Literature, Indian writing in English and Comparative Literature. The department is also conducting a diploma course in teaching English. During the Fifth Plan, the department desires to strengthen the teaching and research in comparative literature. The university has asked for two more readership but the committee feels that the requirements of staff of the department would be met if one additional lecturer with specialisation in Comparative Literature is given. The department also received an assistance of Rs.10,000/- from the U.G.C. during the Fourth Plan for the establishment of a Language Laboratory. The laboratory could not be set up during the Fourth Plan but the department proposes to set up this laboratory now as soon as possible. Since the language laboratory is to be used by the departments of Marathi, English, Hindi and Foreign Languages, the committee feels that an assistance of Rs.75,000/- may be given for the language laboratory. The committee recommends the following assistance for this department during the Fifth Plan:-

<u>Purpose.</u>	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
(i) Books & Journals	Rs.15,000	Rs.8,000	Rs.7,000
(ii) Equipment for Language Laboratory.	Rs.50,000	Rs.15,000	Rs.10,000

Staff:

(i) Lecturer	One	Nil	Nil
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3. Department of Hindi:

This department was established in 1968 and has a staff of one Reader, and two Lecturers (the readership has since been upgraded to that of a professorship). The total number of students studying in the department is 172, out of whom six are working as research scholars for their Ph.D. degree. Four students got their Ph.D. degree in Hindi during the last five years. The major areas of studies in the department pertain to Hindi Literature of Bhakti Kal, specially Ram Sahit and Comparative Study of Sanskrit & Hindi; Early and Medieval Poetry, History of Hindi Literature and Modern Pros. The department proposes to introduce additional optional papers and also a diploma course in Hindi Language. Since there is no reader now in the department, the committee recommends the post of a Reader in Comparative Literature (Hindi and Marathi) and one Lecturer having research experience. The total assistance recommended by the committee for this department is as follows:-

<u>Purpose</u>	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
Books & Journals	Rs.45,000/-	Rs.15,000/-	Rs.10,000/-

Staff

Reader	One	Nil	Nil
Lecturer	Nil	One	Nil

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4. Department of Foreign Languages: The Department of Foreign Languages came into existence in 1968 with one Lecturer each in Russian and German. At present the department is offering diploma course in Russian language with 54 students on roll. It has only one lecturer and therefore, is a single-man department. The course is also being run in the evening. During the Fifth Plan, the department proposes to introduce Chinese language. In view of the fact that the Department of History of the University has already introduced some papers on South East Asia, it would be a good idea to provide facilities for the study of Chinese language. The committee, therefore, suggests that the department may have one Reader in Russian and one Lecturer in Chinese in addition to the two posts of Lecturers in Russian and German. The committee recommends the following grants for the department of Foreign Languages :-

<u>Purpose.</u>	<u>Priority-I</u>	<u>Priority-II</u>	<u>Priority-III</u>
Books & Journals	Rs.30,000	Rs.25,000	Rs.25,000
Equipment (Tape-recorder etc.)	Rs. 5,000	Nil	Nil
<u>Staff</u>			
Reader	One	Nil	Nil
Lecturer	One	Nil	Nil

5. Department of Commerce: This department was also established in 1968 and has at present 257 students, out of whom 8 are research scholars. 40 students are studying for the M.B.A. course and 30 for Diploma course in Office Administration with a staff strength of one Reader and five Lecturers, out of whom one Lecturership is vacant. Like the setting up of new departments, this department introduced M.B.A. course and diploma course in Office Administration without obtaining any guidance from the A.I.C.T.E./U.G.C. The result was that in the first year, the diploma offered five optional groups but the teaching of these groups had to be discontinued from 1973-74 because of the limited teaching staff. During the Fifth Plan, the department proposes to start a course of executive development in collaboration with the local industrial unit, as the industrial complex unit of Aurangabad is vastly changing and many new industries are coming up. The department also proposes to start M.Com.(Hons) course to give more intensive training to the students in specialisations like marketing, costing, quantitative techniques finance products etc. The department has already purchased a hand-operated card punching machine, verifiers, sorters and reproducers. To make this unit upto date, the department desires to purchase Tabulators. The assistance asked for by the department is one Professorship, one Readership and two Lecturers. Besides grants for books and equipments, the committee recommends that the department may be given the following assistance:-

<u>Purpose:</u>	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
Books & Journals;	Rs.50,000	Rs.25,000	Rs.25,000
Equipment	Rs.1,00,000	Rs.50,000	Rs.50,000
<u>Staff:</u>			
Professor (in financial management)	One	Nil	Nil
Reader (Financial Management of Tourism Industry)	Nil	One	Nil

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6. Department of Economics: The Department of Economics is one of the older departments and also bigger departments having a staff strength of one Professor, four Readers and four Lecturers. The student enrolment in the department is 332, out of whom 14 students are working as research scholars for the Ph.D. degree. The department, at present, imparts instructions at the M.A. level and is also running a post-graduate diploma course in Co-operative Management. For want of regular teaching staff, the department is seeking the help of eight contributory teachers from local colleges every year. This has resulted in unsatisfactory arrangement both for postgraduate teaching and the teaching of diploma students. The committee feels that no Diploma course should be started at the cost of normal functions of a department i.e. postgraduate teaching and research. During the Fifth Plan, the department proposes to introduce diploma courses in Economics, Statistics for which the university feels that there is a pressing demand. The department has asked for an additional Readership but the committee feels that the department should take early steps to fill in the vacant posts of one Reader and three Lecturers. Before starting any new diploma course, the department should concentrate on teaching of M.A. students and the research activities already going on. The assistance recommended by the committee for this department is as follow

<u>Purpose.</u>	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
Books & Journals	Rs.50,000	Rs.25,000	Rs.25,000
Equipment (Calculating Machines).	15,000	Rs.10,000	Nil

7. Department of History: The Department of History and Ancient Indian Culture was established in 1962 and is one of the leading departments in the Faculty of Arts. The total number of students studying in the department is 360, out of whom 13 students are working for their Ph.D. degree. The department is also running a diploma course in tourism. It has a staff strength of one Professor, one Reader and three Lecturers. The department is at present providing facilities for instructions in Ancient Indian History, Marathi History, Medieval and Modern Indian History, History of South East Asia, History of East Asia and American History. During the last five years, four students got their Ph.D. degree under the Head of the Department. The committee feels that other staff members of the department should also take active interest in research work.

During the course of last few years, the department has collected about 150 sculptures, 3,000 coins, 110 Sanads, 2,000 old documents, 288 beads and one copper plate inscription, 15 original bronzes, 30 Jain statutes, and copper plate tantric formulas etc. The department also purchased at a cost of Rs.1½ lakh, the Paramis collection consisting of Moghul, Rajput and Marathi Miniature printings, some rare books of history and arts and curipieces. To keep all these articles safely and properly, the university needs a museum for which the university had originally asked for assistance of Rs.10 lakhs outside the plan. Since the Marathi department has also collected some old manuscripts etc. and all these articles are required to be properly preserved, the committee feels that need of a properly equipped museum is genuine and justified. However, to determine the assistance that could be given to the university for the museum, the committee suggests that the U.G.C. may send two or three experts in the field, to the university for making a proper assessment.

The department has also carried out excavations at Bhokardan for two years. For the development of the department during the Fifth Plan, the committee recommends the following assistance:-

<u>Purpose.</u>	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
Books & Journals	Rs.50,000	Rs.25,000	Rs.25,000
Furniture.	Rs.20,000	Rs.10,000	Rs.10,000

Staff:

Reader (Archaeology in Medieval Indian History.)	One	Nil	Nil
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8. Department of Political Science: Department of Political Science was established in 1962 had on its rolls during 1974-75 221 students, out of whom 16 are working as research students for the Ph.D. degree. The staff strength of the department is one Professor, one Reader and three lecturers. The department is offering facilities for teaching and research in Modern Indian Political Thought, Political Theory, Public Administration and Local Government. One of the specialised groups being taught in the department relates to modern government which includes three papers. The department desires to make modern government, a separate group of study altogether. Study of Public Administration was introduced from the academic year 1973-74 and two more papers are proposed to be introduced under this group at the M.A. level. Teaching of Political Theory is also proposed to be strengthened by introducing more papers. The department has asked for two Readers and two Lecturers, but the committee feels that in addition to one Readership already available, one Reader (in Public Administration) and two Lecturers (one in Political Theory) and one (in Modern Government or Public Administration) will meet the requirements of staff. The committee recommends the following assistance:-

<u>Purpose.</u>	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
Books and Journals.	Rs.50,000	Rs.40,000	Rs.40,000

Staff:

Reader	One	Nil	Nil
Lecturer	Two	Nil	Nil

9. Department of Sociology:

This department was established in the year 1968 and has one Reader and five Lecturers on its staff. The total number of students studying in the department is 126, out of whom nine are studying for Ph.D. degree. The major areas in which research has been going on in the department are Urban Sociology, Rural Social Change, Rural Social Life, Tribal Development, Crime and Delinquency etc. Three students obtained Ph.D. degree in Sociology during the last five years. All the students registered for Ph.D. are working under the Head of the Department. The committee feels that the other staff members should also be encouraged to take active part

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in the research activity of the department. During the Fifth Plan the Department desires to introduce five new optional papers which are not taught in any of the surrounding universities. The department also desires to start a postgraduate course in Social Work, leading to the degree of Master of Social Work. Since the university is situated in a backward area, the committee feels that social work is an important branch of study and should be encouraged. But to organise the two branches i.e. Sociology and Social Work, the foremost need of the department is a Professor. The university has asked for a Professorship, two Readerships and three Lecturerships. The committee feels that the requirements of staff of the department will be met by adding one Professor and one Lecturer. The post should be filled in, in such a way that if a Professor is in Sociology, the Reader should be in Social Work. The department has also asked for Rs.25,000/- for Audio-visual equipment. The committee feels that the department need not make such an investment and should make use of the audio-visual facilities available in other departments. The committee recommends the following assistance for this department:-

Purpose:	<u>Priority I</u>	<u>Priority II</u>	<u>Priority.</u>
Books & Journals;	Rs.30,000	Rs.25,000	Rs.25,000
<u>Staff:</u>			
Professor	One	Nil	Nil
Lecturer (Social Work)	One	Nil	Nil

10. Departments of Journalism and Drama: The University has asked for an assistance of Rs.1.91 lakhs for the Department of Journalism and Rs.4.56 lakhs for the Department of Dramatics. As already stated, these departments were started without proper academic planning and the Committee, therefore, feels that the requirements of these departments may also be got assessed by the U.G.C. along with the proposals of the University for the establishment of new departments.

FACULTY OF SCIENCE

11. Department of Physics: The Department of Physics was established in 1965 and has a student enrolment of 56, out of whom six are working as research students. The staff strength of the department is one Professor, four Readers and six Lecturers. However, the staff in position consists of only seven members and the Professorship has been lying vacant for quite some time. The committee feels that early step should be taken to fill up the post of Professor so as to provide proper academic leadership to the department. The specialisations offered in the department are Spectroscopy, Solid State Physics and Nuclear Physics. Thirty eight research papers were published by the staff of the department during the last five years. But due to some reason or the other, not a single Ph.D. came out during this period. During the Fifth Plan, the department has put emphasis on consolidation and strengthening of the existing branches in order to promote research activities and to give a stronger research base to post-graduate research programme. The department has also a plan to start Pre-Ph.D. course and also some courses like Material Science and Industrial Electronics. The department also desires to purchase a Liquid Nitrogen Plant which would be useful to all the science departments (please see recommendations for common facilities centre).

This department was originally expected to admit 10-12 students every year but is now admitting 20-22 students every year. The department, therefore, needs more accommodation. The department also needs more equipment and staff to meet the growing needs of teaching and research. The committee recommends the following assistance for this department during the Fifth Five Year Plan:-

<u>Purpose.</u>	<u>Priority I</u>	<u>Priority II</u>	<u>Priority III</u>
Building including furniture.	Rs.1.00 lakh (as U.G.C.Share)	Nil	Nil
Equipment	Rs.2.00 lakhs	Rs.0.50 lakh	Rs.0.50 lakh
Books & Journals.	Rs.1.00 lakh	Rs.50,000	Rs.50,000

Staff:

Readers (one in Lasers)	Two	Nil	Nil
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12. Department of Chemistry: The Chemistry department is one of the oldest departments in the Science Faculty of the University. The total number of students studying in the department is 160, out of whom 29 are working as research students for their Ph.D. degree. The staff strength of the department is 2 Professors, 3 Readers and 7 Lecturers. The Department produced 13 Ph.D.s during the last five years. The specialisations being offered in the department are Inorganic and Physical Chemistry, Organic Chemistry and Bio-Chemistry. Without consulting the U.G.C. the department has separated the Bio-Chemistry Section by appointing a Professor on its own and has now included the post of Professor in its Fifth Plan requirements. As already stated the requirements of Bio-Chemistry Section of this department may be got assessed by the U.G.C. along with the proposals for the establishment of new departments.

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The department proposes to introduce Quantum Chemistry, Organic Physical Chemistry, Agro-Chemistry, Chemical Physics and Petro-Chemistry under the new programme of inter-disciplinary courses. The department also contemplates introduction of the Pre-Ph.D. course like the one proposed by the Physics Department. The committee feels that the University may introduce the Pre-Ph.D. courses but should consider awarding M.Phil. degree to the students after the Pre-Ph.D. course. The department has increased its admissions to more than double and is now running two shifts. The committee feels that the interest of quality should not be sacrificed for the interest of quantity. The committee recommends the following assistance for this department.

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Building	2.00 lakhs (as U.G.C.share)	Nil.	Nil.
Equipment.	2.00 lakhs	0.50 lakhs	0.50 lakhs
Books.	1.00 lakhs	25,000	25,000

13. Department of Botany.

This department was established in 1962. The student enrolment in the department during 1974-75 was 86, out of whom 26 are working as research students leading to the Ph.D. degree. 23 students obtained Ph.D degree in Botany during the last five years. The department has a staff of one Professor three Readers and five Lecturers. The specialisations offered in the department are in the Fields of Plant Physiology, Plant Pathology, Cytogenetics and Angiosperms. The department proposes to consolidate the teaching and research activities and reorient the existing programmes. The orientation programme in Angiosperms is proposed to be developed in aspects like Development Plant Anatomy, Histogenesis etc. The actual intake of student having gone upto 40, the department is congested and need more accommodation. The department has asked for one Professor, one Reader and Four Lecturers. The committee, however, feels that the addition of one Professor in Angiosperms and one Reader in Cytogenetics/Plant Breeding and one Lecturer will meet the staff requirements. The Botanical Garden attached to the department also needs to be strengthened. The committee recommends the following assistance for this department:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Building & Furniture	2.00 lakhs (as U.G.C.share)	Nil.	Nil.
Equipment.	1.00 lakh	1.00 lakh	50,000
Books.	75,000	25,000	25,000
<u>Botanical Garden</u>	50,000	-	-
<u>Staff:</u>			
Professor	One	Nil.	Nil.
Reader	One	Nil.	Nil.
Lecturer	Nil.	One.	Nil.

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14. Department of Zoology:

This department was established in the year 1960 and has become probably the strongest department of the Faculty. There are 182 students in the department at M.Sc. level and 59 are doing research work for their Ph.D. During the last seven years, the department has produced about 45 Ph.Ds., out of whom about 25 worked under the Head of the Department. The staff strength of the department is one Professor, seven Readers and five Lecturers. The specialisations offered in the department are in the fields of Animal Physiology, Entomology, Helminthology, Protozoology and Fishery Science. The Head of the Department has a PL-480 Project and is working on Psychology of Marine Animals at a field station at Ratnagiri. The department proposes to introduce studies in new fields like Ecology, Cytogenetics, Endocrinology and Radiation Biology. In view of its present stage of development, the committee feels that the application of the department for special assistance submitted to the U.G.C. may be considered favourably. As regards, staff requirements, the committee feels that the department needs at least one more Professor and the university may consider the possibility of upgrading one of the existing post of Reader into that of a Professor. If necessary, the Commission may meet the difference in the expenditure involved in this upgrading. The University may also explore the possibility of promoting one of the Reader as a Professor by implementing the personal promotion scheme. Against the post of three Readers and three Lecturers, asked for by the University, the committee recommends one Readership in Insect Physiology and one Lecturer, the committee recommends the following grants for this department:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Building including furniture.	1.00 lakh (as U.G.C.share)	NIL	NIL
Equipment	2.00 lakhs	1. lakh	1.00 lakh
Books	0.75 lakh	30,000	30,000
<u>Staff:</u>			
Reader	One	NIL	NIL
Lecturer	NIL	One	NIL
Curator for Field Station.	NIL	One	NIL
Contingencies.	25,000	-	-

15. Mathematics:

The Department of Mathematics was established in 1962 and has on its staff one Professor, two Readers and four Lecturers in Mathematics and one Reader and four Lecturers in Statistics. The total number of students studying for Mathematics is 135, out of whom 16 are working as research students and 21 students for statistics, out of whom five are working

Contd....

for their Ph.Ds. At present the department is imparting instruction in Mathematics in the branches of Geometry, Algebra, Differential Equations, Real Analysis, Complex Analysis, Topology, Number Theory, Stability Theory, Dynamics and Hydrodynamics and Potential Theory. It is proposed to develop teaching and research in Partial Differential Equations, Control Theory, Optimization, Elasticity. The department has asked for one post of Reader and one post of Lecturer for the new branches which the committee feels may be given. The committee recommends the following assistance for this department:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Books.	50,000	30,000	30,000
<u>Staff:</u>			
Reader	One	Nil	Nil
Lecturer	Nil	One	Nil.

General Schemes:

16. Central Library

The Central Library of a Marathwada University has in stock, about 1,52,000 books and journals. It is getting 690 journals every year by purchase and on exchange basis. The library provides 400 reading seats and remains open from 9.00 A.M. to 10.00 P.M. The average number of books issued per week to students and teachers is 1150. With the starting of Library Science Course within the library building and the huge increase in the number of students in the university over the last five years, the library has become too congested. Its maintenance also leaves much to be desired. The university has asked for a grant of Rs. 6.00 lakhs for the construction of an extension to the present library building. The committee feels that the Commission may provide an amount of Rs. 3.00 lakhs as its 50% share for the construction of additional building but in the extension, an air-conditioned room should be provided to house rare manuscripts of all departments particularly, the Department of History and Marathi. To help in documentation, the committee recommends two posts of Professional Assistants. The financial implications of the recommendations of the committee for Central Library are as follows:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Building including Furniture, fittings and air-conditioning.	3.00 lakhs	Nil.	Nil.
Books.	1.00 lakh	50,000	50,000
<u>Staff:</u>			
Professional Assistants.	Two	Nil	Nil.

17. Central Workshop:

The university has, at present, a Central Workshop which has some equipments like Lathe, Hacksaw Machine, Horizontal Milling Machine, ARC

Welding Transformer etc. It has a staff of one Superintendent, two Mechanics, one Welder, one Typist, one Workshop Attendant and one Peon. For better maintenance of the equipment and also to provide repair facilities, the committee feels that a Central Workshop should be strengthened. The committee also feels that like other universities, the Marathwada University should have a common facilities centre near the workshop, to provide sophisticated instruments for use by all the science departments. The university may have a Users Committee for the Central Workshop-cum-Common Facilities Centre comprising of all the Heads of Department making use of the workshop and the centre. One of the members of the committee could act as a Convener for one year by rotation. Some of the costly item of equipment like Liquid Nitrogen Plant, N.M.R Spectrophotometer etc. to be purchase and items already available could also be pooled in the common facility centre. The committee recommends the following assistance for the central Workshop-cum-Common Facilities Centre:-

<u>Purpose</u>	<u>I Priority</u> Rs.	<u>II Priority</u> Rs.	<u>III Priority</u> Rs.
Building	1.00 lakh (as U.G.C. 50% share)	Nil.	Nil.
Equipment	4.00 lakhs	2.00 lakhs	2,00 lakhs

Staff:

Foreman	One (in Electronics)	Nil.	Nil.
Technical Assistant	One (in Electronics)	Nil.	Nil.
Electrical Engineer.	One.	Nil.	Nil.
Glass Blower (Electrical Engineer and Glass Blower in the scale of Rs. 700-1300).	One.	Nil.	Nil.

18. Students Hostels:

The university has at present two hostels, one to accommodate 100 men students and the second for 50 women students. The U.G.C. also approved a another hostel for 100 men students during the Fourth Plan involving a total expenditure of Rs. 7,77,800/- but this could not be taken up due to ban on construction of new buildings. The university has a student population of 3,000 and the hostel facilities at present being offered are rather meagre. But in view of the fact that majority of the students in the university come from backward areas, it would be better if the university could think of providing some cheaper accommodation to the students. The committee feels that instead of the usual single seated or double seated rooms, the university may consider construction of a hostel having four seated room or a dormitory type hostel where accommo- dation could be provided to more students at a comparatively lesser cost.

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The committee recommends that the amount approved during the Fourth Plan may be released and the university may be permitted to start construction of men students' hostel.

19. Staff Quarters:

During the Fourth Plan, the Commission provided assistance to Marathwada University for the construction of residential accommodation for teaching staff, class IV staff and a teachers hostel. These projects have since been completed and at present the university is in a position to provide accommodation to 44 members of the teaching staff out of a total of 110. Since proper residential accommodation in Aurangabad is not easily available, the committee recommends a grant of Rs. 5.00 lakhs (as U.G.C. share) under second priority for the construction of residential accommodation for the teaching staff.

20. Meeting with the students:

The committee met a representative section of students in the university. The students mainly complained of lesser availability of text-books, scholarships and residential accommodation on the campus. The committee feels that out of the book grants recommended, the departments should purchase more and more copies of text-books so as to help the needy students - who cannot afford to buy costly books. The committee also recommends an amount of Rs. 5 lakhs towards the award of junior fellowships by the university during the Fifth Plan period. This will be in addition to the normal grant being given by the U.G.C. to the university in this regard.

The students also said that the medium of instruction in the university is Marathi upto degree level and English for Postgraduate courses. They stated that the medium of instruction should either be Marathi right upto postgraduate level or should be English right from degree courses etc.

21. Meeting with the Teachers:

The committee met the members of the Executive Committee of the Marathwara University Teachers Association. The main demands put forth by the Association were implementation of new U.G.C. scales, more research grants to teachers, individual grants to teachers to develop their personal libraries, more residential accommodation on the campus, provision of sabbatical leave etc. etc. The committee feels that the university may favourably consider the question of granting sabbatical leave to its teaching staff. The staff could also be helped to improve their academic standing under the Teacher Fellowship Scheme of the U.G.C. The other demands of the teachers can also be met under the various schemes already in operation.

22. Meeting with the non-teaching staff:

The committee also met the representatives of the non-teaching staff. The representatives pointed out that since they also form a part and parcel of the system of higher education, the U.G.C. should also do something for their betterment and welfare. It was pointed out that the Commission should provide assistance to Marathwada University for construction of residential accommodation for the non-teaching staff and also for house building loans. The Committee recommends that these demands may be

considered by the U.G.C. sympathetically.

23. Meeting with the Chief Minister:

The committee also met the Chief Minister of Maharashtra on 1st of March, 1975. The demands put forth by the students and teachers were brought to the notice of the Chief Minister who said that the Government is conscious of the difficulties faced by these two sections and is trying its utmost to solve these. The Chief Minister further said that several proposals had been received by the State Government for establishment of new Universities, particularly at Nasik and Nandad. The committee said that the U.G.C. has a scheme of Postgraduate Centres and it would recommend to the U.G.C. the setting up of a postgraduate Centre at Nandad.

24. Meeting with the College Principals:-

The Principals of the affiliated colleges of Marathwada University generally complained of lack of resources to meet the matching contribution required by the U.G.C. under the various development schemes. The Principals of the Colleges pointed out that since most of the colleges are in backward areas and cater to the educational needs of weaker sections of the society, the U.G.C. should raise its share of expenditure under the various schemes. They also stressed the need for allotment of Cosip and other similar projects in the area covered by the Marathwada University.

General observations & recommendations:

- i) The university has proposed starting of many new departments besides strengthening of the existing departments. While the need for opening of new courses cannot be overlooked, the committee feels that the present stage of development of the university as a whole, needs more the strengthening of the existing departments.
- ii) There is a tendency in the university to start more and more diploma courses which are considered to be job-oriented. Since these courses are not well planned and have been started in the past without consulting the U.G.C., the result was that the teaching responsibilities of the existing staff suffered and the new staff asked for during Fifth Plan is more or less to counter the shortfall of teaching staff, as a result of starting of such diploma courses. The university should appoint an Academic Planning Board which should plan the existing as well as new courses on sound basis.
- iii) Some of the posts sanctioned by the Commission are allowed to remain vacant for years together. The committee feels that this is not a healthy sign and the university should make special efforts to see that the posts approved by the U.G.C. are filled in as early as possible.
- iv) To see that teachers in the cadres of Lecturers and Readers are not stuck up at the maximum of their scales, the university should implement the personal promotion scheme initiated by the U.G.C. a few years ago.
- v) There should be more and more inter-change of teachers between university and colleges in a way that university teachers go to the colleges to take a few periods every week and college teachers go to the university departments and take a few periods.

- vi) The university departments should provide real and effective leadership to the affiliated colleges, as there can be no improvement in the standards unless standards of teaching in the colleges are improved.

The Committee is grateful to the Vice-Chancellor, Administrative and Teaching Staff and Students of the University for assistance and co-operations extended to the Committee.

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MARAATHWADA UNIVERSITY

POSITION OF SPILL OVER FROM IV PLAN SCHEMES

No.	Scheme	Approved cost.	U.G.C. Share.	Grant paid	Spill over
1.	Construction of Teachers Hostel	-	3,00,000	2,95,000	5,000
2.	Const. of Staff Quarters	9,72,800	5,00,000	3,55,000	1,45,000
3.	Women Students Hostel	-	3,00,000	1,90,000	1,10,000
4.	Const. of Class IV Staff Quarters.	2,59,000	1,50,000	85,000	65,000
5.	Const. of vice-chancellor lodge.	-	1,01,965	25,000	27,192.50
6.	Publication of Research Works including thesis.	-	50,000	25,000	25,000
7.	Staff Salaries (Humanities and Social Sciences).	-	11,59,604.27	11,00,000	59,604.27
8.	Const. of Consumers Co-operative Store-cum-Post Office-cum-lab building	-	50,000	10,000	40,000
9.	Const. of Library Building.	8,60,998	5,73,998	5,67,998	6,070
10.	Purchase of Library furniture.	1,52,155	1,01,437	95,000	6,437
11.	Staff Salaries Science Departments	-	-	-	-
	(Science Departments)	-	9,20,667.77	8,28,500	92,167.77
	(Central Workshop)	-	49,650.28	45,000	4,650.28

1.	2.	3.	4.	5.	6.
12.	Construction of Extension to Chemistry, Botany & Maths Departments Building.				
	Chemistry	-	1,00,000	75,000	25,000
	Maths	-	40,000	35,000	5,000
	Botany	-	20,000	5,000	15,000
13.	Animal Home (Zoology Department)	-	30,000	17,500	12,500
					<u>6,43,621</u>

Annexure-II

Financial implication of the recommendations of the Visiting Committee
which examined the Vth Plan proposals of the Marathwada University.

Department	Ist Priority				Total:
	Staff	Building	Books	Equipment	
<u>(A) Humanities & Social Sciences Departments.</u>					
1. Marathi Language & Literature.	-	-	10,000	-	10,000
2. English	30,000	-	15,000	50,000	1,95,000
3. Hindi	57,000	-	15,000	-	72,000
4. Foreign Language	87,000	-	30,000	5,000	1,22,000
5. Commerce	69,000	-	50,000	1,00,000	2,19,000
6. Economics.	-	-	50,000	15,000	65,000
7. History.	57,000	-	50,000	20,000 (furniture)	1,27,000
8. Pol. Science.	1,17,000	-	50,000	-	1,67,000
9. Sociology.	99,000	-	30,000	-	1,29,000
	<u>5,16,000</u>	<u>-</u>	<u>3,00,000</u>	<u>1,90,000</u>	<u>10,06,000</u>
<u>(B) Science Departments:</u>					
1. Physics.	1,14,000	1,00,000	1,00,000	2,00,000	5,14,000
2. Chemistry.	-	2,00,000	1,00,000	2,00,000	5,00,000
3. Botany.	1,26,000	2,00,000	75,000	* 1,50,000	5,51,000
4. Zoology (including 25,000 for contingencies)	82,000	1,00,000	75,000	2,00,000	4,57,000
5. Mathematics.	57,000	-	50,000	-	1,07,000
	<u>3,79,000</u>	<u>6,00,000</u>	<u>4,00,000</u>	<u>7,50,000</u>	<u>21,29,000</u>
10,000/- for Botanical Garden.					
<u>(C) General Schemes.</u>					
1. Central Lib.	30,000	3,00,000	1,00,000	-	4,30,000
2. Central W/Shop.	70,000	1,00,000	-	4,00,000	5,70,000
3. Staff Qrs.	-	-	-	-	-
4. Junior Scholarships.	2,00,000	-	-	-	2,00,000
5. Visiting Professorship.	50,000	-	-	-	50,000
	<u>3,50,000</u>	<u>4,00,000</u>	<u>1,00,000</u>	<u>4,00,000</u>	<u>12,50,000</u>

Department	Priority				
	Staff	Building	Books	Equipment	Total
(A) Humanities & Social Sciences Deptt.					
1. Marathi Language & Literature	-	-	10,000	-	10,000
2. English	-	-	8,000	15,000	23,000
3. Hindi	30,000	-	15,000	-	45,000
4. Foreign Language	-	-	25,000	-	25,000
5. Commerce	57,000	-	25,000	50,000	1,32,000
6. Economics	-	-	25,000	10,000	35,000
7. History	-	-	25,000	10,000 (Furniture)	35,000
8. Pol. Science	-	-	40,000	-	40,000
9. Sociology	-	-	25,000	-	25,000
	87,000	-	1,98,000	85,000	3,70,000
(B) Science Departments					
1. Physics	-	-	50,000	50,000	1,00,000
2. Chemistry	-	-	25,000	50,000	75,000
3. Botany	30,000	-	25,000	1,00,000	1,55,000
4. Zoology	60,000	-	30,000	1,00,000	1,90,000
5. Mathematics	30,000	-	30,000	-	60,000
	1,20,000	-	1,60,000	3,00,000	5,80,000
(C) General Schemes					
1. Central Library	-	-	50,000	-	50,000
2. Central Workshop	-	-	-	2,00,000	2,00,000
3. Staff Quarters	-	5,00,000	-	-	5,00,000
4. Junior Scholarship	-	-	-	-	-
5. Visiting Professorship.	-	5,00,000	50,000	2,00,000	7,50,000

Department

III Priority

	Staff	Building	Books	Equipment	Total
<u>Humanities & Social Sciences Deptt.</u>					
Marathi Language & Literature.	30,000	-	10,000	-	40,000
English	-	-	7,000	10,000	17,000
Hindi	-	-	10,000	-	10,000
Foreign Language	-	-	25,000	-	25,000
Commerce	-	-	25,000	50,000	75,000
Economics	-	-	25,000	-	25,000
History	-	-	25,000	10,000 (furniture)	35,000
Pol. Science	-	-	40,000	-	40,000
Sociology	-	-	25,000	-	25,000
	30,000	-	1,92,000	70,000	2,92,000

Science departments

Physics	-	-	50,000	50,000	1,00,000
Chemistry	-	-	25,000	50,000	75,000
Botany	-	-	25,000	50,000	75,000
Zoology	-	-	30,000	1,00,000	1,30,000
Mathematics	-	-	30,000	-	30,000
	-	-	1,60,000	2,50,000	4,10,000

General Schemas.

Central Library	-	-	50,000	-	50,000
Central Workshop	-	-	-	2,00,000	2,00,000
Staff Quarters	-	-	-	-	-
Junior Scholarships	-	-	-	-	-
Visiting Professorship.	-	-	50,000	2,00,000	2,50,000

Summary of the financial implications of the recommendations of the Visiting Committee which examined V Plan proposals of the Marathwada University.

		Rs.	
1.	Spill over from IV Plan	=	6,43,600
2.	Basic grant for equipment	=	5,00,000
3.	Basic grant for books	=	3,00,000
4.	I Priority V Plan Scheme	=	43,85,000
			Rs. 10,00,000 Humanities Departments
			Rs. 21,20,000 Science Departments.
			Rs. 12,50,000 General Schemes
5.	II Priority V Plan Scheme.	=	17,00,000
			Rs. 3,70,000 Humanities Departments
			Rs. 5,80,000 Science Departments
			Rs. 7,50,000 General Schemes.
6.	III Priority V Plan Schemes.	=	9,52,000
			Rs. 2,90,000 Humanities Departments
			Rs. 4,10,000 Science Departments
			Rs. 2,50,000 General Schemes.
			<u>84,60,600</u>

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting: 27-28th Oct. 1975

Dated:

22
Item No. . To consider the reports of the Vth Plan Visiting
Committee for South Gujarat, M.S. University of
Baroda, Gujarat and Sardar Patel University.

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The University Grants Commission appointed a Visiting
Committee to assess the Fifth Plan requirements of South Gujarat
University, Surat, M.S. University of Baroda, Sardar Patel University,
Vallabh Vidyanagar and Gujarat University, Almedabad, which visited
these universities from 24th January to 1st February 1975. The
Committee consisted of the following:

1. Professor B.M. Udgaonkar ... (Convener)
Tata Institute of Fundamental Research
Bombay.
2. Professor B.D. Sharma
Department of Economics
Kashmir University
Srinagar
3. Professor N.R. Deshpande
Department of Political Science
Nagpur University
Nagpur.
4. Professor V.S. D'Souza
Department of Sociology
Panjab University
Chandigarh
5. Professor B.N. Goswami
Department of Fine Arts
Panjab University,
Chandigarh.
6. Professor A.B. Biswas
Department of Chemistry
Indian Institute of Technology
Bombay.
7. Professor K.K. Nanda
Department of Botany
Panjab University
Chandigarh

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8. Professor B.I. Sunderaraj
Department of Zoology
Delhi University
Delhi
9. Professor S. Shukla
Department of Education
Jamia Millia Islamia
Delhi.
10. Professor B.S. Tiwari
Department of Geology
Panjab University
Chandigarh. (For M.S. University,
Sardar Patel University
& Gujarat University)
11. Professor T.A.V. Subramanian
Professor of Biochemistry
V.B. Patel Chest Institute
Delhi University
Delhi. (For M.S. University
of Baroda only)
12. Professor (Mrs.) K. Bhoota
Head of the Department of Child Development
S.N.D.T. Women's University
Bombay -do-
13. Shri S.P. Gupta
Deputy Secretary
University Grants Commission. Secretary to the
Committee

Shri Balwant Singh, Joint Director of Education, Government of Gujarat was associated with the Committee at all the universities and Shri S.J. Munshaw, Director of Education, Government of Gujarat was associated with the Committee at Gujarat University, Ahmedabad.

The reports on South Gujarat University, M.S. University of Baroda and Sardar Patel University given in the annexure, have the approval of all the members. There are seven universities and one institution deemed to be University in the Gujarat State viz. South Gujarat University, M.S. University of Baroda, Sardar Patel University, Gujarat University, Saurashtra University, Gujarat Agriculture University and Gujarat Ayurvedic University. The Gujarat Vidyapeeth, Ahmedabad is an institution deemed to be a University. The Committee has recently visited the Saurashtra University and the Gujarat Vidyapeeth viz. on 5-8th September, 1975. The Gujarat Agriculture University and Gujarat Ayurvedic University do not come within the purview of the Commission for developmental assistance.

There are 19 districts in the State with about 259 degree colleges. There is no college in the district of Dangs. The enrolment in these colleges and the University departments is 1.95 lakhs. The secondary stage of education in Gujarat is of 11 years duration, whereafter there is PUC/Intermediate stage of one year and the first degree course in Arts, Science and Commerce of three years. However, Gujarat has accepted the new pattern of 10+2+3 and has introduced the new syllabi associated with it, though full implementation is expected to take place from June 1976. The State Government is thinking of locating the two year higher secondary stage in schools as well as in colleges.

Favourable climate exists in the State for coordinated development of higher education and research among the various universities. There is also general recognition for the need to co-relate research with national and State requirements, and also for short-term professional courses, especially in Gujarat University. The need for reforms in the examination system, autonomous colleges etc. has also been accepted by the universities. The Gujarat University is examining proposals for autonomous colleges received from some of its colleges. Some of the problems which are common to the universities under report and relevant observations of the Visiting Committee are indicated below:-

1. Gujarati is the medium of instruction and examination in most of the subjects at the undergraduate level. It is understood that the changeover of medium to Gujarati has improved the comprehension of students. However, when they enter postgraduate classes, they feel handicapped for paucity of books in Gujarati. Even at the undergraduate level good books are not available in all subjects. The Gujarat University has tried to produce academic literature at University level in Gujarati. About 250 titles have been published by now. The State Government should strengthen its programme of production of university level books especially for postgraduate classes so that the changeover to Gujarati medium may help in the improvement of standards.

2. There is an urgent need for strengthening students amenities at the universities and colleges e.g. student centre with canteen, medical aid etc. The Visiting Committee (V Plan) has recommended some of the proposals made by universities for this purpose. It is hoped that the State Government will give priority to students amenities and youth programmes in universities as well as in colleges.

3. The affiliating universities in Gujarat have established centres in colleges for postgraduate instruction. The Gujarat University, for example, has 126 centres of this kind which have a total enrolment of about 5000 students. Although the Centres are maintained by the universities, there is no effective control

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over instruction. Courses are not adequately covered. Colleges also do not consider the Postgraduate Centre activity as a part of the duty of their teachers. All this affects the quality of education and has led to poor examination results. Since the Gujarat University has the largest number of Postgraduate Centre, an amount of Rs.15 lakhs has been recommended by the V Plan Visiting Committee for improvement of these Centres.

4. College teachers, recognised for postgraduate teaching, participate in postgraduate teaching at the university departments as well. This system has some merits provided the contribution is taken in those papers only where there be shortage of staff in the department and in any case not allowed to dominate over the departmental teaching. But as it prevails now, the system does not appear to be contributing towards improvement of education. It is also desirable that the M.A. previous and M.A. Final classes should be taught separately.

5. There is a need for integrated approach to postgraduate courses. Some papers may be taken in common by students of several departments e.g. in Mathematics and Statistics, Botany and Zoology and Microbiology, Commerce and Economics. The departments may also introduce interdepartmental programmes of research, give common seminars, etc. Chemistry may interact and collaborate with Textile Chemistry at Baroda, or with Industrial Chemistry at Ahmedabad, or with Polymer Science at Sardar Patel University or with Dyestuff and Drugs at Surat. At Baroda, the departments of Geology and Botany may undertake paleobiological studies of Gujarat State.

Social Sciences may also give interdepartmental and inter-disciplinary programme. The Visiting Committee has recommended a School for Social Change at Surat wherein the departments of Sociology, Economics, Public Administration, Education, and Rural Studies would participate. This School would have collaboration with the Centre for Regional Development Studies, Surat. The Sardar Patel University may also give an inter-departmental Social Sciences programme in History, Political Science and Sociology since subject programmes as at present are not viable.

6. The University departments may be able to flourish in collaboration with neighbouring industries and research institutes e.g. Space Application Centre, PRL, ATIRA, IIM at Ahmedabad. Good equipment and specialists are available at these institutes. There may be institutional links at the working level e.g. through joint appointments of some of the faculty/scientists. Senior people from these institutions may also be had on the planning boards of universities.

7. The enrolments in Law and Commerce classes at the undergraduate level have grown considerably without proportionate increase in the facilities. The M.S. University of Baroda has direct responsibility of undergraduate education and unless steps are taken to absorb the excessive number of students in affiliated colleges, the facilities at M.S. University of Baroda would remain under great stress.

The association of the State Government representatives with the Visiting Committee was useful in clarifying the view points of the State Government on important issues of development of higher education in the State.

Financial Implications

1. Financial implications of the recommendations - South Gujarat University:

A.	Spill over	...	Rs.23.48 lakhs	
B.	New allocations	...	Rs.81.90	"
	i) Books & Journals	...	Rs.15.50	"
	ii) Equipment	...	Rs.13.00	"
	iii) Buildings	...	Rs.20.00	"
	iv) Research Fellowship	...	Rs. 2.00	"
	v) Visiting Professorships	...	Rs. 1.00	"
	vi) Other items	...	Rs. 1.40	"
	vii) Staff	...	Rs.24.00	" (estimated for 10P, 14R, 15L & 4 others)

Of the above staff 8P, 7R, 8L and 2 others in the first priority; 1P, 5R, 7L and 1 other in second priority and 1P, 2R and 1 other in the third priority. The share of the State Government in all the three priorities for recurring is estimated to Rs.1.50 lakhs during the V Plan period and for non-recurring Rs.20.00 lakhs (approximately).

The ceiling for South Gujarat University is Rs.100.00 lakhs. The distribution of this amount in three priorities including spill over and recurring estimates is as follows:

<u>1st Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Rs.56.40 lakhs	Rs.33.73 lakhs	Rs.15.25 lakhs

2. Financial implications of the recommendations - Sardar Patel University:

A.	Spill over	...	Rs. 1.72 lakhs
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B.	New allocations	...	Rs.103.75 lakhs
	i)	Books & Journals	... Rs. 15.00 "
	ii)	Equipment	... Rs. 30.75 "
	iii)	Buildings	... Rs. 24.00 "
	iv)	Research Fellowship	... Rs. 3.00 "
	v)	Visiting Fellowships	... Rs. 1.00 "
	vi)	General Schemes	... Rs. 5.00 "
	vii)	Staff	... Rs. 25.00 "
			(estimated for 9P, 20L and 7 others)

Of the above staff, 6P, 12R, 14L and 5 others are in first priority and 3P, 6R, 5L and 2 others in second priority and 1R, 1L in third priority. The share of the State Government in all the three priorities for recurring is estimated at Rs.200 lakhs during V Plan period and for non-recurring is Rs.24.00 lakhs.

The ceiling for Sardar Patel University is Rs.100.00 lakhs. The distribution of this amount in three priorities including spill over and recurring estimates is as follows:

<u>1st Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Rs.62.87 lakhs	Rs.27.60 lakhs	Rs.15.00 lakhs

3. Financial implications of the recommendations - Gujarat University:

A.	Spill over	...	Rs. 16.60 lakhs
B.	New allocations	...	Rs.142.70 "
	i)	Books & Journals	... Rs. 22.50 "
	ii)	Equipment	... Rs. 39.70 "
	iii)	Buildings	... Rs. 14.50 "
	iv)	Research Fellowships	... Rs. 7.50 "
	v)	Other schemes	... Rs. 22.00 "
	vi)	Staff	... Rs. 36.50 "
			(estimates are 6P, 16L and 7 others).

Of the above staff, 6P, 17R, 7L and 6 others are in the first priority and 2R, 7L, 1 other in second priority and 2L in third priority. The share of the State Government in all the three priorities for recurring is estimated at Rs.1.60 lakhs during V Plan period and for non-recurring is Rs.14.50 lakhs.

The ceiling for Gujarat University is Rs.150.00 lakhs. The distribution of this amount in three priorities including spill over and recurring estimates is as follows:-

<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Rs.91.30 lakhs	Rs.44.65 lakhs	Rs.23.35 lakhs

4. Financial implications of the recommendations - M.S. University of Baroda:

A.	Spill over	...	Rs. 9.19 lakhs
B.	New allocations	...	Rs.191.00 "
	i) Books & Journals	...	Rs. 40.00 "
	ii) Equipment	...	Rs. 43.00 "
	iii) Buildings	...	Rs. 41.00 "
	iv) Research Fellowships	...	Rs. 8.00 "
	v) Visiting Professorship	...	Rs. 2.00 "
	vi) Other schemes	...	Rs. 17.00 "
	vii) Staff	...	Rs. 40.00 "

(Estimated for 15P, 32R, 26L & 9 others).

Of the above staff 12P, 25R, 21L and 3 others are in the first priority, 3P, 5R 4L and 2 others in second priority and 2R, 1L and 4 others in third priority.

The share of the State Government in all the three priorities for recurring is estimated at Rs.2.60 lakhs during V Plan and non-recurring is Rs.41.00 lakhs.

The ceiling for M.S. University of Baroda is Rs.200.00 lakhs. The distribution of this amount in three priorities including spill over and recurring estimates is as follows:

<u>I Priority</u>	<u>II Priority</u>	<u>III Priority</u>
Rs.113.19 lakhs	Rs.51.50 lakhs	Rs.35.50 lakhs

The reports of the Visiting Committee are placed before the Commission for consideration.

D.S.(D.4)

'CHUGH'

REPORT OF THE FIFTH PLAN VISITING COMMITTEE
FOR SOUTH GUJARAT UNIVERSITY, SURAT

...

The University Grants Commission appointed a Visiting Committee to assess the requirements of the South Gujarat University, Surat for the Fifth Plan period, consisting of the following :

1. Professor B.M. Udgaonkar (Convener)
Tata Institute of Fundamental Research
Bombay.
 2. Professor A.B. Biswas
Department of Chemistry
Indian Institute of Technology
Bombay.
 3. Professor K.K. Nanda
Department of Botany
Panjab University
Chandigarh.
 4. Professor B.I. Sunderaraj
Department of Zoology
Delhi University.
 5. Professor B.D. Sharma
Department of Economics
Kashmir University
Srinagar.
 6. Professor B.N. Goswami
Department of Fine Arts
Panjab University
Chandigarh.
 7. Professor N.R. Deshpande
Department of Political Science
Nagpur University
Nagpur.
 8. Professor V.S.D'Souza
Department of Sociology
Panjab University
Chandigarh.
 9. Professor S. Shukla
Department of Education
Jamia Millia Islamia
Delhi.
- Officer of the Commission
10. Shri S.P. Gupta
Deputy Secretary
University Grants Commission.

Shri Balwant Singh, Joint Director of Education, Government of Gujarat was also associated with the Committee

The Committee visited the South Gujarat University, Surat on 24th & 25th January, 1975 and held discussions with the Vice-Chancellor, members of the staff, Principals, students etc. Laboratories and library and the new campus.

The Committee also went round the different departments.

The South Gujarat University was incorporated in May 1967. It has at present the following departments:-

1. Economics
2. Applied Statistics
3. Public Administration
4. Sociology
5. English
6. Rural Studies
7. Physics
8. Chemistry
9. Mathematics & Statistics
10. Business and Industrial Management
11. Education.

The total sanctioned strength of teaching staff for all the departments except the Departments of Business and Industrial Management and Education is three Professors, n Readers and fourteen lecturers. Out of this one post of Professor and five posts of Lecturers were vacant on 1.4.1973. The present staff of the Department of Education (started in December 1973) is 1 Professor, 1 Reader and 2 Lecturers.

In the academic year 1973-74 a total number of 138 students were admitted to various postgraduate departments the university. The breakup is given in the appendix A. Besides, the Physics and Chemistry departments conduct 2 y M.Phil. courses. The number of students admitted in the M.Phil courses was 7 during 1973-74 and 1974-75 each.

Enrolment in M.Phil Courses

1973-74	Physics	-	3
	Chemistry	-	4
1974-75	Physics	-	2
	Chemistry	-	5

Since 1969, sixteen candidates have been awarded the degree of Ph.D. and 21 research students are working at present for Ph.D.

The University has 34 affiliated colleges with an enrolment of about 27000. Under the South Gujarat University Act the university has to organise postgraduate instruction under its direct supervision and control. It does not therefore affiliate colleges for postgraduate courses but institutes PG centres in colleges and meets all the financial needs.

Progress during Fourth Plan

During the Fourth Plan sanction was given for the construction of Science Block, Humanities Block, Library building, Men's Hostel, Ladies Hostel, Teachers Hostel, Vice-Chancellor's residence. The construction was taken up in all cases except the Men's Hostel and Teachers Hostel and the construction work is either complete or going on in full swing. The provision made for library books and journals was almost fully utilised. The provision of equipment could be only partly utilised since the construction of laboratories was not complete. Posts of 1 Professor and 5 Lecturers were vacant at the end of the Fourth Plan. A statement of spillover of grants to the Fifth Plan is given as Appendix B.

The University reorganised the system of postgraduate instruction from June 1969 considering the comments of the Fourth Plan Visiting Committee. PG departments were started in 1970. In view of the Gujarati medium of instruction PG students of Social Sciences are given guidance and lectures, for reading English books in their respective subjects. The university has also organised separate postgraduate courses, of longer duration, for part time students to meet the demands of employed people for higher education.

The construction of the following buildings is in progress:

1. Vice-Chancellor's lodge
2. Ladies Hostel
3. Teachers Hostel

The State Govt. has been meeting the full deficit of the university on account of the excess of recurring expenditure over the income of the university. It has

P.T.O.

made the following allocations to the university so far :-

1. Campus Land	..	Rs.54.50 lakh
2. Administrative Block	..	Rs.18.00 lakh
3. Campus Development	..	Rs.30.00 lakh

Rs.102.50 lakh

General Observations and Recommendations

1. a) The University was incorporated in May 1967. It had as many as four Vice-Chancellors during the initial period of about eight years.

b) The University was brought into existence with a meagre provision for staff, equipment and facilities. Compared to a minimum provision of Rs.2 crores for the initial period of 4 years (in addition to developed land) which the UGC and the Government of India now consider necessary for a new University is considered eligible to receive assistance from any central source, the State Government has so far made an allocation of only Rs.48 lakhs (in addition to campus land) for expenditure of non-recurring nature to this University. Of this amount, only a fraction has been released so far.

c) The construction work at the University campus could start only about 3 years ago, because of various difficulties. Correspondingly, the University has been able to utilize only about Rs.19 lakhs out of UGC's allocation of Rs.31 lakhs for non-recurring grants for the IV plan period, leaving a surplus of about Rs.12 lakhs.

d) The University has thus yet to start functioning from its campus. Some buildings at the campus are ~~now~~ almost complete, but cannot be occupied until water becomes available. These include the Administrative Block, the Library buildings and the Faculty buildings for Science, Humanities and Social Sciences, as also the building for the Department of Business and Industrial Management, for which the university got a separate grant through the AICTE. The university hopes to move to the campus before the beginning of the next academic years.

e) While the buildings that are now getting ready will enable the university to start functioning properly from its own campus, the space that will be made available to various departments will be barely adequate, in many cases less than adequate. The State Government could therefore

consider making a larger investment in this university (keeping in mind the recent norms of the UGC and the Government of India) during the V plan period, so as to enable it to have adequate teaching facilities and student amenities.

2. The university started 9 departments in June 1970. These have yet to become viable departments. Most departments have only 2 or 3 members of staff, and the visiting committee could not understand how departments were allowed to be started with such a small compliment of staff, and moreover often only with a Reader as Head.

With only a limited number of positions in each department, and the slowness in take off, it is perhaps not surprising that the university has been faced with the problem of a rapid turn-over of staff in some of its departments.

3. Because of all these difficulties, it has not yet been possible for the university departments to function as effective centres of post-graduate instruction. Under the South Gujarat University Act, the university has the responsibility of organizing the PG instruction under the direct supervision and control of the university, and the university does not affiliate colleges for PG courses. However, in the absence of viable university departments of its own, the university has had to allow a large number of Post Graduate Centres to come up and continue in colleges. It is difficult to envisage how the university can exercise direct supervision and control on these PG centres, unless it has strong P.G. departments of its own.

4. The Visiting Committee recommends that the first task of the university during V plan period is to consolidate and strengthen the existing departments so as to enable them to become viable, for instruction as well as research, as soon as possible, and take full responsibility for PG instruction in the university.

a) PG instruction in Surat should be entirely at the university departments, so that it may be undertaken in a proper academic atmosphere, with better facilities and on the whole better staff.

b) M.A. previous and M.A. final classes must be taught separately. Until the staff strength increases adequately, this must have precedence over the starting of various new optional courses, suggested by some of the departments.

c) The University should consider whether it is desirable to continue the weekend course for M.Ed. It should

also review the part-time post-graduate courses, and ensure that they do not lead to dilution of standards.

d) The Visiting Committee was happy to know that the Vice Chancellor had appointed a committee to review the functioning of the P.G. centres. It recommends that no new PG centres be created until this review has been complete. Also, in reviewing the existing PG centres, the university may bear in mind the norms that are now being worked out by the UGC with regard to PG instruction in colleges. The committee informally explained to the Vice Chancellor and some of his colleagues whom it met, the lines along which these norms are evolving, and was happy to note that these norms were welcome by them.

e) The University has an M. Phil. programme in Physics and Chemistry, and the university wishes to start M.Phil. courses in other subjects in Humanities, Social Sciences and Sciences. The visiting committee appreciates the purpose behind this proposal. However, it recommends that at the present state of their development, each university department must first consolidate the M.A./M.Sc. programme, taking full responsibility for it, before taking on the additional responsibility for M.Phil. The latter should be undertaken only after the departments have acquired adequate staff, a laboratory facilities.

5. a) The Committee has recommends a number of Professors in the various departments. The Committee is not in favour of starting departments with Readers as heads, and was sorry to note that departments were allowed to be started during IVth plan with only two members of staff and with a Reader head. In a New University, which is embarking upon the building of a core of viable staff, special care is needed to select future leaders. The Committee would strongly recommend that in filling up future positions, Professors be appointed first and that more junior staff be appointed later in consultation with the Professor. In case it is difficult to find a Professor, it would be desirable to wait until one finds a potential leader rather than go ahead in a hurry.

b) The University authorities would have to exercise considerable imagination and obtain expert advice in the matter of selection of faculty and organization of courses of study and research programmes, at the present stage of development of the University. The selection of research areas would largely depend on the Faculty that will be chosen, and the University could give due consideration to the regional relevance of the research to be undertaken by prospective Faculty members (e.g. in industrial chemistry or in bio-sciences are discussed later). It could also bear

mind the possibilities of developing fruitful collaboration with larger national laboratories and institutions at Ahmedabad and Bombay - e.g. Physical Research Laboratory, Space Application Centre and ATIRA at Ahmedabad, and TIFR, BARC, University Department of Chemical Technology at Bombay. Judicious choice of research areas and faculty may enable the University to derive maximum advantage from the existence of these laboratories not too far away.

c) At the present stage of development, each department should try to define not more than two thrust areas of specialization into which all effort should be concentrated, instead of spreading the effort thinly into too many areas of specialization.

6. The Committee welcomes the emphasis in the research programmes at the University on projects around the theme of Social Change, in the departments of Sociology, Economics and Public Administration, and supports the University's desire to develop a School for Social Change. The University could indeed try to establish a name for itself as a Centre for the Study of Social Change, by the end of the V Plan. The above three departments, as also the Department of Education and the Mahatma Gandhi Department of Rural Studies, could also participate in some joint studies around this theme.

Since the study of Social change presumes an integrated inter-departmental and interdisciplinary approach to the study of social sciences, for which a proper climate has to be carefully built up, the University has been considering possible mechanisms to promote this inter-departmental approach. We understand that the University proposes to set up an Advisory Council or a Co-ordinating Committee, which would consider proposals for new interdepartmental programmes/projects, and also review the progress of on-going programmes. Such a co-ordinating committee could also nominate the Project Leader/Coordinator for each inter-departmental project that may be undertaken, and also define the team which would work on the project. One would watch with interest the development of such an inter-disciplinary programme.

The Committee is not in favour of creating a separate call for Research Methodology. It recognises the need for the appointment of persons with expertise in Research Methodology. It, however, feels that the purpose would be served better by appointing in one or more of the Social Sciences departments, persons who are not only good Economicists/Sociologists/....etc., but who also have a broad-based training in research methodology, which would enable them not only to take an effective part in the

research programmes of the Centre for Social Change, but also to give courses in research methodology.

The Committee notes that there exists a Centre for Regional Development Studies at Surat, and that the University expects to have a very close interaction with this Centre. It would be useful if this Centre is also located at the University Campus, so as to promote fruitful interaction and collaboration.

7. The Committee notes that in spite of the small number of positions for teaching staff available at the University, some positions were lying vacant. It would urge the University to fill these positions without delay. In particular, the Professorship in the Mahatma Gandhi Department of Rural Studies has been vacant for more than four years, and there has been a considerable turn-over in the junior positions also. It was given to understand that there is a statutory obligation on the University to have a programme of rural studies. The University should, therefore, make every possible effort to get an eminent expert in this area as Professor, and make the department viable. This department could then also contribute in the programme relating to Social Change.

8. The Committee had some discussion with the University authorities and with teachers and student representatives with regard to the medium of instruction. It understands that the changeover of ~~medium~~ to Gujarati has improved the comprehension of the students at the undergraduate level, but that the students are handicapped at the post-graduate level because of the paucity of books at this level in Gujarati, and the difficulty of access to English material. While the latter is to some extent being remedied with the help of the Department of English, it would be desirable for the Gujarat Government to support a substantial programme of book production in Gujarati at the post-graduate level, so that the transition to Gujarati medium may contribute to the raising of standards.

It would also be desirable for the University, especially in view of its interest in the theme of Social change, to undertake a systematic study of the impact of introduction of Gujarati medium on higher education in Gujarat.

9. The Committee finds it difficult to support the proposal to separate the departments of Mathematics and Statistics. Only a lecturer in the Department of Mathematics and Statistics was available for any discussion with the Committee, and it is not surprising that he was

not able to project the needs of the Department. There has been a considerable turn-over of staff in this Department. The University has still to acquire competent staff to make the Department viable, and the Committee would recommend that it should remain a composite Department of Mathematics and Statistics, and that in view of the limited staff that would exist for some time to come, wherever possible Statistics students should take their Mathematics courses along with Mathematics students. This would be made easier if the University adopts a semester system.

10. The Physics Department wishes to develop research in
 - (a) Nuclear and Particle Physics (Theoretical)
 - (b) Thin Fil, Physics (Optical and Electrical Properties)

They have stated that no University in Gujarat at present has research groups in these areas and that they would like to avoid duplication of efforts in areas covered already by other universities in the State. The Committee supports the general development plan of the Department, except that it would recommend that at least one of the new theoreticians to be appointed during V Plan should be a good expert in the area of Solid State Physics (preferably at Reader Level).

The Department wishes to look for a person with technology qualifications (viz. M.Tech. rather than a person with Master's degree in Physics) in filling up one of the new positions of Reader. This should be supported.

The Department should be allowed to recruit adequate technical staff, viz. one laboratory technician (instrumentation) and two laboratory assistants, in addition to the academic staff recommended.

The request of the Department for computational charges could be met by the UGC, outside the V Plan grants, if they make a suitable research proposal to UGC to justify it.

11. The Chemistry Department has unfortunately allowed even the bulk of the equipment grant for the IV Plan period to go unutilized and lapse. In one version of its plans presented to us, it has projected a library requirement of Rs.8 lakhs and an equipment requirement of Rs.15 lakhs, listing a variety of instruments like NMR, IR, UV Spectrophotometer, Gas Chromatograph, Amino Acid Analyser etc. It has, however, not projected any research plans, nor could we elicit them from their representative. It is clear that the planning for this Department has to be done carefully, and

that a good Professor has to be acquired to head this Department.

The Chemistry Department must induct at least one Reader and one Lecturer in Theoretical Chemistry, and one each in Physical Inorganic and Physical Organic Chemistry. It will help collaborative efforts with the Physics Department, if the department gets a faculty member with Solid State Chemistry (Material Science background).

The Chemistry Department wishes to add Dye-stuffs and Drugs as special subjects which have a bearing on the industrial development of the area. This is OK. However, they should get expert advice, e.g. from the University Department of Chemical Technology, Bombay.

12. The Committee had an opportunity to meet a few college principals and discuss with them the question of college autonomy. It was clear that the college principals had not yet given much thought to autonomy, that their ideas on this question were vague and they even seemed to have misconceptions about the implications of autonomy. The Committee was informed about the University's plan to have a seminar on autonomy during February. The Committee welcomed this proposal. ~~The~~ seminar has since taken place/.

13. The Committee has on the whole given greater priority to the consolidation of existing departments than to the creation of new departments. This has implied that needs with regard to teaching staff, equipment, books and journals and workshop have been considered more important than needs for additional buildings.

14. The University has not proposed any department of Biological Sciences. The Committee, however, feels that for the overall development of sciences in general, and biology in particular, it would be desirable to start a University Department in Biosciences (not separate departments of Botany, Zoology etc.) which caters to needs of the area which is rich in aquatic and forest resources. This should be an integrated department, with staff specialization in the following areas: marine biology, algology, fishery biology, morphology (wood), ecology (communities). It is envisaged that the work of the staff of this proposed department will centre around the seashore, the estuary, the fresh water bodies, and the forests.

15. The University has placed a Non-Resident Student Centre, a Canteen and a Pavilion in the third priority. The Committee recommends that the NRSC and Canteen should come into the first priority with support from UGC (an additional

Faculty building going into the third priority, in its place). The pavilion will have to be provided for in the State sector, preferably in first priority.

16. The Committee notes a certain problem with regard to the Department of Education which has been functioning since December 1973. During the visit, the Committee noted that the M.Ed. courses at the University Department attracted very few students, that they were all in-service students, and that the course was offered as a week-end course. This does not appear to be a satisfactory situation.

After the visits, the Committee was informed by the UGC office (9.2.1975) that the Gujarat Government had written a letter to the South Gujarat University regretting its inability to undertake the liability for continuing the Department of Education proposed to be set up during the IV and V Plan period with the help of the UGC, beyond the V Plan.

In view of these facts, the Committee recommends that though the University has placed the sillover of Rs.7.48 lakhs on the Department of Education in priority I, and has also requested some additional faculty positions, this item should be placed under priority II, and that any additional expenditure on it be made only after consultations between the University, the State Government and the UGC.

17. The Committee was happy to note the interest taken by the Vice-Chancellor in faculty development programmes, in particular his efforts to arrange for some programme for commerce teachers at IIM, Ahmedabad, and his efforts to persuade colleges to depute teachers on teacher fellowships at Centres for Advanced Study.

The Committee had discussions with teachers' representatives and was happy to find that they were also keen to have meaningful faculty development programmes, with several suggestions for the improvement of the Summer Institutes. 18. The Committee has considered the request of the University that the 25% limit on buildings be relaxed since this is a new University and there is a very substantial spillover. The Committee's recommendations include about Rs.18.5 lakhs for buildings under spillover (including Department of Education) and about Rs.20 lakhs for new buildings. This means that the Committee has allowed for considerably more than 25 per cent for buildings, including spill-over items. The Committee has also allowed for about 85 per cent (instead of 75 per cent) within the priorities I & II as a special case, in view of the needs of a new University. It would also like to suggest that the State Government must also make a larger investment in this

University than it has done so far, so as to enable it to create minimum facilities, especially for students and staff.

The Committee has a suggestion with regard to staff quarters. The University has plans for three types of quarters (Professors: Rs.1 lakh each; Readers Rs.0.75 lakh each; Lecturers, Rs.0.50 lakh each). The Committee would like to suggest that the University may try to minimise the difference between these three types of quarters. The University may in fact consider building only one type of quarters for the time being, in view of scarcity of funds for buildings.

Appendix I

Staff

Department	Existing Staff	New positions recommended		
		I	II	III
<u>School for Social Change</u>				
a) Public Administration	1 R+ 1L	1P+1R+1L	---	---
b) Economics	1P+2R+2L	1R+1L	---	---
c) Sociology	1R+2L	1P+1R+1L	---	---
d)+	---	1P+1 Stat.Asst.	---	---
<u>Education</u>	1P+1R+2L	---	1R	---
<u>English</u>	1P+1R+2L	---	1R+1L	---
<u>Rural Studies</u>	1R+2L	1P*	---	1R+1 R.A.
<u>Physics</u>	1R+ 1L	1P+2R+2L	---	---
<u>Chemistry</u>	1R+1L	1P+1R+2L	1R+2L	---
<u>Maths & Statistics</u>	1R+1L	1P+1R+1L+1R.A.	1R+1L+1R.A.	---
<u>Biosciences</u>	---	---	1P+1R+3L	---
<u>Linguistics</u>	---	---	---	1P+1R
Total	3P+10R+14L	8P+7R+8L+2 Assts.	1P+5R+7L +1R.A.	1P+2R+ 1R.A.

Notes: * existing vacancy to be filled in

+ An extra professorship in one of the three areas in the school, to strengthen the interdisciplinary programmes, and in particular to meet the needs of a specialist in Research Methodology.

The estimates of financial requirements for staff are based on the assumption that the new UGC scales will be operational, but that on the average only 3.5 man years will be utilized per position recommended.

Appendix II

Equipment (Rs. lakhs)

	I	II	III	Total
Workshop (including shed)	1.75	0.5	1.25	3.5
English	—	0.3	—	0.3
Physics	3.0	1.0	1.0	5.0
Chemistry	3.0	1.0	1.0	5.0
Maths and Statistics	0.25	0.25	—	0.5
Social Charge	—	—	0.25	0.25
Linguistics	—	—	0.2	0.2
Rural Studies	—	—	0.25	0.25
Biosciences	—	3.0	—	3.0
Total	8.0	6.05	3.95	18.00

Appendix III

Library Books & Journals (Rs. lakhs)

General	10	1	1	12
Physics	—	0.5	0.5	1.0
Chemistry	—	0.5	0.5	1.0
Biosciences	—	0.5	0.5	1.0
Linguistics	—	—	0.5	0.5
Total	10	2.5	3.0	15.5

Financial Recommendations (Rs. Lakhs)

Item/Priority

	I	II	III	Total
Spill-over (allowing for escalation of building cost)	16.00	7.48*	-	23.48
Staff	15.00	7.00	2.00	24
Equipment	8	6	4	18
Books & Journals	10	2.5	3	15.50
Buildings (other than spill-over)	5.5 ⁺	9.5 ⁺	5 ⁺⁺⁺	20
Other items	0.4 ^{**}	-	1.0 ^{***}	1.40
Research Fellowship	1.0	1.0		2.0
Visiting Professorship	0.5	0.25	0.25	1.0
	<hr/> 50.40	33.73	15.25	105.38

* Department of Education

+ NRSC and Canteen; Health Centre; Staff Quarters

++ One Faculty Building; Boy's Hostel; Staff Quarters

+++ Proposals to be made by the University within this limit

** Canteen furniture

*** University Press.

APPENDIX

GUJARAT UNIVERSITY - SURAT

Statement showing the number of students admitted to various Post-graduate Departments during the academic year 1973-74

Name of the Department	Subject	Part I			Part II			Grand Total
		Male	Female	Total	Male	Female	Total	
1. Department of Rural Studies.	Rural Studies	20	-	20	10	1	11	31
2. Department of Business & Industrial Management	D.B.I.M.	30	-	30	(15 08	0 0	15 08	45 08)
3. Department of Economics	Economics	15	06	21	05	01	06	27
4. Department of Public Administration	Public Administration	16	01	17	02	01	03	20
5. Department of Sociology	Sociology	02	01	03	01	03	04	07
	GRAND TOTAL:	83	08	91	41	06	47	138

Spillover of grants

SOUTH GUJARAT UNIVERSITY

S.No.	Scheme	UGC share	Grant paid upto 31.3.74	Spill over to the V Plan
1.	Const. of Women's Hostel	2,25,000/-	25,000/-	2,00,000/-
2.	Const. of Library building	4,92,692/-	3,35,000/-	1,57,692/-
3.	Const. of Science block	7,80,000/-	5,30,000/-	2,50,000/-
4.	Const. of Teachers Hostel	1,50,000/-	-	1,50,000/-
5.	Const. of V.C. Bangalow	4,36,000/-	20,000/-	40,000/-
6.	Const. of Humanities Block	4,39,037/-	2,25,000/-	2,14,037/-
7.	Salary of Staff	6,31,174/58	4,95,000/-	1,36,174/58
8.	Salary of staff (Science)	2,60,159/-	2,55,000/-	5,159/-
		30,80,62/58	18,85,000/-	11,53,062/58

REPORT OF THE FIFTH PLAN VISITING COMMITTEE
FOR M.S. UNIVERSITY OF BARODA, BARODA

...

The University Grants Commission appointed a Visiting Committee to assess the requirements of the M.S. University of Baroda, Baroda for the Fifth Plan period, consisting of the following :

1. Professor B.M.Udgaonkar (Convener)
Tata Institute of Fundamental Research
Bombay.
2. Professor B.D. Sharma
Department of Economics
Kashmir University
Srinagar.
3. Professor N.R. Deshpande
Department of Political Science
Nagpur University
Nagpur.
4. Professor V.S.D'Souza
Department of Sociology
Panjab University
Chandigarh.
5. Professor B.N. Goswami
Department of Fine Arts
Panjab University
Chandigarh.
6. Professor A.B. Biswas
Department of Chemistry
Indian Institute of Technology
Bombay.
7. Professor K.K.Nanda
Department of Botany
Panjab University
Chandigarh.
8. Professor B.S. Tiwari
Department of Geology
Panjab University
Chandigarh.
9. Professor B.I. Sunderaraj
Department of Zoology
Delhi University
Delhi.
10. Professor T.A.V. Subramanian
Professor of Biochemistry
V.B. Patel Chest Institute
Delhi University, Delhi.

11. Professor S. Shukla
Department of Education
Jamia Millia Islamia
Delhi.
12. Professor (Mrs.) K. Bhoota
Head of the Deptt. of Child Development
S.V.T. College of Home Science
Bombay.

Officer of the Commission

13. Shri S.P. Gupta
Deputy Secretary
University Grants Commission.

Shri Balwant Singh, Joint Director of Education, Government of Gujarat was also associated with the Committee.

The Committee visited the M.S. University of Baroda on the 27th & 28th January, 1975 and held discussions with the Vice-Chancellor, members of the staff, students etc. The Committee also went round the different departments, laboratories and library.

MS University of Baroda

The MS University of Baroda was established in 1949 with a number of colleges in Baroda. The jurisdiction of the university is restricted to the area within a radius of ten miles from the university office. The institutions taken over at the time of establishment of the university were later reorganised into Faculties of Arts, Science etc. The list of the constituent and recognised institutions of the university is given in enclosures 'A'.

In April, 1949, the university had 2,962 students, of whom 131 were postgraduate students, 902 undergraduate students and the remaining in undergraduate diploma or certificate courses. The enrolment has increased to 20,266 in 1974. The position of enrolment and number of teachers since 1970-71 is given below:-

<u>Year</u>	<u>Total enrolment</u>	<u>No. of teachers</u>
1970-71	15,930	887
1971-72	16,590	914
1972-73	17,986	954
1973-74	18,551	980
1974-75	20,266	--

The staff student ratio is about 1 to 18. Besides the teaching staff of 118 in the Medical College, there are in the university 57 Professors, 129 Readers, 512 Lecturers and 164 Teaching Assistants etc. Between 1951 and 1973-74 the enrolment of women students has increased from 352 to 5,314. The percentage of women students is 46% in Arts and 32% in Science faculties.

The number of students, facultywise, during 1973-74 was as follows:-

<u>Faculty</u>	<u>Enrolment</u>	<u>Percentage of total enrolment</u>
Arts	2291	12.3
Science	1621	8.7
Commerce	2973	16.0
Technology	2688	14.4
Preparatory Unit	2621	14.3
Polytechnic	1483	7.9

The enrolment in the postgraduate courses in 1973-74 was 2123 and in undergraduate degree/diploma courses was 14399. Fiftytwo candidates were declared qualified for the Ph.D. degree during the year 1973-74.

Progress during Fourth Plan:

With financial assistance from the UGC, the university was able to strengthen and consolidate the teaching and research activities. During the year 1972-73, a new department of Continuing/Adult Education was established and the Department of Biochemistry was selected by the UGC under the scheme of Special Assistance Programme. The University was selected by the UGC for introducing reforms in the present examination system. Buildings for teaching purposes and residential accommodation for students and teachers were constructed but the following schemes could not be implemented either on account of want of State Government's matching share or the temporary ban imposed in 1973-74:-

- a) Building for the Museology Department
 - b) Building for Mathematics, Statistics and Botany
 - c) Building for Chemistry and Zoology Departments.
- Some of the approved buildings were partly completed.

General Observation and Recommendations

1. The Visiting Committee was presented with a plan totalling about Rs.6 crores, while the UGC had requested the University to prepare a plan within Rs.2 crores. The plan as presented to it appeared to be a mere compilation of requests from various departments, and it was difficult to see from it what were the prime needs of the University. A meeting with the Deans of Faculties and Heads of Institution at the beginning of the visit, also failed to provide a coherent picture.

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2. The Visiting Committee thus noted an apparent absence of any planning and co-ordination machinery in the University. It was not clear what guidelines were given to faculties or departments for formulating their Fifth Plan proposals. Correspondingly, it noted a lack of planned thinking within a faculty and with many a department of faculty. This applied not only to the Fifth Plan, but also to questions like possible inter-disciplinary programmes, creation of common central facilities, examination reforms, the policy with regard to maintenance of a balance between the undergraduate and postgraduate loads etc. This situation was discussed by the Visiting Committee with the Vice-Chancellor and at meetings with Deans and Heads of institutions that were arranged by the University. They were requested to introduce an appropriate planning and co-ordination machinery in the University (e.g. an effective Academic Planning Board, detached from the day to day administration, as recommended by the Education Commission).

3. Some of the problems noted by the Committee are discussed later. The University has several fine departments with a high academic standing in research and scholarship. On the other hand, some others are just coasting along, possibly partly due to the overwhelming load of undergraduate teaching. The University has to create its own machinery for self-analysis and identification of strengths, weaknesses and remedial measures, including such restructuring as may be necessary.

4. The Committee feels that in a University like M.S. University, Baroda, which has been in existence for 25 years and has several good departments, this integrating planning and coordinations process should start without any delay, and that such an integration and co-ordination would enable the University to achieve a much higher academic standing.

5. The Committee noticed that some of the Departments in the University, e.g. Chemistry and Biochemistry, had introduced an admission examination for M.Sc. students and that the admission was on a national basis. It would recommend that other departments also could introduce such a practice.

6. The Committee notes that the Department of History has submitted a proposal to the UGC under the special assistance programme. It would like to suggest that the UGC should have this proposal processed at an early date. The UGC should also consider the Department of Geology for inclusion under the special assistance programme.

7. The Visiting Committee noted a tendency to have too many specialisations as represented e.g. by the listing of special research areas and special papers, within a given discipline. While one can understand that this arises from the desire of each teacher to give an importance to his own little area and to carve out a niche for himself, the Committee tried to impress upon the staff the desirability of defining a few thrust areas which would determine both the research efforts and special papers.

8. The Committee noted that the University was faced with the problem of several costly instruments lying idle for want of maintenance and/or repairs. It recommends that the University establish a centralised instrumentation facility with appropriate staffing including technical assistants. It also recommends that major new equipment that may be bought during the Fifth Plan period should be brought under the purview of this centralised instrumentation facility.

The Committee noted, in particular, that items of costly equipment were lying idle in the Food and Nutrition Department of the Faculty of Home Science. It recommends that this equipment must be transferred to the above mentioned central facility and be made available to users from various departments.

9. Additional space was requested by many departments. While some department appeared to be crowded and therefore had a genuine need for space, it was noticed that others had plenty of space which was not adequately utilised. Even the latter departments have, however, sometimes requested for additional space. The Committee feels that there is a need to introduce rationalisation in the use of existing space, and that the University should appoint a Committee to look into this question and advise it on an equitable distribution of the available space according to appropriate norms.

For example, the University could consider whether the need for a students' common room and canteen in the Faculty of Education and Psychology could not be met by redistribution of existing space and or sharing of facilities with other faculties. Also the need for a ladies' common room for students in the science faculty could perhaps be met by adjustment of space in the home science faculty. A co-operative could also perhaps be located within the space available in the home science faculty.

Any additional space created through the grants of the UGC for the Fifth Plan must not be used directly or indirectly to increase enrolment at the undergraduate level.

10. The Committee noted that several posts of academic staff sanctioned by the UGC during the Fourth Plan period were lying vacant. Even posts in the Department of Biochemistry which is a department of special assistance, are lying vacant. The Committee feels that the University has to treat assistance given by the UGC for various departments as a package and that the assistance cannot be fully and optimally utilized if the posts are not filled in without delay. It recommends to the UGC that fresh posts under the Fifth Plan be sanctioned for the University only after the existing vacancies have been filled up and that the UGC may evolve a mechanism for ensuring that the posts sanctioned by it are actually filled in. It is for the UGC to consider whether, for example, the release of a certain fraction of the grants for items other than staff could not be made conditional on the University's filling up the posts sanctioned.

The University stated that there were two factors responsible for not filling up many of the sanctioned posts or delays in filling them:-

- (a) want of assurance from the Government of Gujarat to bear the matching share and take over liability after withdrawal of Commission's assistance,
- (b) non-availability of suitable candidates.

With regard to the first, the UGC should impress upon the State Government the need to give the necessary sanction without delay, so that the University might derive the maximum benefit from the total plan assistance coming from the UGC. With regard to the second, the Committee is not convinced of this reason given by the University. It would be desirable for the University to review its appointment practices and to take active steps to attract

people with good research qualifications on an all-India basis, especially to some of its weaker departments.

11. The urgency of filling up the posts is to be considered not only from the point of view of viability of the department and the leadership that may be provided by a Professor or Reader, if appointed, but also from the point of view of the teaching load.

Most departments in the University are single Professor departments. This needs to be changed. The Committee has, therefore, recommended additional Professorships in the departments which are well developed and/or have good potential for further development.

12. The Committee noted that the Arts, Science and Commerce faculties had very large numbers (around 1000 or more in each of the faculties) in the prep and first year classes. The facilities appeared to be overstrained. The University has to consider if the number of students (about 18,500) is not already too large for a unitary University, and whether the need to deal with such large numbers has not lead to dilution in the quality of staff recruited and/or adversely affected their involvement with quality programmes at post-graduate/research level. For example, one notices a rather large number of non-Ph.D.'s on the staff of some departments and the burden of undergraduate teaching seems to prevent many from participation in research programmes. One also notices a certain undesirable tendency to appoint temporary lecturers on an year to year basis to cope up with the changing needs of the prep classes.

The staff-student ratio, which was mentioned to be 1:17 - 18 on the average, looks alright, but is poor at the prep level, especially in certain faculties.

In this context, the Committee recommends that:

- (a) admissions to the University should be commensurate with the facilities. The University and the State Government will have to assess the situation with regard to increasing demand for enrolment and make alternative arrangements before the situation gets out of control, e.g. consideration may be given to allowing colleges to be started in this area with affiliation to one of the affiliating universities in the State.

- (b) The University should drop the prep classes when 10+2+3 comes into operation and concentrate on what is properly higher education i.e. post-higher secondary education. In any case, the financial needs at the prep level will have to be taken care of by the State Government. The UGC support can be available only for the post-intermediate or post-higher secondary level.
- (c) The University may try to freeze the enrolment into degree classes wherever numbers have already reached or exceeded the saturation point. The University may consider what is the proper balance between the under-graduate and post-graduate enrolment and try to achieve it over a period of time by increasing the post-graduate enrolment and curbing undergraduate enrolment to some extent.
- (d) The Committee was surprised to find that 400 students were admitted into each batch of the Law class. Since no class-room could accommodate such a number, the University obviously depends on absenteeism and could face trouble. There is need to restrict enrolment here, as elsewhere, commensurate with the facilities available.
- (e) New positions that are being recommended by the Committee should be used for improving staff-student ratio and not for further expansion in enrolment.
- (f) The University should look into the possibility of introducing substantial structural changes in the undergraduate programme e.g. introducing an inter-departmental rather than a department-based course pattern, and a semester system, so as to improve the staff-student ratio in each year. At present, the staff-student ratio is very poor at the prep level but usually quite satisfactory at the higher level.
- (g) The University should encourage such members of the staff, who do not have a Ph.D., to acquire it, as soon as possible, through research either within their own departments or elsewhere in the country.

- (h) The practice of appointing temporary staff on a year to year basis should be progressively ended, and the numbers of both staff and students should be stabilized.

13. The Committee noted that some departments (e.g. Urdu & Persian, Marathi) have only 2 or 3 teachers, and that they also enrol only a few students at M.A. The Committee felt that such an M.A. programme is not viable, and the University may consider its discontinuation. The Committee considered the argument that it is necessary to have M.A. programme from the point of view of participation of the staff in higher academic pursuits for the staff in such departments where the primary responsibility is teaching at the undergraduate level, should rather to creative writing and research, including guidance of students for a Ph.D., rather than taking students for a Master's degree. In fact, they might get a better sense of fulfilment through such creative programmes than through running in small M.A. class.

14. The Committee noted that the mathematics and science departments in the Engineering College and recently been separated from the corresponding departments in the science faculty. It discussed this question with the Vice-Chancellor. While the Committee appreciates the felt need of the technology faculty to ensure that good physicists or chemists or mathematicians are available for teaching the respective courses in the faculty of technology, it does not consider the above mentioned separation academically desirable. Such a separation on the one hand leads to some duplication of courses, and on the other hand, it is difficult to envisage that it would be possible for the University to duplicate costly research facilities (equipment and library) in the physics and chemistry departments in the faculty of technology which would enable these departments in the faculty of technology to attract good staff, to retain them, to build viable research programmes and thus to become strong departments on the whole. The question of possible duplication of such facilities and investment in building up viable research programmes becomes all the more pertinent when one considers that the mathematics, physics and chemistry departments in the faculty of science themselves need a considerable strengthening.

The University may have a fresh look at the question and try to see if the needs of the faculty of technology could not be met better by having single departments of chemistry, physics, and mathematics as in the past, but with an appropriate co-ordinating machinery involving the faculties of science and technology which would ensure that

the faculty of technology gets its reasonable share of the competent staff in these departments for its courses, and correspondingly that those who teach in the faculty of technology are able to make full use of the research facilities in the Physics, Chemistry and Mathematics departments.

15. The Committee notes a certain structural problem with regard to general education. The general education programme is supposed to break new grounds. It is, however, difficult to imagine that an academically sub-viable unit would be able to break new grounds. The Committee therefore recommends that the staff meant for the general education programme should be attached to the respective subject-departments, so that they may interact fruitfully with other academics in their respective subjects, in particular, in research, and thus keep themselves at the advancing frontier of knowledge in their respective areas. These remarks also apply to the situation vis-a-vis the Chemistry, Physics and Mathematics Departments in the Faculty of Technology (above paragraph).

The University has to re-examine the purpose of the general education course and redefine its perspective. If the purpose is to run it as a pilot project, with the possibility that such a course be offered to large numbers of students in coming years, then there has to be a substantial involvement of the staff in the various subject departments. This will also be helped by the restructuring suggested above.

The Committee notices a problem with the Department of Continuing Education also. The publications of the Department are on Continuing Education itself. Here, there is a danger of Continuing Education becoming an end in itself.

16. The Committee understands that the Reviewing Committee for the Centre of Advanced Study in Education has recently reported on the Department of Education. It would, therefore, make only the following observations:-

- (i) No additional posts are needed for teaching except one in Educational Planning.
- (ii) The Committee would recommend that over a period of time, as vacancies arise through retirement or otherwise (4 or 5 such senior positions will arise in the course of the next few years), the Department of Education

should recruit experts in the following areas:

- (a) Sociology of Education.
- (b) Philosophy of Education.
- (c) Comparative Education.
- (d) Innovations in the teaching of school subjects (e.g. teaching of sciences, teaching of social sciences, teaching languages etc.)

In all these areas, there are possibilities of considerable modernisation, so as to bring the B.Ed. and M.Ed. training to the level of contemporary developments.

- (iii) The University may also consider some restructuring of the Faculty of Education and Psychology e.g. there does not seem to be any need to have a separate department of Educational Administration. Restructuring and rationalisation would also give an opportunity to above areas to develop properly.
- (iv) The co-operation between the Department of Education and the Department of Psychology, in respect of Psychology-based instruction may be strengthened. The training at B.Ed./M.Ed. may aim at a better balance between methodology, psychology and philosophy on the one hand, and innovations related to changing emphasis and/or new contents on the other, especially in sciences and mathematics.

17. The Committee supports the proposal to create a unit on Economics of Education and has recommended a faculty position in Economics of Education. This position should be created in the Department of Economics. However, it could satisfy the needs of the Department of Education also.

18. The Committee notes that of the 112 new research students admitted by the University during 1973-74, as many as 45 were in the single Faculty of Education and Psychology, and that several teachers in this Faculty had registered more than 5 new students in this single years. The Committee would suggest to the University to consider if such a large number of students can be registered in a single year in this Faculty, without lowering its standards, and if a single

teacher should be allowed to register so many students in a single year.

19. The Committee understands that the University allows out-of-campus registration (e.g. in the Faculty of Education and Psychology). The University should consider whether it would not be desirable to introduce minimum residence requirement in the interest of maintenance of standards, exemptions being allowed only for valid reasons.

20. The Committee was informed that the Ramayana project was about to terminate at the end of March, 1975. Since good work has been done on the critical edition of Ramayana by the group on this project at the Oriental Institute, the Committee recommends that the staff on the project permanently absorbed into the staff of the Oriental Institute.

21. The Committee could not, on the other hand, support the proposal for a substantial investment by UGC in the Sanskrit Mahavidyalaya. It would suggest that to the extent that it is support to cater to society's needs, support for it may be sought from religious and other private trusts.

22. The Faculty of Home Science has submitted proposals, for an ambitious programme of expansion, including more specialisations, degrees, diplomas and research. The Faculty has received substantial support in the past, including foreign assistance. The prime objective of the Faculty now should be to consolidate the existing programmes instead of starting new programmes, and to concentrate on the improvement of the quality of instruction and research.

The department of Foods and Nutrition should get a qualified expert in Foods and Nutrition (not Biochemistry) as Reader or Professor. Unless this is done it cannot have a sound M.Sc. or Ph.D. programme. The M.Sc. programme in Child Development has also to be strengthened.

The Home Science Faculty should have some regular programmes - e.g. seminars/discussion groups - which bring the teachers and students from different departments together.

23. Social Science departments of the University are at present part of the Faculty of Arts. The University may consider creating a separate Faculty of Social Sciences. This should enable the Social Science departments to increase the emphasis on methodological requirements and analytical rigour and to grow more vigorously on the whole.

The question was discussed with the Vice-Chancellor. It appears that the University has been considering the

separation of a Faculty of Social Sciences from the Faculty of Arts, but has felt constrained by financial considerations. The Committee would, however, suggest that a functional separation should be possible, without calling for additional financial burdens (e.g. for buildings).

24. The Departments of History, Archaeology and Ancient History and Political Science have made good progress in regional studies in their respective domains and the department of Sociology proposes to develop small-group research. All these trends are encouraging and deserve support for their fulfilment or further strengthening. In general, departments should be encouraged to specialise in some chosen areas of their own.

25. The Committee does not recommend any expansion in the Faculty of Social Work. At its present stage of development, the prime needs of this faculty is to get a Professor, who is specialised in Research Methodology, and who would be able to provide leadership in research. It is hoped that the existing staff would join in the research programmes that may then be formulated. Any expansion should be considered only at a later stage.

26. The Committee notes that while the Faculty of Fine Arts has been doing good work, it has been hampered by certain difficulties which need to be removed.

- (a) As many as three existing posts, those of Professor of Applied Art, Professor of History of Art of an Archivist in the Department of History of Arts, have not been filled. These must be filled without further delay. A certain number of additional posts have also been recommended by the Committee, on the basis of the University's proposal and discussions with the Faculty.
- (b) Though there was a provision for a building to house the Department of Museology in the Fourth Plan, the work could not be taken up. This should be taken up without any further delay.

The expansion of the courses in the Department of Museology may not, however, be possible for the present.

- (c) In order to encourage students to take Art History and Criticism, two postgraduate scholarships and one research scholarship may be allocated to this area.

- (d) The Committee feels that the whole Faculty will gain by a grant for the purpose of publications and so funds have been provided for this purpose, even though unsaked for.
- (e) Funds are provided for archival and photographic material for the Department of Art History.
- (f) The Faculty of Fine Arts of the University and the Government Museum and picture gallery at Baroda should be enabled to establish a working relationship. Facilities of the Museum and picture gallery should be made liberally available to the teachers and students of the Faculty. One of the ways of achieving these aims would be to associate some members of the Faculty with the Advisory Committee or similar body of the Museum.

27. The Committee cannot support the request of the Faculty of Fine Arts for printing equipment worth Rs.1.5 lakh, most of which is for development of printing technology, and on the other, it would also change the Director of the Faculty of Fine Arts. The Committee feels that on the one hand this may duplicate the work already being done in this direction at the School of Design in Ahmedabad and the courses offered by the Government in printing technology, if it starts giving this technical course. The Faculty may rather concentrate on strengthening the creative work being done in it.

28. The College of Indian Music, Dance and Dramatics need to be strengthened with some staff as indicated. The new courses in the Department of Dance, as envisaged in the plan prepared by the college may, however, not be feasible for the present.

The Committee felt that the play-box of the college is in urgent need of modernization, both in respect of the seating in the hall, the stage and the technical facilities available. Some funds have been provided for this, though this item was not included in the request placed before the Committee.

29. The Committee cannot recommend the M.Lib. course suggested by the University. The University may rather concentrate on consolidation of the B.Lib. course and improvement of its quality. The Committee recommends the creating of the post of a Deputy Librarian and of a Lecturer, who will not only help in the organisation of the

library but also in teaching. No additional buildings seem to be needed for the library for the present.

30. The Faculty of Commerce has suggested the institution of an M.B.A. course. The support for this does not fall within the purview of this Committee.

31. The needs of the Statistics Department were convincingly present by the Faculty, and the staff asked for may be granted (a Professor in Operations Research or Econometrics and a Reader in the Statistical Service unit). The needs for a Computer Centre, put forth by this department, are outside the purview of this Committee. The Department at present uses the computer at the Operations Research Group, Baroda. It will be able to do so more effectively if it is allowed to purchase an IBM Alpha auto-punch.

The Department may try to develop some co-operative teaching programmes with the Department of Mathematics. Effort may also be made to evolve some co-operative teaching and research programmes with the Department of Economics. Such efforts would be helped if smaller course units, characteristic of a semester system, are introduced by the departments concerned.

32. The Department of Mathematics must strengthen its research bade by recruiting appropriate new staff from outside. The Committee was given to understand that there was a considerable delay in finding Professors of Mathematics (one in the Faculty of Science and one in the Faculty of Technology) since suitable candidates were not available. The University may, however, examine if its selection procedures were not responsible for the delays. One of the two positions of Reader, sanctioned by the UGC during Fourth Plan, is still vacant.

The Committee noted that most of the research publications from this department have appeared in non-standard journals.

The Committee was given to understand that there is a separate Department of Mathematics in the Technology Faculty, which runs its own M.Sc. courses in paralle. The Committee would recommend that the two Departments should organize some courses in common.

The University should also consider if students who have obtained only a third class at B.Sc. should be admitted to M.Sc.

33. The Physics Department has been functioning on more or less traditional lines, and needs to be strengthened by recruitment of some new Faculty from outside. Much of the present work is in crystal growth and related problems and in spectroscopy. The department has proposed expansion in the direction of nuclear physics. The Committee would rather suggest a consolidation in the area of atomic, molecular and solid state physics and materials science, broadening the research base of the department in these areas and strengthening it. For this purpose, the Committee recommends two senior positions (Professor and Reader), of which one should be filled up with a solid state theorist, and the other with an experimentalist in a suitably chosen specialisation which complements the existing activities in the department.

The department may also recruit a specialist in electronics and instrumentation (possibly with an M.Tech. background) who would not only organise some courses in Instrumentation/Technical Physics, but also help in the organisation of a Central instrumentation facility at the University.

The department also needs to be provided with technical assistants and with adequate grants for books and journals.

34. The Chemistry Department is to a very large extent confined to teaching and research along very traditional lines. The large number of students admitted to this department may also be one of the causes for sapping much of the energy of the Faculty (This would perhaps apply to other departments too). The Committee would recommend broadening the research base of the department and strengthening it by injecting experts in Theoretical Chemistry, Physical Organic Chemistry and Solid State Chemistry.

The Committee found several instruments in this department which were not in working condition. Effort must be made to put these into operation.

35. The Biochemistry department is one of the departments receiving special assistance from U.G.C. The research work in this department is progressing satisfactorily. The semester system approved by the Advisory Committee for the

special assistance programme has not yet started. This may be started on an experimental basis from the coming academic year.

Regular staff and special assistance staff should be filled up without delay, and the University should ensure that it does not keep the posts vacant in the future.

University should also not reduce the contingency grant to the department because it is getting special assistance from the UGC. The special assistance is not to be treated as a substitute for the normal support that the University is expected to give to the department.

The department should have an animal house built close to the department.

Equipment not under use in the Home Science Faculty, especially the Aminco Bowman Spectrophotofluorometer and the Beckman DU 2 Spectrophotometer should be transferred to this department, until the Central Instrumentation facility is created.

36. The Microbiology department is doing good work and its needs for an ultracentrifuge are justified. However, the ultracentrifuge should be an item under the central instrumentation facility discussed later.

37. The Botany department has made good contributions in plant physiology, tissue culture and taxonomy of angiosperms. But the department needs strengthening in terms of staff.

The Zoology department has active workers in physiology, especially muscle physiology and development physiology. The department should endeavour to limit the specialisations taught at the M.Sc. level to not more than four broad areas such as muscle physiology, developmental physiology, entomology and reproductive physiology. This would enable the department to give compact courses and will also reduce the heavy teaching load on the teachers. This department also needs additional staff to strengthen the teaching at postgraduate level. The gas-chromatograph requested by this department may be included in the central instrumentation facility.

38. The Committee notes that there exist good but separate departments at the University, in the area of Biological Sciences - Bio-Chemistry, Microbiology, Botany and Zoology. It would be worthwhile for the University, at this stage of development of those departments, to encourage the introduction of an inter-disciplinary approach to the teaching and research in biological sciences. The

Committee was happy to know that this question has been receiving attention from all concerned for the last two years, that it was for example recommended at the December 1972 symposium organized by BUTA, and that subsequently an inter-departmental committee has framed a syllabus for such a course.

It is time for the departments concerned to take operational steps to introduce the inter-departmental programme - in teaching, and research - so that the students coming out of these departments may have a wider basis.

The additional staff recommended by the Committee would be useful for this purpose. If any additional staff needs are indicated in terms of a well-worked out inter-departmental programme, they should be considered sympathetically by the U.G.C.

Regular inter-departmental seminars in Biological Sciences will help to bring the senior students and faculty together, across departmental boundaries, and to generate some joint research projects. It should be possible in some cases for a research student to be guided jointly by advisors belonging to the co-operating departments.

39. The Geology department of the University is adequately strong to take off in the direction of certain advanced studies in Geology which are relevant to the needs of the region.

For example, no serious paleobiological studies are being made anywhere in the State of Gujarat. This study would be very significant in the understanding of the paleo-environment, and hence would have a considerable value in the exploration of petroleum, both on-shore and off-shore. The study could be a joint project between the Geology department and the Botany department.

Another area for investigation would be Geohydrology. In view of the frequent droughts in Kutch, Saurashtra, Banaskantha etc., there is urgent need to carry out extensive underground water and geohydrological studies to help planning with regard to the immediate and future needs of the region, in industry, agriculture, defence and domestic use. The department could play an important role in this area, both in basic research in geohydrology and in training of personnel. (It is understood that a sizeable number of geologists are recruited from other States at present).

The department could try to establish a fruitful collaboration with Physical Research Laboratory, Ahmedabad,

in the area of Geohydrology.

A third area is that of Quaternary Studies. Apart from the interest of such studies which sister disciplines like Anthropology and Archaeology would have, Quaternary studies would also be of interest from the point of view of the problem of silting in the various ports of Gujarat, defence studies of the coast-line and borders, water supply and flood control etc.

The Department may give consideration to these suggestions and submit a scheme to UGC for support under the Special Assistance Programme.

40. Central Instrumentation Facility:

Experimental research today often demands many sophisticated equipments and devices, which have by and large to be imported. Any active and sensitive faculty naturally presses hard for the acquisition of such instruments. In view of the difficulty of making some of the costly instruments available to more than one department in a University (if at all), and the unfortunate experience one has had in the past with regard to the maintenance of such instruments, often acquired against scarce foreign exchange, it has been suggested that in well-established universities, which have several active research departments using sophisticated instruments, there should be a Central Instrumentation Facility, new instruments such as ultracentrifuges, gas chromatography equipment, NMR, Spectrophotometers, low temperature equipment, etc. should belong to this central facility rather than individual departments, and that there should be a co-operative use of those instruments by all interested research workers on a time-sharing basis. The Central Instrumentation Facility should be managed by a committee of actual users (not necessarily departmental heads).

Instruments have not only to be acquired. They have also to be efficiently maintained and operated with skilled personnel. Further, the users must develop an attitude of self-reliance and confidence to modify the instruments to suit their requirements, and to improvise new instruments and devices, through design and fabrication activities within indigenous resources. In fact, indigenous experimental research of high quality is impossible without indigenous instrumentation of high quality. Each University with a large experimental research programme in various areas must, therefore, try to build up an instrumentation capability. Its training of research workers must also include a training not only in the use of instruments, but in the design and fabrication of some instruments required in the students'

research.

It is suggested that M.S. University, Baroda should take steps to create such a Central Instrumentation Facility (C.I.F.), that major instruments to be bought during Fifth Plan (either through funds recommended by this Committee, or through funds made available later through research schemes) should belong to this C.I.F., and that the C.I.F. should have well-qualified and experience staff, who would not only maintain the instruments, and assist the departments in the design and fabrication of equipment needed in teaching and research, but also take part in the training of postgraduate and (selected) undergraduate students through theory and laboratory courses.

The Committee recommends that Rs.20.00 lakhs of the Fifth Plan funds be set apart for this purpose, including strengthening the Central Workshop. The instruments to be included in the C.I.F. could be:

An Ultracentrifuge	Spectrophotometers
NMR, IR & UV Spectrometers	Radiation Counting Systems
Gas Liquid Chromatograph	
Liquid Nitrogen Plant	

The University may submit a detailed proposal to the UGC regarding the utilisation of this amount. The proposal should include the staff requirements,

41. Many requirements of various departments, which relate to strengthening of research programmes, including possibly the purchase of costly equipment, could be met if the individuals/groups/departments concerned make separate research proposals to UGC (outside the Fifth Plan grants under consideration of the present Committee). They should be encouraged to make such research proposals, especially proposals around identified thrust-areas of the department, and/or proposals involving inter-departmental pooling of resources and collaboration.

42. The University has made a proposal to the UGC for a Computer Centre. While this does not come under the purview of this Visiting Committee, it would like to request the UGC to expedite its decision on this proposal of the University.

43. The University is one of the twelve universities selected by the UGC for examination reforms. The University takes a legitimate pride in having introduced some degree of internal assessment as early as 1954. However, in discussions with the Deans and the Heads of the institutions, one was disappointed to find narration of the usual difficulties in introducing examination reforms. The University could take a more positive attitude in this regard. It

P.T.O.

should make a better systems analysis of the problem and should make a serious start in examination reforms (semester system, internal assessment etc.) beginning with M.A. and M.Sc. and M.Com. levels where they do not have a problem of large number of students and then going down to successively lower levels: third-year B.A., B.Sc., B.Com., second-year B.A., B.Sc., B.Com. etc. Also reforms will move faster if different departments are allowed freedom to introduce them without insisting that all departments in a faculty, or all faculties, must introduce them together, i.e. by giving autonomy to faculties and to departments within a faculty.

The University may, in the first instance, make an evaluation of the working of internal assessment and semester as these have existed in different faculties (with variations in details of operation) so as to help define a policy for the future. One may add that in order to ensure the successful working of the semester system certain problems would have to be anticipated and solutions sought in advance.

44. The total amount requested by the University for buildings was about Rs.209 lakhs. Given the fact that the University had been requested by the UGC to keep the Fifth Plan proposals within Rs.200 lakhs, and to keep the building requirements to within 25 per cent of this amount (i.e. to within Rs.50 lakhs), it was not easy for the visiting committee to prune the amount of Rs.209 lakhs to Rs.50 lakhs, and to establish building priorities.

Even faculties and departments which appeared to have ample space had put in requests for additional space. The Committee has already remarked on certain aspects of the space problem in para-9. It would like to add that the pressing needs noticed by it were (after the needs of the Museum and the Departments of Botany, Zoology, Chemistry, Mathematics and Statistics are taken care of by the spill-over item of Rs.8.92 lakhs, which may now become about Rs.12-15 lakhs due to cost-escalation).

Economics	1000 sq. ft.	
Foreign languages	2100 sq. ft.	
History	3000 sq.ft.	
Law	1400 sq.ft.	
	<u>7500 sq.ft.</u>	Rs.4.5 lakhs
Modernization of Play-box		Rs. 0.5 lakhs
Quarters for Class IV Staff		Rs. 1.7 lakhs
Non-resident Students' Centre		Rs. 1.6 lakhs(UGC share)
Teachers' Hostel		Rs. 3.0 lakhs(UGC share)
		<u>Rs.11.3 lakhs</u>

programme. However, the Committee noticed that, with enrolment of large numbers in undergraduate classes including pre-University classes, there is a danger of the unitary character leading to a de-emphasis of postgraduate education and research. The University could be overwhelmed by the large numbers in undergraduate classes unless it adopts a studied policy of balance between its under-graduate responsibilities and postgraduate and research responsibilities. The life-blood of the University is in its advanced studies and research i.e. postgraduate programmes and these must not be allowed to suffer. The Committee's recommendations have to be considered from this point of view.

Enclosure A

MS University of Baroda - Constituent and Recognised
Institutions

1. Faculty of Arts
2. Faculty of Science
3. Faculty of Education & Psychology
4. Faculty of Commerce
5. Faculty of Medicine
6. Faculty of Home Science
7. Faculty of Fine Arts
8. Faculty of Technology & Engineering
9. Faculty of Social Work
10. Faculty of Law
11. Oriental Institute
12. College of Indian Music, Dance and Dramatics
13. Barod. Sanskrit Mahavidyalaya
14. Preparatory Unit- Arts and Commerce
15. Preparatory Unit- Science
16. MK Amin Arts and Science College and College of Commerce
17. Polytechnic and
18. Museum and Picture Gallery

APPENDIX-I

Staff	Existing Positions	Vacancies	New Positions Recommended		
			I	II	III
<u>Faculty of Arts:</u>					
Archaeology & Ancient History	1P+4R+6L	1R+2L	2L ⁺	2P**	1L
History	1P+2R+5L	- - -	1R	1R	-
Sanskrit	1P+2R+2L	- - -	1L	-	-
Pali	2L	- - - 1L	-	-	-
Persian	3L	- - -	-	-	1R
English	2P+3R+18L	- - -	1L	1L	-
French	1L	- - -	1L	-	-
German	1R+2L	- - - 1R	1R*	-	-
Russian	(2L)	- - -	1L	-	-
	(honorary basis)				
Gujarati	1P+2R+7L	- - -	1L	-	-
Hindi	1P+2R+9L	1P+1R	1R*	1L	1R.A.
Marathi	3L	- - -	1L	-	-
Linguistics	1P+1R+2L	1P	1L	-	-
Philosophy	1P+1R+2L	1L	1L*	-	-
Economics	1P+3R+6L	- - -	1R+1R.A.	-	1R
			(Economics of Education)		
Agricultural Economics	1P+1R+2L	1R+1L	1R*	1L*	-
Political Science & Administration	1P+2R+4L	- - -	2 R.A.	-	-
Sociology	1P+2R+5L	1R+1L	1L	-	-
Library Science	1R+1L	- - -	1R+1L	-	-
			(Dy. Librarian)		
Total:-	13P+26R+79L	2P+5R+6L			

*Vacancy to be filled up
 + 1 Sr. draftsman & 1 Field Assistant
 ** 1 Tech. Asstt. & 1 Library Assistant

Faculty of Science	Existing Positions	Vacancies	New Positions Recommended		
			I	II	III
Biochemistry	1P+3R+5L	1L+7	existing vacancies to be filled.	---	---
Botany	1P+3R+15L	1R	2P+1R*	---	---
Zoology	1P+2R+15L	---	2R	---	---
Microbiology	1P+2R+5L	1R	1R*	---	---
Chemistry	2P+4R+34L	1P+1L	1P+1R+1L*	R	---
Physics	1P+4R+27L	1R	2R*+1L	1R	---
Geography	1P+1R+10L	1R	1R*	---	---
Geology	2P+2R+10L	---	2R+L**	R	---
Mathematics	1P+3R+12L	1P filled up by R 1R	1R*+1L	---	---
Statistics	2P+2R+12L	---	1P+1R	---	---
Total:	13P+26R+145L	2P+2L			

Faculty of Education:

Education	1P+3R+11L	1L	---	---	---
Educational Administration	1P+1R+3L	1L	1L*	---	---
Psychology	1P+2R+9L	---	(Educational Planning)	---	---
C.A.S.E.	1P+2L	1R	1R*	---	---
General Education Deptt.	3R+8L	2R+3L	---	---	---
Total :-	4P+11R+31L	3R+5L			

*Existing vacancies to be filled up.
 + Clinical Psychology or Industrial Psychology
 ++ Curator-cum-Technician.

Department	Existing Positions	Vacancies	New Positions Recommended		
			I	II	III
<u>Faculty of Commerce:</u>					
Accounts	1P+2R+3L	1	1R	—	—
Actuarial Science	2L	2	2L*	—	—
Co-operation	1P+1R+2L	—	—	—	—
Business Economics	1P+3R+1L	1R	1R*	—	—
Banking & Business Finance	1R+3L	1L	—	1P	—
Commerce including Business Administration	1P+3R+10L	1P+1R+1L	1P*	—	—
			(Management)	—	—
Total:	4P+10R+36L				
<u>Faculty of Law:</u>					
Law	1P+4R+4L	2R+1L	1R+1L	—	—
			(part-timers used)	—	—
<u>Faculty of Fine Arts:</u>					
Applied Arts	1P+2R+6L	1P	2P**+1L	1L	—
			(1 in graphic Arts)	1 attendant in graphic arts	—
Art History	1P+2R+2L	—	—	—	—
Painting	1P+1R+6L	1P+4R	1P*	—	—
Sculpture	1P+1R+6L	1L	—	—	—
		(+1P filled up by R)	—	—	—
Musology	1R+3L	1L	—	1P	—
Total:-	4P+7R+23L	2P+1R+2L			

Existing Positions	Vacancies	New Positions Recommended		
		I	II	III
Faculty of HomeScience:				
Clothing & Textile	1P+2R+6L	—	—	—
Child Development	1P+2R+13L	2L	—	—
Foods & Nutrition	1P+2R+11L	1P+1R+2L	—	—
F.N. Deptt (Gen. Science)	1R+8L	1R+4L	—	—
Home Management	2R+6L	1R+1L	—	—
Home Science Education & Extension	1P+1R+6L	—	1L (Supervisor)	—
Total:-	4P+10R+50L	1P+3R+9L		
Faculty of Social Work:				
Social Work	2P+3R+9L	1P+1R	1P*	—
Oriental Institute:	1P+1R+5L (Director, Dy. Director & 5 Research Officers) +temporary staff on Ramayana Project	1R	(All temporary staff on Ramayana Project)	—
Sanskrit Mahavidyalaya	8L (Pradhyapaka)	—	—	1 Adhyapak +1 Teacher
College of Indian Music, Dance & Dramatics:				
Music (Vocal)	1R+12L	—	—	—
Instrumental Music	1P +9L	—	1R (Tabla) 1L (Sitar)	—
Dance	1R+7L	—	1P	—
Dramatics	1R+5L	—	1P	—
Total:	1P+3R+33L			
M.K. Amin Arts & Science College & College of Commerce, Podra.	36L	7L		

APPENDIX-II

Equipment (Rs. lakhs)
(including spares & Maintenance)

	I	II	III	Total
Repair & maintenance of existing equipment	1.00	-	-	1.00
Workshop	1.00	0.50	0.50	2.00
Foreign languages	0.75	-	-	0.75
Economics	0.10	-	-	0.10
Archeology & Ancient History	0.40	0.20	0.15	0.75
Social Work	0.25	-	-	0.25
College & Indian Music, Dance & Dramatics	0.35	0.30	-	0.65
Fine Arts	0.50	0.10	0.10	0.70
Geography	0.20	0.20	0.10	0.50
Statistics	0.75	0.10	0.10	0.95
Sociology	1.40	0.60	-	2.00
Biochemistry	0.50	0.50	-	1.00
Microbiology	0.50	0.50	-	1.00
Botany	1.00	0.50	-	1.50
Zoology	1.50	0.50	-	2.00
Geology	1.00	0.40	0.20	1.60
Chemistry	1.00	0.50	-	1.50
Physics	2.00	0.50	-	2.50
Home Science	0.25	-	-	0.25
Central Instrumentation Facility*	7.50	7.50	5.00	20.00
Misc.	1.05	0.60	0.35	2.00
Total:	23.00	13.50	6.50	43.00

* A detailed proposal to be made by University, within the amount indicated.

APPENDIX-III

Summary of Financial Recommendations (Rs.lakhs)

	I	II	III	Total
A. Spill-over(old estimate likely to be higher now)	9.19	-	-	9.19
B. Staff	30.00	7.00	3.00	40.00
C. Equipment	23.00	13.50	6.50	43.00
D. Books & Journals	20.00	10.00	10.00	40.00
E. Buildings(Other than Spill-over)	16.00	12.50*	12.50*	41.00
F. Other Items:				
Faculty development**	2.00	1.00	1.00	4.00
Research Fellowship	5.00	3.00	-	8.00
Research Fund	2.00	1.00	1.00	4.00
Visiting Professorship	1.00	1.00	-	2.00
Publications	1.00	0.50	0.50	2.00
Misc.	4.00	2.00	1.00	7.00
Total:	113.19	51.50	35.50	200.19

* Fresh proposals to be made, within amounts indicated.

**a proposal has been made by Commerce Faculty; the Committee suggests that other faculties could also work out a programme of faculty development.

CONTINUING SCHEMES

M.S. UNIVERSITY OF BAROD.

No.	Scheme	UGC Share	Grant paid upto 31-3-74	Spill over to the V Plan
.	Const. of Building for Faculty of Law.	1,35,000/-	1,30,000/-	5,000/-
.	Const. of Arts Block	4,28,133/-	4,10,000/-	18,133/-
.	Const. of Building for faculty of Fine Arts	2,33,000/-	1,85,000/-	48,000/-
.	Const. of Geography	3,03,000/-	2,00,000/-	1,03,000/-
.	Demographic Research Centre	54,000/-	49,348/45	4,651/55
.	Museology Building	1,97,050/-	50,000/-	The const. work could not be undertaken during IV Plan. The University was requested for the refund. The refund has not been received so far.
.	Const. of Library Building	7,00,000/-	3,00,000/-	4,00,000/-
.	Const. of Non-Vegetarian Mess for Engineering Students.	62,732/-	60,000/-	2,732/-
.	Const. of 30 class IV Staff Quarters	75,000/-	-	75,000/-
.	Employment of coaches	211/28	-	211/28 or Rs.211/-
.	Critical edition of Valmiki Ramayana	1,38,367/24	75,000/-	63,367/24 + 60,000 (first charge)
.	Publication of Gackward Oriental Series	44,999/80	40,000/-	4,999/80 + 80,000 (first charge)

Contd...../-


 CONTINUING SCHEMES
M.S. UNIVERSITY OF B.H.O.D.

S.No.	Scheme	UGC Share.	Grant paid upto 31-3-74	Spill over to the V Plan
13.	Professor for Co-operation	34,832/14	23,000/-	11,832/14
14.	Salary of Staff appointed in the Deptt. of Home Science during IV Plan	4,00,548/-	3,80,084/-	20,464/-
15.	Salary of staff appointed in Faculty of Science	5,17,135/-	4,38,100/-	79,035/-
16.	Salary of staff appointed in the Deptt. of Petroleum Geology	1,18,653/-	1,16,500/-	2,153/-
		<u>34,42,661/46</u>	<u>24,57,032/45</u>	<u>9,18,579/-</u>

ART III

REPORT OF THE FIFTH PLAN VISITING COMMITTEE
FOR GUJARAT UNIVERSITY, AHMEDABAD.

The University Grants Commission appointed a Visiting Committee to assess the requirements of the Gujarat University Ahmedabad for the Fifth Plan period, consisting of the following :

1. Professor B.M. Udgaonkar (Convener)
Tata Institute of Fundamental
Research, Bombay.
2. Professor B.D. Sharma
Department of Economics
Kashmir University
Srinagar.
3. Professor V.S.D' Souza
Department of Sociology
Panjab University
Chandigarh.
4. Professor B.N. Goswami
Department of Fine Arts
Panjab University
Chandigarh.
5. Professor A.B. Biswas
Department of Chemistry
Indian Institute of Technology
Bombay.
6. Professor K.K. Nanda
Department of Botany
Panjab University
Chandigarh.
7. Professor B.S. Tiwari
Department of Geology
Panjab University
Chandigarh.
8. Professor N.R. Deshpande
Department of Political Science
Nagpur University
Nagpur.
9. Professor B.I. Sunderaraj
Department of Zoology
Delhi University
Delhi.

10. Professor S. Shukla
Department of Education
Jamia Millia Islamia
Delhi.

Officer of the Commission

11. Shri S.P. Gupta
Deputy Secretary
University Grants Commission

Shri S.J. Munshaw, Director of Education and Shri Balwant Singh, Joint Director of Education, Government of Gujarat were also associated with the Committee.

The Committee visited the Gujarat University on 31st January, and 1st February, 1975 and held discussions with the Vice-Chancellor, members of the staff, Principals, students etc. The Committee also went round the different departments, laboratories and library.

1. INCORPORATION OF THE UNIVERSITY

This University was incorporated under the Gujarat University Act, 1949 by the Legislature of the then Bombay State.

2. NUMBER OF STUDENTS

During the year 1974-75 the number of students enrolled at under-graduate level was 1,26,666 and at post-graduate level was 7043.

3. NUMBER OF UNIVERSITY DEPARTMENTS

The University has set up departments of its own for post-graduate instruction in a large number of subjects.

These are :-

- 1) the School of Social Sciences providing for instruction and research facilities in Economics, Political Science, History, Sociology and Labour Welfare;
- 2) the School of Psychology, Education and Philosophy providing for instruction and research facilities in Psychology, Philosophy, Education and Vocational Guidance;
- 3) the School of Languages providing for instruction and research facilities in Gujarati, Hindi, English, Sanskrit, Persian and Linguistics; and

- 4) the School of Sciences, providing for instruction and research facilities in Physics (including Space Science), Chemistry, Botany, Zoology, Mathematics and Statistics.
- 5) The School of Library Sciences providing for instruction in Library Science.

4. POST-GRADUATE TEACHING CENTRES

Besides University's own post-graduate departments the University has evolved a scheme of coordination of instruction whereby post-graduate instruction is carried out under the direct control and supervision of the University at various post-graduate centres situated in different affiliated colleges and recognised institutions. At present there are 126 post-graduate teaching centres.

5. FACULTIES

The University has the following faculties :

- i) Arts including Education.
- ii) Science
- iii) Commerce
- iv) Law
- v) Technology including Engineering
- vi) Medicine
- vii) Pharmacy
- viii) Dental Surgery

6. EXTERNAL EXAMINATION

The University has provided for external examination in the faculty of Arts with a view to enabling the working students and those who cannot foot the high cost of University education to realise their ambition. The total number of external students registered during the year 1974-75 was 2914.

7. HOSTEL ACCOMMODATION

The University provides limited hostel accommodation for its students/and two for female students. The total intake strength of the University hostels is about 530 students including 139 women students.

8. THE UNIVERSITY LIBRARY

The University Library contains more than 1,92,000 volumes and subscribe to 785 periodicals in various subjects. There is provision in Library building for cubicles for research students.

9. THE UNIVERSITY PRESS & PUBLICATION DEPARTMENT

The University has well-equipped printing press of its own which caters not only to the large printing needs of the University and its examination but also helps in implementing in its publication programme which needs the special mention in the context of the statutory responsibility enjoins on the University of promoting the use of the Gujarati as a medium of instruction and examination. The University is alive to the need to provide suitable feeding material to its students and has accordingly evolved a phased programme of publication which includes not only works, specially commissioned to be written by experienced teachers and other experts but also translation of selected standard works into Gujarati. The total number of publications so far published by the University is 256. The work of evolving scientific terminology done in this University needs a special mention. The University has prepared and published booklets of this terminology in as many as 32 subjects.

9. STUDENTS WELFARE

Students welfare activities are carried out by the department of Physical Education, the Department of students Welfare and the office of the Chief Medical Officer. Youth leadership, mountaineering, camps work project etc. are organised.

Physical Education, N.C.C. (7520 cadets) N.S.S. (4650 students in 57 units) together constitute a well-knit nucleus of co-curricular activities in the University.

The University Health Centre provides Medical services to the students.

The University has also set up a Foreign Universities Information Bureau to guide students who desire to study abroad

Extension lectures, periodical seminars and organisation of exhibitions, screening of film, celebrations of birthdays and centenaries of eminent men in various fields, etc. are organised under the auspices of the University's Department of Extramural studies.

10 STAFF STRENGTH

The staff strength in the School of Sciences is 7P, 15R and 28L, in the School of Social Sciences 5P, 9R, 17L and 6 Research Assistants; in the School of Psychology etc. 3P, 4R 6L; in the School of Languages 3P, 6R, 6L and 2 Research Assistants. In all there are 18P, 34R, 57L and 8 Research Assistants.

PROGRESS DURING FOURTH PLAN

The Fourth Plan allocation for the Gujarat University included construction of a building for the School of Psychology and extension of the buildings of the other Schools. All these constructions were completed. Similarly extension of Ladies Hostel, Men's Hostel and Staff quarters was mostly completed. The construction of class IV Staff quarters and the service centre could not be taken up. The equipment grant was almost fully utilised.

Some schemes had been approved outside Fourth Plan e.g. construction of a Men's Hostel, Ladies Hostel, Gymnasium, Space Centre, Computer Centre etc. The hostels and gymnasium could not be constructed. The Space Centre was started and the Computer Centre got established. However, all the posts of staff could not be filled-up. The vacant posts were - 3P, 3R and 2L in the School of Sciences; 1P, 1R and 2L in the School of Social Sciences; IP and 3L in the School of Psychology etc.

A statement of spillover grants is given as Appendix-IV.

General Observations and Recommendations of the V Plan Visiting Committee

1. The Committee began its visit to the Gujarat University with a meeting with the Vice-Chancellor. In his initial remarks, the Vice-Chancellor referred to the period of turmoil through which the University had passed during the preceding year, and said that the University was now trying to see how to provide some basis of confidence to the youth, through new programmes! In this connection he referred to some recent need-based activities such as the 2-month programme for schedule castes/tribes graduates to prepare them for competition for bank jobs, organized in collaboration with the National Institute for Bank Management; the Swashrayee mess providing cheap food to students (monthly charge of Rs.60 only); the short job-oriented courses under the auspices of the Centre for Management and Professional Training of the University; and efforts to mobilise community resources for research support, by undertaking research projects such as those relating to desalination of soil, leucoderma, waste utilization etc. The Committee was also informed that the University had been discussing with leading industrialists in the city and with IIM, ATIRA, PRL etc. so as to be able to decide upon new courses in relation to manpower needs arising from the industrial and technological developments in the area. New courses contemplated during the V Plan included those in

Business Management
Textile Chemistry
Polymer Science
Industrial Analytical Chemistry
Pharmaceutical Chemistry

p.t.o.

For many of these courses the local industry and business managements had promised substantial financial support.

Problems arising from rapid increase of undergraduate colleges and Post-graduate centres were also discussed in this preliminary meeting.

The Committee was also informed that the University had initiated steps for granting autonomy to selected colleges. It was able to meet some of the principals of colleges in Ahmedabad and discuss questions relating to autonomy with them. The Committee notes that while the Academic Council and the Executive Council have recommended some colleges for autonomous status, further steps have been slow. It hopes that these will be taken without any delay so that Gujarat may be one of the first states to introduce this important academic reform.

2. The Committee was happy to note these efforts of the Vice-Chancellor and the University community, and, later during visits to the departments, to find a certain interest among the faculty to get involved in 'relevant' research activities.

3. One of the problems faced by the Committee was that the first priority proposals of the University amounted to about 80-90% of the indicated ceiling of Rs.1.5 crores and also that while a large number of new departments were proposed by the University, backed by promises or possibilities of donations from industries and business management, the provision for consolidation of existing departments, especially in the School of Sciences did not appear to be adequate. The representatives of the Teachers' Association also drew attention of the Committee to this situation. The Committee has taken the view that a strong basic sciences foundation would be needed for the industrial courses also and therefore consolidation of existing science departments must have priority over the starting of new technological courses. It hopes that where the Committee may not be able to recommend support because of financial limitations, the industry may be persuaded to increase the quantum of support indicated, so that the new programmes may still be initiated.

4. The Committee has also found it necessary to make a larger allocation for books and journals than was requested by the University. This should take care of the needs of the various departments, which have not been indicated separately by the Committee. The University had requested support for a building to create additional reading space for the library, for which there is a considerable demand. The Committee was, however, happy to know that it was likely that the University would be able to raise funds

for this purpose through donations (e.g. Vallabhbhai Patel Centenary Collections), and so it has made no provision for the Reading Room. If the University succeeds in raising funds for the Reading Room through donations, the UGC could give support for library furniture and equipment on the usual basis, by some readjustment of the Plan allocations.

Several departments have requested departmental libraries. The University may look into this question. The IV Plan visiting committee had made a recommendation in this regard.

5. The Committee noted that according to the figures supplied by the University, out of the existing positions of 18 Professors, 34 Readers and 57 lecturers, as many as 5 Professorships, 4 Readerships and 7 Lecturerships were lying vacant.

It was sorry to see that the vacant positions included the positions of 1 Reader and 2 lecturers which were specially sanctioned by the UGC for the new post-M.Sc. programme in Space Science and its Applications. It is obvious that a new programme such as this cannot take off in the right manner unless all the required faculty positions are filled promptly. Only the Professor's appointment had been made. While there has been this delay in filling up the positions, there seemed to be a desire in the University to consider Space Science as a separate department. This would be against the spirit of the recommendations of the UGC when the Space Science Course was started, and the Committee would strongly recommend that Space Science should remain an integral part of the Physics Department, for mutual benefit.

The University may review its recruitment procedures and try to ensure that teaching positions are filled in as soon as possible, so as to contribute to the maintenance and raising of standards.

6. The representatives of Teachers' Association also drew the attention of the Committee to the large number of vacant posts and the feeling of stagnation among the staff. According to the figures mentioned by them, out of 20 Professorships, 44 Readerships and 62 Lecturerships, 8 Professorships, 10 Readerships and 14 Lecturerships were lying vacant.

There was also a discrepancy between the figures relating to teaching loads provided by the University and those provided by the teachers in the School of Science.

Without going into the question of the accuracy of either of the sets of figures quoted, it was apparent that there existed a communication gap between the University authorities and the teachers. It would be desirable for the University to look into this question and to take necessary steps to

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ensure adequate channels of communication between the authorities on the one hand, and the students and teachers on the other. It would also be useful to get the teachers suitably involved in the planning process, so that they may consider the University's plans for development as their plan.

7. The Gujarat University Research Scholars Association (School of Sciences) requested the Committee that a proper machinery be introduced in the University to ensure that the UGC Junior Research Fellowships are given strictly on merit. The Committee feels that it would be necessary for the University to look into this question and create confidence in the method of selection. It will also be desirable for the UGC to provide some guidelines to the universities regarding the procedure to be followed for selection and award of fellowships, and for utilization of the contingency grants which go with the fellowships.

It would also be desirable for the University to consider taking steps such as appointment of a Dean of Students, constitution of departmental or school-wise staff-student committees etc. in order to remove the communication gaps which seem to exist.

8. The Committee notes the urgent need for certain student facilities e.g. a student centre with canteen, and medical aid. The Committee has made some provision for this purpose. It hopes that the State Government will also give priority to these items.

The Committee supports the proposal of the University to allocate Rs. 1.5 lakhs for various youth programmes.

9. PG Centres in colleges : There are as many as 129 such PG Centres in colleges with an enrolment of about 5,000 students (compared to an enrolment of about 1800 in University departments).

The Committee had some discussions about these when it visited the departments and also during discussions with representatives of the Gujarat University Teachers Association. The shortcomings that were pointed out to the Committee included the following :

- i) There was no effective control of the University on these PG Centres though they were supposed to be University Centres.
- ii) Degree colleges do not consider PG Centre activity as part of the duty of their teachers.
- iii) Courses were not adequately covered in these Centres.
- iv) These facts were reflected in the poor examination results of the students from these centres, and in the reports of students from the centres.

It is clear that the University has in the past allowed proliferation of these centres, without taking adequate steps to ensure maintenance of standards.

The Committee was glad to note that the University was now concerned about this problem. It understood that there was now a rule that a post-graduate teacher must have published at least 3 research papers, but that this had not yet been implemented effectively. The University has proposed an expenditure of Rs.15 lakhs for improvement/consolidation of instruction at the PG Centres. The Committee has recommended this amount. However, the manner of its utilization must be determined carefully after a detailed survey of the situation by a Committee, with which a UGC representative may be associated.

Certain anomalies with regard to the "recognition" of PG teachers that were mentioned to the Committee need to be looked into. For example, teachers in University departments are apparently not 'recognised' as PG teachers even though they are teaching only PG classes.

10. The existence of PG centres also comes in the way of examination reforms such as introduction of semester, internal assessment etc. If the PG centres are to continue, it would be desirable for the University to give autonomy to University departments with regard to syllabi, types of assessment and examinations etc., as has already been suggested by some departments.

11. The Committee noted certain apparent stresses and strains in the functioning of the School system, especially in the School of Social Sciences. The idea of bringing several allied departments together under one administration sounds good when it is intended to secure greater academic collaboration among different departments. It would be good for the University to review to what extent the School structure has in actual fact promoted academic collaboration among different departments or the development of interdisciplinary teaching or research programmes, and to remove the weakness of the existing structure. What seems to be needed is greater academic collaboration coupled with administrative decentralization.

12. The University will have to devise ways to ensure that the existing physical sciences departments, or the newly proposed departments like Management, Industrial Chemistry or Textile Chemistry may be able to flourish in the shadow of large institutes like PRL, ATIRA, IM which exist nearby in the city. The existing involvement of senior people from these institutions on the University's Planning Board

is a step in the right direction. The University and these institutions may also try to establish institutional links at the working level, e.g. through joint appointments for some of the faculty/scientists. If a systematic effort is made to establish such links, this may even serve to encourage many good people to join the University.

School of Sciences

13. The Botany department has good facilities in Plant Physiology and is noted for its contributions in this area. The Professor of Botany has just retired. The University should make every possible effort to get an eminent plant physiologist in his place so that the department may maintain its tradition of excellence. There is also need for introducing new disciplines such as mycology in this department. The Committee recommends that the department should be given two additional positions: a Reader in Mycology and a Lecturer in Ecology.

14. The Zoology Department is also an active department particularly in the areas of cell biology, cytogenetics, and reproductive biology. It may be strengthened with two additional Readerships, one in Reproductive Physiology and another in Cytogenetics. The department needs a great deal of equipment. The department also needs more space, but this is being given second priority.

15. The Committee has recommended certain amounts separately for the equipment needed by these departments, and also, a larger amount for equipment that will be needed in common by these two departments (e.g. liquid scintillation counter, ultracentrifuge, Zeiss Ultraphot microscope). The University should institute appropriate machinery (e.g. User's Committee) to ensure that the new costly equipment that may be acquired, as well as the existing equipment such as the ESR in the Botany Department, may be readily available for use by scientists in different departments, irrespective of where the equipment may be located physically. In other words, sophisticated equipment (scintillation counter, ultracentrifuge, electron microscope etc., depending on finances available) should be treated as central facilities.

Air-conditioning will have to be provided for some of the equipment.

16. The Botany and Zoology Departments have some interaction already at the research level. They may try to increase this further, and also to develop an integrated approach to the M.Sc. course, with several papers taken in common by both the Botany and the Zoology students.

17. The Chemistry Department has one Professorship and one Readership vacant. It is hoped that it will become more dynamic when these positions are filled up and much-needed equipment is acquired. The Committee recommends an additional Readership. These positions should be filled up with experts in Theoretical Chemistry/Physical Inorganic Chemistry/Solid State Chemistry. Also, the department may try to maintain a close interaction and collaboration with the newly proposed departments of Industrial Chemistry, Textile Chemistry etc.

18. The Physics Department has over the years built up a research programme in ionospheric studies, some of it in collaboration with PRL, Ahmedabad and with laboratories in East Germany and West Germany. The department may be strengthened with the creation of a Professorship in this area. The Committee also recommends the position of a Senior Technical Assistant/Scientific Officer to assist the research workers in this area.

The newly created post-M.Sc. course in Space Sciences and applications should be a part of the programme of the Physics Department, as already stated earlier. The Committee is not in favour of the creation of a separate Centre for Space Sciences and Applications, outside the Physics Department. Both from the point of the new course and the development of research programmes, the Centre for Space Sciences and Applications must be integrated with the Physics Department. On the whole, the Physics Department may try to consolidate in three broad areas during this Plan period : Ionospheric Studies; Molecular and Solid State Physics (Theoretical and Experimental); Space Sciences. A Reader in Theoretical Solid State Physics and two Technical Assistants are recommended, from this point of view.

19. While the Life Sciences departments and the departments of Chemistry and Physics have been active in research, some more than the others, the research activity in the departments of Mathematics and Statistics appears to be rather limited. The departure of Prof. P.G. Vaidya seems to have affected the Mathematics department in this regard.

On the other hand, the Mathematics department has been active in a college development programme under UIP and in a book-writing programme in Gujarati. It may be encouraged to continue these activities, and to enlarge them to include the writing of books in English.

Professorship in the Mathematics department has been vacant for several years. This must be filled without any delay. The Committee also recommends one Readership and one

Lecturership. All these positions should be filled with active research workers in modern areas of mathematics, so as to increase the tempo of research in the department.

These positions should make it possible for the mathematics department to follow up on the ULP programme and to continue with programmes aimed at improvement of mathematics instruction at the school and college level, in which they are interested.

20. The Statistics department's proposals to start a 1-year post-B.Sc. diploma course, and to offer courses in applied statistics (Operations Research, Demography, Industrial Statistics) are supported by the Committee, and staff provided (2 readers in above mentioned areas). The department also needs a Statistical Assistant.

The Committee was informed by the members of the Statistics department that the statistics papers at M.Com., which were at present taught at PG centres in colleges of Ahmedabad, could be taken by the Statistics department. This may be looked into. In general, the Committee would favour arrangements wherein the University departments take direct responsibility for PG courses.

The department has also proposed a course in Computer Science. If such a course is to be started, however, it will have to be considered as a programme of the School of Sciences rather than of the Department of Statistics. In case, the University formulates a detailed proposal in this regard, the Commission may consider it on its merits for support outside the Plan.

21. An additional space of 5000 sq.ft. may be created for the Departments of Mathematics and Statistics.

22. The requirements of the Computer Centre of the University are not considered by the Committee, since they would be considered separately by the Commission. The Committee however got the impression that the Computer was not much used by research workers and that it was largely used by the University administration. The University/Commission may look into this question including the question of management of the Computer Centre and the creation of an appropriate machinery so as to enable the academic departments to use the computer more effectively.

23. The Committee noted that while many items of necessary equipment are not available in the University departments, some of them are available at neighbouring institutions such as PRL, ATIRA and College of Pharmacy and are used by research workers at the University. The Committee has recommended certain grants for costly equipment for the science department and for a central instrumentation facility. The University may form a Committee, consisting of its own scientists and scientists from PRL and ATIRA to decide on the optimal

utilization of this grant, taking into account the costly instruments that are available at nearly PRL and ATIRA, or even at S. Patel University which is not very far.

While the costly equipment is to be treated as a central instrumentation facility, there is no need for a new building to house these instruments for the present. Each department could spare some space for the instruments to be used as common facilities. However, Rs. 1.00 lakh is recommended for extension of laboratory space in some departments for housing the instruments. A user's committee should ensure smooth inter-departmental use of instruments.

24. Geology: The University does not have a department of Geology, and has not made any proposal for starting one during V Plan period. However, the M.G. Science College at Ahmedabad prepares students for B.Sc. and M.Sc. degrees in Geology. This institution is fairly well-equipped as regards instruction for B.Sc. and B.Sc. (Hons.) courses. However, its staff has to strive hard to give the M.Sc. course a proper standard. Baroda University is the only University in the State of Gujarat which produces good M.Sc.'s in Geology, and more PG departments in Geology are needed in the State to train qualified geologists. The UGC may take note of the facts when considering the request of M.G. College for support for its PG programme in Geology.

School of Social

25. The Department of Sociology has been doing very good work. It has plans to introduce more optionals and a post-M.A. course in Research Methodology, for which it has a good potential. The department may therefore be strengthened with one Professorship and one Readership.

26. The Economics Department is also a good department, econometrics and quantitative methods being its strong points. Apart from two M.A. Programmes, it also runs a diploma course in Quantitative Economics. Taking these into account, and also the fact that there is a fairly large number of students on its rolls, 2 Readers and a Lecturer are recommended.

27. The Labour Welfare Department draws students from all over the country for its two years' Master's degree course in Labour Welfare, and finds a ready demand for its trainees. As its trainees are employed in different kinds of jobs, it requires diversification of its courses. 1 Reader and 1 Lecturer are recommended for this purpose.

28. The Department of Political Science has relatively fewer students, but has concentrated in research work and produced several works. It has done a considerable amount of work in regional politics. To consolidate this area of research and teaching a Professorship and a research assistantship are recommended.

29. The Department of History is understaffed, though it has the responsibility of running two M.A. courses, one during the day time and the other in the evening. Additional staff has therefore been recommended.

School of Psychology, Philosophy and Education

30. The Department of Education must review its programmes and try to define a direction for further development.

31. Certain positions are recommended in order to meet the teaching needs and to make the departments more viable.

32. The University has tried to produce academic literature at University level in Gujarati, and has so far published about 200 titles, with a view to making Gujarati an effective medium of instruction as also enriching the language. It has requested some funds for an encyclopaedia in Gujarati, to supplement the funds received in donation. While this may be a good project, it is difficult for the Committee to recommend its financing from the limited UGC funds on a priority basis.

33. Since Gujarati has been a medium of instruction in the State of Gujarat for some years now, it will be useful for the University to undertake a critical survey of how the change in medium has affected educational standards, especially in the sciences, the class structure or composition of the student population etc. Such a study may be of help to other States also, when they consider introduction of regional languages as media of instruction in a manner which may be calculated to enhance the standards of education, and to facilitate the access to higher education for the under-privileged sections of society.

34. One notes that the Prakrit and Pali Department suffers from the fact that most students take this subject only at the subsidiary level, and very few take it as a principal subject. The Department of Persian also has a similar problem. No extra staff is justified on the basis of teaching load. In general, such departments may concentrate more on research programmes, and make appropriate research proposals to UGC for any support required.

35. The University has started certificate course for the teaching of Russian, Spanish, German and Japanese, with the help of teachers teaching on an honorarium basis, and it is trying to assess the need for teaching of foreign languages in Ahmedabad. In case the need is established after a trial for a couple of years, its requirements for regular staff may be considered sympathetically by the UGC.

1 Res. der 36. The Committee recommends Rs.65,000/- for equipment, Rs.75,000/- for books and the positions of 1 Lecturer and 3 technicians or research assistants for running the proposed language laboratory for English and foreign languages. The language laboratory can be housed in the School of Languages and there is no need of additional building for this purpose. No should be made a separate 'Institute' as proposed.

37. The University has stated that the posts of a Reference Librarian and two Reference Assistants were sanctioned during the IV Plan but not filled in. The Committee recommends that these posts be filled in.

New Schemes

A. Science

38. The Committee considered the proposals to start new courses in Textile Chemistry, Polymer Science, Industrial Analytical Chemistry, and Pharmaceutical Chemistry. It understood that substantial grants were promised by local industrialists for this purpose. Taking the rapid industrialisation around Ahmedabad and the manpower needs that are likely to arise in these areas, and also taking into account the commendable interest shown by local industry in giving some capital grants to launch these courses, the Committee recommends.

- a) that the courses in Textile Chemistry and Industrial Analytical Chemistry could be started in second priority. (The Committee found it difficult to include these in first priority, because of the pressing demands for consolidation of existing programmes). However the University may submit a more detailed proposal to UGC, and make adequate preparations before starting these courses.
- b) that there does not appear to be a strong case for starting a course in Pharmaceutical Chemistry in view of the existence of a College of Pharmacy at Ahmedabad, close to the University

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- c) that the University may not start a PG course in Polymer Science at Nadiad, in view of the fact that there exists a good programme in Polymer Chemistry at S. Patel University, which is not too far away. It would be more desirable, if funds from private donors are available, to strengthen and diversify the programme in Polymer Science at S. Patel University.

B. Middle-level Management Courses:

These would be considered separately by AICTE. In the meantime, the Committee notes that the University has received donations of Rs.9 lakhs for building and equipment. After discussions with the Committee, the University informed the Committee that the University expects to get the remaining amounts also from other sources.

C. Courses in Commerce and Law :

Provision for these has been possible only in third priority, owing to limitation of resources.

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Appendix-I

Staff

	<u>Existing positions</u>	<u>Vacant</u>	<u>Recommended</u>		
			I	II	III
<u>School of Sciences</u>					
Chemistry	1P+3R+6L	1P**+1R*	1R*	-	-
Physics (including Space Science)	2P+3R+6L	1R+2L (in Space Science)	1P**+1R* +2T.A.	-	-
Botany	1P+3R+5L	1P+1R	1R@+1L++	-	-
Zoology	1P+1R+4L	-	2R@@	-	-
Mathematics	1P+3R+3L	1P	1R	1L	-
Statistics	1P+2R+4L	-	2R ^o +1 Stat.Asst.		
	7P+15R+28L	3P+3R+2L	1P+8R+1L +3 Asst.	1L	-
* Theoretical Chemistry/Physical inorganic chemistry/solid state chemistry.					
** Ionosphere					
+Theoretical Solid State Physics					
@Microbiology					
++ Ecology					
@@ Reproductive physiology; cytogenetics					
o Applied Statistics, Operations research					
<u>School of Social Sciences</u>					
Economics	2P+3R+4L+1 R.A. (temp.)	1P+1L	2R	1L	-
Sociology	1P+1R+4L+2R.A. (temp.)	-	1P	1R	-
Political Science	1P+3R+4L+1R.A. (temp.)	-	1P	1R.A.	-
Labour Welfare	1P+1R+3L+2 field Asstts.	1R+1L	1R	1L	-
History	1R+2L	-	1P+1L	1R	-
	5P+9R+17L+6Assts.	1P+1R+2L	3P+3R+1L	2R+2L+1R.A.	-

School of Psychology, Philosophy & Education

	<u>Existing positions</u>	<u>Vacant</u>	<u>Recommended</u>		
			I	II	III
Psychology	1P+2R+2L	1P	1R	-	-
Education	1P+2R+3L	3L	-	-	-
Philosophy	1P+1L	-	1R	-	-
	3P+4R+6L	1P+3L	2R	-	-

School of Languages

Gujarati	1P+1R+1L	-	1R+1L	1L	1L
Linguistics	1P+1L	-	-	1L	-
English	1P+1R+1L	-	1R+1L	1L	1L
Hindi	1R+1L+1R.A. (temp.)	-	1P+1L	1L	-
Sanskrit	2R+1L	-	1P+1L	-	-
Persian	1R+1R.A. (temp.)	-	-	-	-
Prakrit	1L	-	-	-	-
Language Laboratory for English and Foreign languages	-	-	1R+1L+3Assts.		

3P+6R+6L+2Assts. - 2P+3R+5L 4L 2L
+3 Assts.

Total 18P+34R+57L+8Assts. 5P+4R+7L

Centre for Management
& Professional Training

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√ In the financial Recommendations, provision has been made for new courses in Industrial Analytical Chemistry and Textile Chemistry (priority II) and Commerce and Law (priority III).-7

Appendix-II

Equipment (Rs.1 lakh)	(including Spares & Maintenance)			
	I	II	III	Total
Economics	0.30	-	-	0.30
Other depts. in Humanities & Social Sciences	0.20	0.10	0.10	0.40
Botany	1.00	0.50	-	1.50
Zoology	1.50	0.75	-	2.25
Mathematics & Statistics	0.50	0.25	0.25	1.00
Physics*	3.00	1.50	0.50	5.00
Chemistry	2.00	1.00	1.00	4.00
Workshop	1.00	-	-	1.00
Major Equipment/ Central Instrumentation Facility				
(a) Life Sciences	3.00	1.25	-	4.25
(b) Physical Sciences	7.50	7.50	5.00	20.00
	20.00	12.85	6.85	39.70

* Including Space Sciences

(Life Sciences: 8 lakhs against 5.00 proposed by university
however Physics Sciences 19.5 lakhs against 5.00 proposed by
university.

Appendix-III

Summary of Financial Recommendations

	I	II	III	Total
A Spill-over	16.60	-	-	16.60
B Staff	18.00	12.50@	6.00@@	36.50
C Equipment (including Central Instrumentation Facility)	20.00	12.85	6.85	39.70
D Books & Journals	10.00	7.50	5.00	22.50
E Buildings (other than spillover)	9.20*	2.80**	2.50	14.50
F Other items:				
Faculty Improvement	1.00	0.50	-	1.50
Research by individual teachers	1.00	0.50	0.50	2.00
Youth Programme	0.50	0.50	0.50	1.50
Re-organisation of PG Education in Colleges+	10.00	5.00	-	15.00
Research Fellowships	5.00	2.50	-	7.50
Misc.	-	-	2.00	2.00
Total	91.30	44.65	23.35	159.30

@ includes Rs.8 lakhs for new schemes (subject to approval of details by UGC)

@@for new schemes (subject to approval of details by UGC).

+ Subject to a detailed plan to be submitted for approval to UGC, after a detailed survey.

* Rs.1.5 lakhs for Physics (including requirements of field station for ionospheric work); Rs.1.5 lakhs for Mathematics and Statistics; Rs.3.00 lakhs for Students' Centre & Canteen; Rs.1.2 lakh for non-teaching staff quarters; Rs.1.00 lakhs for library extension; Rs.1.0 lakh for extension of laboratory space in existing laboratories, so as to take care of immediate needs of Central Instrumentation Facility.

** Rs.1.8 lakh for teacher's quarters; Rs.1 lakh for Zoology (including animal house).

CONTINUING SCHEMESGUJARAT UNIVERSITY

S.No.	Scheme	UGC share	Grant paid upto 31.3.74	Spill over to the V Plan.	Remarks.
1.	Const. of Service Centre .	37,500/-	-	37,500/-	-
2.	Const. of Men's Hostel	2,32,000/-	-	2,38,250/-	(includes Rs.6250/- approved for furniture during V Plan)
3.	Const. of Women's Hostel	13,36,900/-	-	3,46,300/-	(includes Rs.9375/- for furniture approved during V Plan)
4.	Const. of Ladies Students Hostel	1,50,000/-	1,35,000/-	15,000/-	
5.	Const. of Men's Students Hostel	2,21,645/-	2,15,000/-	18,645/-	(includes Rs.11,000/- for furniture approved during V Plan)
6.	Const. of Staff Quarters.	2,53,222.85	1,80,000/-	73,222.85	
7.	Boring a tubewell in the University.	45,000/-	40,000/-	55,000/-	(includes Rs.50,000/- for an additional tubewell approved during V Plan.)
8.	Const. of Transmitter Room	24,147.26	24,000/-	147.26	
9.	Space Science Building	1,25,000/-	-	1,25,000/-	
	Equipment	1,50,000/-	-	1,50,000/-	
	Books	25,000/-	-	25,000/-	
	Staff	3,23,000/-	-	3,23,000/-	

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contd..

10. Const. of an Extension to existing building for the School of Social Work.	72,715/-	70,000/-	2,715/-
11. Extension to the existing building for the University School of Languages	2,33,610/-	2,27,000/-	6,610/-
12. Const. of building for the University School of Psychology and Education.	5,70,000/-	5,25,000/-	45,000/-
13. Creation of a post of Development Officer.	71,868.85	64,839.85	7,029/-
14. Employment of Coaches	32,129.25	21,263.39	10,861/-
15. Salaries of staff (Humanities).	11,60,000/-	9,80,000/-	1,80,000/-
	41,41,578.85	24,82,108.24	16,59,270.11

PART IV

REPORT OF THE FIFTH PLAN VISITING COMMITTEE FOR
SARDAR PATEL UNIVERSITY, VALLABH VIDYANAGAR.

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The University Grants Commission appointed a Visiting Committee to assess the requirements of the Sardar Patel University, Vallabh Vidyanagar for the Fifth Plan period, consisting of the following:

1. Professor B.M. Udgaonkar .. (Convener)
Tata Institute of Fundamental Research
Bombay.
2. Professor A.B. Biswas
Department of Chemistry
Indian Institute of Technology
Bombay
3. Professor K.K. Nanda
Department of Botany
Panjab University
Chandigarh
4. Professor B.I. Sunderaraj
Department of Zoology
Delhi University
Delhi.
5. Professor B.D. Sharma
Department of Economics
Kashmir University
Srinagar
6. Professor B.N. Goswami
Department of Fine Arts
Panjab University
Chandigarh
7. Professor N.R. Deshpande
Department of Political Science
Nagpur University
Nagpur
8. Professor V.S. D'Souza
Department of Sociology
Panjab University
Chandigarh
9. Professor S. Shukla
Department of Education
Jamia Millia Islamia
Delhi.

10. Professor B.S. Tiwari
Department of Geology
Panjab University
Chandigarh

Officer of the Commission

11. Shri S.P. Gupta
Deputy Secretary
University Grants Commission.

Shri Balwant Singh, Joint Director of Education, Government of Gujarat was also associated with the Committee.

The Committee visited the Sardar Patel University on the 29th and 30th January 1975 and held discussions with the Vice-Chancellor, members of the staff, Principals, students etc. The Committee also went round the different departments, laboratories and library.

The University was established in 1955 as a teaching and affiliating University at Vallabh Vidyanagar in the State of Gujarat. At present it has faculties of Arts, Science, Engineering & Technology, Commerce, Law Education and Home Science. The position about enrolment of students and faculty teachers in 1973 is given in the Appendix-V. There are two University colleges viz., M.V. Patel College of Education and University College of Science (advanced). In addition there are 16 constituent affiliated colleges.

Progress during Fourth Plan

Of the total allocation of Rs.63.44 lakhs for the IV Plan period, the University Grants Commission's share was Rs.52.39 lakhs and that of the State Government Rs.11.21 lakhs.

The amount of Rs.63.44 lakhs sanctioned by the Commission covered the following programmes:

1. Addition of staff (including the staff for Teachers' Education)
2. Construction of a block for Botany and the extension of the Chemistry block, construction of a Lecture Hall for Chemistry.
3. Purchase of equipments for Basic Science Departments, History Department and for Teachers' Education.
4. Purchase of Books & Journals for the Central Library.

5. General Schemes:

(a) Buildings:

- i) One block of Teachers' Hostel
- ii) Students' Hostel
- iii) Staff Quarters for Class IV Servants
- iv) Guest House
- v) Extension of Press Building

(b) Press Equipments

(c) Publication

As a result of the financial assistance from the University Grants Commission and the State Government during the Fourth Five Year Plan, the University has been able to achieve the following objectives:-

In the departments of Basic Sciences, the University has been able to introduce Semester System from the year 1969-70. In the Department of Chemistry, Petrochemicals and Polymer Chemistry have been introduced as specialised subjects of study. Likewise, in the Department of Physics, Solid State Electronics has been introduced as an option to Solid State Physics. In the Department of Mathematics and Statistics, Computer Science has now been introduced as one of the subjects of study. Likewise, in the Department of Physics

In the Department of Humanities and Social Sciences instead of conducting examinations at the end of 2 academic years, it has been possible to introduce compartmental examinations viz. M.A. (Previous) and M.A. (Final). The courses have been modernized and new special fields of study added because of the additional staff provided by the University Grants Commission.

The statement indicating the academic staff (including the staff for Teachers' Education) sanctioned by the University Grants Commission during 1966-74, the number of positions actually filled in etc. is appended hereto as Appendix. The State Government has given ~~an~~ assurance to pay full grant to the University for these posts after the UGC's assistance ceases at the end of the IV plan.

A statement of spill over expenditure for the V Plan is given as Appendix-IV

General Observations and Recommendations

1. The University was established in 1955. It has concentrated its programmes in the Sciences (in particular Physics and

Chemistry) and a few Humanities and Social Sciences Departments. The committee noted a conscious effort on the part of the University to give full support to those departments which had done good work in the past, and showed promise of further development, rather than spreading the resources uniformly and thinly.

2. The University presented its plan in a coherent fashion, and the committee was happy to note a certain well-knit character about this University, possibly arising from the fact that those who built Vallabh Vidyanagar from nothing were closely cooperating with one another. The University should however ensure that the next line of leadership is carefully developed, without running into the dangers of an inbred system.
3. The committee was happy to note that the University has been able to introduce Semester System in the Departments of Basic Sciences, since 1969-70, and also that pre-Ph.D. courses have been introduced as a requirement for the students in the Basic Science departments. It welcomes the University's plan to introduce a comprehensive examination for all Ph.D. students. The committee also hopes that the Departments of Humanities and Social Sciences will also introduce similar measures.
4. The University has very well equipped departments of Physics and Chemistry, and the instruments seemed to be well-maintained. The departments have dedicated staff who are keen to develop these departments further. They deserve encouragement. There is enough scope for having additional staff in both these departments, to make full use of the facilities available. Apart from recommending some regular staff, therefore, the committee has recommended an additional provision of Rs.2 lakhs for visiting positions so that scientists from other universities, in particular from Universities in Gujarat and nearby Western region, may be enabled to use the experimental facilities available.
5. The University has an IBM-1620 computer, which was transferred to it recently from Delhi University. It presented its needs for the further development of the Computer Centre, which had been submitted to the University Grants Commission more than a year earlier. The committee would like to request the University Grants Commission to have that proposal processed at an early date by its Computer committee.
6. The University discussed with the committee its ambitious proposal for establishing an Institute of Instrumentation

at the University. The committee considered a proposal of this magnitude to be outside the purview of the V Plan grants. However, since the University Grants Commission has a separate programme for the development of Instrumentation Centres in the country, the Committee would like to record that in view of the large number of sophisticated instruments which exist in this University, and are well-maintained, and in view of the tradition it has of fabrication of various items in its workshops, there exists the right kind of infrastructure in this University for creation of a Regional Instrumentation Centre. This may be taken into account by the University Grants Commission when it considers proposals for Instrumentation Centres.

For the present, the Committee recommends a certain grant for strengthening the central instrumentation and mechanical workshop of the University and suggests that the University could take preliminary steps to create the nucleus of such a Centre out of its V Plan funds. It could also start M.Sc /Ph.D. courses in instrumentation, as proposed.

The Committee recommends that a senior position (suitably designated, at a salary level corresponding to Reader) be provided for an expert in instrumentation, who could not only look after the workshop but organise lecture and laboratory courses for the undergraduate and postgraduate students of the University and nearby areas.

7. The Physics department has been quite active in experimental research in crystal growth and related areas. It has to develop a strong theoretical base as well. The Committee has recommended four positions at senior level (P or R) in this department. Three of these (including 2P) are for Solid State Theory, Solid State Electronics, Quantum Electronics. The fourth (R) is for X-ray Crystallography or Spectroscopy (unless an X-ray crystallographer is appointed in the Chemistry Department).
8. In Chemistry again, while there is a good experimental research programme, the department needs to be strengthened in Theoretical Chemistry. The Committee has therefore recommended one Reader and one Lecturer in Theoretical Chemistry.

The department has a very good base in Polymer Chemistry and the Committee supports the proposal to strengthen this, especially in view of the large number of petrochemical industries coming up in Gujarat. For this purpose, it recommends 1 Professor for Petrochemicals/Polymer Technology. Further, it recommends 1 Reader in Physical Organic Chemistry/X-ray Crystallography and 1 Reader and 1 Lecturer in Industrial Chemistry.

9. The University has a Botany Department, which has adequate building, laboratory and other facilities, and staff members who have made good contribution in the area of Plant Anatomy. The Committee recommends that this existing department be developed into a Department of Life Sciences.

For this purpose it recommends the following staff: three Readers, one each in the area of Cell Biology, Biochemistry and Plant Physiology and four Lecturers one each in the areas of Genetics, Environmental Biology, Animal Morphology and Microbiology.

Space requirements could be met by expansion of existing by adding a floor, at a suitable time.

The existing Botany department has very good equipment. It however needs a spectrophotometer, Warburg apparatus, Univar microscope, Mettler balance, inverted microscope, chromatography equipment, deep-freeze and electronic calculator in order to meet the needs of a Department of Life Sciences.

The department has a spacious garden. It will need an animal house to cater to the needs of the Life Sciences department.

It will need a museum curator and an instrument technician, to maintain the museum and to look after the equipment in the department.

10. The Committee accepts the proposal of the University to start an M.Sc programme in Home Science. The courses could be in General Home Science and in Foods and Nutrition.

For this purpose, the University should fill up the two existing vacancies of Lecturers in Clothing and Textiles and Child Development, and also appoint a Reader in Foods and Nutrition and a Lecturer in Home Management (new positions recommended).

11. The Committee had discussions regarding the University's proposal to establish a separate Science College for gifted students. The Committee cannot support this proposal for a new separate institution. The same purpose could be served by providing supplementary programmes for science students in colleges around Vallabh Vidyanagar with the help of the Faculty in the University Departments and/or by taking a limited number of students for Honours courses in the University, with its existing departments collaborating in such a programme.

12. The University may consider the desirability of having a single department of Mathematics and Statistics, rather than two separate departments of Mathematics and of Statistics. In any case, the students of Statistics could have some courses in common with those in Mathematics.
13. The Committee noted that the concentration of University's efforts so far has been in the Sciences and in Economics and Commerce. While this has given good results in these departments, the Committee noticed that there was a feeling in some of the Humanities and Social Sciences Departments that they were not getting adequate support. Whether justified or not, it would be desirable for the University to take cognisance of this feeling and make efforts to neutralise it.

The Committee notes a certain problem for some of these departments, in that they are not able to attract students. It, however, feels that for the balanced growth of the University, the Humanities and Social Sciences departments must receive more attention, and be strengthened.

The Committee discussed with the Planning Committee of the University the possibility of having an interdepartmental Social Sciences Programme in History, Political Science and Sociology, in view of the fact that some of the single subject based programmes as at present were not viable. The University will have to give serious thought to the problem of balanced growth of the Humanities and Social Sciences.

14. The Committee notes that the junior and senior M.A. students have some classes in common. This is not desirable. They must have separate classes. Also, the courses in some of the subjects have to be more intensive.
15. The Committee considered the proposal of the Commerce Department to start an MBA course. The Committee, however, thinks that the department is under staffed in relation to its existing responsibilities and should therefore concentrate first on its own development. It could however give management bias to the commerce education imparted by it.
16. The Committee noted that certain problems of the Faculty of Education needed looking into by the University. The University has a University College of Education (MB Patel College of Education), with a Principal and various categories of staff. It has also an affiliated college viz. H.M. Patel Institute of English offering courses such as B.Ed. (English) and M.Ed. (English). The University may review the structure of the Faculty of Education if necessary with the assistance of outside experts.

In this context, the Committee is informed by the UGC Secretariat (10th February 1975) that the Commission had sent a Committee to the MB Patel College of Education, Vallabh Vidyanagar, in June 1971, and that this Committee had made the following observation:

"The committee discussed these proposals with the Principal and Reader in Education and felt that the programmes suggested by the University should normally come within the purview of the activities connected with teaching and research by the Department. The financial requirements of the college for implementing these programmes include the construction of a building, purchase of furniture and equipment and provision for scholarships, T.A., D.A. etc. The committee was of the view that the programmes would not make a real impact unless the department is strengthened by the appointment of additional staff at the senior level. The college should formulate a plan of development, clearly defining the areas in which it would like to develop expertise, keeping in view its present resources and interest of staff members. The college could, for example, think of specialisation in inservice programmes and tie it up with its other fields of interest. The University agreed to send a revised proposal in the light of discussions with the committee".

It appears that no revised proposals have been received from the University ever since.

17. The Committee understood that out-of-campus registration for Ph.D. is allowed by the University in some of its departments. The University should consider whether it would not be desirable to introduce a minimum residence requirement in the interest of maintenance of standards, exemptions being allowed only for valid reasons.
18. The Committee noted a certain communication gap between the students and authorities in the University. The University should institute student-teacher councils and/or Deanship of Student Welfare to take timely action in respect of grievances (real or imaginary). In particular, the University may look into some of the problems of the research scholars, that were placed before the Committee.
19. The University should have a proper machinery to select students for various research fellowships. The procedures adopted should be made known to the students and staff, so as to command confidence of the academic community, and avoid unnecessary misunderstanding.

20. The Committee noted the urgency of the space requirements of the Departments of Mathematics and Statistics, and of the Humanities and Social Sciences Departments. The immediate needs of the Mathematics and Statistics Departments would be met if alternative arrangements are made for housing the NCC office. The Humanities and Social Sciences Departments need an additional building.

Since the present faculty building for Humanities and Social Sciences is inadequate, separate reading facilities may be provided in the Library for Postgraduate students in these departments.

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Appendix-I

Staff				
	Existing Staff	New Positions Recommended		
Department		I	II	III
Physics	1P+3R+3L	1P+2R+1L+1T	1P	-
Chemistry	3P+4R+9L	2R+1L+1T	1P+1R+1L	-
Mathematics & Statistics	M:1P+1R+5L St:1R+2L+1 Asst.L	1P+1R+1L+1RA	1R	-
Life Sciences	Botany:1P+2R+3L	2R+3L+1T	1R+1L+1T	-
Economics	1P+2R+2L+1R.A	1R+1L	1P+1L+1R.A	-
Sociology	1R+2L	1P+1L+1RA	1R	-
Commerce	1P+1R+3L	1P+1R+1L	1R+1L	-
Hindi	1P+2L	-	1R	-
English	1R+2L	1P(Literature) +1L	-	-
Gujarati	1R+2L	1P	1L	-
Sanskrit	1R+1L	1L	-	-
Linguistics	-	-	-	1R+1L
History	1R+1L	1L	-	-
Pol. Science	1R+1L	1L	-	-
Home Science*	-	1R (Foods & Nutr.) +1L (Home Management)	-	-
Education	1Princ.+1R+3L +10 Asst.L	2R	-	-
Total		6P+12R+14L+5 Assts. (16.5 lakhs (UGC Share))	3P+6R+5L+2 Assts (7.5 lakhs)	1R+1L (1 lakh)

*Existing vacancies must be filled up.

Appendix-II

Equipment (Rs. lakhs)	I	II	III	Total
Physics & Chemistry	10.5	4.0	4.0	18.5
Instrumentation Workshop	1.5	-	-	1.5
Life Sciences	5.5*	1.0	-	6.0
Mathematics & Statistics	1.0	-	-	1.0
Home Science	-	0.50	0.50	1.0
Humanities & Social Sciences	1.0	1.0	-	2.0
Teacher Education	0.15	0.10	-	0.25
Total	19.65	6.6	4.5	30.75

*Includes needs of Garden and Animal House.

Appendix-III

Integrated Financial Recommendations (Rs. in lakhs)

Item/Priority	I	II	III	Total
Spillover	1.72	-	-	1.72
Staff	16.5	7.5	1.0	25.0
Equipment	19.65*	6.6	4.5	30.75
Books and Journals	10.0	2.5	2.5	15.00
Buildings	12.00**	9.0	3.0	24.00
Research Fellowships	2.0	1.0	-	3.00
Visiting Professorship	0.5	0.5	-	1.00
General Schemes	0.5	0.5	4.0	5.0
Total:	62.87	27.60	15.0	105.47

*Including needs of Instrumentation Workshop (Rs 1.5 lakhs)

**Including needs of Instrumentation Workshop (Rs.1 lakh)

Appendix-IV

		<u>Spill over c</u> <u>Sardar Patel U</u>	<u>nts</u> <u>rsity</u>		
S.No.	Scheme	UGC share	Grant paid upto 31.3.74	Spill over to the V Plan	
1.	Equipments for University Printing Press	67,000/-	62,130/-	4,870/-	
2.	Construction of Lecture Hall for Chemistry Department.	1,41,940/-	95,000/-	46,940/-	
3.	Construction of Class IV Staff Quarters.	77,942/-	23,000/-	54,942/-	
4.	Development of Botanical Garden.	49,195/-	48,000/-	1,195/-	
5.	Employment of Coaches	41,235/-	2,000/-	39,235/-	
6.	Salaries of Staff (Science)	4,83,477/-	4,68,000/-	15,477/-	
7.	Salaries of Staff (Humanities)	3,64,993/-	3,56,000/-	8,993/-	
Total:		12,25,784	10,54,130/-	1,71,653/-	

APPENDIX-V

ENROLMENT OF STUDENTS: 1973

A. UNDERGRADUATE COURSES:

	<u>Men</u>	<u>Women</u>	<u>Total</u>
1. Arts	3,435	1,508	4,943
2. Science	1,892	262	2,154
3. Commerce	1,773	187	1,960
4. Engineering	1,348	6	1,354
5. Agriculture	610	-	610
6. Dairy Science	-	-	-
7. Veterinary Science	-	-	-
8. Home Science	-	128	128
Total:	8,448	2,091	10,539

B. POSTGRADUATE COURSES:

1. Humanities & Social Sciences	303	113	416
2. Basic Sciences	203	31	234
3. Education	117	14	131
4. Engineering	12	-	12
5. Agriculture	-	-	-
Total:	635	158	793

C. LAW:

1. Degree Courses	193	6	199
2. Diploma Courses	34	4	38
Total:	227	10	237

D. EDUCATION:

1. Degree Courses	442	214	656
2. Diploma Courses	-	-	-
Total:	442	214	656

E. Ph.D. COURSES:

1. Humanities & Social Sciences	64	9	73
2. Basic Sciences	64	5	69
3. Education	13	3	16
4. Agriculture	-	-	-
Total:	141	17	158
Grand Total:	9,893	2,490	12,383