

UNIVERSITY GRANTS COMMISSION

**REPORT FOR THE YEAR
1976-77**

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**Presented to the Government of India in compliance with Section 18 of
the UGC Act, 1956
NEW DELHI**

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12. Dr. Chandran D.S. Devanesan

Sub-Committee on University Grants
Department of Education, Government of India
New Delhi, India
D-6257
9/7/91

* Appointed w.e.f. 2nd June 1976.

** Replaced by Shri P. Sabanayagam w.e.f. 1st June 1977.

*** Replaced by Shri G. Ramachandran w.e.f. 10th November 1976.

† Replaced by Dr. Amrik Singh Cheema w.e.f. 25th January 1977.

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UNIVERSITY GRANTS COMMISSION

ANNUAL REPORT

April 1976—March 1977

In compliance with Section 18 of the UGC Act, 1956 (No. 3 of 1956),* we have the honour to present to the Central Government the Annual Report of the UGC for the year 1976-77 to be laid before the Houses of Parliament.

INTRODUCTION

The year 1976-77 was the third year of the Fifth Five Year Plan. During the period, development schemes for universities and colleges approved by the Commission for the period 1974-79 started to be implemented more effectively. The various on-going programmes were reviewed and where necessary modified in the light of experience. The watch-wards of the Commission continued to be consolidation, relevance, strengthening of research and social justice.

I. Trends of Enrolment in Universities and Colleges

The growth of enrolment of students was only 0.2% during the year. It has been the considered policy of the Commission that the growth rate of students in higher education should be regulated. Decline in growth rate in higher education was due to a number of factors — socio-economic factors such as the sluggish rate of the growth of the economy during the past few years, the growing incidence of educated unemployment as also the impact of the introduction of the 10 + 2 scheme in a number of states. The provision of correspondence courses and permitting students to appear as private candidates or external students in many universities has also had an impact. However, it would be desirable to take into account the first three years of the Plan period in order to assess the trends of student enrolment in higher education. In the first three years of the Fifth Plan, viz. 1974-75, 1975-76 and 1976-77, there has been a cumulative annual rate of increase at the rate of 2.9 per cent. It may also be noted that the trend of growth of student enrolment has varied considerably from state to state. Thus, there has been a cumulative increase of more than 4 per cent per year during the period in the States of Orissa, Bihar, Gujarat and West Bengal/Tripura (Appendix VI). States where there has been an annual growth rate of more than 2 per cent but less than 4 per cent include Uttar Pradesh, Haryana, Madhya Pradesh, Delhi and Maharashtra. There has been

* *The University Grants Commission Act 1956 (Act No. 3 of 1956) (as modified up to the 17th June, 1972).*

marginal increase in enrolment in the States of Karnataka, Tamil Nadu, Kerala, Punjab and Rajasthan. Only in seven states, viz. Himachal Pradesh, Jammu and Kashmir, Assam, Manipur, Andhra Pradesh, Meghalaya and Nagaland, there has been a continuous decline in enrolment during the period. However, of these, in Assam, Manipur, Meghalaya and Nagaland, the enrolment in 1976-77 was higher than in the preceding year. In Andhra Pradesh, there was a precipitate decline of 12.2% in 1976-77 due to the introduction of 10 + 2 system, although there had been a continuous increase in enrolment during the preceding two years.

Numerical Growth of Colleges and Universities

The stabilisation of the student enrolment in formal courses to manageable proportions was an opportunity to various state governments to consolidate and strengthen the existing colleges and to raise standards. However, this has hardly happened because of the general tendency to add to the number of colleges without proper planning or justification on academic grounds. Thus, 280 Colleges of Arts, Science and Commerce etc. were added during the first three years of the Plan in 14 states, while 19 colleges closed down in four states. Thus, these 14 states added on an average 20 Colleges each. During the year 1976-77, against a nominal growth rate of 0.2%, 61 new Colleges of Arts, Science, Commerce etc. were established (73 if we take into consideration decline of 12 in four states). In some states, such as, Andhra Pradesh and Gujarat, new colleges were opened even when there had been a decline in enrolment in the year under review or during the past three years (Appendix V).

Thus taking the country as a whole, there seems to be an urgent need for banning the establishment of new colleges for some years to come, keeping in view the fact that the number of non-viable colleges continues to be as large as 50 per cent (Appendix XIX).

Similarly, the desirability of allowing any new universities to be established for the present needs careful consideration. During 1976-77, three new universities were established viz. Rohtak University, now named as Maharishi Dayanand University, Rohtak, Kakatiya University, Warangal and Nagarjuna University, Guntur. The question of declaring these institutions fit to receive assistance under Section 12(A) of the UGC Act is under consideration.

The Gandhigram Rural Institute was recognised as an institute deemed to be a university in order to strengthen interaction with the rural section.

The faculty-wise distribution of student enrolment from 1974-75 to 1976-77 given in Appendix IX shows that the percentage enrolment in the

faculty of arts (including Oriental Learning) to the total enrolment remains more or less the same. But there was a decline in percentage enrolment of science courses from 19.6 per cent in 1974-75 to 18.2 per cent in 1976-77. In absolute numbers, the student enrolment declined from 4.63 lakhs in 1974-75 to 4.43 lakhs in 1976-77. At the same time student enrolment in commerce increased from 16.5 per cent in 1974-75 to 17.7 per cent in 1976-77, or in absolute terms, from 3.89 lakhs to 4.30 lakhs. The change in percentage of enrolment of professional colleges has been of marginal nature.

The Commission has been carefully watching the trend of enrolment in science courses. It has taken a number of steps such as the expansion of College Science Improvement Programme and restructuring of courses to make science courses more relevant for national purpose. However, the question of science enrolment is also linked with potentialities of employment, both in the industrial and the rural sectors.

II. Maintenance and Coordination of Standards

The Commission undertook a number of programmes to ensure that universities and colleges do not fall below minimum standards and that the professional competence of the teachers is raised. Some of the new revised programmes are listed below.

(i) Faculty Improvement Programme

In addition to providing support to seminars, symposia, refresher courses, workshops, conferences etc., the Commission identified 335 departments of universities and institutions of national importance, national laboratories of the Council of Scientific and Industrial Research etc., for enabling college teachers to conduct research, thereby broadening their intellectual horizons. The identified departments can select 5 to 10 teacher fellows to work towards M. Phil. or Ph.D. degrees. Under the scheme, the college sponsoring the teacher continues to pay the salary and allowances to the teachers. A teacher selected under the award is entitled to a living expense of Rs. 250 p.m. from the UGC in case the place of research is away from the normal place of duty. The UGC pays to the college the salary of the substitute appointed in place of the teacher who proceeds for research under the scheme. The scheme is meant essentially for raising the professional competence of college teachers. In addition to be above, the Commission also awards teacher fellowship directly in humanities, social sciences and science subjects.

The total number of awards made during the period 1975 to 1977 is

indicated below :

1975	44
1976	250
1977	599
	<hr/>
Total	893
	<hr/>

(ii) *National Associateships*

In order to enable the outstanding young teachers of universities and colleges to visit and work for short periods at universities, research institutions and national laboratories, the Commission had introduced a scheme of National Associateship some time back. Initially 100 positions were instituted. During 1975-76, the Commission raised the number of National Associateships to 400. Out of this, 100 National Associateships are to be used exclusively for enabling persons in institutions outside the university system to visit and work in the universities.

This scheme has helped to increase interaction between university institutions and national institutions outside the universities.

(iii) *Participation of College Teachers in Seminars, Symposia, Extension/Field Work etc.*

The Commission has placed a sum of money at the disposal of the colleges on a cent per cent basis for Faculty Improvement Programmes. In order to enable college teachers to take fuller advantage of the scheme, the Commission issued new guidelines, enabling the colleges to provide funds under this scheme to college teachers to attend academic conferences, symposia and seminars etc. These funds can also be utilised by college teachers to work for short periods at other universities or research centres in connection with their research work, or to undertake field/extension work. These funds can also be used to invite visiting fellows and teachers from other institutions to take part in academic programmes arranged by the colleges.

(iv) *Institution of Readership in Colleges*

In order to strengthen colleges, and in accordance with the recommendations of the 'Sen Committee Report' on conditions of service of teachers the Commission decided that Readerships be created in selected undergraduate and postgraduate colleges. The Commission laid down that the qualifications and the mode of recruitment to these posts would be the same as applicable for corresponding posts in the university departments.

While laying down the general criteria for creation of Readership in colleges, it was further decided that the assistance for the post of Reader would be provided to colleges on a cent per cent basis for five years, after which the expenditure would have to be borne by the State Governments on the same basis as in the case of universities.

(v) *Revision of Courses of Study*

In view of the rapid expansion of knowledge, the Commission has taken a number of steps for the upgrading and revision of syllabi. While doing so, the Commission has also emphasised the need to link practical field work more closely to theoretical studies so that the employability of the university students is improved. On the basis of working papers prepared by the subject panels, 28 regional workshops in various disciplines were arranged by the Commission in different university centres during 1976-77. In the workshops apart from senior teachers, university officials and representatives of Directorate of Collegiate Education were also involved. The final reports of the workshops are being published. These will then be circulated to the universities for implementation.

(vi) *Restructuring of Courses for Development and Rural Orientation*

In addition to the updating of the syllabi, the Commission has undertaken a scheme of restructuring of courses from two points of view :

- (a) to make the first degree level courses more relevant to the rural environment and to the developmental needs of the community; and
- (b) to link education and work/practical/field experience at all levels.

The restructuring of courses incorporates the following essential features :

- (a) Reorientation of traditional subjects to the needs of the rural community and the introduction of some relevant applied disciplines related to basic subjects or subject groups.
- (b) Re-orientation of courses in such a manner that a student can apply his theoretical knowledge to the problems of the region through field work/project work/extension work etc. In other words, the existing conventional courses may be integrated with concrete problems and the courses related to the development needs of the region or the community.
- (c) The linking of education with productivity would imply the participation of university and college students in extension work

in various institutional activities such as panchayati raj, community development, cooperation, trade, transport, manufacturing, planning and designing, fabrication of tools etc., with emphasis on rural orientation.

A number of courses have been suggested in the illustrative list sent to the universities. The new subjects like horticulture, fisheries, soil science, fertilisers, dairy science, plant protection, agricultural marketing, farm management, community development, rural banking etc., will be offered alongwith other traditional subjects at the first degree level.

The Commission has appointed an Implementation Committee to process the proposals and to advise the Commission on steps that may bring about greater involvement of universities and colleges in these schemes.

The Commission identified about 150 colleges to begin with where the scheme of restructuring of courses could be tried out. The proposals of 15 colleges have already passed the first stage of processing. Groups of experts comprising a representative of the university, an expert in the subject concerned and a representative of the local ICAR Centre are being deputed to the colleges for helping them in drawing up detailed syllabi and programmes.

(vii) *Examination Reforms*

During the close of the Fourth Five Year Plan and in the current plan period, the Commission laid special emphasis on the implementation of various measures of examination reforms with a view to improving the reliability, validity and objectivity of evaluation and with a view to bringing about a closer integration of teaching, learning and evaluation.

The main emphasis during the last four or five years has been on the following aspects of Examination Reforms :

- (a) Continuous sessional evaluation as a supplement to the present final examination.
- (b) The development of question banks in order to eliminate some of the shortcomings of setting up examination papers and as a means for revision and modernisation of courses of study.
- (c) Introduction of grade system instead of present marking system in order to increase reliability and bring about better comparability among different subjects.
- (d) Introduction of the semester system in order to have greater flexibility.

The Commission is also providing financial assistance to the universities for workshops for orientation of teachers and for some core staff for the establishment of examination reform units in the selected universities. Various follow-up measures are also being taken in order to ensure that the progress made in regard to the implementation of examination reforms is maintained.

III. Support for Research

(i) *Project Research*

Apart from strengthening the infra-structure of research in universities and colleges, the Commission provides support for identified research projects. Research projects can be individual, group or departmental. Individual research projects have to be formulated on well defined topics keeping in view the facilities available in the university or in the college and the time frame within which the research has to be completed. While drawing up research programmes due emphasis is to be given to R & D and its requirements. For the purpose, subject panels have been asked to indicate priorities in research, bearing in mind the areas identified by the National Committee on Science and Technology (NCST) and the CSIR. Major programmes of research are assigned to university departments while small research projects are assigned to individual teachers.

The research projects are screened with the help of subject experts and the subject panels. 322 research projects by teachers drawn from different universities and colleges in the field of science were approved by the Commission during the year 1976-77. Along with ongoing research projects the number of research projects in science subjects under operation in 1976-77 came to 674 major research projects. Short term research projects in sciences were 1956 in number. The total grant approved for these projects comes to Rs. 4.26 crores. In Social Sciences and Humanities, the advanced projects in operation were 137 and the short term projects 766.

(ii) *Departmental Support*

Besides the support available for individual and group research projects and for taking up major research programmes by selected departments, the Commission has provided substantial support to carefully selected departments under the programmes of Centres of Advanced Study, Departments of Special Assistance and major departmental support. While reviewing the programmes of Centres of Advanced Study earlier and the Departments of Special Assistance programme during the current plan period it was felt that initially the selected departments may be assisted for a 5-year period

under the programme of Department of Special Assistance and helped to consolidate and qualitatively improve their teaching and research programmes in specialised fields. Such departments could later, on the basis of that performance, be recognised as Centres of Advanced Study.

During the current plan period, besides the twenty departments that were already functioning under the Special Assistance Programme, twelve more departments in science subjects have been provided special assistance, each about Rs. 15 lakhs (total about Rs. 2 crores) over a 5-year period. In the case of Humanities and Social Sciences, twenty departments have been given Special Assistance. The programme of departmental support is mainly aimed at helping promising departments in the subjects concerned to strengthen their infra-structure facilities and develop capabilities for undertaking research in one or two major thrust areas. On the advice of the subject panels, 13 such departments have so far been given assistance, each upto Rs. 10 lakhs over a three year period. The total assistance amounts to Rs. 1.2 crores. The subject panels have suggested a few other departments to be given departmental support and the proposals are under examination with the help of expert committees.

The above strategy of providing substantial support and enabling such departments to develop capabilities in selected areas is essential keeping in view the different stages of growth and development which individual university departments have attained with reference to both physical facilities as well as staff strength and teaching and research activities.

(iii) *Workshop Facilities — Regional Instrumentation Centres*

In order to strengthen the capability of university departments for maintaining, repairing and developing their scientific instruments, the Commission has provided funds for developing in each university a centralised workshop facility with the necessary workshop machines and tools and the essential technical and supporting staff. Colleges are also being helped to establish workshops and animal houses for research and teaching. The Commission provides cent per cent grants for the purpose to Universities and Colleges. The Commission is also supporting Universities in setting up a University Service and Instrumentation Centre (USIC).

The Commission has also decided to develop a few regional centres of instrumentation for further strengthening the capabilities of institutions within the region. These regional instrumentation centres, it is visualised, would take up some or all of the following activities :

- (i) Servicing and maintenance activities;

- (ii) Service facilities, and
- (iii) Instrumentation development work.

These regional centres would help to provide essential interfaces with the local industries, R & D institutions and the regional offices of the Central Scientific Instruments Organisation of the CSIR. In order to avoid overlapping, regional instrumentation centres are being developed in co-ordination with the Department of Science and Technology.

(iv) *Science Education Centres*

A few Science Education Centres are proposed to be set up in the university system during the Fifth plan period. The Science Education Centres would have a special concern with the conditions of science education in the country and would initiate appropriate activities and programmes for innovations in science education at the school, college and university level and also establish meaningful interaction with the community, society as well as all others interested in creative science. Each science education centre would have a complex of activities designed in a flexible manner to cater to the scientific interests at different levels. Each science education centre would also have several sub-programmes of individualised activities which could be taken up by other universities in the region.

On the recommendations of an expert committee, the Commission decided to help in the establishment of science education centres at Madurai and Rajasthan Universities. The question of establishing more such centres would be taken up after assessing the progress made by the two centres.

(v) *Development of Computer Facilities*

The Commission has been providing assistance to universities for setting up computer facilities based on the recommendations of the Standing Advisory Committee. In case of some universities, the Commission is also providing grants for purchase of computer time from other centres. The Commission has also agreed to provide funds for the establishment of Eastern Regional Centre at Jadavpur University. The Centre has already started functioning. The Commission has also agreed to provide medium sized computers to Aligarh, Banaras, Panjab, Poona and Roorkee Universities. It is likely that the computer centre in Punjab may also become a Regional Computer Centre. The Indian Institute of Science, Bangalore is also being provided assistance to instal a larger computer system. With the installation of these computers, 28 universities and institutions would be having computer facilities. It has now been decided that other universities could be provided grant for purchase of computer time where it is justified. Based

on the utilisation of this grant the question of providing grants to universities for having own computer facilities would be decided.

(vi) *M. Phil.*

Necessary guidelines have been issued for initiating M.Phil. Programmes in selected university departments to enable college teachers to obtain advanced training under the Faculty Improvement Programme as well as to provide for Pre-Ph.D. training for Ph.D. students. This would acquaint them with selected inter-disciplinary areas and get initiated into appropriate research methods and techniques. In the case of college teachers, taking up M.Phil. programme under Faculty Improvement Scheme, the focus would be to improve their competence as teachers and to enable them to engage in useful research activity even while working in colleges and take up research projects with the help of funds available from UGC/CSIR/ICSSR etc. So far 335 university departments have been identified for the purpose and each of them can accept upto ten teacher fellows at a time to work for either M.Phil. or Ph.D. degrees. In addition, the Commission has also selected nearly 1,000 teachers from colleges for teacher fellowships. The colleges concerned are assisted to appoint substitute teachers in place of teachers going for advanced study under the Faculty Improvement Scheme.

IV. Cultural Exchange Programmes, International Cooperation and Area Studies

(i) *Academic Exchange Programme*

The Commission is responsible for implementing the academic exchanges in the field of higher education between a large number of countries with whom the Government has entered into cultural exchange programmes. These countries include neighbouring countries (Afghanistan, Bangla Desh, Burma); countries in West Asia (Arab Republic of Egypt, Iraq, Mongolia, Iran, Syria, Turkey); Socialist countries (Bulgaria, Czechoslovakia, G.D.R. Hungary, Rumania, Poland, USSR) and European countries (FRG, France). During 1976-77, the Commission was also assigned items in the field of higher education under the cultural exchange programmes with Senegal, Mexico and Peoples Democratic Republic of Yemen. In South-East Asia, the Commission is responsible for implementing some items under the Cultural Exchange scheme with Japan and Burma. In addition to the above, the Commission has broad collaborative arrangements with British Universities. It is also implementing items under the Indo-US Fellowship programmes.

The object of these programmes is to provide an opportunity to teachers/scholars to broaden their academic experience by undertaking

lecture-cum-study and exchange of views with experts working in the same field. They also provide for training both short and long term through scholarships and fellowships. The programme also provides for an academic link in chosen disciplines between specified universities. Programmes of collaborative research are arranged on the basis of equality and mutual benefit and are generally preceded by an exchange of visits by academics from the two sides so that the fields of mutual interest could be identified.

In order that there may be a greater awareness of the problems of neighbouring and other countries with whom India has economic, cultural and political relations and in order to train a core of experts in diverse fields in the various countries, the Commission has also a programme of Area Studies. During 1976-77, 60 academics from abroad visited India and 75 Indian academics proceeded abroad. A number of bi-national seminars have been held, or are projected to be held. Fields in which links between institutions in India and USSR could be established have been identified. Steps are being taken to implement them in consultation with the concerned agencies in the USSR.

In the case of FRG and GDR also collaborative links have been identified. Some collaborative links have already been established with some institutions in FRG.

(ii) *Indo-US Fellowship Programme*

The programme initiated in 1975-76 was continued in 1976-77 also. The University Grants Commission on the recommendations of an expert committee selected nine Indian scholars for visit to USA for advanced research work. The Commission has in 1976-77, offered ten fellowships to American nationals for their work in India under this programme.

The CSIR has also allocated 150 man-days for the visit of Indian scholars to USA under the CSIR-US Exchange of Scientists Programme.

(iii) *Indo-British Universities Collaboration Programme*

The programme which provides for the development of academic links between selected universities in India and those in UK in identified fields was continued during the year. A review of the concept underlying the Indo-British Universities Collaboration Programme was undertaken in consultation with the British Council and it was decided that detailed time-bound project plans should be formulated on the basis of reciprocal exploratory visits. These plans should then be submitted to the UGC and the India Committee in Britain for approval. It was visualised that

the collaborative programmes should be of a development nature. While priority has been given to scientific and technological fields including agriculture and education, other fields would be included later on.

The British programme of assistance to selected Centres of Advanced Study was continued as a part of the Indo-British Universities Collaboration Programme. In addition it was decided to identify new departments whether they were identified as Centres of Advanced Study/Departments of Special Assistance for being brought under the scheme.

The programme of providing assistance to university and college teachers for visiting UK for the collection of source material, Commonwealth Academic staff fellowship and scholarship scheme and the programme of exchange of visits by younger scientists and social scientists between India and UK continued to function smoothly during the year.

(iv) *UNESCO/UNDP Assistance Programme for Selected University Departments*

The Commission has been receiving assistance from UNESCO/UNDP since 1963 under the country programme. The assistance of about \$ 3,584,423 was provided to the 15 Centres of Advanced Study/Departments in Science subjects during the years 1963-74.

Consequent upon the successful implementation of this programme and evaluation of the benefits according from it in the development of scientific research potential in the country, the UNDP/UNESCO has since approved from October 1975, another programme of assistance to selected university departments. This would make available over a period of 18 months, (October 1975 to March 1977) about \$ 7,71,900 to help in the development of the R & D potential of the nine selected university departments. These departments engaged in manpower training and development oriented research would work in close collaboration with appropriate user agencies including industries, and would thus endeavour to meet the demands to some extent, of scientific manpower, geared to developmental effort.

(v) *UNESCO Sponsored Courses Organised by Indian Institutions*

In order not merely to utilise programmes of training abroad but also share facilities for training being provided in some of the institutions of higher learning in India, the Commission has been interacting with UNESCO for arranging international postgraduate training programmes in diverse fields. The UNESCO agreed to the organisation of the following two

International Postgraduate Training Courses during 1975-78 for the benefit of the participants from other Member States in the South Asian Region :

- (1) First International Postgraduate Training Course in Vacuum Techniques and Applications by the Department of Physics, University of Bombay in collaboration with BARC (From September 1977 for six months duration).
- (2) Third International Postgraduate Training Course in 'Himalayan Geology' by the Centre of Advanced Study in Geology, Panjab University, Chandigarh (from January 1978 for 4 months duration)

(vi) *Area Studies Programmes*

The University Grants Commission supported the development of ten Centres in the universities for undertaking specialised studies and research in specific areas. The main purpose of the programme is to produce a body of competent scholars who would be continuously engaged in the study, examination and assessment of the principal contemporary developments in specified areas especially neighbouring countries or countries with whom we have had strong historic links. While the programmes are academic in nature, related considerations have been kept in mind. The Commission has emphasized that training in the language of the region concerned is an integral part of the programme.

In the light of the recommendations of the Advisory Committee it has been decided that some more universities may undertake depth studies relating to China and this is being considered in consultation with the universities. The question of strengthening the programme of studies on Soviet Union is also under consideration. The Commission has agreed in principle to Jawaharlal Nehru University undertaking studies on Gulf countries. The Commission also decided that Jadavpur University which has an Area studies programme on Indonesia and Malaysia may also undertake studies on Phillipines. The Ford Foundation, USA has agreed to provide assistance to the tune of \$ 3,00,000 for the development of Area Studies Programme.

V. Development of Universities

The approach of the Commission to the Fifth Plan Development programmes of universities and colleges was outlined under Section II of the UGC report for the year 1975-76. The basic approach of the Commission has been to strengthen the infrastructure of teaching and research in the universities by providing support for books and equipment, buildings including libraries and laboratories and faculty positions including the provision for faculty improvement. In addition, the Commission has provided

support to the universities for project oriented research. The Commission generally agreed that during the Fifth Plan period about 2/3rd of the allocation made to the UGC would be utilised for the general development programmes of the universities and colleges, and the remaining 1/3rd for special programmes for which proposals would be invited from the universities and colleges.

The maintenance grants paid to the Central Universities include salaries of teaching and non-teaching staff, running expenses of libraries and laboratories, buildings and retirement benefits of the employees. It also includes maintenance expenditure for professional education i.e. technical, medical and agricultural education. In the case of Banaras Hindu University and Aligarh Muslim University, the maintenance grant of the hospital attached to the medical colleges are also met out of the maintenance grant. The maintenance grants paid by the Commission to the Central Universities in terms of the statutory provision under Section 12 (b) of the UGC Act have been set out separately.

The Commission pays developmental grants both to Central and to the State Universities. In the case of Central Universities, the Commission gives assistance on a cent per cent basis for all items, whereas in the case of State universities it gives cent per cent assistance only for books and equipment, senior faculty positions, and certain type of buildings such as workshops, animal houses etc. Other grants are provided on a sharing basis. Thus apart from the funds provided by the Commission, State Universities receive supplement grants for their development from State Governments. This should be kept in mind while computing the developmental grants given to State Universities.

The Commission makes a distinction between establishment of a new university and its development. For the establishment of Central Universities, and the initial development of a number of State Universities, the Commission has given grants higher than those which have reached a certain stage of development. The Jawaharlal Nehru, North Eastern Hill and the Hyderabad Universities, as well as State Universities such as South Gujarat University, Calicut University, Berhampur University, Sambalpur University, Dibrugarh University etc., are some of the universities in this category. The per capita expenditure on such universities, in the initial phase, is bound to be higher than in the case of developed universities.

Plan expenditure for universities during 1976-77 was considerably higher than in the previous year (see Section VI). This indicates that expenditure has picked up on all items in the year 1977 as compared to the first two years of the Fifth Plan.

The UGC sent visiting committees to the Indian Institute of Science, Bangalore and Indian School of Mines, Dhanbad, in order to assess their developmental requirements. On the basis of the reports submitted by the committees the Commission allocated Rs. 861.75 lakhs for these institutions. Pending the assessment of the developmental needs of other universities of Engineering and Technology by visiting committees each of these universities/colleges was given an earmarked amount for the purchase of books and equipment. The delay in sending the Visiting Committees was largely due to the time taken by the Government and the Planning Commission in indicating to the Commission the earmarked grant for engineering and technology.

VI. Development of Colleges

The affiliated colleges occupy an important position in the university system and have a crucial role to play in the maintenance and improvement of standards. A bulk of the student population in the country, particularly at the first degree level, is enrolled in the colleges and there is also a fair proportion of teachers working in the colleges, as detailed in Section VII in the report. For the majority of students seeking university level education, the first degree is the terminal stage and it is, therefore, important that the first degree courses offered, by and large, in the affiliated colleges, are adequately strengthened, diversified and made relevant to the fast-changing needs of the society. The diversification of the courses has also to be related to the local, regional and national needs. It is also essential that the development needs of the colleges in different parts of the country are identified with great care so that the limited resources available with the Commission can be utilised by such institutions for programmes that are likely to make an impact on the improvement of standards. Nearly 50 per cent of the colleges have an enrolment of less than 400 at the degree level, and 20 per cent of the colleges have an enrolment of more than 800. It has been estimated that one-third of the Arts, Science and Commerce Colleges cater to about two-third of the students in the colleges. The Commission hence gives priority to such colleges. However, in implementing its programme, the Commission pays special attention to removal of disparities and regional imbalances and the improvement of standards and quality of education in the institution through special schemes such as the College Science and Humanities and Social Sciences Improvement Programmes and the Lead Colleges Scheme etc.

(i) *General Development*

The Commission provides developmental grants to colleges from Rs. 1.5 lakhs to Rs. 10 lakhs depending upon the number of students on

rolls, the teacher-pupil ratio, whether the college is a single-faculty or a multi-faculty college etc. For a multifaculty college (Arts, Science and Commerce) to be eligible to receive assistance from the Commission, it should have a minimum enrolment of 400 students (excluding PUC/Pre-degree/Intermediate) and a staff of atleast 20 suitably qualified permanent teachers. In the case of colleges providing two-year courses, the minimum eligibility is 270 students and atleast 15 suitably qualified permanent teachers.

The Commission provides assistance upto Rs. 1.5 lakhs for the development of single-faculty colleges viz. teacher training colleges, colleges of physical education, fine arts etc.

Every college seeking institutional support from the UGC is required to prepare an integrated plan for the various faculties and departments and other general amenities.

The number of colleges assisted under the scheme upto 31.3.1977 was 1093, with an approved outlay of Rs. 1,437 lakhs; UGC share being Rs. 875 lakhs. This does not include the grants given to colleges under other items such as Book Banks, Students' Aid Fund and other student amenities. It might be mentioned that the colleges assisted by the Commission are estimated to comprise about two-thirds of the students on rolls in the colleges.

(ii) *Colleges in Backward/Tribal Areas/Districts*

The Commission has requested the universities to conduct a survey of the stage of development of colleges under its jurisdiction, with each district taken as a unit and to recommend to the Commission for purposes of development assistance one or two colleges situated in backward/tribal areas even though these colleges may not fulfil the qualifying conditions but in the opinion of the university deserve assistance from the Commission. In selecting such colleges needs of the students belonging to scheduled castes, scheduled tribes and other weaker sections would be kept in mind.

The UGC provides assistance on a 100% basis for providing remedial courses to colleges for bringing the scheduled castes, scheduled tribes and other deprived sections on par with the others.

(iii) *Lead Colleges*

The Commission decided in June, 1976 to take steps to identify one or two colleges in each district which would be enabled to provide good quality education to students in the districts. To qualify for assistance under the scheme, an institution should have a good enrolment, good student-

MODERN INDIAN LANGUAGES PANEL

In September 1976 the Modern Indian Languages Panel considered a working paper regarding support for preparing dictionaries, lexicons, commentaries and bibliographies and recommend that :

- (a) The Commission may support the preparation of reference work in Modern Indian Languages which will provide basic material for advanced academic studies of languages and literature.
- (b) Any such project supported by the Commission, should not take more than 5 years and the project should be approved only if the university or the Department concerned undertake to complete the project in 5 years. If the project is not completed in time it should be completed by the concerned agencies without the Commission's assistance.
- (c) Such projects should be entrusted only to those universities or departments which have established reputation and standards in the field and which have a viable group of research scholars so that the project does not come to grief if the Director, for any reason, is not available to guide and supervise the work.

The recommendations of the Panel has been accepted by the Commission.

COMMERCE PANEL

Diploma Course on Management in Public Enterprises : On the recommendation of the Commerce Panel, a Committee was set up to examine the possibility of starting diploma course on Management of Public Enterprises and the feasibility of organising training programme for freshly recruited persons in public sector units. The recommendations made by the Committee and endorsed by the Panel, were accepted by the Commission. The recommendation of the Committee regarding in-service training programmes for personnel of public sector units has been brought to the notice of the universities for necessary action.

Joint UGC-AICTE Committee on Commerce : A joint UGC-AICTE Committee has been set up to examine the need and relevance of commerce courses in the universities and to prepare guidelines for running them, keeping in view the contents offered at present in Economics and Management courses.

EDUCATION PANEL

A Unit on Social Psychology of Education : On the recommendation of the Education Panel, the Commission agreed to support a research-cum-teaching unit in Psychology Department, Allahabad University. The unit will concentrate on research and produce text-books and reading materials in this area.

Joint UGC-NCTE Conference : A joint UGC-NCTE Conference on Teacher Education was held in June 1976 to consider revision of the B.Ed. and M.Ed. programmes to suit the requirements of the recognized pattern of schooling. Another such conference will be held to consider the approach paper which has been prepared for the purpose.

GENERAL MATTERS CONSIDERED BY THE PANELS

(a) The Convenors of the Humanities and Social Sciences Panels at their meeting held in July 1975 felt that there are some areas of study and research in each discipline which are either neglected or new and have not received the due attention in the universities. The Convenors felt that such neglected and new areas and branches of study and research which have either not been initiated or which have remained neglected in various regions of the country may be identified. This question was placed before the Panels. The Panels considered this problem and made some recommendations in this regard. The recommendations of the Panel were considered by the Commission in February 1976. The Commission decided that this matter could be taken up at the time when the reports of the workshops organised for modernising the syllabi in various studies are available.

(b) The Panels have been advising the Commission on the selection of National Associates in various disciplines.

(c) The Panels have interviewed candidates for the award of Research Associateships and made recommendations in this regard.

(d) With a view to supporting journals of high academic quality brought out by the universities and colleges, the Panels are identifying journals in their disciplines.

(e) The Panels have prepared lists of basic books and journals which may be obtained by the colleges for undergraduate and postgraduate studies in the Humanities and Social Sciences.

(f) The Panels help the Commission in selecting persons who are invited to participate in the Programme of National Lectures from year to year.

(g) The Panels advised the Ministry of Education and Social Welfare regarding the continuation or exclusion of titles brought out in cheaper edition under the following collaboration programmes :

- (i) Indo-American Books Programme
- (ii) Joint Indo-Soviet Text Books Programme
- (iii) English Language Book Society Series

(h) The Panels have advised the Commission regarding the selection of authors for the preparation of Universities Level Books by Indian authors.

(i) The Commission has sought the help of the Panels in selecting Indian Academic Associations and conferences which might be considered for UGC support. The Panels have also identified International Academic Associations and conferences which could be attended by university and college teachers with the UGC support.

(iii) PANELS IN SCIENCE SUBJECTS

The Science Panels constituted by the University Grants Commission in (i) Physics, (ii) Chemistry, (iii) Biological Sciences, (iv) Mathematics, (v) Geology and Geophysics and (vi) Geography continued their work and advised the Commission regarding measures to be taken for improvement and coordination of standard of science teaching and research in the universities and colleges, implementation of multi-disciplinary programmes, support of science research projects and such other matters as were referred to them by the Commission from time to time.

In view of the growth of scientific knowledge during the last several decades, and with a view, therefore, to keeping pace with modern science teaching, the Panels considered the curricula development and upgrading of syllabi in various disciplines at the undergraduate level courses. The Panels suggested areas of research thrusts with identification of institutions keeping in view the regional and national needs. They also suggested various other measures to be taken up for faculty improvement in the universities and colleges. The Panels finalised the details regarding norms for basic requirements of laboratories, equipment, and Books and Journals etc. in the postgraduate science departments in the colleges. The Panels are reviewing the matter relating to minimum requirements of staff and other infrastructure which a university department should have in its various science

disciplines. On the basis of questionnaires issued to University teaching departments in science subjects, the Panels are preparing departmental Profiles in respect of each Science Department. This would help the Fifth Plan visiting Committees to have a proper assessment of the concerned university in respect of science subjects and link their recommendations with the overall national needs.

The Panels during the year 1976-77 selected 51 National Associates in different science subjects sponsored by the Universities. 13 Research Associates were also selected after interviewing them.

The Panels have prepared lists of experts with their fields of specialisation for use by the Commission. The International Conferences in science subjects to which teachers from universities could be sponsored by the Commission were also identified by the Panels. The Panels suggested basic lists of quality journals in science subjects for being subscribed to by the colleges. The topics of (i) basic research in emerging areas (ii) basic research in areas of applied potentialities and (iii) applied research for arranging them in order of preference were also identified. The Panels examined the progress reports of the Junior Research Fellows working under UGC fellowship scheme and under research projects for enhancement of their fellowship amount from Rs. 400 to Rs. 500 on their completing two year period. The Panels examined the detailed information regarding physical facilities, academic achievements etc., as submitted by the Science Departments in the universities and selected departments for participation under the Departmental Research Support and Special Assistance Programmes.

The Panels have prepared Status Reports in their own subjects giving present position of teaching and research in the universities and suggesting future lines of development. For this purpose, departmental profiles would be utilized by the Panels.

Other Important Recommendations of Science Panels

I. Organisation of university based Curriculum Development Institutes:

On the recommendations of the Science Panels, the UGC agreed to the organisation of short-term course summer institutes for updating the professional competence of the in-service teachers from postgraduate colleges/universities. A number of workshops summer institutes etc., recommended by the Panels have already been organised.

II. Collaboration between University Departments and CSIR Laboratories and other Institutions of National Importance:

The question of creating free exchange of personnel among universities and CSIR laboratories was

discussed and it was noted that there existed UGC schemes viz. National Associateships and Teacher Fellowships etc., which enable university teachers to spend a short period of four months or a period of a year or more respectively at any research Centre including CSIR laboratories. The Panels recommended that CSIR may institute similar programmes for scientists in CSIR laboratories which would enable them to spend varying periods in universities with provision of necessary funds from the CSIR. This has since been accepted by CSIR.

On the recommendations of Panels, the Commission has also instituted awards to be given exclusively to scientists/scholars working in National Laboratories and other research institutions as well as in R & D laboratories outside the university system, to enable them to inter-act with university departments by visit and work on mutually identified research areas, for short periods.

The Panels identified the university Departments and CSIR laboratories and other institutions with a view to promoting useful applied research.

3. *Preparation of Text Books* : The Panels considered the information placed before them regarding the various low priced book production schemes and UGC Scheme of Preparation of University level books by Indian authors. It was observed that the books published in the low priced editions are generally older editions and the Panels therefore suggested that the Commission should insist, while recommending these books that only the latest editions should be published under these programmes.

The Panels gave their recommendations about books which could be published under the scheme of ELBS/Indo-US and Indo-USSR programmes.

Apart from the above, the panels recommended preparation of the Text Books for undergraduate and postgraduate students by Indian authors in science subjects.

4. *Identification of Emerging Areas in Science Subjects* : In order to encourage research work in the emerging areas in Science, the Panels identified new areas of research which could be supported by the Commission. These areas will be communicated to the universities with a view to inviting suitable research projects for consideration by the Commission.

5. *Design and Fabrication of Science Equipments by Indigenous Sources for use by Universities and Colleges* : The Panels noted that sophisticated instruments necessary for research in the universities and colleges are not available indigenously. The Panels recommended that in view of the

rapid advances in science and technology and with a view to saving foreign exchange it is necessary to promote the fabrication of equipments by indigenous sources and identify the specific items of equipments which could be designed or fabricated by indigenous sources. Several research projects involving instrumentation development have been approved to be taken up in the university departments.

6. *Review of Work done under Research Projects in Operation* : The Panels considered the question of reviewing the technical reports relating to research projects in operation, and evolved a procedure for monitoring of the research projects. The research projects are referred to the Monitors, appointed in respect of such ongoing and new research scheme.

7. *Physics Panel* : The Physics Panel considered the questions of institution of special courses for teachers in existing postgraduate colleges and thought that it would be necessary to up-grade their teaching ability especially in view of the new norms that have been accepted by the Commission,.

The Physics Panel recommended that it would be desirable to organise a crash programme of workshop type summer institutes of a sequential type covering :—

1. Mathematical Physics
2. Electronics
3. Optics and electro-magnetic theory
4. Quantum mechanics
5. Application of quantum mechanics to atomic, molecular and solid state and nuclear physics.

The Panel also felt that necessity to develop facilities for crystal growing in the universities and on its recommendations a sub-committee was constituted by the Commission to discuss the basic facilities for crystal growing in the universities.

8. *Chemistry Panel* : The Panel took note of the fact that a large number of organic compounds are synthesized or isolated from natural products but they are not screened for biological activities. It was felt that the question regarding the screening of new compounds for biological activities may be undertaken and for this purpose facilities be created in a few institutions/ university departments. On the advice of the Panel an Expert Committee has been constituted to suggest ways and means to coordinate the work being done in the universities and national laboratories, in this connection.

9. *Biological Sciences* : The Panel recommended that the new universities may be encouraged to start development of Biological Sciences instead of traditional Botany and Zoology departments and thus create a Philosophy of Biological Sciences in the Indian University system. A workshops, to suggest specific courses which could be included in the interdisciplinary curriculum in the new Biological Science departments for ensuring uniform standard will be organised.

10. *Geography* : The Panel suggested that regular semester courses at the postgraduate level for survey be introduced by universities/postgraduate colleges in respect of Geography departments. For this purpose, it was suggested that a short period be assigned for students to stay in villages, collect data and analysing the same. Alternatively, this should be taken up alongwith other courses. Field work may be raised from the level of exercise to actual work on live world problems involving analysis and writing of reports etc.

The Panel felt that eco-system mapping in various regions of the country by the Geography students would provide a good experience. The eco-system mapping was recommended to be done in an integrated way covering various aspects. A small working group has been constituted to discuss this programme in details and to prepare an operational document regarding national eco-system mapping with special reference to Geography.

(iv) *Centres of Advanced Study and Departments of Special Assistance in the Humanities and Social Sciences*

During 1963-64, the University Grants Commission initiated a programme of Centres of Advanced Study with a view to strengthening post-graduate teaching and research by developing a limited number of university departments in selected fields. On the basis of the advice of the Standing Committee specifically constituted for this purpose, 11 Centres of Advanced Study were recognised during 1963-64. In 1968-69 two more Centres in humanities and social sciences were recognised.

The work of Centres of Advanced Study in the Humanities and Social Sciences which had completed the initial period of ten years was assessed during 1974 and the reports of the Assessment Committees were considered by the Standing Advisory Committee. The Standing Committee recommended that the Centres whose work was found to be average may be excluded from this programme and no further assistance under the Centres of Advanced Study scheme for 1974-75 be provided for such departments.

Accordingly, 4 Centres of Advanced Study were derecognised. The Commission decided that assistance under this programme in future should be made available only for a period of 5 years and the State Government/University should take over the recurring liability at the end of this period as committed expenditure.

The Commission further decided that the Centres whose work has been rated as excellent or good may be provided continued assistance under the CAS during the Fifth Plan period to enable them to strengthen their teaching and research programmes. The Commission also accepted the recommendations of the Assessment Committees and agreed to provide grants recommended by them for further development of the Centres of Advanced Study in the subjects concerned.

A list of Centres of Advanced Study in the Humanities and Social Sciences being continued in the Fifth Plan is given at Appendix XII.

Departments of Special Assistance

The following departments in the humanities and social sciences have been participating in the Programme of Special Assistance to Selected Departments since 1972 :

<i>S.No.</i>	<i>Department</i>	<i>University</i>
1.	Economics	Osmania and Presidency College, Calcutta
2.	History	Patna
3.	Sociology	Saugar and Bombay
4.	Archaeology	Poona University (Deccan College Postgraduate and Research Institute, Poona)

The Commission has agreed to provide assistance to the above departments till the end of 1983-84 under the scheme of special assistance to selected departments provided the State Governments/Universities concerned take over the recurring liability at the end of this period as committed expenditure.

The Commission has also agreed to provide assistance to the following departments till the end of 1983-84 under the scheme of special assistance to selected departments.

1. Allahabad University	Psychology
2. Andhra University	Economics
3. Calcutta University	History (Modern India)
4. Jadavpur University	Philosophy
5. Osmania University	Linguistics
6. Panjab University	Sociology

Visiting Committees have also examined the proposals of a number of other Departments.

(v) *Centres of Advanced Study and the Departments of Special Assistance in Science Subjects*

During 1976-77, 14 Centres of Advanced Study and 21 Departments of Special Assistance were functioning. The Commission on the advice of an Expert Committee included the Department of Molecular Bio-Physics in the Indian Institute of Science, Bangalore under the programme of Special Assistance. It was decided that the programme should be further expanded and various subject panels were asked to recommend departments which could be considered for providing special assistance. These recommendations would be considered by the Standing Advisory Committee for the programme and a visiting committee would be appointed to visit these departments and give its recommendations to the Commission.

It was decided that all the Centres which have completed the initial period of ten years should be provided an additional allocation of Rs. 20 lakhs for the Fifth Plan period. The proposals received from 12 centres were examined in the light of comments made by the assessment committees which had earlier evaluated the progress of the Centres of Advanced Study and grants were approved.

In the case of the remaining two Centres viz. Centre of Advanced Study in Mathematics, Madras University and Centre of Advanced Study in Bio-Chemistry, Indian Institute of Science, Bangalore which have not completed the initial period of 10 years additional allocation of Rs. 10 lakhs has been approved for the Fifth Plan. The Centres of Advanced Study and Departments of Special Assistance have been asked to take up teacher fellowship programme under the Faculty Improvement Programme. Each Centre has been asked to take up to 10 teacher fellows out of whom atleast

5 teachers are to be selected from colleges affiliated to universities other than the university where the Centre is located.

The Commission approved an additional grant of Rs. 10,000 per annum for all the Departments of Special Assistance for inviting visiting fellows and Rs. 10,000 per annum for organising seminars, symposia etc.

The list of Centres of Advanced Study and departments under the Special Assistance Programme is at Appendix XIII.

(vi) *College Science Improvement Programme (COSIP)/University Leadership Project (ULP).*

The College Science Improvement Programme was initiated by the Commission in 1970-71 in order to bring about qualitative improvement of teaching in science at the undergraduate level. The programme was implemented at two levels (1) at selected colleges for improvement of science teaching in all science subjects in that college and (2) in selected university departments for improvement of teaching in all colleges affiliated to the University in the subject.

First phase of the programme was approved for an initial period of 3 years and the progress of the implementation of the scheme was reviewed by the Standing Committee appointed by the Commission for this programme and it was decided that for the departments which have completed the first phase successfully, additional grants may be provided to take up follow-up activities during the next two years. The Committee has also recommended that for follow-up activities by the University department emphasis should be given to the development of material for production on large scale and introduction of new curriculum, courses of study, evaluation techniques and examination reforms. It was decided to invite follow-up proposals from all the colleges which have successfully implemented the first phase of COSIP activities. The stress was on consolidation of activities undertaken under the first phase, inter-departmental programmes and definite indication and concrete plan for achieving autonomous status. During the year follow-up proposals of four colleges were approved involving an amount of Rs. 6,70,000.

The Standing Committee has also recommended that the programme may now be expanded so as to cover all the regions of the country. The Committee has laid down minimum norms which are to be fulfilled by colleges for participation in this programme. Proposals have been invited from all the colleges which fulfil these norms.

The Vice-Chancellors of all the universities have also been requested to recommend a few good colleges in backward areas which could be asked to take up the programme. These proposals are being examined on the basis of programmes to be undertaken. During 1976-77 proposals from 44 colleges were accepted, involving an amount of Rs. 1,04,95,000.

In order to make available material produced under COSIP on a wider scale, the meetings of the coordinators of the University Leadership Projects are being arranged separately for each subject. The coordinators have been requested to give a consolidated report on the achievements in various areas under this programme.

During 1976-77, 34 university departments and 151 colleges were participating in this programme.

It has been decided that during the summer vacation of 1977, four regional conferences* may be arranged to review the implementation of the scheme and plan for future development. These conferences are being arranged in June-July 1977, at Mysore (Southern Region), Ahmednagar (Western Region), Allahabad (Northern Region) and Shillong (Eastern Region).

(vii) *College Humanities and Social Sciences Improvement Programme (COHSIP)*

Based on the experience of implementation of COSIP, the Commission initiated during the Fifth Plan, a similar programme for improvement of humanities and social sciences instruction in colleges (COHSIP). Under the scheme a grant upto a maximum of Rs. 3 lakhs is made to the selected colleges for a period of three years for strengthening teaching, initiating tutorials and seminar work, preparing reading materials and bibliographical notes and for introduction of internal assessment. The colleges will supplement their teaching with the help of additional staff appointed for the purpose, postgraduate and research students on the rolls of the colleges and guest lectures from other colleges and universities. Selection of colleges for participation in this programme is determined, *Inter-alia*, on the basis of their excellence in (a) the quality of their staff, (b) student-teacher ratio, (c) examination results, (d) strength of their libraries, and (e) the quality of their proposals.

Based on the above criteria the Commission has selected so far 105 colleges (including 36 colleges selected for participation in the above pro-

* These have since been held and the programme has been thoroughly reviewed.

gramme during the academic session 1976-77 for support under the COHSIP and these colleges have started implementing the programme.

The University Grants Commission arranged a conference of the co-ordinators of COHSIP colleges in January, 1977 at the St. Xavier's College, Bombay from January 20-22, 1977 with the following main objectives :

- (a) To review the working of the programme during the first year of its implementation;
- (b) To highlight the practices and procedures utilised by the colleges to enrich teaching and learning in the subjects concerned;
- (c) To exchange views on common problems; and
- (d) To prepare a working guideline for the operation of the scheme during the next two years.

The recommendations of the Conference were accepted by the Commission at its meeting held in April, 1977. A copy of the recommendations accepted by the Commission is at Appendix XIV. This has since been circulated to all the COHSIP colleges for their information and guidance.

University Leadership Projects (Humanities and Social Sciences)

The University Grants Commission, in October 1975, while considering the proposals regarding university leadership projects in science felt that the programme of ULP may also be taken up for implementation under COHSIP. The conveners of the Panels in the humanities and social sciences recommended that the selection of departments may be made keeping the following in view :

- (a) The programme may be implemented, in the first instance, in the affiliating universities;
- (b) as far as possible distribution of disciplines among the universities should be even—regional requirements should be kept in view in the selection of the universities; and
- (c) ordinarily not more than four universities may be selected for each of the major disciplines.

It was also agreed that university leadership projects may be implemented in the first instance in a few selected affiliating universities, which could invite non-affiliating universities to cooperate in the programme.

The Commission considered the matter and desired that the Economics Department of the Panjab University and the Philosophy Department of Rajasthan University may be invited, to begin with, to participate in the university leadership projects for the humanities and social sciences in colleges. The Commission also desired that other departments recommended by the panels may be requested to indicate their willingness to participate in this programme and to send concrete proposals in this regard for the Commission's consideration. Accordingly proposals were invited from these universities.

The Commission at its meeting in December 1976, accepted the ULP proposal of the Philosophy Department, Rajasthan University and agreed to provide assistance amounting to Rs. 1 lakh for the first year. The proposal from the Department of Economics, Panjab University has not been received so far.

Proposals received from 22 university departments recommended by the subject panels for participation in ULP were considered by the Committee of Conveners of the Panels in the Humanities and Social Sciences in February 1977. The Committee recommended that proposals received from these departments may be examined by Visiting Committees. Accordingly, Visiting Committees have been appointed for the purpose. The Committee also desired that the Centres of Advanced Study and Departments of Special Assistance may also be consulted if they would like to help in the implementation of the ULP. They have since been addressed in the matter.

(viii) Restructuring of Courses—their Relevance to Development—Rural Orientation

The Commission's scheme of restructuring of courses has two important aspects viz. (a) to make the first degree level courses more relevant to the rural environment and to the developmental needs of the community, and (b) to link education and work/practical/field experience at all levels.

The Commission has already circulated the guidelines to all the universities and colleges and invited proposals from them for financial support.

The restructuring of courses incorporates the following essential features :

- (a) This implies re-orientation of traditional subjects to the needs of the rural community and the introduction of some relevant applied disciplines related to basic subjects or subject groups.

- (b) The courses are to be reoriented in such a manner that a student can apply his theoretical knowledge to the problems of the region through field work, project work, extension work etc. In other words, the existing conventional courses may be integrated with concrete problems and the courses related to the development of the region.
- (c) The linking of education with productivity would imply the participation of university and college students in various institutional activities such as panchayati raj, community development, cooperation, trade, transport, manufacturing, planning and designing, fabrication of tools etc. with emphasis on rural orientation.

A number of courses have been suggested in the illustrative list sent to the universities. The new subjects like horticulture, fisheries, soil science, fertilisers, dairy science, plant protection, agricultural marketing, farm management, community development, rural banking etc. will be offered alongwith other traditional subjects at the first degree level.

The Commission has also appointed an Implementation Committee to process the proposals and to advise the Commission on steps that may bring about greater involvement of universities and colleges in these schemes.

Since the scheme of restructuring of courses is primarily for Colleges in the rural areas and backward regions the Commission has agreed to relax the minimum enrolment and minimum number of teachers laid down under the scheme of Development of Colleges.

The Commission is currently trying to identify in consultation with experts 150 colleges to begin with where the scheme of restructuring of courses could be tried out. The proposals of 15 colleges have already passed the first stage of processing.

The Vice-Chancellors of affiliating universities have been requested to nominate a representative each for a meeting with the Implementation Committee so that the difficulties faced by the Colleges in introducing the scheme may be eliminated. This is necessary since in a number of universities the procedures for restructuring of courses are often cumbersome.

Groups of experts comprising a representative of the University, an expert in the subject concerned and a representative of the local I.C.A.R. Centre are being deputed to the colleges for helping them in drawing up detailed syllabi and programmes,

It is expected that in view of the strategy evolved by the Commission the scheme of restructuring of courses will pick up during the current year.

A list of the new courses already introduced or proposed to be introduced by the colleges under the scheme of restructuring of courses is given below :

Drug analysis (Chemistry), drug analysis (Micro-biology), banking management, textile (chemical testing), agricultural marketing, farm management, mushroom cultivation, horticulture, rural industrialisation, fisheries agricultural marketing, plant protection.

(ix) *Correspondence Courses*

The objective of correspondence education is to provide an alternative method of education to enable a large number of persons with necessary aptitude to acquire further knowledge and improve their professional competence. Correspondence courses are thus intended to cater for (a) students who had to discontinue their formal education owing to pecuniary and other circumstances, (b) students in geographically remote areas, (c) students who had to discontinue education because of lack of aptitude and motivation but who may later on become motivated, (d) students who cannot find a seat or do not wish to join a regular college or university department, although they have the necessary qualifications to pursue higher education and (e) individuals who look upon education as a life-time activity and may either like to refresh their knowledge in an existing discipline or to acquire knowledge in a new area.

Correspondence courses have been approved in 18 universities and one deemed university as indicated below :

<i>S.No.</i>	<i>Name of the University</i>	<i>Courses offered*</i>
1.	Allahabad	B.A./B.Com.
2.	Andhra	B.A./B.Com.
3.	Bhopal	B.A./B.Com.
4.	Bombay	B.A./B.Com.
5.	Delhi	B.A./B.Com., M.A. in Hindi and Political Science

* Assistance is provided by the Commission for Courses specially approved for the purpose.

6.	Himachal Pradesh	B.A., M.A. in English, Hindi, Sanskrit, History, Economics, Political Science, M.Ed. and M. Com.
7.	Jammu	B.A./B.Com.
8.	Kashmir	B.A/B.Com.
9.	Madurai	B.A./B.Com.
10.	Meerut	B.A.
11.	Mysore	B.A., B.Com., BGL, M.A. in English, Kannada, History, Political Science and Sociology, B.Ed.
12.	Panjab	B.A., B.Com., M.A. in English, Public Administration, Economics, Political Science and History
13.	Punjabi	B.A., M.A. in Punjabi, English History, Political Science
14.	Rajasthan	B.Com., M.A. in History and Political Science
15.	Sri Venkateswara	B.A./B.Com.
16.	Utkal	B.A.
17.	Osmania	B.A./B.Com.
18.	Udaipur	B.A.
19.	CIEFL, Hyderabad	Postgraduate Diploma in the teaching of English, M.A. in Russian, French and German

The Commission has laid down guidelines for the introduction of correspondence courses at the undergraduate and postgraduate levels. The guidelines, *inter alia*, provide for :

- (a) Ordinarily, correspondence courses at the undergraduate level should be introduced by only one university in a State except when a university proposes to introduce correspondence courses in a new faculty at the undergraduate level or when the university already offering correspondence courses reaches the optimum size (say an enrolment of 10,000) or for other valid reasons.
- (b) Correspondence courses should be started only by universities which have well established teaching departments noted for their high standards for in the absence of good teaching departments standards are likely to suffer. The academic responsibility for the contents of the correspondence courses in any given subject, and its standard, must be taken by the corresponding subject department in the university.

MODERN INDIAN LANGUAGES PANEL

In September 1976 the Modern Indian Languages Panel considered a working paper regarding support for preparing dictionaries, lexicons, commentaries and bibliographies and recommend that :

- (a) The Commission may support the preparation of reference work in Modern Indian Languages which will provide basic material for advanced academic studies of languages and literature.
- (b) Any such project supported by the Commission, should not take more than 5 years and the project should be approved only if the university or the Department concerned undertake to complete the project in 5 years. If the project is not completed in time it should be completed by the concerned agencies without the Commission's assistance.
- (c) Such projects should be entrusted only to those universities or departments which have established reputation and standards in the field and which have a viable group of research scholars so that the project does not come to grief if the Director, for any reason, is not available to guide and supervise the work.

The recommendations of the Panel has been accepted by the Commission.

COMMERCE PANEL

Diploma Course on Management in Public Enterprises : On the recommendation of the Commerce Panel, a Committee was set up to examine the possibility of starting diploma course on Management of Public Enterprises and the feasibility of organising training programme for freshly recruited persons in public sector units. The recommendations made by the Committee and endorsed by the Panel, were accepted by the Commission. The recommendation of the Committee regarding in-service training programmes for personnel of public sector units has been brought to the notice of the universities for necessary action.

Joint UGC-AICTE Committee on Commerce : A joint UGC-AICTE Committee has been set up to examine the need and relevance of commerce courses in the universities and to prepare guidelines for running them, keeping in view the contents offered at present in Economics and Management courses.

EDUCATION PANEL

A Unit on Social Psychology of Education : On the recommendation of the Education Panel, the Commission agreed to support a research-cum-teaching unit in Psychology Department, Allahabad University. The unit will concentrate on research and produce text-books and reading materials in this area.

Joint UGC-NCTE Conference : A joint UGC-NCTE Conference on Teacher Education was held in June 1976 to consider revision of the B.Ed. and M.Ed. programmes to suit the requirements of the recognized pattern of schooling. Another such conference will be held to consider the approach paper which has been prepared for the purpose.

GENERAL MATTERS CONSIDERED BY THE PANELS

(a) The Convenors of the Humanities and Social Sciences Panels at their meeting held in July 1975 felt that there are some areas of study and research in each discipline which are either neglected or new and have not received the due attention in the universities. The Convenors felt that such neglected and new areas and branches of study and research which have either not been initiated or which have remained neglected in various regions of the country may be identified. This question was placed before the Panels. The Panels considered this problem and made some recommendations in this regard. The recommendations of the Panel were considered by the Commission in February 1976. The Commission decided that this matter could be taken up at the time when the reports of the workshops organised for modernising the syllabi in various studies are available.

(b) The Panels have been advising the Commission on the selection of National Associates in various disciplines.

(c) The Panels have interviewed candidates for the award of Research Associateships and made recommendations in this regard.

(d) With a view to supporting journals of high academic quality brought out by the universities and colleges, the Panels are identifying journals in their disciplines.

(e) The Panels have prepared lists of basic books and journals which may be obtained by the colleges for undergraduate and postgraduate studies in the Humanities and Social Sciences.

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(f) The Panels help the Commission in selecting persons who are invited to participate in the Programme of National Lectures from year to year.

(g) The Panels advised the Ministry of Education and Social Welfare regarding the continuation or exclusion of titles brought out in cheaper edition under the following collaboration programmes :

- (i) Indo-American Books Programme
- (ii) Joint Indo-Soviet Text Books Programme
- (iii) English Language Book Society Series

(h) The Panels have advised the Commission regarding the selection of authors for the preparation of Universities Level Books by Indian authors.

(i) The Commission has sought the help of the Panels in selecting Indian Academic Associations and conferences which might be considered for UGC support. The Panels have also identified International Academic Associations and conferences which could be attended by university and college teachers with the UGC support.

(iii) PANELS IN SCIENCE SUBJECTS

The Science Panels constituted by the University Grants Commission in (i) Physics, (ii) Chemistry, (iii) Biological Sciences, (iv) Mathematics, (v) Geology and Geophysics and (vi) Geography continued their work and advised the Commission regarding measures to be taken for improvement and coordination of standard of science teaching and research in the universities and colleges, implementation of multi-disciplinary programmes, support of science research projects and such other matters as were referred to them by the Commission from time to time.

In view of the growth of scientific knowledge during the last several decades, and with a view, therefore, to keeping pace with modern science teaching, the Panels considered the curricula development and upgrading of syllabi in various disciplines at the undergraduate level courses. The Panels suggested areas of research thrusts with identification of institutions keeping in view the regional and national needs. They also suggested various other measures to be taken up for faculty improvement in the universities and colleges. The Panels finalised the details regarding norms for basic requirements of laboratories, equipment, and Books and Journals etc. in the postgraduate science departments in the colleges. The Panels are reviewing the matter relating to minimum requirements of staff and other infrastructure which a university department should have in its various science

disciplines. On the basis of questionnaires issued to University teaching departments in science subjects, the Panels are preparing departmental Profiles in respect of each Science Department. This would help the Fifth Plan visiting Committees to have a proper assessment of the concerned university in respect of science subjects and link their recommendations with the overall national needs.

The Panels during the year 1976-77 selected 51 National Associates in different science subjects sponsored by the Universities. 13 Research Associates were also selected after interviewing them.

The Panels have prepared lists of experts with their fields of specialisation for use by the Commission. The International Conferences in science subjects to which teachers from universities could be sponsored by the Commission were also identified by the Panels. The Panels suggested basic lists of quality journals in science subjects for being subscribed to by the colleges. The topics of (i) basic research in emerging areas (ii) basic research in areas of applied pontentailities and (iii) applied research for arranging them in order of preference were also identified. The Panels examined the progress reports of the Junior Research Fellows working under UGC fellowship scheme and under research projects for enhancement of their fellowship amount from Rs. 400 to Rs. 500 on their completing two year period. The Panels examined the detailed information regarding physical facilities, academic achievements etc., as submitted by the Science Departments in the universities and selected departments for participation under the Departmental Research Support and Special Assistance Programmes.

The Panels have prepared Status Reports in their own subjects giving present position of teaching and research in the universities and suggesting future lines of development. For this purpose, departmental profiles would be utilized by the Panels.

Other Important Recommendations of Science Panels

I. Organisation of university based Curriculum Development Institutes:

On the recommendations of the Science Panels, the UGC agreed to the organisation of short-term course summer institutes for updating the professional competence of the in-service teachers from postgraduate colleges/universities. A number of workshops summer institutes etc., recommended by the Panels have already been organised.

II. Collaboration between University Departments and CSIR Laboratories and other Institutions of National Importance:

The question of creating free exchange of personnel among universities and CSIR laboratories was

discussed and it was noted that there existed UGC schemes viz. National Associateships and Teacher Fellowships etc., which enable university teachers to spend a short period of four months or a period of a year or more respectively at any research Centre including CSIR laboratories. The Panels recommended that CSIR may institute similar programmes for scientists in CSIR laboratories which would enable them to spend varying periods in universities with provision of necessary funds from the CSIR. This has since been accepted by CSIR.

On the recommendations of Panels, the Commission has also instituted awards to be given exclusively to scientists/scholars working in National Laboratories and other research institutions as well as in R & D laboratories outside the university system, to enable them to inter-act with university departments by visit and work on mutually identified research areas, for short periods.

The Panels identified the university Departments and CSIR laboratories and other institutions with a view to promoting useful applied research.

3. *Preparation of Text Books* : The Panels considered the information placed before them regarding the various low priced book production schemes and UGC Scheme of Preparation of University level books by Indian authors. It was observed that the books published in the low priced editions are generally older editions and the Panels therefore suggested that the Commission should insist, while recommending these books that only the latest editions should be published under these programmes.

The Panels gave their recommendations about books which could be published under the scheme of ELBS/Indo-US and Indo-USSR programmes.

Apart from the above, the panels recommended preparation of the Text Books for undergraduate and postgraduate students by Indian authors in science subjects.

4. *Identification of Emerging Areas in Science Subjects* : In order to encourage research work in the emerging areas in Science, the Panels identified new areas of research which could be supported by the Commission. These areas will be communicated to the universities with a view to inviting suitable research projects for consideration by the Commission.

5. *Design and Fabrication of Science Equipments by Indigenous Sources for use by Universities and Colleges* : The Panels noted that sophisticated instruments necessary for research in the universities and colleges are not available indigenously. The Panels recommended that in view of the

rapid advances in science and technology and with a view to saving foreign exchange it is necessary to promote the fabrication of equipments by indigenous sources and identify the specific items of equipments which could be designed or fabricated by indigenous sources. Several research projects involving instrumentation development have been approved to be taken up in the university departments.

6. *Review of Work done under Research Projects in Operation* : The Panels considered the question of reviewing the technical reports relating to research projects in operation, and evolved a procedure for monitoring of the research projects. The research projects are referred to the Monitors, appointed in respect of such ongoing and new research scheme.

7. *Physics Panel* : The Physics Panel considered the questions of institution of special courses for teachers in existing postgraduate colleges and thought that it would be necessary to up-grade their teaching ability especially in view of the new norms that have been accepted by the Commission,.

The Physics Panel recommended that it would be desirable to organise a crash programme of workshop type summer institutes of a sequential type covering :—

1. Mathematical Physics
2. Electronics
3. Optics and electro-magnetic theory
4. Quantum mechanics
5. Application of quantum mechanics to atomic, molecular and solid state and nuclear physics.

The Panel also felt that necessity to develop facilities for crystal growing in the universities and on its recommendations a sub-committee was constituted by the Commission to discuss the basic facilities for crystal growing in the universities.

8. *Chemistry Panel* : The Panel took note of the fact that a large number of organic compounds are synthesized or isolated from natural products but they are not screened for biological activities. It was felt that the question regarding the screening of new compounds for biological activities may be undertaken and for this purpose facilities be created in a few institutions/university departments. On the advice of the Panel an Expert Committee has been constituted to suggest ways and means to coordinate the work being done in the universities and national laboratories, in this connection.

9. *Biological Sciences* : The Panel recommended that the new universities may be encouraged to start development of Biological Sciences instead of traditional Botany and Zoology departments and thus create a Philosophy of Biological Sciences in the Indian University system. A workshops, to suggest specific courses which could be included in the interdisciplinary curriculum in the new Biological Science departments for ensuring uniform standard will be organised.

10. *Geography* : The Panel suggested that regular semester courses at the postgraduate level for survey be introduced by universities/postgraduate colleges in respect of Geography departments. For this purpose, it was suggested that a short period be assigned for students to stay in villages, collect data and analysing the same. Alternatively, this should be taken up alongwith other courses. Field work may be raised from the level of exercise to actual work on live world problems involving analysis and writing of reports etc.

The Panel felt that eco-system mapping in various regions of the country by the Geography students would provide a good experience. The eco-system mapping was recommended to be done in an integrated way covering various aspects. A small working group has been constituted to discuss this programme in details and to prepare an operational document regarding national eco-system mapping with special reference to Geography.

(iv) *Centres of Advanced Study and Departments of Special Assistance in the Humanities and Social Sciences*

During 1963-64, the University Grants Commission initiated a programme of Centres of Advanced Study with a view to strengthening post-graduate teaching and research by developing a limited number of university departments in selected fields. On the basis of the advice of the Standing Committee specifically constituted for this purpose, 11 Centres of Advanced Study were recognised during 1963-64. In 1968-69 two more Centres in humanities and social sciences were recognised.

The work of Centres of Advanced Study in the Humanities and Social Sciences which had completed the initial period of ten years was assessed during 1974 and the reports of the Assessment Committees were considered by the Standing Advisory Committee. The Standing Committee recommended that the Centres whose work was found to be average may be excluded from this programme and no further assistance under the Centres of Advanced Study scheme for 1974-75 be provided for such departments.

Accordingly, 4 Centres of Advanced Study were derecognised. The Commission decided that assistance under this programme in future should be made available only for a period of 5 years and the State Government/University should take over the recurring liability at the end of this period as committed expenditure.

The Commission further decided that the Centres whose work has been rated as excellent or good may be provided continued assistance under the CAS during the Fifth Plan period to enable them to strengthen their teaching and research programmes. The Commission also accepted the recommendations of the Assessment Committees and agreed to provide grants recommended by them for further development of the Centres of Advanced Study in the subjects concerned.

A list of Centres of Advanced Study in the Humanities and Social Sciences being continued in the Fifth Plan is given at Appendix XII.

Departments of Special Assistance

The following departments in the humanities and social sciences have been participating in the Programme of Special Assistance to Selected Departments since 1972 :

<i>S.No.</i>	<i>Department</i>	<i>University</i>
1.	Economics	Osmania and Presidency College, Calcutta
2.	History	Patna
3.	Sociology	Saugar and Bombay
4.	Archaeology	Poona University (Deccan Col- lege Postgraduate and Research Institute, Poona)

The Commission has agreed to provide assistance to the above departments till the end of 1983-84 under the scheme of special assistance to selected departments provided the State Governments/Universities concerned take over the recurring liability at the end of this period as committed expenditure.

The Commission has also agreed to provide assistance to the following departments till the end of 1983-84 under the scheme of special assistance to selected departments.

- | | |
|-------------------------|------------------------|
| 1. Allahabad University | Psychology |
| 2. Andhra University | Economics |
| 3. Calcutta University | History (Modern India) |
| 4. Jadavpur University | Philosophy |
| 5. Osmania University | Linguistics |
| 6. Panjab University | Sociology |

Visiting Committees have also examined the proposals of a number of other Departments.

(v) *Centres of Advanced Study and the Departments of Special Assistance in Science Subjects*

During 1976-77, 14 Centres of Advanced Study and 21 Departments of Special Assistance were functioning. The Commission on the advice of an Expert Committee included the Department of Molecular Bio-Physics in the Indian Institute of Science, Bangalore under the programme of Special Assistance. It was decided that the programme should be further expanded and various subject panels were asked to recommend departments which could be considered for providing special assistance. These recommendations would be considered by the Standing Advisory Committee for the programme and a visiting committee would be appointed to visit these departments and give its recommendations to the Commission.

It was decided that all the Centres which have completed the initial period of ten years should be provided an additional allocation of Rs. 20 lakhs for the Fifth Plan period. The proposals received from 12 centres were examined in the light of comments made by the assessment committees which had earlier evaluated the progress of the Centres of Advanced Study and grants were approved.

In the case of the remaining two Centres viz. Centre of Advanced Study in Mathematics, Madras University and Centre of Advanced Study in Bio-Chemistry, Indian Institute of Science, Bangalore which have not completed the initial period of 10 years additional allocation of Rs. 10 lakhs has been approved for the Fifth Plan. The Centres of Advanced Study and Departments of Special Assistance have been asked to take up teacher fellowship programme under the Faculty Improvement Programme. Each Centre has been asked to take up to 10 teacher fellows out of whom atleast

5 teachers are to be selected from colleges affiliated to universities other than the university where the Centre is located.

The Commission approved an additional grant of Rs. 10,000 per annum for all the Departments of Special Assistance for inviting visiting fellows and Rs. 10,000 per annum for organising seminars, symposia etc.

The list of Centres of Advanced Study and departments under the Special Assistance Programme is at Appendix XIII.

(vi) *College Science Improvement Programme (COSIP)/University Leadership Project (ULP).*

The College Science Improvement Programme was initiated by the Commission in 1970-71 in order to bring about qualitative improvement of teaching in science at the undergraduate level. The programme was implemented at two levels (1) at selected colleges for improvement of science teaching in all science subjects in that college and (2) in selected university departments for improvement of teaching in all colleges affiliated to the University in the subject.

First phase of the programme was approved for an initial period of 3 years and the progress of the implementation of the scheme was reviewed by the Standing Committee appointed by the Commission for this programme and it was decided that for the departments which have completed the first phase successfully, additional grants may be provided to take up follow-up activities during the next two years. The Committee has also recommended that for follow-up activities by the University department emphasis should be given to the development of material for production on large scale and introduction of new curriculum, courses of study, evaluation techniques and examination reforms. It was decided to invite follow-up proposals from all the colleges which have successfully implemented the first phase of COSIP activities. The stress was on consolidation of activities undertaken under the first phase, inter-departmental programmes and definite indication and concrete plan for achieving autonomous status. During the year follow-up proposals of four colleges were approved involving an amount of Rs. 6,70,000.

The Standing Committee has also recommended that the programme may now be expanded so as to cover all the regions of the country. The Committee has laid down minimum norms which are to be fulfilled by colleges for participation in this programme. Proposals have been invited from all the colleges which fulfil these norms.

The Vice-Chancellors of all the universities have also been requested to recommend a few good colleges in backward areas which could be asked to take up the programme. These proposals are being examined on the basis of programmes to be undertaken. During 1976-77 proposals from 44 colleges were accepted, involving an amount of Rs. 1,04,95,000.

In order to make available material produced under COSIP on a wider scale, the meetings of the coordinators of the University Leadership Projects are being arranged separately for each subject. The coordinators have been requested to give a consolidated report on the achievements in various areas under this programme.

During 1976-77, 34 university departments and 151 colleges were participating in this programme.

It has been decided that during the summer vacation of 1977, four regional conferences* may be arranged to review the implementation of the scheme and plan for future development. These conferences are being arranged in June-July 1977, at Mysore (Southern Region), Ahmednagar (Western Region), Allahabad (Northern Region) and Shillong (Eastern Region).

(vii) *College Humanities and Social Sciences Improvement Programme (COHSIP)*

Based on the experience of implementation of COSIP, the Commission initiated during the Fifth Plan, a similar programme for improvement of humanities and social sciences instruction in colleges (COHSIP). Under the scheme a grant upto a maximum of Rs. 3 lakhs is made to the selected colleges for a period of three years for strengthening teaching, initiating tutorials and seminar work, preparing reading materials and bibliographical notes and for introduction of internal assessment. The colleges will supplement their teaching with the help of additional staff appointed for the purpose, postgraduate and research students on the rolls of the colleges and guest lectures from other colleges and universities. Selection of colleges for participation in this programme is determined, *Inter-alia*, on the basis of their excellence in (a) the quality of their staff, (b) student-teacher ratio, (c) examination results, (d) strength of their libraries, and (e) the quality of their proposals.

Based on the above criteria the Commission has selected so far 105 colleges (including 36 colleges selected for participation in the above pro-

* These have since been held and the programme has been thoroughly reviewed.

gramme during the academic session 1976-77 for support under the COHSIP and these colleges have started implementing the programme.

The University Grants Commission arranged a conference of the co-ordinators of COHSIP colleges in January, 1977 at the St. Xavier's College, Bombay from January 20-22, 1977 with the following main objectives :

- (a) To review the working of the programme during the first year of its implementation;
- (b) To highlight the practices and procedures utilised by the colleges to enrich teaching and learning in the subjects concerned;
- (c) To exchange views on common problems; and
- (d) To prepare a working guideline for the operation of the scheme during the next two years.

The recommendations of the Conference were accepted by the Commission at its meeting held in April, 1977. A copy of the recommendations accepted by the Commission is at Appendix XIV. This has since been circulated to all the COHSIP colleges for their information and guidance.

University Leadership Projects (Humanities and Social Sciences)

The University Grants Commission, in October 1975, while considering the proposals regarding university leadership projects in science felt that the programme of ULP may also be taken up for implementation under COHSIP. The conveners of the Panels in the humanities and social sciences recommended that the selection of departments may be made keeping the following in view :

- (a) The programme may be implemented, in the first instance, in the affiliating universities;
- (b) as far as possible distribution of disciplines among the universities should be even—regional requirements should be kept in view in the selection of the universities; and
- (c) ordinarily not more than four universities may be selected for each of the major disciplines.

It was also agreed that university leadership projects may be implemented in the first instance in a few selected affiliating universities, which could invite non-affiliating universities to cooperate in the programme.

The Commission considered the matter and desired that the Economics Department of the Panjab University and the Philosophy Department of Rajasthan University may be invited, to begin with, to participate in the university leadership projects for the humanities and social sciences in colleges. The Commission also desired that other departments recommended by the panels may be requested to indicate their willingness to participate in this programme and to send concrete proposals in this regard for the Commission's consideration. Accordingly proposals were invited from these universities.

The Commission at its meeting in December 1976, accepted the ULP proposal of the Philosophy Department, Rajasthan University and agreed to provide assistance amounting to Rs. 1 lakh for the first year. The proposal from the Department of Economics, Panjab University has not been received so far.

Proposals received from 22 university departments recommended by the subject panels for participation in ULP were considered by the Committee of Conveners of the Panels in the Humanities and Social Sciences in February 1977. The Committee recommended that proposals received from these departments may be examined by Visiting Committees. Accordingly, Visiting Committees have been appointed for the purpose. The Committee also desired that the Centres of Advanced Study and Departments of Special Assistance may also be consulted if they would like to help in the implementation of the ULP. They have since been addressed in the matter.

(viii) Restructuring of Courses—their Relevance to Development—Rural Orientation

The Commission's scheme of restructuring of courses has two important aspects viz. (a) to make the first degree level courses more relevant to the rural environment and to the developmental needs of the community, and (b) to link education and work/practical/field experience at all levels.

The Commission has already circulated the guidelines to all the universities and colleges and invited proposals from them for financial support.

The restructuring of courses incorporates the following essential features :

- (a) This implies re-orientation of traditional subjects to the needs of the rural community and the introduction of some relevant applied disciplines related to basic subjects or subject groups.

- (b) The courses are to be reoriented in such a manner that a student can apply his theoretical knowledge to the problems of the region through field work, project work, extension work etc. In other words, the existing conventional courses may be integrated with concrete problems and the courses related to the development of the region.
- (c) The linking of education with productivity would imply the participation of university and college students in various institutional activities such as panchayati raj, community development, cooperation, trade, transport, manufacturing, planning and designing, fabrication of tools etc. with emphasis on rural orientation.

A number of courses have been suggested in the illustrative list sent to the universities. The new subjects like horticulture, fisheries, soil science, fertilisers, dairy science, plant protection, agricultural marketing, farm management, community development, rural banking etc. will be offered alongwith other traditional subjects at the first degree level.

The Commission has also appointed an Implementation Committee to process the proposals and to advise the Commission on steps that may bring about greater involvement of universities and colleges in these schemes.

Since the scheme of restructuring of courses is primarily for Colleges in the rural areas and backward regions the Commission has agreed to relax the minimum enrolment and minimum number of teachers laid down under the scheme of Development of Colleges.

The Commission is currently trying to identify in consultation with experts 150 colleges to begin with where the scheme of restructuring of courses could be tried out. The proposals of 15 colleges have already passed the first stage of processing.

The Vice-Chancellors of affiliating universities have been requested to nominate a representative each for a meeting with the Implementation Committee so that the difficulties faced by the Colleges in introducing the scheme may be eliminated. This is necessary since in a number of universities the procedures for restructuring of courses are often cumbersome.

Groups of experts comprising a representative of the University, an expert in the subject concerned and a representative of the local I.C.A.R. Centre are being deputed to the colleges for helping them in drawing up detailed syllabi and programmes,

It is expected that in view of the strategy evolved by the Commission the scheme of restructuring of courses will pick up during the current year.

A list of the new courses already introduced or proposed to be introduced by the colleges under the scheme of restructuring of courses is given below :

Drug analysis (Chemistry), drug analysis (Micro-biology), banking management, textile (chemical testing), agricultural marketing, farm management, mushroom cultivation, horticulture, rural industrialisation, fisheries agricultural marketing, plant protection.

(ix) Correspondence Courses

The objective of correspondence education is to provide an alternative method of education to enable a large number of persons with necessary aptitude to acquire further knowledge and improve their professional competence. Correspondence courses are thus intended to cater for (a) students who had to discontinue their formal education owing to pecuniary and other circumstances, (b) students in geographically remote areas, (c) students who had to discontinue education because of lack of aptitude and motivation but who may later on become motivated, (d) students who cannot find a seat or do not wish to join a regular college or university department, although they have the necessary qualifications to pursue higher education and (e) individuals who look upon education as a life-time activity and may either like to refresh their knowledge in an existing discipline or to acquire knowledge in a new area.

Correspondence courses have been approved in 18 universities and one deemed university as indicated below :

<i>S.No.</i>	<i>Name of the University</i>	<i>Courses offered*</i>
1.	Allahabad	B.A./B.Com.
2.	Andhra	B.A./B.Com.
3.	Bhopal	B.A./B.Com.
4.	Bombay	B.A./B.Com.
5.	Delhi	B.A./B.Com., M.A. in Hindi and Political Science

* Assistance is provided by the Commission for Courses specially approved for the purpose.

6.	Himachal Pradesh	B.A., M.A. in English, Hindi, Sanskrit, History, Economics, Political Science, M.Ed. and M. Com.
7.	Jammu	B.A./B.Com.
8.	Kashmir	B.A./B.Com.
9.	Madurai	B.A./B.Com.
10.	Meerut	B.A.
11.	Mysore	B.A., B.Com., BGL, M.A. in English, Kannada, History, Political Science and Sociology, B.Ed.
12.	Panjab	B.A., B.Com., M.A. in English, Public Administration, Economics, Political Science and History
13.	Punjabi	B.A., M.A. in Punjabi, English History, Political Science
14.	Rajasthan	B.Com., M.A. in History and Political Science
15.	Sri Venkateswara	B.A./B.Com.
16.	Utkal	B.A.
17.	Osmania	B.A./B.Com.
18.	Udaipur	B.A.
19.	CIEFL, Hyderabad	Postgraduate Diploma in the teaching of English, M.A. in Russian, French and German

The Commission has laid down guidelines for the introduction of correspondence courses at the undergraduate and postgraduate levels. The guidelines, *inter alia*, provide for :

- (a) Ordinarily, correspondence courses at the undergraduate level should be introduced by only one university in a State except when a university proposes to introduce correspondence courses in a new faculty at the undergraduate level or when the university already offering correspondence courses reaches the optimum size (say an enrolment of 10,000) or for other valid reasons.
- (b) Correspondence courses should be started only by universities which have well established teaching departments noted for their high standards for in the absence of good teaching departments standards are likely to suffer. The academic responsibility for the contents of the correspondence courses in any given subject, and its standard, must be taken by the corresponding subject department in the university.

- (c) It should be compulsory for every student enrolled in correspondence course to return a certain number of response sheets, say 20 every year suitably spread over various subjects.
- (d) High priority should be given to the setting up of study centres in areas where there is a concentration of students.
- (e) The provision of contact programmes should be an essential feature of correspondence courses in order that the mind of the student is exposed to the mind of the teacher through lectures, tutorials, seminars and other forms of discussion.
- (f) Grants for the introduction of correspondence courses at the undergraduate level should be earmarked for such programmes as contact programmes, study centres, writing of lessons, core staff and library facilities.
- (g) 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 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. 1 lakh per subject per annum for a period of five years. The grants should be for core-staff, preparation of reading materials, contact programmes, provision of visiting lecturers, books and journals and postal library services.

The proposals from the Universities of Karnataka, Kerala, Patna, Poona and the G.B. Pant University of Agriculture & Technology, Nainital are under the consideration of the Commission. The proposals received from the universities for the introduction of correspondence courses are being processed in the light of the guidelines.

(x) *Adult and Continuing Education**

The value and significance of a programme of continuing education and the involvement of universities in this adventure is based on a variety of considerations; the more important of these are highlighted below :

- (a) The last two decades or so have brought out the significance of knowledge as an important factor in economic development

* The scheme is being reviewed in the light of the objectives and guidelines of the National Adult Education Policy.

and social change. In a democratic set up and in the context of an ever increasing emphasis on planned development, there is an urgent need for training in leadership in the fields of social upliftment, economic development and political democracy.

- (b) The socio-economic development of a developing country like India is often hampered by deep-rooted traditions and rigid attitudes to social change and progress. The situation can best be met by developing a well-conceived programme of continuing education and universities being the intellectual leaders of the community are best suited to meet this challenge.
- (c) Knowledge has to be spread as widely as possible but for a variety of reasons, and mainly owing to financial constraints, it has not been possible for the universities to provide opportunities for higher education to all sections of the community through regular and formal courses.

It is only through continuing education, using formal and informal methods and the media of mass communication, that a university can extend its leadership to the community around it.

- (d) The exposition of knowledge and the ever changing frontiers of knowledge also call for a strategy and a plan to enable the members of the community to refresh and up-date their knowledge.
- (e) It is also in the interest of universities themselves to develop an awareness of the socio-economic problems of the community, otherwise they are likely to become isolated from real problems and their courses will hardly ever become relevant. A programme of continuing education would stimulate universities to know at first hand the thinking, the attitudes and the problems of the community and to structure their courses of study through this interaction.

The Commission towards the end of the Fourth Plan appointed a Standing Committee on Adult/Continuing Education. The Committee recommended, and the Commission has accepted that continuing education may have the following objectives :

- (i) To extend to the community around a university or college or institution the benefits of the intellectual leadership and facilities available in the university.

- (ii) To meet the needs of the expanding universe of knowledge and to help in understanding and communicating new ideas and techniques.
- (iii) To enable the individual to fill the gaps in his intellectual and professional equipment and to provide to those in professional and sophisticated fields an opportunity to keep up with the pace of development of knowledge through retraining, in-service training and refresher programmes.
- (iv) To provide courses of general interest so that people become increasingly aware of current problems in the contemporary world and are enabled to lead a better and fuller life and achieve self-fulfilment and to assist in the cultural and intellectual enrichment of community life.
- (v) To formulate different patterns of acquiring education as a life-long and continuing activity.
- (vi) To frame and offer such courses as might lead to diplomas and certificates or even degrees to such people as are already settled in life and yet wish to acquire greater academic and professional competence.
- (vii) To provide courses and/or training to people who are working or wish to work as administrators, field workers and educators in the field of continuing or community education.
- (viii) To organise study and research in various aspects of continuing education so that gradually a suitable body of knowledge is built up on the subject. The universities should also produce literature for continuing education workers (This field is practically lying fallow in India at this time).
- (ix) To receive and implement special programme of training workers and educators specially for backward communities and areas like the tribal people, rural community, industrial workers and other neglected classes.

The University Grants Commission in May 1971 considered the general pattern of development and assistance towards Adult Education Programme in the universities and agreed to provide assistance to the universities for this purpose on 75:25 basis upto a maximum of Rs. 3 lakhs to a university during the Fourth Plan period.

In August 1973, the Commission decided to extend the period of assistance for setting up of Departments of Continuing/Adult Education in the universities till the end of 1978-79.

The Commission also agreed that the programme of Adult/Continuing Education may include the following :

- (a) Professional courses
- (b) Courses for human relations, leadership and management skills
- (c) General purpose courses
- (d) Programme for the rural community
- (e) Cultural activities
- (f) Training of personnel
- (g) Research in Adult Education.

The universities were requested to send proposals for the development of Adult/Continuing Education Programme during the Fourth Plan period in the light of the guidelines formulated by the Commission. These guidelines, *inter-alia*, provide for the objective of the programme, methods, areas, organisational set up, etc.

Assistance is being provided to the following universities for the implementation of the continuing education programme :

(1) Andhra, (2) Bombay, (3) Gujarat, (4) G.B. Pant University of Agriculture and Technology, Pantnagar, (5) Gujarat Vidyapith, (6) M.S. University of Baroda, (7) Rajasthan, (8) Poona, (9) S.N.D.T. Women's, (10) Sri Venkateswara, (11) Panjab, (12) Jammu, (13) Saurashtra, (14) Mysore, (15) Indian School of Mines, Dhanbad, (16) Aligarh, (17) Jabalpur, (18) Jadavpur, (19) Madras and (20) Kumaon University, Nainital.

In order that the universities have a better appreciation of the underlying objectives of the continuing education programme and the role of universities in this important area, the Commission decided to organise conferences on a regional basis. The conference of the universities in the Southern Zone was held at Hyderabad on October 16-19, 1975. The conference for universities in the Northern Zone was held on October 1-5, 1976 at the Himachal Pradesh University, Simla. It is proposed to organise conferences for the remaining universities during 1977-78.

A sub-committee of the Standing Committee on Adult and Continuing Education has identified colleges in the tribal areas so that programmes of continuing education in the tribal areas may be taken up on the basis of

guidelines suggested by the sub-committee and the suggestions from the identified colleges.

(xi) *Examination Reforms*

During the close of the Fourth Five Year Plan and in the current plan period, the Commission laid special emphasis on the implementation of various measures of examination reforms with a view to improving the reliability, validity and objectivity of evaluation and with a view to bringing about a closer integration of teaching, learning and evaluation.

The main emphasis during the last four or five years has been on the following aspects of Examination Reforms :

- (a) Continuous sessional evaluation as a supplement to the present final examination.
- (b) The development of question banks in order to eliminate some of the shortcomings of setting up examination papers and as a means for revision and modernisation of courses of study.
- (c) Introduction of grade system instead of present marking system in order to increase reliability and bring about better comparability among different subjects.
- (d) Introduction of the semester system in order to have greater flexibility.

The Commission is also providing financial assistance to the universities for workshops for orientation of teachers and for some core staff for the establishment of examination reform units in the selected universities. Various follow up measures are also being taken in order to ensure that the progress made in regard to the implementation of examination reforms is maintained.

(xii) *Area Studies Programmes*

The University Grants Commission supported the development of ten centres in the universities for undertaking specialised studies and research in specific areas. The universities which are being assisted for this purpose and the countries/region for study are indicated

below :

	<i>Name of the University</i>	<i>Countries/Region for Study</i>
1.	Aligarh Muslim University	Egypt, Saudi Arabia, Iraq, Yemen, Oman and Iran
2.	Delhi University	(i) China and Japan with main emphasis on China (ii) West Africa (iii) Pakistan (in Economics and Sociology)
3.	Banaras Hindu University	Nepal
4.	Jadavpur University	Main emphasis on Indonesia and Malaysia. Programme relating to Burma and Thailand to be taken up as incidental studies
5.	Sri Venkateswara University	Indo-China
6.	Bombay University	(i) Soviet Unions (ii) East Africa
7.	Poona University	(i) Latin American Studies (ii) Economics of East European countries
8.	Rajasthan University	South Asia with focus on comparative study of governments and politics
9.	Madras University	Malaysia and Sri Lanka
10.	North Bengal University	Himalayan Regions

The main purpose of the programme is to produce a body of competent scholars who would be continuously engaged in the study, examination and assessment of the principal contemporary developments in specified areas especially neighbouring countries or countries with whom we have had strong historical links. While the programmes are academic in nature, larger national interests of the country have been kept in mind. The Commission has emphasised that training in the languages of the region concerned is an integral part of the programme, as it is not possible to understand or interpret problems of another society without going deep into history and culture, its sociology, politics and economic evolution.

The University Grants Commission has constituted a Standing Advisory Committee to advise the Commission on its Area Studies Programme.

The Committee met on 4th February, 1977 and made important recommendations to the University Grants Commission for strengthening the programme.

In the light of the recommendations of the Advisory Committee it has been decided that some more universities may undertake depth studies relating to China and this is being considered in consultation with the universities. The question of strengthening the programme of studies on Soviet Union is also under consideration. The Commission has agreed in principle to Jawaharlal Nehru University undertaking studies on Gulf countries. The Commission also decided that Jadavpur University which has an Area Studies Programme on Indonesia and Malaysia may also undertake studies on Philippines.

The Commission has also under consideration the question of some more universities taking up development studies relating to Pakistan—economic development sociology, modern history and politics and language and literature. The Commission is in touch with some universities for undertaking development studies on Pakistan.

The Ford Foundation, USA has agreed to provide assistance to the tune of \$3,00,000 for the development of Area Studies Programme for the following purposes :

- (i) Travel of Indian scholars abroad:—to enable Indian scholars to travel abroad for special training, updating and adding to their knowledge of regions of interest, in particular to help younger scholars.
- (ii) Foreign scholars invited to India :—to enable Indian universities to bring in visiting professors and students from abroad, on a short-term or long-term basis, for lectures and consultations, for conferences, or for training, and to arrange for collaboration on studies of common interest.
- (iii) Acquisition of books and other materials :—to acquire books and periodicals, microfilms and other materials needed by Indian university centres specialising in the study of other countries or regions.

The details of the utilisation of this amount are being worked out.

(xiii) *Autonomous Colleges*

The University Grants Commission has been examining the question of autonomous colleges by which the universities could give to a number of carefully selected colleges the much needed autonomy in the matter of determination of curricula and courses of study, evaluation methods and other related matters. In 1963, the Commission had requested the universities to examine this suggestion.

The Commission subsequently considered the question of autonomous colleges in greater detail and with the help of an expert committee and after

consulting a number of principals and educationists finalised a set of criteria, guidelines and also pattern of assistance to autonomous colleges which would help an affiliating university to take suitable action in this respect, in consultation with its relevant bodies and recognise some colleges immediately as autonomous colleges. A note incorporating these suggestions was sent to all universities by the UGC in October, 1973 with the request that early action be taken by the universities in this respect.

In May 1974, the Commission also accepted the recommendations of the planning group that "the programmes of the UGC for the Fifth Plan for the development of colleges should be implemented in a way to enable the colleges, which fulfil the criteria to become autonomous. As many colleges that fulfil the criteria should be given autonomous status". The Commission also organised four regional workshops between July and November, 1974 to discuss, *inter-alia*, problems relating to autonomous colleges. The workshops suggested broad guidelines to be taken into account in declaring a college to be autonomous.

The Commission in October 1976 agreed to give its concurrence to the proposal of Madras University to confer autonomous status on (1) Loyola College, Madras, (2) Madras Christian College, Madras, (3) P.S.G. Arts College, Coimbatore, (4) Vivekananda College, Madras (Postgraduate Departments of Chemistry and Economics), and (5) P.S.G. College of Technology, Coimbatore. It has been noted that the autonomous status would be conferred by the University on the Colleges after relevant provision to enable the University to do so has been made in the Act of the University.

The Commission has agreed to provide assistance to these colleges on cent per cent basis after the conferment of autonomous status for purposes of strengthening their faculty and other administrative support required to enable these colleges to function as autonomous institutions.

Assistance would be for a period of five years in the first instance and will be limited to Rupees one lakh per annum in the case of colleges Nos. (1) to (4) and Rs. 50,000 per annum to the two departments of the college at No. (5).

(xiv) *English Comprehension Courses for University Students*

The Central Institute of English and Foreign Languages, Hyderabad, was requested to prepare a detailed scheme for the introduction of English comprehension courses in the universities. In the scheme prepared by the institute, the course will be given to undergraduate pass and honours students in three parts. The first part will consist of a reading course; the second course will bridge the gap between general reading and the reading ability in the literature of each major group of disciplines, and the third will consist

of reading ability in individual disciplines. The reading material for Part-1 of the course has already been developed by the CIEFL and that for Part-2 will be worked out in collaboration with other departments concerned in the programme. Part-3 will largely depend on the experience gained at Part-2 stage and it is possible that it may not even be necessary to give this course.

The Commission has accepted the proposal and made the necessary provision to CIEFL for conducting a pilot project at Gujarat and South Gujarat Universities. Once the course is developed after orientation of teachers and preparation of instructional material, it could be extended to other universities.

(xv) *Guidelines for the Implementation of Scheme of Assistance to Universities for the Publication of Learned or Research Work including Doctoral Theses*

The Commission has a Scheme of Assistance to Universities for the Publication of Learned or Research Work including Doctoral Theses. The guidelines for the implementation of the scheme during the Fifth Plan period are as follows :

- (a) The Scheme is by way of supplementing the work of private publishers and not by way of replacing the private publisher in bringing out high quality publications.
- (b) A learned research work to be assisted under the scheme should be one that breaks new ground and is useful as reference material for honours and postgraduate studies. The manuscripts in respect of works brought out by college teachers may be sent to UGC for assessment by two experts in the particular field. While the college part of the scheme may be done centrally in the UGC, the university part may be entrusted to each university as at present.
- (c) Thesis accepted for doctoral degree may be considered for assistance for publication under the scheme only within a period of ten years after its submission. If the period of submission exceeds ten years then it should be got adjudged by the experts in the field by the University before it is considered for assistance.
- (d) A specific ratio of assistance to be fixed for assistance for learned research works and doctoral theses. The allocation made to a university under the scheme be utilised by the universities normally on the basis of 2/3 for doctoral theses and 1/3rd for other learned research works.

- (e) Repetitive publication should not be considered under the scheme for assistance. Assistance would be available once only for the initial publication. The publication should be printed in India only.
- (f) The university may either publish the works under its supervision and control or get these published through reputed publishers. Payments towards the cost of publication should not be made to the author, but directly to the publisher by the university. The author could be consulted regarding the publisher, if it is not done through university press.
- (g) With a view to ensuring a very high academic standard the universities should take utmost care in effecting proper selection of learned research works for publication. The university should also avail of the services of professional people for editing, referencing, spacing etc., of the manuscripts from the point of view of quality and presentation. In case the amount provided as subsidy for a particular publication is less than Rs. 3,000 then no reference to experts may be necessary for its assessment. However, in case the amount of subsidy exceeds Rs. 3,000 the manuscripts may be got assessed by two experts (besides the examiner) in that particular field.
- (h) Besides seeking the advice of commercial interests while selecting manuscripts for publication, the universities may consider the desirability for appointment of sole and/or regional selling agents/distributors.
- (i) Where assistance to a publication is substantial the university should undertake it as its publication and a major part of the money realised through sales (after making provision of royalty to author, commission to retailers etc.) should be credited to this fund for publications so that it can support more books to be published. The money obtained through sales of books published with UGC support should not be used by the universities as a general source of revenue.
- (j) In addition to the assistance available to all universities for support of their publications, certain universities would be selected to set the pace for the production of high quality research works. Such universities would be identified on regional basis or on the basis of specialisation in certain disciplines or areas of study. These universities may be encouraged to undertake publication of the

learned works of scholars or teachers from other universities in the region or discipline or area, with the help of additional assistance to be given by UGC (over and above their normal allocation for publishing work from other universities).

- (k) There should be proper coordination among the agencies providing financial assistance for similar purposes, i.e. ICHR, ICSSR, NBT, and Indian Institute of Advanced Study, Simla. To avoid duplication of assistance, it was decided that the universities should provide a column in the proforma inviting proposals indicating whether a particular scholar has approached any other organisation for financial assistance for the same publication and if so, with what results? The efficient distribution system and sale of publications is vital for the scheme.
- (l) The publication of catalogues, critical editions of rare manuscripts and research reference or manuals costing more than Rs. 20,000 may be considered on merits outside the general scheme of the UGC on all-India basis after the work has been examined by the Commission with the help of experts.

The Commission has allocated grants to 80 universities ranging from Rs. 10,000 to Rs. 60,000 to each university for the purpose for two years, 1975-77.

(xvi) *Book Production*

The Scheme of Preparation of University Level Books by Indian Authors was initiated in the year 1970-71. The outlines and progress of the scheme have already been reported in the Annual Report for 1975-76. subsequently, the Commission considered the question of raising the value of fellowship awards under the scheme and agreed to make the following changes in the rules and regulations of the scheme :

- (a) In case of fresh fellows to be appointed to assist in the book writing project, it would be desirable to appoint fellows with Ph.D. degrees, as far as possible.
- (b) The value of fellowship has also been raised from Rs. 500 per month to Rs. 600 per month with effect from 1st September, 1975 for those fellows who are already working under the scheme and who possess a Ph.D. degree. In case of other fellows working under the scheme as on 1.9. 1975, the fellowship will be raised to Rs. 600 per month from the date they complete two years of satisfactory

work under this scheme. This increase in the fellowship is also applicable to the retired teachers who are working whole-time in this scheme by availing of fellowship award themselves.

- (c) In the case of in-service teachers working as fellows under the scheme, the Commission has decided to protect their pay and regular allowances upto a maximum of Rs. 1,100 per month (previously the maximum limit was Rs. 750 p.m.).
- (d) The tenure of a book writing project would be two years, extendable by one year. No extension beyond three years (with a provision of fellowship) would be possible but the Commission may allow an extension up to a period of one year with a provision of contingent grant only (Rs. 2,000 per annum) in exceptional cases.
- (e) The Commission may also give to selected authors a lump sum honorarium of Rs. 10,000 for and undertaking the writing of a book as approved by the Commission within a period of three years. This amount would include provision for any expenditure which the author has to incur in the preparation of the manuscript. A grant up to Rs. 5,000 may be made available in suitable instalments during the period of preparation of the manuscript and the remaining Rs. 5,000 to be paid after the manuscript has been accepted by the Commission. Under this provision, the author would not receive any additional support for appointment of a fellow.
- (f) As the Ministries of Law and Health have also established cells for the publication of university level books in subjects connected with legal and medical education, with a view to avoiding duplication of effort it has been decided that the UGC may not hereafter accept the proposals pertaining to law and medicine.

Under this scheme the Commission accepted 373 projects. 58 of these projects could not be taken up by the authors for various reasons. Of the remaining projects manuscripts have been completed in 82 projects and the remaining 233 projects are in different stages of implementation.*

The books recommended by the Commission automatically receive subsidy from the National Book Trust.

* Eighteen books have been published upto February, 1978.

The total expenditure under this scheme since its inception has been Rs. 42,57,038 as under :

Fourth Plan

1970-71	...	—
*(&)		
1971-72	...	Rs. 3,78,532
1972-73	...	Rs. 8,89,289
1973-74	...	Rs. 10,11,737
	Total Fourth Plan	Rs. 22,79,558

Fifth Plan

1974-75	...	Rs. 8,68,875
1975-76	...	Rs. 5,64,084
1976-77	...	Rs. 5,44,521
	Total 1974-77	Rs. 19,77,480

(xvii) *Norms for the Introduction of Postgraduate Courses in the Colleges*

The University Grants Commission has finalised the norms for the introduction of postgraduate courses in colleges. As per the decision of the Commission these norms may be applied to such departments which may be established in future.

Under the new norms a college seeking affiliation at the postgraduate level must be permanently affiliated at the undergraduate level. Another condition is that the colleges seeking affiliation should have shown consistently good results during the last five years at the undergraduate level. The detailed norms for the introduction of postgraduate courses in Humanities, Social Sciences and Sciences are given below :

Conditions and Norms for the Introduction of Postgraduate Courses in Sciences, Humanities and Social Sciences in the Colleges

- (a) A college may be allowed to start postgraduate course in a subject only when there is persistent demand for teaching in that subject and employment of a minimum number of students, every year is ensured. Opening of a new postgraduate class should be in-

variably linked with the manpower needs of the region. The College must be permanently affiliated and should have shown consistently good results at the undergraduate level during the last five years.

- (b) A college may be considered for further assistance, only if :

Available facilities in the shape of library, laboratory equipment and faculty reflect the commitment of the department and the college to the development of particular subject. The commitment of the college would in particular be seen from its overall recruitment policy, e.g., whether it has the practice of appointing only people of a constantly good academic record and Ph.D.'s as far as possible.

It serves the needs of the student community coming from the graduate colleges of the region as reflected in enrolment.

The department has the scope and potentiality for development of a specialisation in a particular area not available in the other colleges and universities of the region.

There is a clear cut programme of research and training to ensure quality at the initial stage of starting a department.

It has faculty comparable in quality to that of a University department and demonstrates potential of growth and specialisation.

- (c) Postgraduate courses need not necessarily be started only in such subjects which are taught at the degree level in the affiliated colleges. Inter-departmental or inter-disciplinary courses may be preferred.
- (d) The college should make provision of funds for enabling department teachers to attend National Conferences in their subjects every year.
- (e) The condition for opening a postgraduate department in the college as prescribed by the university may be insisted upon specially with regard to the staff, books and equipment before providing any further support for the development of the department.
- (f) Annual colloquia may be organised for the benefit of the college teachers and the students in which university and college teachers should participate.

Norms for Postgraduate Courses in Humanities and Social Sciences

- (a) A minimum of four teachers recognised by the university as postgraduate teachers be appointed at the initial stage. The staff may be increased gradually depending upon the increase in the hours of work and the introduction of the special papers. In a postgraduate department there should be at least four teachers with M. Phil. or equivalent degree or research work of, which there should be at least two teachers with Ph.D. degree or equivalent research work.
- (b) For effective postgraduate teaching, the first pre-requisite is the quality of teachers. It is imperative that teachers at this stage should have developed critical faculties of evaluating the major developments in their subject. For this purpose, it should be laid down that only those persons would be recognised for postgraduate teaching who have some papers to their credit in standard research journals. In addition :

They should be required to go through and pass a post-Master's degree or diploma in Research Methodology.

In order that a postgraduate teacher may be able to specialise and carry out advanced studies or research he should not be expected to take more than two papers in two years.

The teachers should have enough time to keep themselves abreast with the latest development in their subject. For this purpose, it may be laid down that the work load of a recognised teacher should not be more than 12 lectures a week.

- (c) A college department should have adequate material and other equipment. The departmental library should have enough copies of recommended books and atleast three standard journals published during the last 10 years. For books and journals the college should provide per department Rs. 15,000 as non-recurring and Rs. 5,000 per annum as recurring.
- (d) The college should provide a fixed amount every year, not less than Rs. 5,000 for development of research activities in the department.
- (e) As far as possible at least two papers out of eight papers should be different from those taught at the University.

Norms for Postgraduate Courses in Science Subjects

Strengthening of the teaching staff and recruitment of suitably qualified persons is the most important factor required for postgraduate education besides availability of necessary laboratory, library and other facilities. A department seeking affiliation for starting or running postgraduate classes should have at least six teachers with post-M.Sc. qualifications such as M. Phil or research experience as evidenced by publications. Further, at least three such teachers should have a Ph.D. degree or research publications of equivalent standard. It will also be essential for such departments to have at least one viable research programme undertaken by the staff members. Similarly, before any particular specialisation in the subject can be offered as special paper at the M.A. or M.Sc. level, there should be on the staff of the department at least two persons who are qualified in that special discipline. The total strength of the staff of such departments would, however, depend upon the total work-load, including undergraduate instruction.

Generally an intake of 15 students should be considered as an optimum size for a unit of postgraduate class. No postgraduate classes should be permitted to be started if the intake is less than 10 students with 50% or more marks in the subject concerned. For purpose of increasing admissions also the unit of 10-15 should be taken into account.

(xviii) Guidelines for the Introduction of M.Phil. Courses

The Commission, in July 1976, desired that the guidelines for M.Phil. courses (Appendix XV) circulated to the universities may be placed before the Panels for their comments. In these guidelines the following objectives have been laid down :

The M.Phil. degree should be looked upon as the first research degree whose components will be course work as well as research work. It would provide facilities for undertaking research. Wherever possible training would be provided in research methodology.

The M.Phil. degree will also provide an opportunity to candidates to proceed to the second research degree, viz., Ph.D., it being understood that the research work done for M.Phil. degree could be incorporated for the research work to be done for the Ph.D. degree. Ordinarily, candidates who desire to pursue research would first be admitted to M.Phil. courses. Only those will be permitted to proceed for the second research degree (Ph.D.) as have either obtained an M.Phil. degree or have given satisfactory evidence of having attained equivalent level of work.

The comments of the Panels are being examined with the help of a Committee. In the meantime, the Commission has advised the universities that in the interest of maintaining proper standards, it would be desirable that they obtain the concurrence of the Commission before instituting new M.Phil. courses.

The Commission, in May 1977, accepted the following conditions for the institution of M.Phil. courses :

- (a) M.Phil. courses should only be started in colleges which have well developed postgraduate teaching facilities. Such colleges should have fulfilled all the conditions prescribed for the introduction of postgraduate courses in colleges. The introduction of M.Phil. courses in such colleges should have the prior concurrence of the UGC.
- (b) In the case of university departments/colleges courses for M.Phil. degree should be taught by teachers who have a research degree or have considerable experience of research.
- (c) For the introduction of M.Phil. course a university department should have at least six teachers (including one Professor and two Readers) with a minimum of 5 years postgraduate teaching/research experience. In colleges efforts may be made to introduce M.Phil. courses on a co-operative basis, involving colleges with good standards. Normally not more than 2-3 M.Phil. students should be assigned to any individual teacher for purposes of guiding their dissertation work.
- (d) In universities where M.Phil. programmes are instituted it should normally be made compulsory that a fresh postgraduate student who proposes to work for a Ph.D. degree should first complete the M.Phil. course. However, if there are any exemptions to this, these should be on proper and well defined academic basis.
- (e) No teacher in M.Phil. programme should do more than one teaching course per semester.

(xix) Development of Wild Life Study and Research in Universities

A Workshop on Wild Life Studies, sponsored by the University Grants Commission, was held at the North Eastern Hill University, Shillong from 6th to 8th October, 1976. The Workshop brought together scientists interested in Wild Life Studies and working in the universities, wild life

wings of the forest departments, Zoological Survey of India, Botanical Survey of India, professional societies and others to deliberate upon the steps to be taken to promote genuine interest in wild life studies, particularly within the university system. The Workshop addressed itself to the following three aspects :

- (i) Development of courses of study which could be incorporated in the college curricula in biological sciences;
- (ii) Generation of worthwhile projects in wild life studies from universities and colleges which could be supported by the UGC; and
- (iii) Projects which could be undertaken in collaboration with agencies, such as, Wild Life Board, Zoological Survey of India, professional societies, such as, Bombay Natural History Society etc.

The keynote address brought into focus the present status of studies on wild life in India, the need and urgency of promoting studies on wild life conservation and management and the effective role and participation of university students and faculty in this important area of biological sciences. The Workshop discussed in detail, together, as well as in three separate groups, the three topics referred to above. The recommendations are being used as a plan for action by the University Grants Commission.

(xx) Development of Space Research Programmes

The University Grants Commission and the Indian Space Research Organisation have jointly set up a Coordination Committee to consider all matters relating to training and research programmes in Space Sciences and Technology to be taken up in the Universities. This committee would also serve as a link between the university and the Indian Space Research Organization.

The Committee at its meeting held at Bangalore in October, 1976 reviewed the following aspects related to the coordination between the UGC and the ISRO for promotion and development of training and research programmes in space sciences and technology in the university system :

- (i) Space science/application courses in the universities/academic institutions.
- (ii) Space research programmes in the universities.
- (iii) UGC and ISRO fellowships/scholarships.

- (iv) University qualifications for scientific positions/appointments in the ISRO.

In the context of specialised courses, it was decided that space physics or space technology as such did not intrinsically represent a discipline and hence caution should be exercised in starting new departments and new courses related to these multidisciplinary subjects. It would be preferable to improve the curricula of the basic subjects of science and engineering taught in the universities so as to link with the developments of space research activities. In the light of the above views the various space science, application and technology courses in the universities/institutions have been reviewed.

SECTION III

Support for Research

The University Grants Commission support for research projects provides that priority should be given to projects that have a direct relevance to the problems of the community.

Research projects have to be formulated on well-defined topics keeping in view the facilities already available and the plan of action has to be drawn up in such a way that the research work can be brought to successful completion within the specified period. While drawing up research programmes having R&D effort it is required that the areas identified as of R&D importance by the National Committee on Science and Technology and Council of Scientific and Industrial Research etc. are kept in view so that the university/college can make a distinct contribution by way of research in such areas.

While formulating departmental research projects, universities have been requested to keep in view (a) importance of defining major thrust areas and detailing the plans for coordinating and making the best use of visiting facilities and staff, (b) interdepartmental and/or inter-disciplinary proposals as well as collaboration with universities, national laboratories, and industries (c) scarcity of resources of foreign exchange and, therefore the need to emphasise indigenous instruments and design, fabrication and building up of equipment, (d) allowing use of sophisticated equipment by scientists from other departments or other universities or colleges etc.

Support for Science Research

The University Grants Commission decided to provide adequate support for university research during the Fifth Five year plan period. The assistance for research is provided to faculty members in the universities, university centres for postgraduate studies and affiliated colleges for taking up well defined research projects in pure and applied sciences. The research projects relate to major programme of research to be undertaken by the university departments as a whole in a selected field or relate to projects by small research groups as well as by individual teachers.

With the help of panels, departments have been identified for assistance under departmental research support, so that with these additional inputs, the departments concerned could develop studies and researches in specialised fields and later on be considered for other programmes. These departments concerned have been requested to formulate suitable projects in their respective fields of specialisations.

Expert committee will be constituted to visit these departments for examining the proposals and recommending the extent of assistance that may be provided to each one of them for undertaking departmental research programmes.

Departmental research projects in Physics at the Indian Institute of Science, Bangalore were examined by the Expert Committee during the year 1976-77 and on its recommendations, the Commission agreed to provide a grant of Rs. 10,00,000 to this Department. At present 4 departments in Physics are being provided assistance as a departmental research support.

322 additional projects by teachers at different universities and colleges were also approved by the Commission on the recommendations of the Panels during the year 1976-77. The grants approved for these projects comes to Rs. 241.22 lakhs. Thus a total number of 674 major research projects in Science subjects were under operation in 1976-77. The total grants approved for these projects comes to Rs. 426.27 lakhs.

Core Support for Research

The Commission placed at the disposal of all universities grants to provide core support for research in the universities, to enable them to consider request from an individual teacher for taking up research work. This assistance is meant to create a climate of research work and to encourage those teachers who may not otherwise be able to get financial support for their research projects. Grants ranging from Rs. 50,000 to Rs. 1,00,000 have been provided to each university. The total amount approved to 75 universities is Rs. 55.5 lakhs for Fifth Plan. The amount would be further increased as and when this allocation is utilised by the university.

Support for Small Research Projects by Individual Teachers in Science Subjects

The Commission has been providing assistance to individual teachers working in the universities and colleges for undertaking research in their specific fields. Support under this programme is specially provided to college teachers and junior teachers in the universities who do not have adequate resources to meet the expenses connected with their individual research either for a degree or as part of their individual project. Assistance under this programme is limited to Rs. 10,000 for every selected teacher and is available for field work, computation, purchase of equipment, apparatus, chemicals and books which are required for the project and not normally available in the university/college where the teachers may be working at the time. More than 8,000 teachers have benefited under this scheme so far. Projects from 1,021 teachers were approved during 1976-77 at a cost of

Rs. 35.20 lakhs. The number of research projects approved in science subjects during 1974 and 1977 is given below :—

S.No.	Subject	Number of research projects approved	
		Major Projects	Minor Projects
1.	Physics including Meteorology and Biophysics	120	311
2.	Chemistry	212	615
3.	Biological Sciences including Botany, Zoology, Biochemistry, Marine Sciences, Physical Anthropology, Genetics, Physiology, Medicine, Micro- biology, Entomology & Agriculture	213	661
4.	Mathematics and Statistics	25	145
5.	Geology/Geophysics	74	76
6.	Geography	13	68
7.	Engineering	—	80
Total		657	1956

Career Awards to Young Scientists

The purpose of the scheme is to identify young talented scientists who have established competence and good potential in their area of specialization and to promote their professional growth by enabling them to devote all their efforts and energies early in their career for research and study with minimum encumbrances and teaching responsibilities.

Ordinarily, Career Awards will be offered for a period of three years to Lecturers/Readers in universities who are not more than 35 years old on the first of July of the year in which the award is made and who have completed doctoral/post-doctoral or other equivalent professional training. A candidate may, however, apply for the award before he/she has actually joined the faculty but the award will be operative only after he has joined.

The Commission will pay the awardees their full salary and allowances. They will continue to earn normal increments and maintain their seniority

in their universities. In addition, the Commission will provide each awardee a research grant of upto Rs. 1,00,000 (including travel costs, contingency etc.) + 2 or 3 research fellows. Normally the universities should appoint a temporary lecturer as substitute during the tenure of the Career Award of its staff members. The awardees under the scheme should also be encouraged to take part in some teaching work of the department.

The awardee may spend the term of the award in his/her own institution or in any approved institution in the country. During the period of the award the awardee will not be allowed to leave the country except for a maximum period of six months. Prior concurrence of the UGC will have to be obtained before accepting any foreign assignment. No assistance will be available from the Commission for meeting travel expenses or any other expenditure connected with the foreign assignment.

Selection for Career Awards will be made by the UGC on the recommendations of a Standing Committee constituted for the purpose.

Development of Computer Facilities

The Commission has appointed a Standing Advisory Committee to advise the Commission on the question of development of computer facilities in the universities during the Fifth Plan Period. The proposals received from the universities were examined by this committee and the committee suggested that expert committees may be appointed to visit different universities to examine their computer requirements.

The expert committees visited Annamalai University and Mysore University. The Commission accepted the recommendation of these committees and agreed to provide grants for purchase to TDC-316 computers being manufactured by ECIL, Hyderabad to these universities. The Eastern Region Computer Centre which is being established at Jadavpur University in collaboration with the department of Electronics and the Government of West Bengal would start functioning soon. A large computer B-6700 has already been received and is being installed. This will provide adequate computer access to all users in the region—educational and R&D institutions, State Governments, public and private sector industries etc.

In case of Banaras, Panjab, Poona and Roorkee universities it was decided that they may be provided medium sized computers to be imported from other countries. This is being examined further in consultation with the department of Electronics. The Commission has also provided grants amounting to Rs. 50,000 and Rs. 25,000 per annum respectively to Roorkee and Madurai universities for purchase of computer time. The proposal

received from the Indian Institute of Science, Bangalore, for replacement of existing computer by a larger computer was accepted. The computer which is to be installed would be finalised in consultation with Department of Electronics, Government of India. The Commission has also decided to provide assistance upto end of Fifth Plan Period to all the computer Centres established during the Fourth or Fifth Plan period on net deficit basis for running the computer centres. The Commission has also finalised norms for technical staff for various types of computers. The present position regarding computer facilities in the universities is given in Appendix XVI.

Hari Om Ashram Trust, Awards in Science

The University Grants Commission has instituted the following awards of the value of Rs. 10,000 each per year to be awarded to outstanding scientists out of the endorsement of Rs. 6 lakhs placed at the disposal of the Commission by the Hari Om Ashram Trust, Nadiad.

1. Sir CV Raman Award for Experimental Research in Physical Sciences
2. Dr. Homi J Bhabha Award for Research in Applied Sciences.
3. Dr. Meghnad Saha Award for Research in Theoretical Sciences.
4. Sir Jagdish Chandra Bose Award for Research in Life Sciences.

The 1974 awards were given to selected scientists at a function specially arranged in November, 1975. In addition to these 4 awards the University Grants Commission has decided to institute one more award in the field of interaction between science and society from 1975 onwards. The award is subject to the following conditions :-

1. Only contributions by Indian Scientists whether by an individual or by a team of 2-3 persons should be eligible for these awards. The institutions or organisations should not be covered under the scheme.
2. The prize should be awarded to an individual or a team for outstanding contributions to the understanding including development of interaction between science (including technology) and society and which has made a conspicuously important contribution to the development of the Indian Society.
3. In deciding the award, attention will be focussed on the specific contributions made during the last decade.

4. The work to be assessed would include books, monographs, papers or any other unpublished account of their contributions which have not already received a similar award from any other agency.

The nominations for all these five awards have been invited from universities and other research institutions.

Research in the Humanities & Social Sciences

The Convenors of the Humanities and Social Sciences Panels at their meeting held in 1975 felt that there are some areas of study and research in each discipline which are either neglected or new and have not received the due attention in the universities. The Convenors felt that such neglected and new areas and branches of study and research which have either not been initiated or which have remained neglected in various regions of the country may be identified. The Panels considered this problem and made some recommendations in this regard. The Commission has decided that this matter should be taken up at the time when the reports of the workshops organised for modernising the syllabi in various studies are available.

The Panels in the Humanities and Social Sciences have devoted considerable time in preparing lists of research priorities in various disciplines. In case of some disciplines the list is based on the findings of expert groups set up for the purpose by the ICSSR, in some disciplines the UGC Panels identified their own research priorities; and in the case of Education the list was adopted from the report of a UGC seminar on Education Research. The list is merely illustrative and will be under constant revision.

The University Grants Commission is providing financial assistance to universities and colleges for Advanced Research Projects and for Short Term Research Projects in Humanities and Social Sciences. Research projects are approved on the recommendations of the concerned panels which meet twice a year for the purpose.

Advanced Research Projects

The University Grants Commission provides support to teachers in the universities and colleges with facilities for postgraduate studies and research to enable them to take up work on intensive and depth studies in specific areas in the humanities and social sciences.

Research project may be undertaken by an individual teacher or by a group of teachers or by a department as a whole. The Commission also considers research investigations which cut across various disciplines in the

same university and, if necessary, concerned or interested departments in other universities.

Assistance for advanced research is available from the Commission for appointment of research, technical and other staff travel, field work, apparatus, equipment, postage, stationery, computation work, printing of questionnaires, books, journals, contingencies and similar other items needed for the project.

Assistance is normally available to a teacher or a department for one project at a time. The duration of the project may be upto a period of three years. In special cases, however, projects covering a period of three to five years may be considered but in no case will assistance for a project be available for a period of more than five years.

After the completion of the Project, any apparatus, equipment, books and data, etc. procured with UGC assistance becomes the property of the institution where the project was undertaken for use by other scholars.

During the five selections, two each in 1974-75, 1975-76 and one in 1976-77 the Commission has approved 137 advanced research projects (including projects on Sixth parliamentary Election Studies) in a number of universities and in a number of disciplines and a grant of Rs. 32-42 lakhs has been committed in support of these projects.

Short-Term Research Projects

Under this scheme, financial assistance ranging from Rs. 500 to Rs. 5,000 may be provided to a university or college teacher who wishes to undertake, along with teaching work, a short term research project or an investigation for a doctoral degree under approved supervision. Assistance will be available only for field work, preparation of questionnaires, computation work, equipment, books and journals which are specifically required for the proposed project but which are not normally available to the teacher in the institution where he is employed. In special cases assistance may also be provided for publication of monographs and research papers.

Grants under this scheme are available to individual teachers and are neither transferable nor available for appointment of any staff or items of a recurring nature. After the project has been completed, any apparatus or equipment purchased, with the Commission's support, becomes the property of the institution where the teacher is employed. Books and journals may, however, be retained by the teacher, if he so desires.

During the five selections, two each in 1974-75, 1975-76 and one in 1976-77, the Commission has approved 766 Short Term projects at a cost of about Rs. 18.50 lakhs.

The number of Short Term and Advanced Research Projects approved by the Commission during 1974-77 is given below according to disciplines.

S. No.	Subject	Number of Projects approved	
		Advanced	Short-Term
1.	English and Foreign Languages	1	42
2.	Modern Indian Languages	13	112
3.	Linguistics (including Sanskrit, Arabic and Persian).	17	44
4.	Economics	14	98
5.	Commerce	1	58
6.	History	26	104
7.	Political Science (including Public Administration)	28	63
8.	Law	1	10
8.	Social Work	—	3
10.	Sociology	13	50
11.	Philosophy	11	30
12.	Psychology	7	48
13.	Teacher Education (including Library Science and Journalism)	5	104
Total		137	766

Development of Centralised Facilities in the Universities, Workshop Facilities, Regional Instrumentation Centres, Science Education Centres and Regional Library Centres.

Advanced training and research programmes in universities and colleges demand adequate facilities of general and sophisticated instrumentation, workshop and library services. While it should be expected the each institution should develop such facilities, realisation of this objective is not easy owing to a number of limiting factors, such as, non-availability of such equipment in adequate numbers and of sufficient quality and performance from indigenous manufacturing sources, inadequacy of foreign exchange resources for import of such equipment from other countries and inadequacy

of back-up maintenance services. The availability of financial resources and economics of maximum utilisation of such equipment and other services have also to be kept in view.

The approach of the University Grants Commission in this regard is discussed below :-

Workshop facilities

Efforts are being made to provide funds for developing in each university a centralised workshop facility with an optimum level of workshop machines and tools and essential technical and supporting staff. Such workshops, appropriately guided by an inter-departmental or inter-faculty committee of management, could help the user departments to ensure proper servicing, maintenance and repairs of scientific equipment and wherever possible, take up small jobs of design, development and fabrication of scientific equipment as well. With a view to encouraging development of such workshop facilities, the Commission has offered to the universities as well as colleges 100 per cent grant during the Fifth Plan period. Necessary guidelines and assistance in the manner of development of these workshops could also be made available. The Commission has also agreed that 5 per cent of the equipment grant may be used by the universities for purposes of maintenance and servicing contracts so that equipment purchased is properly maintained and used. Similarly, upto 20 per cent of the equipment grant can be used for obtaining components, spare-parts both for existing equipment to ensure that no equipment would remain idle for want of spare-parts and repairs and also to encourage fabrication of equipment indigenously in the universities with the help of workshop facilities available.

Regional Instrumentation Centres

It is also essential to develop a few regional centres of instrumentation for use by a number of institutions within the region. These regional instrumentation centers, adequately equipped and staffed, and properly maintained could take up some or all of the following activities.

- (i) Servicing and maintenance activities,
- (ii) Service facilities, and
- (iii) Instrumentation development work.

It is proposed that during the Fifth Plan period, some such regional instrumentation centres may be established in appropriate locations. These regional centres would have essential inter-faces with the local industries, R & D institutions and the regional offices of the Central Scientific

Instruments Organisation of the CSIR. Efforts are also being made to develop these centres in coordination with the Department of Science and Technology, Government of India.

Guidelines for setting up university Service and Instrument Centres (USIC)

With rapid advances in Science and Technology the universities and colleges are finding an increasing need for adequate facilities for maintenance and servicing of instruments. With the introduction of highly sophisticated instruments, individual universities and institutions cannot normally afford to purchase all the sophisticated instruments necessary for research and training. The problem has become more acute in India on account of non-availability of such equipment indigenously and also the non-availability of adequate foreign exchange, particularly hard currency. Keeping in view the available financial resources and the economics of maximum utilisation of such equipment and other services it is necessary to develop one university service and instrument centre (USIC) for the entire campus in each university.

The Commission has finalised a note on the objectives and functions of the USIC, staffing pattern, grants for maintenance of instruments and purchase of spares, training programmes, research and development of instruments, service charges and transfer of equipment.

The following will mark the approach of the Commission towards the development of instrument centres.

- (a) The Commission will appoint a standing committee or a Panel to monitor the working of such centres.
- (b) It is necessary to collect comparative data on the specifications of costly equipments available from both hard and soft currency areas as well as their costs, so that a decision could be taken regarding the source of import of such equipment.
- (c) The service centres being set up by CSIO should wherever possible, be located in university centres. This was also the recommendation of the National Committee on Science and Technology. Where such regional centres are already existing the UGC would discuss with the organisations concerned so that the facilities become available for universities more effectively than they have been so far, and circulate the information to all university departments in the region.
- (d) It would be necessary also to create Regional Instrumentation Centres (RIC) and/or promote the growth of some USIC

into RIC, so as to cater immediately to the servicing, maintenance and training needs of universities and colleges in the region, and developing instruments. After a period of say five years, when USICs have been created in individual universities and are in a position to take care of routine servicing and maintenance of ordinary instruments in the universities and possibly in the affiliated colleges, the role of RIC will gradually shift towards design and development of more sophisticated instruments, training of staff of USICs in special techniques, making a central regional facility available to university staff for working on the development of new instruments or ancillary equipments and to serve as a clearing house for technical information on instrumentation to the USIC, etc.

Science Education Centres

A few Science Education Centres are proposed to be set up in the university system during the Fifth Plan period. The Science Education Centres would have a special concern with the conditions of science education in the country and initiate appropriate activities and programmes for innovations in science education at the school, college and university level and also establish meaningful interaction with the community, society as well as all others interested in creative science. Each science education centre would have a complex of activities designed in a flexible manner to cater to the scientific interests at different levels. Each science education centre would also have several sub-programmes of individualised activities which could be taken up by other universities in the region.

On the recommendations of the expert committee constituted for examining the proposals received from the universities, the Commission accepted the establishment of science education centres at Madurai and Rajasthan universities. The question of establishing more such centres would be taken up after assessing the progress made by the two centres so far approved.

Regional Library Centre

It seems necessary to strengthen a few university libraries in the different regions to augment their collections of books and journals including back volumes and make them available for use by a number of institutions in the region. Such inter-library service would require development of a number of library service facilities, such as reprography, microfilming facilities for information storage and retrieval by resort to computerisation etc. Details regarding the development of such regional library centres are under consideration of the Commission.

SECTION IV

Cultural Exchange Programmes and International Collaboration

1. Cultural Exchange Programmes

As in the earlier years, during 1976-77 also the University Grants Commission implemented cultural exchange programmes with a number of foreign countries e.g. Afghanistan, Bangla Desh, Bulgaria, Czechoslovakia, Hungary, Romania, Poland, GDR, Iraq, Turkey, FRG, France, USSR, Iran, Syria, Yugoslavia Arab, Republic of Egypt and Mongolia. The Commission was also assigned items for implementation under the cultural exchange programmes with Senegal, Mexico and People's Democratic Republic of Yemen. These programmes involve exchange of teachers/scholars for lecture-cum-study, exchange of views, training (both short and long period), scholarships and fellowships and development of bilateral academic links. The visits may range for a period of three to four weeks to one academic year. During the year under report about 60 foreign academics visited India and about 75 Indian academics were sent abroad under these programmes. The implementation of these programmes over a number of years has helped in initiating a dialogue between our academics and those belonging to various countries covered in the scheme. Efforts are now being made to establish academic links between universities in India and institutions of higher learning in foreign countries concerned under these programmes. The identified areas are being incorporated in the cultural exchange programmes with these countries as far as possible. In programmes where identified areas have not been incorporated and where it is considered mutually advantageous, efforts are being made to provide for development of links in specified fields on the recommendations of expert committees. In some programmes provision has also been made for the establishment of Joint Working Group of academicians from both sides which may meet once in each country to identify areas of collaboration and institutions which may take up these collaborative programmes.

A five member Iraqi delegation visited India during the year to study the working of institutions of higher education and to hold discussions with academics in India with a view to developing academic collaboration between the two countries. The delegation visited a number of educational centres and held discussions with a cross-section of the academic community.

An Indo-Hungarian seminar on "Soil Salinity" was organised in the Central Soil Salinity Research Institute, Karnal in February, 1977 in which Hungarian scientists participated. The Hungarian scientists also visited some areas of interest from the point of view of "Soil Salinity" in the country.

The seminar was a great success and enabled the scientists in the two countries to have a thorough exchange of views on problems of mutual interest in this field. The Commission has also agreed to hold an Indo-Hungarian seminar on Economic Planning, Management and Development in India in which the Hungarian experts would participate. The details are being worked out in consultation with the Hungarian side. A colloquium on "Molecular Biology" is to be held in Hungary in which scientists from both countries would participate.*

Under the Indo-USSR cultural exchange programme, there is provision for binational seminars to be organised in India and USSR. The programme is being coordinated by a committee. Fields in which links between institutions in India and USSR could be established have been identified. Steps are being taken to implement them in consultation with the concerned agencies in the USSR.

Under the Indo-FRG and Indo-GDR Cultural Exchange programmes also there is provision for the development of bilateral academic links between institutions of higher learning in the two countries. The Commission has identified areas of collaboration with these two countries and in the case of FRG some interdepartmental links have already been established and work is in progress. In the case of other links with FRG and those with GDR, the question of establishing academic links is under active consideration. Similarly, areas of collaboration have been identified with Hungary and programmes of collaboration are being examined.

The CSIR has made available 200 man-days for the visit of Indian academics to various centres in France under the CSIR-CNRS Exchange Programme. The to and fro travel expenses, as in the case of cultural exchange programmes, are to be met by the University Grants Commission, whereas the hospitality would be provided by the CNRS, France. This is in addition to the academic exchanges provided under the Indo-French Cultural Exchange Programme.

2. *Indo-British Universities Collaboration Programme*

The programme which provides for the development of academic links between selected universities in India and those in UK in identified fields was continued during the year. The Joint Research Programmes have made good progress during this period. A review of the concept underlying the Indo-British Universities Collaboration Programme was undertaken in consultation with the British Council and it was decided that detailed

* Since organised in November, 1977.

time-bound project plans should be formulated on the basis of reciprocal exploratory visits and that these plans should then be submitted to the UGC and the India Committee for approval. For new proposals priority should be given to those subjects, generally, but not exclusively in scientific and technological fields (including those of agriculture and education) in which collaborative programmes of teaching and research could have useful development attributes. The programmes should have a fair geographical spread and a wide coverage of university rather than a concentration of programme within a few institutions.

The Commission has decided to undertake an appraisal of the Joint Research Programmes undertaken by universities under this scheme with a view to assessing the progress made in these programmes and also to determine their continuation in the coming years. The question of undertaking additional links under the IBUC Programme is also engaging the attention of the Commission.

The programme of providing assistance to university and college teachers for visiting UK for the collection of source material for their research work was continued during the year. Six Indian teachers visited UK under this programme.

Two Senior British Academics visited India during the year 1976-77 for exchanging ideas with their Indian counterparts and delivering lectures at various universities under the British Council Scheme of *Conference Off and On Visits*. Under this scheme the British Council has agreed to make available the visit of six senior British academics to India during the years. The British Council provides international air fare while the maintenance of the British academics in India is the responsibility of the University Grants Commission.

3. *Indo-US Fellowship Programmes*

The Programme initiated in 1975-76 was continued in 1976-77 also. The University Grants Commission was allocated 7 fellowships for Indian scholars to go to USA for advanced research work. One of the fellowships was converted into three visitorships of 13 weeks each. The University Grants Commission on the recommendations of an Expert Committee selected 9 Indian scholars, for visit to USA under this programme. The Commission as in 1975-76 offered 10 fellowships to American nationals for their work in India under this programme.

The CSIR has also allocated 150 man-days for the visit of Indian scholars to USA under the CSIR-US Exchange of Scientists programme.

The period of visit of a scholar under this programme is not to exceed four weeks.

4. *Commonwealth Academic Staff Fellowships or Scholarships*

The University Grants Commission has been coordinating with Commonwealth Scholarships Commission in UK in making nominations for the Commonwealth Academic Staff fellowships or scholarships to enable promising staff members in Indian universities to obtain experience in a university or similar Institution in the UK. A beginning in this direction was made in 1969-70. The Commonwealth Academic Staff fellowships are intended primarily though not exclusively, to help universities in developing Commonwealth Countries to exchange the experience of their academic staff. Though no special areas of study have been identified, the fields of medicine and surgery have been excluded as facilities are already available under the Commonwealth Medical Awards for the purpose.

During the year 1976-77, out of 212 nominations received, the UGC recommended 26 scholars for fellowships and 16 scholars for scholarships. The Commonwealth Scholarship Commission in U.K. has finally selected 10 candidates for fellowships and six for scholarships.

5. *Programme of Exchange of Visits by Younger Scientists and Social Scientists between India and UK*

The programme of exchange of visits by younger scientists between India and UK began in 1963, initially with provision for six places each way. Subsequently this number was raised to eight and on the basis of periodical reviews of the benefits accruing to the participating scientists and institutions under this programme, the number of places available has been increased to twenty, making provision for five places for social scientists also to participate in the programme.

The programme enables young scientists in the age group of 25 to 35 years in the universities in India and UK who have shown potential and promise of teaching and research work in their chosen areas, to spend upto three months in one or more laboratories in the host country for exchange of ideas regarding education and research and to establish worthwhile contacts. The opportunity of working within the university research groups has long-range significance and value in promotion of contacts at working level between the scientists and social scientists in the universities in India and UK. Generally it is expected that the visiting scientists or social scientists would spend about one half to two third of their total period of three months visit to work in an institution best suited for their scientific,

educational and research interests and utilise the remaining part of their time to visit two or three other institutions engaged in work in the area of specialisation.

In the case of visits by Indian scholars and scientists, the University Grants Commission meets the expenditure on return economy class air fare, by direct route to London and back and the British Council provides allowances to meet expenditure towards board and lodging for the period of their stay in UK. In the case of visits by British Scholars and Scientists, the British Council, meets the expenditure on the return air fare to India and the University Grants Commission provides allowances for stay in India. The number of Indian and British scientists who participated in this programme in the year 1976-77 was 19 and 22 respectively.

6. *Scheme for Assisting Universities for inviting Indian Scholars working Abroad*

The Commission has initiated a scheme of assistance for Indian scholars working in universities abroad who are invited by universities in India during their sabbatical leave period. The Commission's assistance is available to enable these scholars to spend either part or whole of their sabbatical leave period for teaching and research in Indian universities. Such assignments under the scheme should be for a period of not less than a term (three months) during the academic year and should not exceed one academic year. The scholars are paid an honorarium of Rs. 1,000 per month for the period of their work in the Indian universities. There is no provision, ordinarily, towards the cost of international travel. The Commission provides necessary assistance to the university to meet the admissible expenditure towards payment of honorarium and travel within India in connection with approved programmes at other universities engaged in work in the subject of the scholars' research interest. During 1976-77 twelve proposals were received under this scheme.

7. *Colombo Plan*

Under the Colombo Plan, information material relating to various courses, from Commonwealth Countries is received through the Government of India. The material is circulated to all the universities for sending nominations. The preliminary selection is made by the Government of India and final selection rests with the sponsoring agency. The Commission has no financial liability. During 1975-76 information material in respect of ten courses was received. During 1976-77, information material was received for six courses.

8. *Unesco Programmes*

The information material regarding various programme courses received from the Ministry of Education and Social Welfare, Ministry of Finance and the Ministry of External Affairs etc. is circulated to all the universities/institutions for their information and for the submission of applications of suitable candidates, if any, direct to the organisers of the courses. The University Grants Commission does not have any financial liability. As regards the courses conducted by the International Centre for Theoretical Physics, Trieste, Italy, the nominations of candidates/scholars are done by them under intimation to the University Grants Commission. Keeping in view the availability of funds, the UGC supports the candidature of normally two or three candidates for whom air-fare (economy class to and from Trieste) to the extent of 50% is borne by the University Grants Commission, subject to the condition that the ICTP meets the other half. During 1976-77 the UGC agreed to support seven scholars for attending two such courses at ICTP Trieste.

9. *British Assistance to Centres of Advanced Study*

It was decided to continue the programme of British assistance to ten selected Centres of Advanced Study as a part of Indo-British University Collaboration Programme. These centres have been requested to send proposals for collaboration indicating the specific research programme and also the universities in UK with which links are proposed to be established. The proposals received from Centre of Advanced Study in Chemical Technology Bombay and CAS in Bio-Chemistry, Indian Institute of Science, Bangalore were approved and forwarded to the British Council. The preliminary visits to the institutes in UK for finalising the programme were undertaken. The proposal from the CAS in chemistry, Delhi University has also been forwarded to the British Council for consideration.

10. *UNESCO/UNDP Assistance Programme for Selected University Departments*

The Commission has been receiving assistance from UNESCO/UNDP since 1963 under the country programme. The assistance of about \$ 3,584,423 was provided to the 15 Centres of Advanced Study/Departments in Science subjects during the years 1963-74.

The assistance enabled the centres to obtain services of experts, training fellowships for Indian personnel in other countries and also sophisticated equipment essentially required for their advanced research programme. The most important feature of this programme was that it enabled the esta-

ishment of worthwhile scientific collaboration and links between centres of advanced study and institutions engaged in advanced study and research in the concerned discipline in other parts of world, particularly in the developed countries.

Consequent upon the successful implementation of this programme and evaluation of the benefits accruing from it in the development of scientific research potential in the country, the UNDP/UNESCO has since approved from October, 1975 another programme of assistance to selected university departments and would make available over a period of 18 months (October, 1975 to March, 1977) about \$ 7,71,900 to help in development of the R & D potential of nine selected university departments. These departments engaged in manpower training and development oriented research would work in close collaboration with appropriate user agencies including industries, and would thus endeavour to meet the demands, to some extent, of scientific manpower, geared to developmental effort. The departments are :-

1. Department of Geology, Andhra University.
2. Department of Physics, Andhra University.
3. Department of Chemistry, Calcutta University.
4. Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore.
5. Department of Geology, Jadavpur University.
6. Department of Biochemistry, Lucknow University.
7. Department of Biochemistry, MS University of Baroda.
8. Department of Physical Chemistry, University of Madras.
9. Department of Chemistry, Rajasthan University.

The assistance available would be for (i) services of experts/consultants (ii) training fellowships in other countries and (iii) purchase of equipment. The project has been extended upto December, 1977. In 1976-77, eight consultants visited the departments. 23 teachers from the departments availed of the fellowships. Equipment, amounting to \$ 2,90,764 has been ordered.

The UNDP Mission which visited India in November, 1974 and helped in the formulation of the first phase project document on the basis of their visits to the departments and evaluation of the proposed programmes has felt that in order that UNDP Assistance may make sufficient impact at a critical level, it would be necessary to initially provide for twice the amount presently available for 1976-77. It was also suggested that the UNDP assistance should be further extended from the initiation phase to a stabilization phase and ultimately to a tapering off period. The Mission felt that the total span

could be extended from five to seven years. The UNDP/UNESCO authorities have been favourably impressed by the progress of implementation of the project. A review mission is likely to visit India in September, 1977 to consider the second phase of assistance.

11. UNESCO Sponsored Courses

In view of a number of advanced research institutions in basic sciences with excellent facilities for training and a recognised international scientific standard in India, the Unesco invited UGC which is responsible for maintaining the standards of higher education and training, to participate in Unesco's International Post-graduate Training Programme. The Commission invited proposals from the CAS/DSA and a few other university departments. The science panels, considered the proposals and identified the following university departments for participation in the International Post-graduate training programme.

1. Department of Geology, Andhra University "Marine Geology, Micropalaeontology, and Economic Geology".
2. Department of Physics, Bombay University with BARC. "Vacuum Techniques & Applications".
3. CAS in Chemistry, Delhi University. "Techniques in Natural Product Chemistry".
4. CAS in Biochemistry Indian Institute of Science, Bangalore. "Advances in Biochemical Sciences".
5. Indian Institute of Science, Bangalore (CISL) "Physical Engineering (Optical Instrumentation)".
6. Indian Institute of Technology, Delhi. "Thin Film Technology".
7. Department of Biochemistry, MS University of Baroda. "Tropical Nutrition".
8. Department of Chemistry, Panjab University, Chandigarh. "Chemistry of Non Aqueous Solvents."
9. CAS in Geology, Panjab University, Chandigarh. "Himalayan Geology".
10. Roorkee University. "Solid State Physics".

The above proposals were forwarded to Unesco Headquarters. The Unesco authorities agreed to the organisation of the following two International Post-graduate Training Courses during 1977-78 on long-term basis for the benefit of the participants from other Member States in South Asia Region :-

1. First International Post-graduate Training Course in Vacuum Techniques and Applications by the Department of Physics, University of Bombay in collaboration with BARC (from Sept., 77 for 6 months duration).
2. Third International Post-graduate Training Course in 'Himalayan Geology' by the Centre of Advanced Study in Geology, Panjab University, Chandigarh (from January, 1978 for 4 months duration)

The Centre of Advanced Study in Geology, Panjab University, Chandigarh organised two international postgraduate Training Courses—one in Micropalaeontology (1975) and the other in Himalayan Geology (1976). The Second Course in the series of Himalayan Geology started from February, 1977 for a six month duration.

The expenditure including travel for foreign participants is met by Unesco and for participants from Indian universities/institutions by the University Grants Commission.

SECTION V

Faculty Improvement Programmes

The University Grants Commission has been attaching great importance to Faculty Improvement Programmes by providing opportunities to teachers to keep abreast of modern developments in their fields of study and research and to exchange ideas with experts in similar or related fields. The focal point in the improvement of standards centres around augmenting the professional competence of the teachers to make them better equipped to initiate and carry out high quality instructional programmes. With that object in view, the Commission has agreed to provide necessary financial support during the Fifth Five Year Plan for raising the professional competence of teachers with the following programmes. The programmes have been designed to be implemented simultaneously to produce multiplying effect.

1. University Leadership Project (Reviewed in Section II of the Report).
2. Refresher courses or short-term Institutes (University or State based) of about six weeks' duration each, during summer or other vacations.
3. All India Advanced Level Institutes in specialised topics or subjects, of about six weeks' duration.
4. English Language Teaching Institutes on All India Level, 6-8 weeks duration.
5. Fellowships for teachers in affiliated colleges at Rs. 250 p.m. as a living allowance in addition to the salary which they continue to get from the parent institution (when the teachers elect to carry out their higher studies and research at outstation centres).
6. National Associateships, with provision of visits to specialised laboratories or institutions for research work.
7. Seminars, symposia, conferences etc., in specialized topics or subjects of 1-2 weeks duration.

The guidelines formulated by the Commission for the implementation of the Faculty improvement Programmes have been given in the UGC Annual

Report for the year 1975-76. These have been circulated to the universities and colleges.

Ongoing Programmes

The ongoing programmes of the UGC for support to the universities and colleges for orientation of teachers, teacher fellowships, national associateship, etc. and the utilisation of the services of retired teachers are reviewed below :

Seminars, symposia, refresher courses, workshops, conferences, etc.

The University Grants Commission has been supporting the efforts of universities and colleges in providing opportunities for college teachers and research workers to keep abreast of modern developments in their fields of study with provision of grants towards organisation of seminars, symposia, refresher courses, workshops, conferences etc. These programmes have been widely welcomed and have evoked enthusiastic response from the universities and members of the academic community as evident from the increasing number of proposals being received by the Commission. During 1975-76, 228 seminars, symposia, refresher courses, workshops, conferences, etc. were organised with UGC support. During 1976-77, 285 seminars, symposia, etc. were organised as detailed below :

	<i>Humanities & Social Sciences</i>	<i>Sciences</i>
1. Seminars	77	31
2. Symposia	5	27
3. Workshops	14	5
4. Refresher Courses	11	4
5. Summer Institutes	50	61
Total	157	128

Summer Institutes in English Language Teaching

The programme of Summer Institutes in English Language Teaching was initiated by the Commission in 1965 with the main objective of assisting the universities in the maintenance of standards of English which is used as a medium of instruction and examination by a number of universities. During 1976-77, nine summer institutes in English teaching for the college

teachers were organised in collaboration with the Central Institute of English and Foreign Languages, Hyderabad and the British Council, New Delhi and with financial assistance from the Commission. 465 teachers participated in the institutes.

English Literature Seminars

Two English literature seminars covering various aspects of poetry, drama and fiction were organised in January, 1977, one at the University of Panjab and the other at the Madras University. The seminars were organised on All India basis under the joint auspices of the University Grants Commission, the Central Institute of English and Foreign Languages, Hyderabad and the British Council. The faculty of the Seminar was drawn from universities in UK and India.

National Fellowships

Twenty National Fellowships are available for teachers of outstanding eminence to take a year or two off from normal duties to devote themselves exclusively to research and writing of results of their study. Teachers selected under the programme receive their normal salary and allowances and a fellowship allowance of Rs. 250 per month in addition to a grant of Rs. 3,000 a year for secretarial assistance, travel and contingent expenditure. During the year 1976-77, five awards were made under the scheme. Fourteen awardees including those selected earlier were working under the scheme at the end of the year. During 1976-77, a grant of Rs. 2,26,965 was paid to the universities and colleges under the scheme.

National Lectures

The scheme of National Lectures was initiated in 1970-71 to enable outstanding teachers and research scholars to visit different university departments for delivering a series of lectures in their special fields and to participate in the academic programmes of host universities. The Commission provides to the selected teachers an honorarium of Rs. 1,500 and a grant of Rs. 250 for preparation of lecture aids etc., in addition to travel expenses. During 1976-77, 33 teachers participated in the programme.

National Associateships

In the year 1970, University Grants Commission initiated a scheme of National Associateship to enable outstanding young teachers of universities and colleges to visit and work for short periods at universities, research institutions and national laboratories which have special facilities

relevant to their respective field of study and research. Initially 100 positions were instituted. In view of the useful purpose served by it, this number was increased to 200 during 1973-74. Subsequently, as a part of faculty improvement programme, the Commission instituted 100 other positions as short term awards extending only for one year. During 1975-76, the Commission raised the National Associateship under 5-year scheme to 400. This includes 100 National Associateships to be used exclusively for enabling persons in institutions outside the universities system to visit and work in the universities in accordance with the approved guidelines. Thus from the year 1975-76, there are three types of National Associateships available as given below :

(a) *Awards extending over a total of Five-Year Period for University and College Teachers (Total positions 300)*

Teachers selected under the programme will be kept on the National Associateships roll for a period of five years from the date of selection and within this period, the teacher concerned can plan and visit the institutions of his choice in India (including universities, national laboratories and other institutions engaged in research) for a maximum of three times, once in a year, for periods of not more than three months. If the selected National Associate fails to undertake at least one such visit within the initial period of three years from the date of the award, his name will be taken out of the National Associateship Scheme roll. So far till 31st March, 1977, 166 positions have been filled.

(b) *National Associateship extending over One Year Duration only for University and College Teachers (Total positions 100)*

This short term award has been instituted to enable such teachers who are selected under the programme to undertake within a period of 12 months of their selection only one visit not exceeding three months, to work at any of the universities or research institutions, having specialised facilities connected with their research work. Additional visits would not therefore be possible. 46 positions were filled up to 31st March, 1977.

(c) *National Associateship extending over a Total Period of Five Years for Persons in Institutions outside University System (Total positions 100)*

National Associateships are to be used exclusively for enabling persons in institutions outside university system to visit and work in the universities in accordance with the approved guidelines.

The University Grants Commission meets the actual cost of travel of the National Associate, once each way from his place of work to the

place of host institution and back. The travel is to be taken by the class (rail, air and road to which he is normally entitled according to his institution rules). In addition, each associate will receive an allowance of Rs. 500 per calendar month to cover his living expenses either in part or full. No travel or living expenses will be available in cases where the host institution is located in the same city. Where a National Associate is required to undertake field work, a sum upto Rs. 500 may be provided in addition, in a year, depending on the nature and need for such field work. No other allowances will be available for meeting laboratory expenses or persons accompanying the visitor for any other purpose. In case of real need, the parent institution may consider giving assistance for such special grants from out of the Un-assigned Grants or Grant for Support of Research placed at the disposal of the university by the UGC during the plan period.

Teacher Fellowships

The Commission with the assistance of various subject panels has identified 335 departments of universities and institutions of National Importance, National Laboratories of the Council of Scientific and Industrial Research etc., for the purpose of implementing the scheme of Teacher Fellowships under Faculty Improvement Programmes. The Teacher Fellowships are meant for teachers from affiliated colleges offering instructions in Humanities including Social Sciences and Science subjects. Professional colleges offering courses in Medicine, Agriculture, and Engineering are not covered under the scheme. Under this programme, the concerned universities and institutions are required to give wide publicity about the facilities being offered by them, invite applications from the prospective college teachers, make the selections and offer the award to the college concerned.

These identified departments can select 5 to 10 teacher fellows to work towards M. Phil./Ph. D. degrees. Departments participating in (i) Centres of Advanced Study and (ii) Special Assistance to Selected Departments can accept in addition 5 more teacher fellows from universities or colleges, for specialised studies.

The teacher selected under the award would be entitled to a living expense allowance of Rs. 250 p.m. from the UGC in case the place of research is away from his normal place of duty (in addition to his salary and all allowances being provided by his college authorities) from the date of his joining research alongwith a contingent grant of Rs. 1,000 per annum. The college concerned will be entitled to the salary of the substitute who may be appointed by the college in accordance with the rules framed by the State Government or the university concerned under the present salary revision of

teachers. The Teacher Fellowships Programme has been decentralised with a view to accommodating increasing number of eligible college teachers expeditiously and to enable university departments to select teachers without delay. The departments selected under this scheme are indicated in Appendix XVII.

In addition to the teacher fellowships allocated to the university departments, institutions of national importance etc. as detailed above, the Commission also awards teacher fellowships directly in the Humanities, Social Sciences and Science subjects to teachers in the affiliated colleges. The total number of awards made during the period 1975-77 is indicated below :

<i>Year</i>	<i>Number of awards</i>
1975	44
1976	250
1977	599
Total	893

Travel Grants

Travel grants are available to the teachers in the universities/colleges and full-time post-doctoral fellows for participation in international conferences and seminars. The provision for this is included in the unassigned grants placed at the disposal of the universities. The quantum of UGC assistance in respect of teachers in the university is limited to the extent of 50 per cent of the travel, registration and maintenance expenditure, provided the other 50 per cent is met by the university/State Government. The assistance for post-doctoral fellows is provided by the University Grants Commission directly on 100 per cent basis. Colleges can also sponsor the participation of teachers working with them in international conferences, provided they are willing to meet 50 per cent of the cost of international travel from their own or university or Government funds. In such cases, the remaining 50 per cent of the expenditure is provided by the Commission after evaluation by a referee regarding the value of the research work to be presented by the teacher. On the recommendation of a committee, the Commission has decided to extend this scheme to technical personnel assisting in research in the universities on the same terms and conditions as to teachers in the universities. Only scientific/technical officers enjoying a scale of not less than Rs. 700-1,300 will be considered for such assistance.

The universities/institutions have been allowed to spend up to 75 per cent of the unassigned grant towards travel and other expenditure on attending international conferences, seminars etc. in accordance with the guidelines. Preference in this regard is to be given to participation by young staff members.

In 1976-77, travel grants amounting to Rs. 1.97 lakhs were paid to the colleges to enable research fellows or scholars or teachers for attending conferences within the country and abroad, in addition to an unassigned grant of Rs. 20.31 lakhs placed at the disposal of universities.

Staff Quarters or Teachers Hostels

The Commission continued to provide grants towards the construction of staff quarters or teachers hostels approved during the Fourth Plan period. Grants were also allocated to the universities for the purpose on the basis of the recommendations of the Fifth Plan visiting committees.

The University Grants Commission, with the help of a Committee, considered steps that may be taken by the UGC in order to augment residential facilities in the universities, both for purposes of enabling universities to provide residential accommodation to faculty members so that they may be recruited, on an all-India basis, against the posts sanctioned by the Commission during the Fifth Plan period and also for providing residential and other facilities required by the universities for visiting faculty for various purposes, such as, faculty improvement programme, summer institutes, academic conferences, etc. The University Grants Commission has accepted the recommendation made by this committee and agreed to assist the universities to construct faculty residences (both Type-I and Type-II) on the usual sharing basis for about 50% of the number of additional teaching posts approved by the UGC in the Fifth Plan period. Instead of three categories of residence provided earlier there are now only two types, one for Professors and Readers and the other for Lecturers. Grants for the purpose are provided in addition to grants recommended by the Fifth Plan Visiting Committees.

In order that the universities could utilise the rental income from staff residences constructed with the grant available from the UGC the Commission has desired that the universities may be advised to create a separate fund so that the rental income, after meeting the expenditure on maintenance of these buildings could be utilised for construction of additional houses for faculty members. The rental income should not generally be treated as a source of general revenue of the university. The assistance to the colleges is included under Rs. 5 lakhs scheme for the development of affiliated

colleges. In 1975-76 a grant of Rs. 19.77 lakhs was paid to 22 universities for the construction of staff quarters in addition to a grant of Rs. 7.85 lakhs to 9 universities for the construction of teachers hostels. A grant of Rs. 12.36 lakhs was paid to 41 colleges for the construction of staff quarters in 1975-76. In 1976-77, a grant of Rs. 21.16 lakhs was paid to 25 universities for the construction of staff quarters and a grant of Rs. 1.81 lakhs for the construction of teachers hostels. A grant of Rs. 12.09 lakhs was paid to 33 colleges for the construction of staff quarters in 1976-77.

Participation by College Teachers in Faculty Improvement Programmes

The Commission has informed the universities and colleges that the following schemes may be included in the faculty improvement programmes as part of assistance to colleges under Rs. 5 lakhs scheme.

- (i) To enable teachers to attend academic conferences, symposia and seminars where a teacher's paper has been accepted for presentation.
- (ii) To enable teachers to attend conferences in other institutions which may be organised by the UGC for short periods. The expenditure on these items would not exceed Rs. 5,000 per annum and the TA and DA would be paid according to the rules prescribed for the purpose by the institution concerned.
- (iii) To enable the teachers to work for short duration at other universities/research centres in connection with their work in accordance with the guidelines prescribed by the Commission for National Associates.
- (iv) To invite visiting fellows and teachers from other institutions for participation in specific academic programmes.
- (v) To enable teachers to undertake field study work connected with their research work.
- (vi) Organisation of workshops and short term courses for the teachers in accordance with the guidelines laid down by the University Grants Commission.

Revision of Scales of Pay of University and College Teachers : Minimum Qualifications

The Government of India, Ministry of Education and Social Welfare on the recommendation of UGC approved the revised scales of pay in respect of university and college teachers. A statement indicating the existing

and revised scales of pay and the conditions for payment of central assistance were given in the UGC Annual Report for the year 1975-76.

The minimum qualifications prescribed for recruitment to the post of Lecturers in the universities and colleges are given in Appendix XVIII. The question of prescribing qualifications for recruitment to the post of Readers and Professors has been referred to a committee.

It has been noted that some of the State Governments which are implementing the revised scales of pay for university and college teachers have stipulated that existing teachers in colleges should also acquire the qualifications now prescribed by the UGC for appointment of fresh teachers under the revised scales of pay within a period of five years from the date of introduction of the revised scales, failing which they would not be allowed to draw their future increments. The Commission reiterated its earlier view that the qualifications now prescribed by the UGC pertain only to fresh appointments of lecturers in the colleges and not to existing teachers. Only those existing lecturers in colleges who do not possess at the time of their initial recruitment minimum qualifications as prescribed by the university concerned at the time of appointment should be required to attain these qualifications within five years from the date of placement in the revised scale. If they are unable to do so during this period, they shall not be allowed to earn any future increments till they have satisfied this condition.

Separate committees are looking into the question of prescribing qualifications for lecturers in faculties other than Arts, Science, and Commerce and also for teachers in foreign languages and such other subjects for which adequate facilities for Ph.D. are not available in the country.

Visiting Professors and Visiting Appointments

The University Grants Commission reviewed the guidelines earlier prescribed for appointment of Visiting Professors. The revised guidelines as accepted by the Commission in respect of Visiting Professors/Visiting Appointments are indicated below:

- (a) A Visiting Professor should be an eminent scholar in his subject.
- (b) The maximum tenure of a Visiting Professor be one year and minimum three months.
- (c) The Visiting Professor be paid honorarium upto Rs. 3,000 per month.

- (d) A suitable provision be made to enable the Visiting Professor to travel within the country for approved academic programme and also for reimbursement of medical expenses, if any.

Visiting Appointments

- (a) The duration of visit should not be less than two weeks and should not exceed four months in a year.
- (b) The travel expenses would be met by the host institution.
- (c) In case of a person receiving his salary from the “parent institution”, for the period of the visit, the host institution would provide hospitality and any honorarium not exceeding Rs. 1,000 per month.
- (d) In the case of a person not receiving his salary from his “parent institution” for the period of his visit the “host institution” would pay an honorarium not exceeding Rs. 2,500 per month.

These guidelines would apply to the Visiting Professors invited from within the country as well as from other countries except that in the case of persons from other countries a provision may be made for payment of economy-class air-fare by direct route.

Visiting Lecturers-Honorarium

The University Grants Commission at its meeting in January, 1977 considered matters relating to payment of honorarium etc. to distinguished scholars/scientists for delivering lectures at universities under various programmes. The Commission has agreed that the honorarium payable to visiting lecturers invited by the universities under the programme of Centres of Advanced Study/Departments of Special Assistance, and All India level Institutes suggested by the Panels may be at Rs. 100 per lecture subject to a maximum of Rs. 400 for any one teacher in any one academic year.

Financial provision for inviting fellows may be made in the case of all departments participating under the Special Assistance Programme as in the case of Centres of Advanced Study.

Institution of Readership in Colleges

The University Grants Commission while considering the “Sen Committee Report”, on conditions of service of teachers in its meeting in June,

1974 decided that as recommended by the Sen Committee, Readerships/ Professorships be also created in selected undergraduate and postgraduate colleges and preferably in autonomous colleges. Further the Commission was of the view that the qualifications and the mode of recruitment to these posts should be the same as applicable for corresponding posts in the university departments. It was decided that as a first step, the Commission may assist the colleges to institute Readerships on the condition that after the Commission's assistance ceases, the colleges or state Governments would take this over as committed expenditure.

The colleges could use for purposes of creation of posts of Readers the general provisions already available under (a) UGC scheme of assistance to colleges for improvement of undergraduate education, as indicated in the guidelines for development of undergraduate colleges within Rs. 5 lakhs; (b) UGC scheme of assistance to postgraduate departments in affiliated colleges; and (c) the scheme of assistance to autonomous colleges.

The Commission has agreed that the general criteria for creation of Readership in single faculty colleges be as follows :

- (a) The college should have satisfied all conditions of affiliation and should have secured permanent affiliation with the University.
- (b) The college should have demonstrated its willingness to initiate changes and innovations in teaching and internal assessment.
- (c) The college should have an enrolment of at least 100 in degree classes and above, a faculty of at least 10 teachers and student teacher ratio of 1:10. Staff may be judged by the proportion of teachers with first class postgraduate or research degrees and research publications; facilities for postgraduate education and research and a library of at least 20,000 books and 10 to 20 research and professional journals. These criteria would apply to Teachers Training, Home Science and Physical Education and Fine Arts, Social Work etc. colleges.
- (d) In the case of Commerce colleges, the colleges should have an enrolment of at least 500 in degree classes and above, a student teacher ratio of 1:20 staff to be judged by the proportion of teachers with first class postgraduate or research degrees and research publications, provision for tutorial system on an institutional basis, good examination results (60% and above), a library of at least 20 to 30 thousand books and 15 to 20 academic

and professional journals and facilities for postgraduate teaching and research.

The number of readerships that may be made available in such colleges would be determined on the merits of each case, the assistance for such posts will be on cent per cent basis.

Utilisation of the Services of Retired Teachers

Since 1961-62, the University Grants Commission has been implementing the scheme for the utilisation of the services of retired teachers. The scheme is intended to help universities, colleges and approved institutions to avail of the services of teachers of outstanding merit who have crossed the age of superannuation but who are otherwise fit to continue their teaching and research.

The Commission in October, 1975 agreed to raise the honorarium under the scheme from Rs. 500 per month to Rs. 750 per month with effect from 1st November, 1975. The amount of contingency grant has also been enhanced from Rs. 1,000 per annum to Rs. 2,000 per annum. The retired teachers selected under the scheme can also apply for research grants to be considered by the respective subject panels.

The selected teachers may also receive honorarium or other facilities, if provided by the institution where he works under the scheme upto a maximum of Rs. 6,000 per annum after the prior approval of the Commission.

The tenure of a teacher selected under the scheme is limited to a period of three years in the first instance. On the recommendation of the Vice-Chancellor concerned, he may be granted extension, till the age of 68 provided the teacher retains active interest in academic work. Assistance under the scheme is available for a maximum period of five years.

Under the rules, the awardee is expected to devote his time to academic pursuits. He is also required to give about six hours a week for contact work with the students which could be in the form of class room teaching or seminars, guiding of research scholars or special lectures etc.

Under the scheme the total placements available for outstanding retired teachers is 300. Out of 267 teachers who were working under the scheme as on 21st September, 1976, 90 were running the first year of their award, 75 their second year, 33 their third year, 19 their fourth year and 50 their fifth year. 46.7 per cent of the awardees belong to the field of humanities, 14.0 per cent to social sciences, 26.3 per cent to science subjects and 13.0 per cent to professional subjects.

SECTION VI

Development of Universities

Universities in India represent a major investment of national resources for the development of our society, for enabling individuals to realise their full potential and to contribute to the process of socio-economic development of the country. The universities also play a major role in fostering and promoting the realisation of the nationally accepted objectives and values. The system of higher education in India has been under stress on account of educated unemployment which, in turn, is linked to slow economic development of the country. There is also the problem of restructuring courses and syllabi to provide better for the needs of the society and the element of wastage in higher education linked to the adoption of a more or less open door policy in admissions, the present system of examinations etc. Nevertheless over the years a fairly strong infrastructure has been built which has made it possible to promote developmental activities in the field of science and technology, as well as in the field of social services.

The approach of the Commission to the Fifth Plan development programmes of universities and colleges was out-lined in Section II of the University Grants Commission report for the year 1975-76. The main emphasis has been on consolidation, flexibility and re-orientation of the existing departments towards social needs, especially those of the under-developed sections and more particularly those living in the rural areas. The underlying objective of the Fifth Plan development schemes is the improvement, maintenance and coordination of standards which is the statutory responsibility of the Commission.

Though the UGC is at present concerned directly only with the development of higher education in universities other than agricultural universities and Gujarat Ayurveda University* nevertheless, through a number of programmes and projects it has been striving to help in providing inter-linkages between agriculture, technology, medical sciences, humanities, social sciences and sciences as no branch of higher education can develop fully in isolation.

In regard to the maintenance of standards and coordination of work or facilities in universities, the UGC has been conscious of the fact that best results would be achieved by developing simultaneously the physical infra-

* Leaving out the agricultural and technological universities, Gujarat Ayurveda University and six universities that have not yet been declared fit to receive assistance under Sec.12(A) of the UGC Act, the Commission is concerned directly with only 78 of the 105 universities at the end of 1976-77.

structure of classrooms, libraries, laboratories, hostels etc. A substantial investment is required to ensure minimum facilities even in selected institutions with sufficient regional spread. The Commission had tried to utilise the limited resources available to it in the best possible manner by bearing this in mind.

The Commission had generally agreed that during the Fifth Plan period about 2/3rd of the allocation made to the UGC would be utilized for the general development programmes of the universities and colleges and the remaining one-third for special programmes for which proposals would be invited from universities and colleges.

The Commission pays development grants to the State Universities* but in respect of the central universities the Commission pays maintenance as well as development grants. Development grants to the universities for the Fifth Plan period are paid on the basis of proposals made by the universities and accepted by the Commission on the basis of evaluation by expert committees. This includes continuing schemes from earlier plans relating to the construction of academic buildings, library buildings, staff quarters, teachers hostels, student hostels, study homes, non-resident student centres, canteens, guest houses, purchase of books, journals and equipment, appointment of additional teaching staff and other miscellaneous schemes approved by the Commission.

The maintenance grants are paid to the Central Universities in terms of the statutory provision under section 12 (b) of the UGC Act to meet deficit after taking into account salaries of teaching and non-teaching staff, maintenance of laboratories, libraries and other day to day requirements of the universities including funds for the retirement benefits of the employees. It also includes the institutions for professional education i.e. technical and medical (Aligarh Muslim University and Banaras Hindu University) and agriculture (Banaras Hindu University and Visva-Bharati). In addition, the maintenance of the hospitals attached to medical colleges at Aligarh and Banaras Universities is also met out of the maintenance grants. Grants paid to the Jawaharlal Nehru University, North Eastern Hill University, Shillong and the University of Hyderabad are meant essentially for their establishments in the first instance.

It may also be noted that the Commission pays development grants to the Central Universities on cent per cent basis whereas in the case of State Universities the matching share, contingent in various schemes, is paid by the Universities/State Governments. Thus the total amount available to the State Universities for development purposes is higher than indicated

* Maintenance grants are paid to the Institutions deemed to be universities and the Roorkee University Centre for Water Resources Development Training.

by figures of university-wise allocation which represents the Commission's share only. However, the utilisation of plan funds by the State Universities remains inadequate or is sometimes delayed by the fact that State Universities are required to give matching contribution and also assurance from the State Government regarding the maintenance of faculty positions after the assistance from the Commission ceases.

(I) *Non-Plan and Plan*

The break up of grants paid to the universities during 1974-75, 1975-76 and 1976-77 in respect of both non-plan and plan expenditure is given below:

	<i>Amount in lakhs of Rupees</i>		
	1974-75	1975-76	1976-77
I. NON-PLAN PROJECT			
A. Administration charges	58.69	63.62	66.68
B. Block grant to			
(i) Central Universities	1,200.00	1,721.00	1,950.00
(ii) Institutions deemed to be Universities	—	176.77	366.90
(iii) Grants paid to the Indian Institute of Science, Bangalore	—	—	7.00
C. (i) Maintenance grants to constituent/affiliated colleges of Delhi University	464.04	821.30 2.98*	878.09 32.39*
(ii) Revision of pay scales and additional D.A. to Academic and Non academic staff	153.14	—	—
D. Schemes not covered under block grants**	314.24	198.96	1.00
Total Non-Plan	2,190.11	2,981.64 2.98*	3,269.66 32.39*
II. PLAN PROJECT			
A. Grants to Central and State Universities for Humanities	326.38 1.53*	304.82 1.99*	554.72 0.10*

* By adjustment.

** These include revision of pay scales and additional DA to academic and non-academic staff.

B. Grants to Central and State Universities for Science	598.83 10.24*	776.14 5.74*	1,158.84 3.51*
C. Grants to Central and State Universities for Engineering and Technology (including engineering colleges)	270.93 0.09*	393.34 0.31*	577.78 0.10*
D. Grants to Constituent/ Affiliated Colleges	381.07 0.09*	277.34 0.29*	335.70 0.66*
E. Grants to Central and State Universities for Miscellaneous Schemes	897.41 7.88*	1,072.82 4.39*	1,191.37 2.97*
F. Miscellaneous Expenditure	16.17 0.06*	23.42 —	31.23 —
Total Plan	2,490.79 19.89*	2,847.88 12.71*	3,849.65 7.35*
Grand Total : Non Plan and Plan	4,680.90 19.89*	5,829.52 15.69*	7,119.31 39.74*

* By adjustment.

(II) Grants to Central Universities

Grants paid by the Commission towards the maintenance of Central Universities (non-plan) during 1974-75, 1975-76 and 1976-77 are as under:—

Amount in lakhs of Rupees

	1974-75	1975-76	1976-77
1. Aligarh Muslim University	325.00	500.00	557.50
2. Banaras Hindu University	445.00	650.00	717.50
3. Delhi University	225.00	301.00	365.00
4. Jawaharlal Nehru University	113.00	143.00	165.00
5. Visva-Bharati	92.00	127.00	145.00
Total	1,200.00	1,721.00	1,950.00

The Commission also continued to provide grants under Plan expenditure to the Banaras Hindu University, Aligarh Muslim University and Delhi

University for medical education. The following grants were paid in 1976-77 :—

<i>Amount in lakhs of Rupees</i>			
<i>S.No.</i>	<i>Name of University</i>	<i>Medical Colleges</i>	<i>Hospitals</i>
1.	Aligarh Muslim University	3·11	5·25
2.	Banaras Hindu University	15·50	79·05
3.	Delhi University	29·50	—

The maintenance expenditure of the medical colleges at Aligarh Muslim University and the Banaras Hindu University and the attached hospitals was met out of block grant of the universities.

The Fifth Plan development proposals of the medical colleges at Aligarh Muslim University and Banaras Hindu University have been assessed by expert committees.

The Commission also continued to pay grants to the central universities for their campus development. During 1976-77 a grant of Rs. 12.28 lakhs was sanctioned for the purpose.

(III) *Grants for Plan Projects*

Development proposals of the Universities in the Fifth Plan period were accepted on the basis of the recommendations of the visiting committees keeping in view the availability of resources. The Visiting Committees consist of experts in various fields of specialisation who are generally drawn from the university system and have, therefore, intimate knowledge of the needs and requirements of individual departments, inter-disciplinary approaches and the general direction in which the university should move in order to improve its standards of teaching and research. In the Fifth Plan period, it was decided to associate a representative of the State Government with the work of the visiting committees so that the State Governments become fully involved in the development programmes of the universities even at the initial stage of planning. The visiting committees were specially asked to take a coordinated view of the development of the universities within a State. This procedure ensured the largest measure of participation by the academic community in planning and in determining priorities and programmes and in bringing about co-ordination as well as the optimum utilisation of resources.

The Commission had invited proposals from the universities/institutions deemed to be universities and postgraduate centres concerned within an allocation of Rs. 107.25 crores. In anticipation of the recommendations of the visiting committees, the Commission allocated to the universities basic grants for the purchase of books and journals, scientific equipment and for certain other projects to enable them to meet their immediate requirements for 1974-75 and 1975-76. The grants were to be utilised for (a) honouring commitments already entered into during Fourth Plan and (b) immediate requirements for library books and journals and scientific equipments upto the time further grants are made on the basis of the recommendation of the visiting committees. The basic grants are treated as the first charge on the Fifth Plan allocation of the universities concerned.

The basic grants allocated to 70 universities and six institutions deemed to be universities amounted to Rs. 242 lakhs for purchase of books and journals and Rs. 363 lakhs for purchase of scientific equipments.

The following grants were paid to the universities and institutions deemed to be universities during 1974-75, 1975-76 and 1976-77.

		<i>Rupees in lakhs*</i>		
<i>Purpose</i>	1974-75	1975-76	1976-77	
1. Science departments	609.07	781.88	1,162.36	
2. Humanities & Social Sciences	327.91	306.82	554.82	
3. Engineering & Technology	271.02	393.64	577.88	
4. Miscellaneous schemes*	905.28	1,077.21	1,194.34	

* The figures include research fellowships and support for departmental projects and miscellaneous schemes etc. and hence do not tally with those given in subsequent tables in respect of science departments, humanities and social sciences and engineering and technology.

(IV) *Grants for Development of Sciences*

During 1976-77, the Commission paid grants totalling Rs. 1,162.36 lakhs to the central and state universities for the development of science education and research, as compared to a grant of Rs. 781.88 lakhs paid in 1975-76.

The assistance given to the universities and colleges for science education and research during 1974-75, 1975-76, and 1976-77 is given below :

<i>Item of Expenditure</i>	1974-75	%	1975-76	%	1976-77	%
1. Staff	59.81	14	12.92	2	161.48	19
2. Equipment	174.97	39	268.09	50	332.16	39
3. Books & Journals	54.54	12	101.30	19	125.28	15
4. Buildings	80.15	17	52.52	10	77.30	9
5. Centres of Advanced Study	50.07	10	36.65	7	85.12	10
6. Special assistance to selected departments	36.41	7	57.72	11	59.03	7
7. Other Schemes	2.39	1	6.70	1	4.16	1
Total	458.34	100	535.90	100	844.53	100

It will be seen from the above table that in 1976-77, the payment of grants was substantially higher as compared to 1974-75 and 1975-76. As a proportion of the total expenditure on science, education and research, the maximum amount was spent on equipment, staff, books and journals, followed by special assistance to selected departments.

Foreign Exchange for Import of Scientific Equipment

During 1976-77 foreign exchange, provided by the Commission to the universities and colleges for the import of laboratory equipment from out of the allocation made by the Government of India, amounted to Rs. 51,08,520 (Foreign credits Rs. 31,86,072 + free resources Rs. 19,22,448). This included foreign credits, free resources and rupee payment area. Generally speaking the amount of free foreign exchange provided was far less than the requirements of the universities.

Unesco (Coupons)

The Commission released to the universities/colleges Unesco Coupons worth Rs. 4,55,025 equivalent to \$51,545. The Unesco Coupons are given to the colleges/universities for the import of ancillary equipment, accessories, chemicals etc.

(V) Grants for the Development of Humanities and Social Sciences

The following grants were paid to the universities during 1974-75, 1975-76, and 1976-77 :

		<i>Rupees in lakhs</i>					
S. No.	<i>Item of Expenditure</i>	1974-75	%	1975-76	%	1976-77	%
1.	Staff	76.10	32	19.78	11	185.96	44
2.	Equipment	7.80	4	4.57	2	30.93	7
3.	Books & Journals	80.48	34	101.09	54	150.18	35
4.	Buildings	42.21	18	33.98	18	24.85	6
5.	Centres of Advanced Study	13.82	6	13.23	7	19.48	5
6.	Special assistance to selected departments	4.07	2	5.03	3	6.05	1
7.	Other Schemes						
	a. Area Studies Programmes	3.11	1	5.52	3	7.65	2
	b. Teacher Education*	8.42	3	4.20	2	—	—
Total		236.01	100	187.40	100	425.10	100

It will be noted from the above table that expenditure picked up in respect of all items except buildings for the year 1976-77 as compared to the first two years of the Fifth Plan. As compared to the expenditure on the development of science departments, the expenditure on the humanities and social science departments was lower, specially in regard to equipment. However, the expenditure on staff and books and journals was higher in the humanities and social science departments. The largest expenditure as proportion of the total expenditure on humanities and social science departments

* This now forms part of the overall Fifth Plan allocation..

has been on staff, books and journals. Year to year variations in regard to item-wise expenditure are not to be given any significance.

(VI) *Development Grants for Engineering and Technology*

Assistance provided by the Commission to the universities for the development of engineering and technology during 1974-75, 1975-76 and 1976-77 is indicated below :—

Rupees in lakhs

<i>S. No.</i>	<i>Items of Expenditure</i>	<i>1974-75</i>	<i>%</i>	<i>1975-76</i>	<i>%</i>	<i>1976-77</i>	<i>%</i>
1.	Staff and Maintenance	47.34	18	50.79	18	25.38	7
2.	Equipment	95.86	35	74.92	27	191.13	49
3.	Books & Journals	18.33	7	10.20	4	66.85	17
4.	Buildings	38.02	14	28.12	10	26.51	7
5.	Fellowships & Scholarships	69.68	26	113.26	41	77.08	19
6.	Miscellaneous Schemes	0.25	—	00.52	—	3.18	1
Total		269.48	100	277.81	100	390.13	100

The expenditure on equipment (49%) followed by fellowships and scholarships (19%) and books and journals (17%) account for a significant proportion of the total expenditure on the development of engineering and technology during 1976-77. There was a significant increase in the expenditure on engineering and technology in 1976-77 as compared to 1974-75 and 1975-76 specially in regard to the expenditure on equipment, books and journals.

(a) *Development of Undergraduate Course in Engineering and Technology*

Assistance for development of undergraduate course in engineering and technology in universities/institutions was being provided by the UGC on 50:50 sharing basis during the Fourth Plan period. The Commission agreed that assistance during the Fifth Plan period for approved postgraduate and undergraduate courses in engineering and technology may be provided on the same basis as for University departments providing postgraduate and undergraduate teaching in other faculties, e.g. sciences and humanities including social sciences. Earlier the visiting committees were sent by the AICTE on the basis of ad hoc proposals made by the engineering colleges/

departments and the Committees looked at requirements in an isolated manner. The requirements of the institutions concerned are being looked into in a comprehensive manner taking into consideration an integrated view of the status and development needs of engineering and technology along with the departments of humanities and social sciences and sciences.

(b) Introduction of Business Administration Course in Universities

The Commission has been providing assistance to 17 universities/institutions in all for postgraduate course in Business Administration. On the advice of the All India Board of Technical Studies in Management, the Commission decided to institute MBA course in universities/institutions. The UGC appointed a committee to suggest university departments which may start postgraduate course in Business Administration. Keeping in view the facilities for management course already available in the states and the position of development of industry and other relevant factors, the UGC agreed that assistance may be provided to Osmania University during 1976-77 for the purpose.

(c) The UGC constituted a panel in Engineering and Technology to advise it on the coordination of courses and areas of specialisation and matters pertaining to the development of engineering and technology in an integrated manner, development of inter-disciplinary and multidisciplinary programmes and other matters such as the selection of National Associateship and provision of funds for suitable research projects.

The Panel recommended support for seven research proposals during 1976-77 involving a total non-recurring and recurring expenditure of about Rs. 6.50 lakhs.

(d) The UGC appointed visiting committees to assess the requirements for development of teaching and research in engineering and technology in respect of Indian School of Mines, Dhanbad, Indian Institute of Science, Bangalore and Cochin University. The reports submitted by the committees have been accepted by the University Grants Commission involving an expenditure of Rs. 861.75 lakhs. Pending assessment of the development proposals of the other universities by the Visiting Committees the Commission has earmarked specific amounts in the Fifth Plan for engineering and technology departments in the universities.

(VII) Fifth Plan Proposals of Universities

A major part of the work relating to the assessment of the development proposals of the universities in the Fifth Plan period had been completed

in 1975-76 as reported in the UGC Annual Report for that year. The following table gives allocations made to the universities on the basis of the reports of the visiting committees during the year 1976-77 :

<i>S</i> No.	<i>University</i>	<i>Grants approved for</i>				<i>Posts-approved</i>				
		<i>Books</i>	<i>Equip- ment</i>	<i>Bldg.</i>	<i>Misc- ellaneous</i>	<i>P</i>	<i>R</i>	<i>L</i>	<i>O</i>	<i>JRF</i>
1.	Sampurnanand Sanskrit*	9.05	4.05	17.17	11.05	1	7	13	4	10
2.	Panjab	28.43	54.60	15.00	2.10	4	23	20	12	—
3.	Kashi Vidyapith	6.50	0.60	11.42	0.80	4	13	7	8	10
4.	Guru Nanak Dev	10.05	19.95	13.00	—	7	14	16	9	—
5.	Punjabi	10.17	18.80	11.00	—	2	11	7	7	—
6.	Calcutta	36.60	38.60	55.60	9.80	6	20	10	17	50
7.	Jadavpur	11.70	15.40	12.10	5.38	3	7	5	9	15
8.	K.S. Darbhanga	2.55	1.20	8.00	2.80	4	1	—	3	5

*1. Existing 25 Departments be reorganised into fewer departments and grouped into faculties.

2. Affiliation of such a large number of schools and colleges even outside UP be further examined.

SECTION VII

Development of Colleges

The affiliated colleges occupy an important position in the university system and have a crucial role to play in the maintenance and improvement of standards. A bulk of the student population in the country, particularly at the first degree level, is enrolled in the colleges and there is also a fair proportion of teachers working in the colleges, as detailed in Section-I of the Report. For the majority of students seeking university level education, the first degree is the terminal stage and it is, therefore, important that the first degree courses offered, by and large, in the affiliated colleges, are adequately strengthened, diversified and made relevant to the fast changing needs of the society. The diversification of the courses has also to be related to the local, regional and national needs. It is also essential that the development needs of the colleges in different parts of the country are identified with great care so that the limited resources available with the Commission can be utilised by such institutions for programmes that are likely to make an impact on the improvement of standards. It is also to be noted that nearly 50 per cent of the colleges have an enrolment of below 400 at the degree level and colleges with such small enrolment find it difficult to become viable either financially or academically. The rate of the increase of colleges has slowed down to some extent during the last three years. 261 colleges of Arts, Science and Commerce were added during the period, 61 being added during 1976-77. However the proportion of non-viable colleges, viz. 49 per cent is still very high (Appendix XIX). It is generally not possible for the small non-viable colleges to provide the requisite facilities by way of qualified staff, libraries, laboratories, class rooms etc. and the quality of instruction consequently suffers. It is also a fact that a number of universities are not in a position to exercise effective coordination in regard to the development of colleges.

The Commission's policy in regard to the development of colleges is governed mainly by two factors, firstly, removal of disparities and regional imbalances and secondly, the improvement of standards and quality of education in the institutions. The Commission's strategy for the development of colleges, keeping in view the limitation of resources and the immensity of the problems, is to bring about qualitative improvements through such programmes as the College Science Improvement Programmes and the College Humanities and Social Science Improvement Programmes; to give special attention to colleges in the backward areas and to raise the level of assistance for the development of undergraduate courses. Under the scheme of lead colleges one or two colleges identified in each district would be

required to prepare integrated programmes for intensive development. Programmes of student welfare include the establishment of book banks, students' aid fund etc. Additional support is provided for postgraduate studies and research in the colleges towards such items as additional staff, equipment, books and journals and buildings.

Preparation of Development Proposals

In preparing their developmental proposals, the colleges have been requested to keep the following in view :—

- (a) Every college seeking institutional support from the UGC should prepare an integrated plan relating to its development programmes for the various faculties and departments and other general amenities during the Fifth Plan.
- (b) The universities, while forwarding such proposals of the college, may state specifically that the institution concerned has fulfilled all conditions of affiliation prescribed by the university for various courses of study offered by the colleges and that the assistance now sought by the college is justified in terms of its academic programmes, educational goals and objectives, and would contribute towards meeting the educational needs of the region concerned.
- (c) As far as possible, expenditure on construction programmes should be limited to not more than 1/3rd of the grant likely to be available from the Commission. Construction of buildings should be so planned that they provide for more functional areas required for class-rooms, laboratories and libraries and construction costs should be kept down by use of local materials as far as possible.
- (d) Where colleges are assisted to construct hostels for students, the colleges would be required to provide 20 per cent of the seats in such hostels, for students belonging to scheduled castes and scheduled tribes. However, if requisite number of students belonging to such communities are not available, these may be given to other students.
- (e) It would be necessary for every college seeking assistance from the Commission for construction of buildings to set up a building committee.

Development of Undergraduate Education in Arts, Science and Commerce Colleges

During the Fourth Plan period the Commission provided assistance generally upto Rupees three lakhs to the colleges for development of undergraduate education in arts, science and commerce and other facilities in colleges. Depending upon the progress of the implementation of the scheme, a college could be further assisted for additional amount of Rupees one lakh. In addition, assistance upto Rupees three lakhs was made available to selected colleges for construction of a teacher's hostel on approved sharing basis of 80 (UGC): 20 (colleges), outside the general financial ceiling of Rupees three lakhs.

At the beginning of the Fifth Plan, the Commission agreed to provide assistance upto Rupees five lakhs during the plan period for the development of undergraduate education in arts, science and commerce courses in the colleges. The assistance was available in two phases, viz., Rupees three lakhs in Phase I and Rupees two lakhs in Phase II. In June, 1976 the Commission reviewed the position and agreed that in the case of colleges which have a student enrolment and staff of 50 per cent more than the prescribed eligibility conditions, the proposals may be considered for the total Rupees five lakhs instead of limiting them to Rupees three lakhs in the first priority.

A college to be eligible to receive assistance from the Commission under the Rupees five lakhs scheme should have a minimum enrolment of 400 students excluding those in PUC/Pre-degree/intermediate classes, and a staff of at least 20 suitably qualified permanent teachers. In the case of colleges providing 2 year course, the minimum required enrolment is 270 students and at least 15 suitably qualified permanent teachers. For a college having a 2-year degree course in arts, science and commerce, as also a 3-year degree course in agriculture (as in some colleges in UP) the minimum enrolment required to make it eligible for assistance under the scheme is 335 students and 15 permanent teachers. For women's colleges and colleges where 50 per cent of the enrolment constitutes scheduled caste and scheduled tribe students as also colleges situated in areas declared backward by the Planning Commission and circulated to the universities, this condition has been relaxed to 300 students and 15 suitably qualified permanent teachers in 3-year degree course colleges, and to 200 students and 10 permanent teachers in 2-year degree course colleges.

Assistance under the scheme has been broadly divided into the following items :

<i>Scheme</i>	<i>Percentage of total allocation</i>
1. Building	upto 33 $\frac{1}{3}$ %
2. Books and equipment, workshop, animal house etc.	50%
3. Faculty Improvement academic Programmes, additional staff	Not less than 16 $\frac{2}{3}$ %

The position of implementation of the scheme of assistance for the development of undergraduate education in arts, science and commerce courses in colleges as on 31st March 1977 was as under :

Progress of Implementation of the Scheme of Development of Undergraduate Colleges (as on 31-3-1977)

<i>Rupees in lakhs</i>			
<i>Total number of Colleges and Item-wise Details</i>	<i>Number of proposals accepted</i>	<i>Amount approved</i>	<i>UGC Share</i>
Number of Colleges	1093	1437.29	875.21
(a) Books and Journals	430	299.10	220.47
(b) Equipment	397	364.86	275.12
(c) Buildings	325	754.03	357.89
(d) Faculty Improvement and Miscellaneous	53	29.29	22.76

The following facts emerge from the above table.

- (a) Proposals at a total cost of Rs. 299.10 lakhs have been approved for the purchase of books and journals, in respect of 430 colleges. The share of the UGC is Rs. 220.47 lakhs, giving an average assistance of Rs. 0.51 lakhs per college from the Commission.
- (b) For the purchase of equipment, the total cost approved is Rs. 364.86 lakhs for 397 colleges. The UGC share amounts to Rs. 275.12 lakhs giving an average of Rs. 0.70 lakhs per college.

- (c) Building proposals costing Rs. 754.03 lakhs have been accepted from 325 colleges. Of this, the share of the Commission is Rs. 357.89 lakhs and the average assistance per college is Rs. 1.10 lakhs.
- (d) The progress regarding the faculty improvement programmes, appointment of additional staff etc. is not satisfactory and proposals costing Rs. 29.29 lakhs sent by 53 colleges were accepted. The share of the Commission is Rs. 22.76 lakhs, giving an average amount per college as Rs. 0.43 lakhs.
- (e) About two third of the colleges preferred to send proposals in respect of building construction but the UGC had laid down that the share of the Commission in respect of any proposals involving building construction would not exceed the prescribed ceiling* and that the Commission was eager to encourage and support proposals for purchase of books and equipment, faculty improvement etc. which would have a direct effect on improvement of standards.

Development of Postgraduate Studies

The Commission has also continued its programme of providing assistance to affiliated colleges for the improvement of facilities for post-graduate courses on selective basis during the Fifth Five Year Plan. The ceiling of assistance per college for the plan period is as under :

		<i>UGC share</i>
<hr/>		
<i>(i) Humanities & Social Sciences</i>		
(all postgraduate departments in Humanities and Social Science subjects in affiliated colleges)		upto Rs. 1.0 lakh per department
<i>(ii) Postgraduate Science Departments</i>		
Physics and Chemistry Departments		Upto Rs. 2.0 lakhs per department
Botany, Zoology, Geology, Biochemistry and Home Science Departments		Upto Rs. 1.5 lakhs per department
<i>(iii) Anthropology, Geography and Mathematics including Statistics Departments</i>		Upto Rs. 1.0 lakh per department
<hr/>		

* Except in the case of women's colleges and colleges located in backward areas, for whom the ceiling is higher.

The proposals from colleges for the development of their postgraduate departments are examined by visiting committees, specially constituted for the purpose, keeping in view the norms laid down for the purpose. In the first instance and pending assessment of the proposals by the Visiting Committees, assistance to the postgraduate colleges is being provided on the following basis :

- (a) All postgraduate departments which are in existence since 1st July 1974 or earlier are eligible for UGC assistance.
- (b) Such postgraduate colleges which have sought assistance for books, journals and equipment only and not for any other item like staff, building, etc., and their departments are eligible as per para (a) above may be provided necessary assistance for these items without sending any Visiting Committee. The quantum of grant for each department may be equal to the expenditure incurred by the department on the item (books/equipment) during the past three years within the ceiling for these items fixed by the University Grants Commission.
- (c) The colleges which seek assistance for additional staff for postgraduate departments and have at the moment less than four teachers in an arts department and six in a science department may first reach this figure by appointing persons with research qualifications and thereafter if they need more staff they may send the proposals to the UGC with necessary information and justification.
- (d) The Visiting Committees may be constituted to assess the requirements of postgraduate colleges in cases where assistance has been asked for (i) additional staff over and above the number indicated in (c) above and/or (ii) buildings including animal house, workshop etc. and for other items like faculty improvement etc. or where composite proposals for development have been formulated by the Colleges.

*College Science Improvement Programme**

The College Science Improvement Programme (COSIP) initiated by the Commission in 1970-71 in order to bring about qualitative improvement in science instruction at undergraduate level is being implemented in 151 colleges and university leadership project in 34 university departments, in Physics in 13 university departments, in Chemistry in 11 university departments, in Mathematics in 5 university departments and in Biological Sciences in 5 university departments. During the Fifth Plan period Rs. 163.41 lakhs

* For details please see Section II of the Report.

have been approved for new proposals of colleges direct and grants amounting to Rs. 53.88 lakhs for supply of equipments and Rs. 22.91 lakhs for supply of books to colleges have been approved to university departments undertaking university leadership projects.

The activities indicated by several colleges as university departments during the first phase of three years were evaluated and suitable follow-up proposals to be completed in the next two years have been accepted and necessary funds made available for the purpose.

*Colleges Humanities and Social Science Improvement Programme**

The College Humanities and Social Science Improvement Programme (COHSIP) initiated by the Commission in 1974-75, in order to bring about qualitative improvement in Humanities and Social Science subjects at undergraduate level, is being implemented in 105 selected colleges for improvement of undergraduate teaching in these subjects in the colleges. In addition, the university leadership project is being implemented in the Philosophy Department in Rajasthan University. An amount of Rs. 48 lakhs has been approved to the colleges for the purpose.

Colleges in Metropolitan Cities

The Commission recognised the varying needs of colleges situated in metropolitan cities and requested the Vice-Chancellors of the following universities in June, 1975 to send consolidated proposals for centralised facilities for the development of colleges as under :—

Bombay University	...	Rs. one crore
Calcutta University	...	Rs. two crores
Madras University	...	Rs. one crore

The above allocations are in addition to the normal assistance available for the development of colleges.

Colleges in Backward/Tribal Areas/Districts

The Commission has requested the universities to conduct a survey of the stage of development of colleges under its jurisdiction, with each district taken as a unit and to recommend to the Commission for purposes of development assistance one or two colleges situated in backward/tribal areas even though these colleges may not fulfil the qualifying conditions

* For details please see Section II of the Report.

and which in the opinion of the university deserve assistance from the Commission for development to meet the needs of backward/tribal areas/districts concerned. In selecting such colleges needs of the students belonging to scheduled castes, scheduled tribes and other weaker sections would be kept in mind.

Lead Colleges

The Commission decided in June, 1976 that steps should be taken to identify one or two colleges in each district which will have/will be enabled to work with optimal facilities required to maintain proper standards. Such an institution should have a good enrolment, good student-teacher ratio and good facilities so that institutions could be developed to take up innovative academic programmes on the principles of diversification, modernisation, relevance, flexibility and in relation to the local, regional and national needs. Assistance upto Rupees three lakhs (in addition to Rupees five lakhs already available) on 75% (UGC): 25% (College) sharing basis would be made available to such colleges to meet their identified and justified needs for buildings, equipment, books, staff etc. The Vice-Chancellors of the universities were requested in July, 1976 to select one or two such colleges within each district, keeping in view the criteria laid down above. Such colleges were required to prepare an integrated programme for intensive development to take up new programmes and new courses in collaboration with local industries, business organisations and other employment agencies. It will also be necessary for such colleges to make due provision for the scheduled castes/scheduled tribes and students from other weaker sections.

Single Faculty Colleges

The commission provides assistance upto Rs. 1.50 lakhs for the development of single faculty colleges viz., teachers-training colleges, colleges of physical education, colleges of home science, colleges of fine arts and music, schools of social work etc.

Other Programmes of Assistance to the Colleges

- (i) It has been decided to provide assistance to colleges having enrolment of 1,000 students and above (excluding PUC/Intermediate classes) for setting up canteens.
- (ii) Assistance is also available under Faculty Improvement Programmes for teachers in affiliated colleges. Under this scheme, teachers in the affiliated colleges have been provided teacher fellowships to pursue research work for Ph.D. degree in 338 departments of universities and institutions.

- (iii) Centenary grant upto Rupees one lakh for a capital project is available to a college on completion of 100 years of its existence.
- (iv) There are a number of schemes for the welfare of students in the colleges viz., students aid fund, book banks, improvement of existing hostel facilities, development of play fields and purchase of accessories for games and sports, canteens/cafeteria, establishment of study centres, construction of gymnasias etc. as detailed in Section VIII of the Report.

Grants paid to Colleges for General Development and other Schemes

<i>Name of the Scheme</i>	<i>Rupees in lakhs</i>		
	1974-75	1975-76	1976-77
1. Development of affiliated colleges	224.52	99.03	176.86
2. Book Bank	58.14	96.37	75.88
	(602)	(1291)	(1211)
3. College Science Improvement Programme	46.56	39.36	42.14
4. College Humanities Improvement Programme	—	8.38	18.28
5. Students' Aid Fund	23.13	23.48	25.94
	(1247)	(1352)	(1467)
6. Centenary Grants	1.15	0.46	—
7. Development of Postgraduate Studies in Science	13.87	10.75	10.54
8. Development of Postgraduate Studies in Humanities & Social Sciences	5.01	9.91	7.33

Note : Figures in brackets denote number of colleges assisted :

Standing Advisory Committee on the Development of Colleges

The Commission appointed a Standing Advisory Committee on the development of colleges. The first meeting of the committee was held on October 11, 1976. The important recommendations made by the committee, and accepted by the Commission are summarised below:-

- (a) It was noted that most of the colleges preferred to send proposals in respect of building construction but the UGC had laid down that the share of the Commission in respect of any proposal involving building construction would not normally exceed Rs. 1.67 lakhs and the Commission was eager to encourage and support

proposals for purchase of books and equipment, faculty improvement etc. etc. which would have a direct effect on improvement of standards.

- (b) It was noted that one of the reasons mentioned for the slow progress of the scheme was the non-availability of adequate matching share required for the purpose by the colleges. This was also the reason for buildings remaining incomplete as the cost of construction has been increasing gradually over the years.
- (c) With a view to maintaining the standard of education, it was considered desirable that the eligibility condition regarding permanent teachers on the staff of the colleges should be insisted upon and the colleges persuaded to make most of the teachers permanent as this will be conducive to creating better academic atmosphere as also the involvement of the teachers in the academic development of the college concerned.
- (d) The present practice of taking into account enrolment in the B.Sc. classes only (and not in the pre-engineering/pre-medical classes) may continue for determining the eligibility of a college for assistance from the Commission.
- (e) Not more than 1/3rd of the total UGC assistance available may be approved to the colleges for the construction of building projects on 50:50 sharing basis. But in the case of colleges in backward areas where the share of the Commission is 66.66 per cent for academic buildings and 75 per cent for hostels, the total approved cost for the construction of building projects could go upto Rs. 3.34 lakhs per college and the share of the Commission determined as per approved norms i.e. in the case of colleges in backward areas and womens' hostels the deciding factor for building construction projects should be the total approved cost of Rs. 3.34 lakhs, and not the limit of 1/3rd of available UGC assistance.
- (f) The universities may be requested to organise workshops of principals of eligible colleges where the objectives and details of the various schemes could be clarified to the principals and guidance given for preparation of proposals in an acceptable form.
- (g) The State Governments may be requested to make a survey in consultation with the university for the future needs of higher education in the State. It may be ensured that no new college is established without proper justification and resources.

- (h) Colleges where 50 per cent or more of the student population comes from scheduled castes/tribes may be considered for assistance on the same basis as those situated in backward areas both in respect of eligibility conditions as also the norms for the pattern of assistance.
- (i) The UGC assistance be on cent per cent basis for approved remedial courses in the colleges.
- (j) The Commission considered the needs of colleges with larger enrolment and satisfying the criteria of desirable minimum staff student ratio of 1:20 and with examination results of 60 per cent or higher and agreed that such colleges deserved to be assisted on an increasing slab system as under:-
- | | |
|---|--------------|
| (i) Colleges having an enrolment between
1001 to 2000 | Rs. 8 lakhs |
| (ii) Colleges having an enrolment more than
2000 students. | Rs. 10 lakhs |
- (k) For the proper and integrated development of affiliated colleges, the universities may be requested to take expeditious steps for the establishment of college development councils. Such a council may include members from the universities/colleges and State Government. The UGC may provide some extra assistance, if necessary, for the functioning of these councils.
- (l) The universities and colleges may be requested to make the maximum use of the assistance made available by the Commission for the various schemes included under the Faculty Improvement Programmes for teachers from the affiliated colleges.

The Commission has already written to the State Governments and the universities in regard to the various action points concerning them in the decisions referred to above.

Delhi Colleges

Since the transfer of the scheme from the Ministry of Education, in 1955-56, the Commission has been paying maintenance and development grants to a number of colleges of the University of Delhi. The Commission pays 95% of the approved deficit for affiliated/constituent colleges and 100% of the approved deficit for university maintained colleges. The maintenance grants, *inter alia*, include pay and allowance of the teaching and non-teaching

staff, expenditure on repairs of buildings, replacement of furniture and equipment, water and electricity, books and journals, grants towards revision of pay scales, payment of D.A., retirement benefit etc.

In the case of Delhi Colleges, the Central Government through the Commission has provided funds not only for maintenance and development but for establishment as well. There are several colleges sponsored by the Delhi Administration which are located in the school buildings. It is necessary that permanent buildings are made available for such colleges so that the school buildings could be used for the purpose for which they were constructed and also for a proper and planned development of the academic activities of the colleges.

It may be mentioned in this connection that schemes like (a) Rs. 5-10 lakhs scheme of development of colleges (b) COSIP/COHSIP (c) scheme for development of colleges in metropolitan cities (Bombay, Calcutta and Madras), applicable to colleges in the State Universities are not wholly available to the colleges of Delhi University.

In view of what has been stated above, the Commission continued to provide grants to the colleges affiliated to the University of Delhi and receiving maintenance grants from the Commission. During 1976-77 there were 45 colleges (including 10 colleges offering evening classes also), and seven university maintained colleges. Grants amounting to Rs. 878 lakhs and Rs. 32.39 lakhs—by adjustment were paid to the colleges for their maintenance. The Commission also continued to provide development grants to the colleges for the purchase of books, equipment, furniture and buildings etc. Grants to the tune of Rs. 32.40 lakhs were paid under plan to the Delhi Colleges during 1976-77.

As mentioned in the UGC Annual Report for 1975-76, the Commission appointed a committee to review the following matters relating to Delhi Colleges :—

1. Teacher-pupil ratio
2. Tutorials and preceptorials
3. Directors of Physical Education
4. Courses not attracting sufficient number of Students in the colleges.

The reports on all the issues except that on teacher-pupil ratio have been finalised and accepted by the Commission. They have since been referred to the University of Delhi for comments. The University has already accepted the recommendations on Tutorials and preceptorials, and on Directors of Physical Education. The University has also agreed *in principle*

to organise cooperative teaching in the colleges on cluster basis. The position in regard to the courses that do not attract sufficient number of students will be reviewed in April 1978 by which time the implications of the new pattern of education would be clear.

SECTION VIII

Students

The provision of student amenities in the universities and colleges is not merely a welfare activity but constitutes an integral part of education as well as improvement of standards. These include the provision of scholarships and fellowships, hostel facilities and non-resident student centres, study centres, students' aid fund, health centres, book banks, sports and physical education. It may be mentioned in this connection that all development programmes of the Commission including appointment of staff, construction of academic buildings, libraries and laboratories, purchase of equipment and books and journals etc. have a direct or indirect bearing on the well-being of the students and on the promotion of a congenial environment and conditions for studies and researches. However, the main focus of the Commission's programme in relation to student welfare is on the creation of conditions conducive to study and learning, specially in regard to needy and poor students on the one hand and the meritorious students on the other. The Commission's programmes having a direct bearing on students study and learning are reviewed below :

(a) *Scholarships and Fellowships*

The Commission has given high priority to the award of scholarships and fellowships for the development of research in the universities and colleges. The objective of the scheme is to enable academically bright students to carry on their research as an independent and full time activity through adequate support for their maintenance and for the purchase of books, journals, equipment, etc. by them.

In addition to the fellowships specially created for Centres of Advanced Study, and those provided for approved programmes of research and departments selected for special assistance, the UGC awards annually Senior and Junior Research Fellowships in Sciences, Humanities and Social Sciences and Research Fellowships in Engineering and Technology on an all-India basis.

Senior Research Fellowships

The value of the Senior research fellowships in Science and Humanities including Social Sciences has been raised from Rs. 500 p.m. to Rs. 600 p.m. with effect from 1-7-1974. The number of senior fellowships awarded each year has been raised from 60 to 100 with effect from 1974-75. Annual

contingent grant attached with these fellowships has been raised from Rs. 1,000 to Rs. 2,000. The tenure of fellowships remains two years.

During 1976-77 the Commission awarded 38 senior fellowships in science subjects and 40 senior fellowships in the humanities and social sciences.

Junior Research Fellowships

With effect from 1-7-1974 the value of junior research fellowships in sciences and humanities including social sciences has been raised from Rs. 300 p.m. to Rs. 400 p.m. for the first two years and Rs. 500 p.m. thereafter for another two years after the work of the fellow has been assessed and found satisfactory.

The number of fellowships has been raised from 120 per annum to 250 per annum. The contingency grant attached with the fellowships has been raised from Rs. 1,000 to Rs. 1,500 per annum.

During 1976-77, 110 junior fellowships in science subjects and 161 junior fellowships in the humanities and social sciences were awarded by the Commission. These are centrally awarded by the UGC and are in addition to the fellowships allocated to the universities.

Senior/Junior Research Fellowships to S.C./S.T. Candidates

In addition to the 10 per cent reservation in the general category of Junior/Senior research fellowships, the Commission has instituted 50 junior and 20 senior research fellowships in Humanities including social sciences and sciences for the candidates belonging to scheduled castes and scheduled tribes. The first selection under the scheme was made during 1976-77. 79 junior and 3 senior research fellows were selected during the year.

Scholarships/Research Fellowships in Engineering and Technology

During 1976-77, the Commission agreed to provide 1,279 scholarships to 22 universities/institutions on the basis of the approved annual intake in various postgraduate courses in engineering and technology. The duration of the scholarship is two years and it carries a value of Rs. 400 p.m. in addition to a contingent grant of Rs. 1,000 per annum.

During 1976-77, the Commission agreed to provide 63 post Master Engineering fellowships in engineering and technology for doing Ph. D.

The duration of the fellowships is four years and value Rs. 500 p.m. for the first two years and Rs. 600 per month for the subsequent two years subject to the condition that the research work is found satisfactory on assessment after the initial period of two years. Each fellowship carries an annual contingent grant of Rs. 1,000.

Towards the end of the year under review, 396 scholars in science, 433 in the humanities and social sciences and 156 in engineering and technology were carrying on research with fellowships awarded by the Commission.

The following grants were paid by the Commission towards the award of senior and junior fellowships during 1976-77.

	<i>Rupees in lakhs</i>
1. Humanities and Social Sciences	105.02
2. Sciences	140.06
3. Engineering and Technology	6.08

Junior Research Fellowships allocated to the Universities

In addition to the fellowships mentioned above, the Commission has been allocating every year lump sum grants to the universities for award of junior research fellowships. In 1976-77 an amount of Rs. 1,01,38,000 was allocated for sciences and Rs. 69,31,000 for the humanities and social sciences to the universities to implement this programme. Besides, as part of the Fifth Plan allocation, each university has been given a certain number of fellowships to be awarded as per suggested guidelines.

Hill Areas Fellowships/Scholarships

In order to promote channels of academic communication between the students of the hill areas and the rest of the country, the Commission has instituted junior research fellowships for doctoral work and scholarships for postgraduate studies for meritorious students from these regions for study and research anywhere in the country. During 1976-77, nine scholarships for postgraduate studies and three junior research fellowships for doctoral research were awarded by the Commission under this programme.

Scholarships

Special attention has been paid by the Commission to the promotion of studies in Arabic, Persian, Sanskrit, Pali and Prakrit and Ardhamaghadi by offering scholarships for postgraduate studies. The value of scholarship has been raised to Rs. 250 p.m. for postgraduate studies from the academic year 1976-77. During the year under review, the Commission awarded 22 postgraduate scholarships in Sanskrit/Pali/Prakrit and 21 in Arabic/Persian.

Provision has also been made for scholarships/studentships in specialised courses of study viz. Applied Geology and Geophysics, Space Sciences, Computer Sciences, All-India courses in specialised subjects like Molecular Biology/Adult Education and other post-M.Sc. diploma courses.

Research Associateships

Research Associateships have been instituted in Humanities including Social Sciences and Sciences and Engineering and technology to provide opportunity to research students and teachers who have shown extraordinary talent for research and competence to take up research work independently. The total emoluments vary from Rs. 700 to Rs. 1,000 (consolidated) p.m. besides a contingency grant of Rs. 2,000 per annum. Rationalisation of the amount of the associateships has been under the consideration of the Commission.*

Scholarships for Full-time LL.M. Course

The Commission has instituted 50 scholarships for LL.M. studies to be administered directly by the Commission to enable merited students to pursue their full-time LL.M. courses in universities. The first selection was made during 1976-77 and 50 scholarships were awarded under the scheme.

(b) Construction of Hostels

The Commission has been giving a high priority for the programme of hostels for students in universities and colleges in view of the fact that improvement of the conditions in which students live and work have an important bearing on their academic performance. Provision of hostel facilities is one of the important items included in the general programme of development of universities and colleges.

*The scales have since been rationalised as under. The awardees getting salary upto Rs. 999 will be paid Rs. 1,000 p.m. and those getting salary from Rs. 1,000 to Rs. 1,199 will be paid Rs. 1,200 p.m. and those getting a salary of Rs. 1,200 will be paid Rs. 1,400 p.m.

In the interests of social justice, the Commission has decided that in the Fifth Plan, all institutions assisted by it to construct students' hostels would be required to reserve 20 per cent of the seats in such hostels for students belonging to scheduled castes and scheduled tribes. Hostels are, therefore, important for ensuring access to higher education to the under-privileged classes or sections of society. For this purpose, the Commission has also decided that its assistance for construction of hostels in backward areas will be at the rate of 75 per cent of the total expenditure as against 50 per cent available for other areas. In order to keep the cost of construction low, the commission has been encouraging the construction of dormitories and/or double or triple seated rooms rather than single seated rooms in the hostels.

During 1969-74, the Commission provided hostel facilities for 12,559 students in 63 universities and 15,312 students in 286 colleges.

During 1974-75, 40 such projects were assisted and a grant of Rs. 77.59 lakhs was given to the universities for this purpose. A grant of Rs. 45.97 lakhs was paid to 89 colleges in 1974-75 towards the construction of hostels.

During 1975-76, a grant of Rs. 57.41 lakhs was paid to 36 universities towards the construction of hostels. A grant of Rs. 16.33 lakhs was paid to the colleges for the purpose in 1975-76.

During 1976-77, a grant of Rs. 43.51 lakhs was paid to 30 universities towards the construction of hostels. A grant of Rs. 24.22 lakhs was paid to the colleges for the purpose in 1976-77.

(c) *Assistance for the Improvement of Existing Hostel Facilities in Universities and Colleges*

On the recommendations of the Working Group on Student Welfare Programmes, the Commission has decided to provide assistance during Fifth Plan to universities and colleges for the improvement of living conditions in hostels which were constructed without the financial assistance from UGC e.g. sanitary facilities, proper dining halls etc. The Commission's assistance for this scheme which will be outside the Fifth Plan allocation of the university or the scheme of general development of colleges, will be provided at present on 75:25 sharing basis.

Proposals are being invited from the universities and colleges.

(d) *Scheme for the Improvement or Establishment of Study Centres in Universities*

During the Fourth Five Year Plan, the Commission had introduced a scheme for the establishment of Study Centres to provide students in the residential areas, with essential library facilities, multiple copies of text books etc. While agreeing to provide assistance for the Study Centres upto the end of Fifth Plan, the Commission had desired that the scheme may be reviewed to assess the working of the Study Centres already established, additional requirements and the assistance that may be provided for the establishment of new Study Centres during the Fifth Five Year Plan. Accordingly, the scheme of Study Centres has been reviewed by the Working Group on Student Welfare Programmes and the Commission has now decided to provide the following assistance for the existing study centres and for the establishment of new study centres.

Additional Provision for Existing Study Centres Provision for New Study Centres

(i) *Non-Recurring*

Books	Rs. 20,000	Rs. 30,000
Stacks and Furniture	—	Rs. 15,000

(ii) *Recurring*
(per annum till the end of Fifth Plan)

(i) Staff	Rs. 5,000	Rs. 15,000
(ii) Contingencies (including electricity charges etc.)	Rs. 1,500	Rs. 4,500

The assistance for Study Centres will be provided outside the Fifth Plan allocation for the university. The additional recurring grant for the existing Study Centres would be available from 1976-77.

The universities and colleges have been requested that the following guidelines may be kept in view for the establishment or working of Study Centres :—

- (i) The study centres should be established in a centrally located place keeping in view the number of students and colleges in that area. The Centre should preferably be in a place provided by the Municipal Corporation or local body of the city or in a college or school located in the heart of the town.
 - (ii) There should be no Study Centre in the campus of a university. Wherever a Study Centre has been established within a university campus, it should be merged with the main university library. The Commission would not be in a position to provide any further assistance for such a Centre, unless it is shifted to a place as envisaged at (a) above, latest by the beginning of the academic session 1977-78.
 - (iii) The staff of the Study Centres should be on the strength of the main library of the University.
- (e) *Assistance for the Establishment of Non-Resident Students Centre in Colleges under the Scheme of General Development*

The Commission has recently taken a decision that assistance for establishment of Non-resident Students Centre will also be made available from within the Rs. 5 lakhs scheme for colleges, within the overall provision available for construction of buildings. The colleges may, accordingly, if they assign priority to this programme, include a proposal for the setting of a Non-resident Students Centre in their programme for general development in the current Fifth Plan period.

In the case of a college which has a student enrolment of 1,000 or above, the assistance available from the Commission will be Rs. 70,000. In the case of colleges which have a student enrolment of less than 1,000 at the degree classes, the UGC assistance will be limited to Rs. 35,000. Colleges which have already received assistance from the Commission for the establishment of Non-resident Centre in the earlier plans will not be eligible for further assistance under this programme. If a college with a student enrolment of 1000 and above has availed of only assistance upto Rs. 35,000, a further grant for extension of the existing centre or construction of another centre would also be given by the Commission but such assistance will be within the total grant of Rs. 70,000 admissible for such a college.

(f) *Students' Aid Fund in Universities and Colleges*

The scheme of Students' Aid Fund was initiated to enable needy students in the universities and colleges to have some assistance for paying tuition

and examination fees or for purchasing books. The students may also be assisted to meet their hostel, mess, clothing or medical expenses and/or also for meeting bus and/or local train fares, if their needs are considered genuine. The assistance to be provided to the students out of Students' Aid Fund should be in the form of reimbursement of the expenditure on different items and the payment in cash should be restricted to the minimum. No scholarships or stipends will be given from this fund. The Commission pays to the universities a grant equal to twice the amount collected by them from their departments and affiliated colleges subject to the following with effect from 1-7-1977.

- | | |
|---|----------------------|
| (a) Universities having direct enrolment below 5,000 | Rs. 25,000 per annum |
| (b) Universities having direct enrolment of 5,000 and above | Rs. 50,000 per annum |

Grants ranging from Rs. 1,500 to Rs. 10,000 per annum are paid to the colleges on the basis of the enrolment as per details below :

<i>Enrolment</i>	<i>Amount in Rupees</i>
250 or below	1,500
Between 251-500	2,000
Between 501-750	3,500
Between 751-1000	4,500
Between 1001-1250	5,500
Between 1251-1500	6,500
Between 1501-2000	7,500
Between 2001-2500	8,500
2501 and above	10,000

No grant is sanctioned to a college if its enrolment is below 100 if the college provides two-year degree courses and below 150, if the college is providing three-year degree courses.

The grant for a particular year will be released to the colleges in one instalment on the basis of enrolment figures relating to the preceding year (as on 15th August or 15 days after the close of admission whichever is later).

While determining the Commission's share of assistance the enrolment of pre-university or pre-degree or intermediate classes would not be taken into account and all colleges included under Section 2 (f) of the UGC Act including professional colleges will be eligible for assistance under the Students' Aid Fund Scheme. While the UGC grant will be equivalent to the amount collected by the colleges, it is open to the college to make collection from all students including PUC/Intermediate/Postgraduate and it will also be in order if assistance under this fund is given to all students of the college. However, the ceiling of grant payable by the UGC will be determined on the basis of the enrolment in degree classes.

The universities and colleges have been advised by UGC to notify the Students' Aid Fund Scheme in their prospectuses.

In 1976-77, a grant of Rs. 4.74 lakhs was paid to 40 universities and a grant of Rs. 26.54 lakhs to 1,467 colleges for implementing the Scheme.

(g) *Book Banks in the Colleges*

The Commission has been providing financial assistance for the establishment of book banks in the college libraries. A college should have an enrolment of 100 students (70 students in a teacher's training college) to claim this grant. The Commission provides assistance on the following basis.

<i>A College with a Student Enrolment</i>	<i>Total Allocation</i>	<i>Sharing basis</i>
(a) Below 250	Rs. 8,000)	UGC 75 per cent and
(b) Between 251-500	Rs. 10,000)	college 25 per cent
(c) Between 501-1000	Rs. 15,000)	
(d) Between 1001-1500	Rs. 20,000)	
(e) Between 1501-2000	Rs. 25,000)	
(f) 2001 and over	Rs. 30,000)	

By the end of March 1977, grants amounting to Rs. 253.60 lakhs have been released for the establishment of book banks in 2,528 affiliated colleges in the country.

In June 1976, the universities were informed that such of the colleges which have fully utilised the assistance initially made available during the First Plan under this scheme, would be provided during 1976-77 further

assistance upto 50% of the grant earlier approved by the Commission, and an amount of Rs. 9.48 lakhs was approved to 230 colleges for the purpose by March 1977.

(h) Development of Play Fields and Purchase of Accessories for Games and Sports

On the recommendations of the Working Group on Student Welfare Programmes, the Commission has decided to provide financial assistance to universities and colleges for the development of play fields and purchase of accessories for games and sports on the following sharing basis :

	<i>Allocation</i>	<i>UGC Contribution</i>
(a) University	Rs. 15,000	Rs. 11,250
(b) College	Rs. 10,000	Rs. 7,500

The assistance for the above scheme would be provided outside the Fifth Plan allocation of the university or Rs. Five Lakhs Scheme. However, in view of the limited funds available with the Commission, the availability of play fields and interest and performance of Institutions in the field of games and sports would be taken into consideration while deciding the assistance to be provided under the above scheme.

The Commission's assistance under this programme is not available for the purchase or acquisition of land and may be utilised only for the improvement of play fields or courts or pitches required for the games and sports conducted by the Institutions. If necessary, a part of the grant could be utilised for the purchase of equipment or accessories for such games and sports excluding day-to-day consumable articles.

The main objective of promoting games and sports in the universities and colleges is to enable the participation by as large a number of students as possible.

(i) Financial Assistance to the Universities and Colleges for the Construction of Gymnasia

On the recommendations of the Working Group on Student Welfare Programmes, the Commission has decided to provide assistance for the construction of gymnasia to universities and colleges having a direct enrol-

ment of 1,500 and above, excluding PUC, Pre-Engineering etc. The assistance to be provided by the Commission would be on 75:25 sharing basis and will be provided outside the plan allocation of the university or Rs. Five Lakhs scheme.

The University or College may plan the gymnasium to be constructed, keeping in view the actual requirements and the guidelines laid down for gymnasia in the Playing Field Manual published by the National Institute of Sports, Patiala.

(j) *Provision of Assistance for the Extension or Construction of Canteens including Furniture or Equipment in Universities and Colleges*

Under the scheme of provision of Canteens/Cafeteria in universities and colleges, keeping in view the likely funds that may be made available to the Commission during the Fifth Plan, it has been decided that assistance may be provided for the extension or construction of canteens including furniture or equipment subject to the following :—

1. In the case of (a) universities having a direct enrolment of 1,000 students and above and (b) colleges having an enrolment of 1,000 students or above (in Three-Year Degree Course) and 650 or above (in Two-Year Degree Course) but excluding PUC or Intermediate classes—would be eligible for assistance under this scheme. The assistance will be provided outside the Fifth Plan allocation on a sharing basis 2/3 (UGC): 1/3 (Institution) for construction/extension and furniture and equipment. No assistance will be provided for crockery and utensils.
2. The seating capacity in the Canteen or Cafeteria may not be provided for more than 10% of the students on roll (excluding Pre-University/Intermediate) but the maximum seating capacity that may be provided should not exceed 200 students at any given time.
3. Areas to be provided in the canteen and the kitchen attached to it should not exceed the norms provided by the Commission for dining halls of hostels.

On the recommendations of the Working Group on Student Welfare Programmes, the Commission has decided to provide assistance for the establishment or improvement of canteens on a sharing basis of 2/3 (UGC) 1/3 (Institution), also to those colleges which have enrolment less than 650 in the case of colleges offering 2-year degree courses and less than 1,000 in

the case of colleges offering 3-year degree courses. But in such cases the assistance to be provided would be treated as one of the schemes under the Rupees Five Lakhs scheme provided, the college is qualified to be considered under this scheme.

The canteens to be provided should neither be constructed nor furnished as restaurant but on an austere basis. While designing the construction, the institutions, wherever, possible, should take advantage of the open space that may be available for outdoor seating.

SECTION IX

Facilities for Scheduled Castes and Scheduled Tribes

The Committee on the Welfare of Scheduled Castes and Scheduled Tribes (1973-75), *inter alia* recommended that statistics regarding reservation of seats for scheduled castes and scheduled tribes students should be collected from all universities and should be published in the Annual Report of the University Grants Commission. The committee also suggested that a separate cell with adequate staff should be created in regard to the effective implementation of reservation orders in favour of scheduled castes and scheduled tribes and a note on the activities of the Cell included in the UGC Annual Report. The position in this regard is detailed below :—

1. *Reservation of Seats for Scheduled Castes/Scheduled Tribes Students in the Universities/Colleges*

The University Grants Commission in January, 1973 invited the attention of the universities to the guidelines issued by the Ministry of Education and Social Welfare regarding reservation of seats for scheduled castes/scheduled tribes students in universities/colleges. It was mentioned that according to the present arrangement 20% of the seats are reserved for scheduled castes/scheduled tribes candidates and are also given a concession of 5% marks in the minimum percentage of marks required for admission to any course. It was later observed that even with these concessions, some of the seats in the reserved quota remain unfilled as scheduled castes/scheduled tribes candidates with requisite marks are not available. Accordingly, it was suggested that in case the 20% seats earmarked for them remain unfilled, a further relaxation in the marks may be given to them in order of merit, *inter se* amongst themselves so that all the reserved seats are filled by candidates belonging to these categories.

Subsequently the Committee on Welfare of Scheduled Castes/Scheduled Tribes at its 42nd meeting observed that the percentages of reservation for scheduled castes and scheduled tribes are not uniform and vary from 2 to 20 in universities. Even some of the universities had not adopted the principle of reservation of seats for scheduled castes and scheduled tribes. The Committee desired that the causes and factors in making provision for reservation/relaxation for scheduled caste and scheduled tribe students in the universities colleges may be looked into and immediate effective remedial measures taken in the matter.

In the light of these observations, the Commission in April, 1976 again requested the universities to intimate the present position regarding

reservation of seats in the light of the instructions issued by the Government of India. The position as obtaining in 110 universities from whom replies have been received is as under :—

- (i) 49 universities are observing strictly instructions issued by the Government of India in the matter. Of these, 19 universities have indicated the provision for relaxation of 5% marks for students belonging to scheduled castes and scheduled tribes.
- (ii) In 45 universities, the reservation of seats for students belonging to scheduled castes and scheduled tribes varies from 3% to 33%.
- (iii) 16 universities have not provided for any reservation of seats for candidates belonging to scheduled castes and scheduled tribes but they have indicated that no difficulty is being experienced by students belonging to these categories for admission to various courses in these universities. The Commission has recently finalised a comprehensive proforma for collection of statistics regarding reservations for scheduled castes/tribes in the universities. The proforma has been finalised in consultation with the Ministry of Education and the Commissioner for Scheduled Castes and Tribes.

2. *Creation of separate cells in universities to ensure implementation of orders regarding reservation for scheduled castes and scheduled tribes issued by the Government of India from time to time.*

The following recommendations made in the 42nd meeting of the Committee on Welfare of Scheduled Castes and Scheduled tribes was brought to the notice of the universities for necessary action.

“The Committee would like all the universities in the country to set up within the universities special cells to ensure implementation of the orders regarding reservation for scheduled castes and scheduled tribes issued by the Government of India from time to time. The UGC should keep a watch that all the universities set up such cells without any loss of time.”

3. *Reservation of Seats in Hostels for Students belonging to Scheduled Castes and Scheduled Tribes*

The Commission in the light of the recommendations made in the 22nd report of the Commission for Scheduled Castes and Scheduled Tribes (1973-74) relating to the reservation of seats in hostels in universities and

colleges for students belonging to scheduled castes and scheduled tribes informed the universities/colleges to provide reservation of 20% seats in hostels for scheduled castes and scheduled tribes students irrespective of whether the hostels were constructed with assistance from the Commission or from other sources.

4. *Reservation of Fellowships for Students belonging to Scheduled Castes and Scheduled Tribes*

The Commission in May, 1977 while considering the recommendations made in the 53rd report of the Committee on the Welfare of Scheduled Castes/Scheduled Tribes regarding educational facilities to scheduled castes/scheduled tribes in the Union Territory of Delhi decided that with a view to ensuring that all the university fellowships reserved for scheduled caste and scheduled tribes students are awarded to them, the Delhi University may without lowering the eligibility/minimum qualifications, select such candidates through a selection committee specially constituted for candidates belonging to scheduled castes/scheduled tribes. This would also be applicable to the other universities. The decision of the Commission has been brought to the notice of the universities.

5. *Reservation for Scheduled Castes and Scheduled Tribes in the matter of Appointment to the Teaching Posts in Universities/Colleges*

The Commission in July, 1975 agreed in principle that reservations may be provided for scheduled castes/scheduled tribes for recruitment to the posts of lecturers in the universities/colleges and mechanics for such reservations may be worked out. The Commission further decided that in order that a teaching post may not remain vacant for long periods such reservations may not be operated on roaster basis nor should the reserved posts be carried forward from year to year. The decision was brought to the notice of the universities/colleges for their guidance.

Subsequently, the UGC in June, 1976 in the light of the recommendations made by the committee of Vice-Chancellors of the Central Universities agreed to observe the following mechanics to ensure reservations for scheduled castes/scheduled tribes for recruitment to the posts of lecturers in the universities/colleges.

- “(1) Before the beginning of each academic year, the University should determine the likely vacancies that may occur during the year for recruitment to the post of lecturers.
- (2) The number of posts to be filled under the reserved category may be determined faculty-wise, although no individual post may

be designated as “reserved post”. The advertisement for these posts should indicate that preference would be given to scheduled castes/tribes candidates who are considered fit. On receipt of applications, the university may invite for interview all scheduled castes/scheduled tribes candidates who fulfil the minimum qualifications prescribed for recruitment for the post of lecturer.

- (3) The candidates belonging to scheduled castes and scheduled tribes may be interviewed separately in the first instance. The candidates belonging to the general category may then be interviewed separately keeping in view the recommendations made by the selection committee in respect of scheduled castes/tribes candidates.
- (4) In the case of scheduled castes/tribes candidates interviewed by the committee, if suitable candidates are not available for appointment to the posts of lecturers, the selection committee may recommend appointment of suitable candidates as research associates for a period upto three years and these persons could later compete for the posts of lecturers as and when vacancies occur. The recommendations made by the selection committee in this regard for appointment as research associates may be sent to the Commission for consideration.”

The above decision was brought to the notice of the universities and the State Governments.

6. *Reservation in Recruitment of Staff in the University Grants Commission Office*

Efforts were made to give due representation to the reserved categories of scheduled castes and scheduled tribes and to complete the backlog in the office of the University Grants Commission in pursuance of the recommendations of the Parliamentary Committee on the Welfare of Scheduled Castes and Scheduled Tribes.

A post of Section Officer (Grade-II), two posts each of Assistants and Upper Division Clerks were filled by promotion from candidates belonging to the category of scheduled castes. One post of Daftri was also filled by promotion as a regular measure by a candidate belonging to the category of scheduled tribes. In addition to this, two candidates—one each belonging to the category of scheduled caste and scheduled tribe, were appointed against the posts of peon. Besides a post of assistant librarian became available as a single vacancy and this was treated as reserved for a candidate

belonging to the category of scheduled castes. Selection to the post has since been finalised and the offer of appointment sent to the selected candidate of this category.

The short-fall in the cadre of junior stenographers during the year under report was made good to the extent of two vacancies through *ad hoc* recruitment confined to the candidates belonging to the categories of scheduled caste and scheduled tribe only. Two candidates belonging to the category of scheduled castes were appointed as junior stenographers accordingly. The shortfall in the cadre of lower division clerk in the direct recruitment quota was also made good by appointment of two candidates belonging to the category of scheduled castes. There is no shortfall now in the cadre of lower division clerk in the direct recruitment quota.

Arrangements were also made during the year under report for imparting in-service training to the departmental candidates belonging to the categories of scheduled caste and scheduled tribe through the Institute of Secretariat Training and Management to make them proficient in English shorthand and typewriting to fill up the vacancies in the cadre of junior stenographer reserved for them in the departmental promotion quota.

“Dereservation” had to be resorted to in respect of a vacancy in the departmental quota for class IV employees in the cadre of lower division clerk as no departmental class IV qualified candidate belonging to the category of scheduled castes was available for appointment. The vacancy was filled by appointment of a Class IV employee belonging to the category of scheduled tribe who was recommended to be considered suitable for appointment on relaxed standard. “Dereservation” was also done (i) in respect of one post each filled by promotion as a regular measure in the cadres of deputy secretary and assistant secretary, (ii) in respect of two vacancies of section officer (Grade-I) and (iii) one vacancy of personal assistant, as candidates belonging to the categories of scheduled caste and scheduled tribe in the lower cadres of education officer, section officer (Grade I), personal assistant, section officer (Grade II) and stenographer fulfilling the stipulated requirements were not available. The reservations have, however, been carried forward.

The recommendation made by the Parliamentary Committee on the Welfare of Scheduled Castes and Scheduled Tribes for creation of a Cell with adequate staff in the University Grants Commission for the effective implementation of reservation orders in favour of scheduled castes and

scheduled tribes, referred to the Staff Inspection Unit of the Ministry of Finance, is still under consideration of the unit.*

R.K. Chhabra
Secretary

Professor Satish Chandra
Chairman

Professor B. Ramachandra Rao
Vice-Chairman

Members

Shri P. Sabanayagam

Shri G. Ramachandran

Professor R.P. Bambah

Professor S.S. Saluja

Professor (Miss) A.J. Dastur

Professor S. Gopal

Dr. Amrik Singh Cheema

Professor S. Maqbool Ahmed

Professor B.M. Udgaonkar

Dr. Chandran D.S. Devanesan

* The report has since been made available and a cell has already been created in the office of the Commission.

APPENDIX I

Indian Universities and Institutions deemed to be Universities

(1976-77)

<i>Year of Establishment</i>	<i>S. No.</i>	<i>University</i>	<i>Total Enrolment</i>
1	2	3	4
1857	1	Calcutta University	2,34,661
	2	Bombay University	84,782
	3	Madras University	1,07,747
1887	4	Allahabad University	22,242
1916	5	Banaras Hindu University	12,925
	6	Mysore University	54,929
1917	7	Patna University	9,371
1918	8	Osmania University (Hyderabad)	40,881
1921	9	Aligarh Muslim University	10,048
	10	Lucknow University	31,050
1922	11	Delhi University	80,903
1923	12	Nagpur University	52,506
1926	13	Andhra University (Waltair)	46,228
1927	14	Agra University	40,531
1929	15	Annamalai University (Annamalainagar)	6,438
1937	16	Kerala University (Trivandrum)	52,641
1943	17	Utkal University (Bhubaneswar)	23,538
1946	18	Saugar University	22,233
1947	19	Rajasthan University (Jaipur)	79,724
	20	Panjab University (Chandigarh)	47,008
1948	21	Gauhati University	29,601
	22	Kashmir University (Srinagar)	11,914
1949	23	Roorkee University	2,055
	24	Poona University	61,835
	25	M.S. University of Baroda	17,705
	26	Karnatak University (Dharwar)	41,000
1950	27	Gujarat University (Ahmedabad)	82,046
1951	28	S.N.D.T. Women's University (Bombay)	13,307
	29	Visva-Bharati (Santiniketan)	1,559
1952	30	Bihar University (Muzaffarpur)	20,923
1954	31	Sri Venkateswara University (Tirupati)	26,132
1955	32	Sardar Patel University (Vallabh Vidyanagar)	8,537

1	2	3	4
	33	Jadavpur University (Calcutta)	5,398
1956	34	Kurukshetra University	48,745
	35	Indira Kala Sangit Vishwavidyalaya (Khairagarh)	685
1957	36	Vikram University (Ujjain)	20,800
	37	Gorakhpur University	63,935
	38	Jabalpur University	15,029
1958	39	Sampurnand Sanskrit Vishwavidyalaya (Varanasi)	3,654
	40	Marathwada University (Aurangabad)	42,191
1960	41	G.B. Pant University of Agriculture and Technology (Nainital)	2,285
	42	Burdwan University	59,378
	43	Kalyani University	1,839
	44	Bhagalpur University	10,733
	45	Ranchi University	26,779
1961	46	K.S. Darbhanga Sanskrit Vishwavidyalaya	2,581
1962	47	Punjab Agricultural University (Ludhiana)	2,566
	48	Punjabi University (Patiala)	20,766
	49	Orissa University of Agricultural Technology (Bhubaneswar)	980
1962	50	North Bengal University (Siliguri)	20,664
	51	Rabindra Bharati (Calcutta)	2,426
	52	Magadh University (Gaya)	22,552
	53	Jodhpur University	8,664
	54	Udaipur University	8,060
	55	Shivaji University (Kolhapur)	49,233
1964	56	Indore University	17,356
	57	Jiwaji University (Gwalior)	20,339
	58	Ravi Shankar University (Raipur)	28,043
	59	University of Agricultural Sciences (Bangalore)	3,115
	60	Andhra Pradesh Agricultural University (Hyderabad)	2,199
	61	Bangalore University	45,385
	62	Jawaharlal Nehru Krishi Vishwavidyalaya (Jabalpur)	2,187
1965	63	Dibrugarh University	12,376
	64	Kanpur University	53,295
	65	Meerut University	49,021
	66	Madurai University	47,102
	67	Saurashtra University (Rajkot)	36,292
	68	South Gujarat University (Surat)	20,184
1967	69	Berhampur University	5,681

1	2	3	4
1967	70	Sambalpur University	13,299
1968	71	Gujarat Ayurveda University (Jamnagar)	1,990
	72	Jawaharlal Nehru University (New Delhi)	2,670
	73	Mahatma Phule Krishi Vidyapeeth (Rahuri, Distt. Ahmednagar)	1,783
	74	Calicut University	29,295
	75	Awadesh Pratap Singh University (Rewa)	16,605
	76	Assam Agricultural University (Jorhat)	704
1969	77	Guru Nanak Dev University (Amritsar)	34,323
	78	Jammu University	6,892
	79	Punjabrao Krishi Vidyapith (Akola)	2,068
1970	80	Haryana Agricultural University (Hissar)	1,532
	81	Himachal Pradesh University (Simla)	9,255
	82	Bhopal University	17,068
	83	Rajendra Agricultural University (Dholi, Distt. Muzaffarpur)	1,061
1971	84	Tamil Nadu Agricultural University (Coimbatore)	2,172
	85	Cochin University	1,039
1972	86	Kerala Agricultural University (Trichur)	696
	87	Gujarat Agricultural University (Ahmedabad)	1,582
	88	Konkan Krishi Vidyapith (Dapoli)	533
	89	Marathwada Krishi Vidyapith (Parbhani)	1,303
	90	Lalit Narayan Mithila University (Darbhanga)	11,337
	91	Jawaharlal Nehru Technological University (Hyderabad)	2,657
1973	92	North Eastern Hill University (Shillong)	5,041
	93	Kumaon University (Nainital)	6,209
	94	Garhwal University (Srinagar-Garhwal)	9,892
1974	95	Kashi Vidyapeeth (Varanasi)	2,131
	96	Bidhan Chandra Krishi Vishwavidyalaya (Kalyani)	1,097
	97	University of Hyderabad	32
	98	Narendra Deo University of Agriculture & Technology (Faizabad)	—
	99	Chandra Sekhar Azad University of Agriculture and Technology	861
1975	100	Avadh University (Faizabad)	18,051
	101	Bundelkhand University (Jhansi)	10,917
	102	Rohilkhand University (Bareilly)	23,556
1976	103	Maharishi Dayanand University (Rohtak)	6,942
	104	Kakatiya University (Warangal)	5,288
	105	Nagarjuna University, Nagarjunanagar (Guntur)	15,072

<i>Year of recognition*</i>	<i>S. No.</i>	<i>Institution deemed to be University</i>	<i>Total Enrolment</i>
1958	1.	Indian Institute of Science (Bangalore)	975
	2.	Indian Agricultural Research Institute (New Delhi)	496
1962	3.	Gurukul Kangri Viswavidyalaya (Hardwar)	312
	4.	Jamia Millia Islamia (New Delhi)	1,151
1963	5.	Gujarat Vidyapith (Ahmedabad)	467
1964	6.	Tata Institute of Social Sciences (Bombay)	212
	7.	Birla Institute of Technology and Science (Pilani)	2,124
1967	8.	Indian School of Mines (Dhanbad)	441
1973	9.	Central Institute of English and Foreign Languages (Hyderabad)	471
1976	10.	Gandhigram Rural Institute (Gandhigram)	443
Grand Total			24,31,563

- NOTE : (1) The Universities have been arranged according to the year in which the respective Acts were adopted. The position shown above is upto 31-3-77.
- (2) The enrolment figures which include the enrolment in constituent/affiliated colleges of the Universities generally indicate the position as on Sept. 30, 1976. The figures for Rabindra Bharati relate to the University Campus only. In case of K.S. Darbhanga Sanskrit Vishwavidyalaya and Sampurnanand Sanskrit Vishwavidyalaya the enrolment includes the University Campus as well as such of the Colleges from whom information was recieved in time. In case of some colleges data for the previous year have been used.
- (3) Enrolment figures have not been furnished in the case of Narendra Deo University of Agriculture and Tech. Faizabad as it has not yet started functioning.
- (4) All enrolment figures exclude Pre-University/Intermediate/Pre-Professional levels.

* Year of recognition as an Institution deemed to be University under Section 3 of the UGC Act 1956.

APPENDIX II

Distribution of Colleges according to Courses of Study

(1972-73 to 1976-77)

<i>Courses of Study</i>	<i>Number of Colleges</i>				
	1972-73	1973-74	1974-75	1975-76	1976-77
Arts, Science and Commerce	2,998	3,126	3,172	3,257	3,278
Engineering and Technology	110	109	109	109	112
Medicine, Pharmacy, Ayurveda, Nursing, Dentistry and Homeopathy	210	217	226	232	257
Law	107	110	122	132	138
Agriculture	54	55	57	56	53
Veterinary Science	24	25	25	23	23
Education	287	295	307	315	317
Oriental Learning	275	274	269	271	268
Others (Physical Education, Music and Fine Arts)	93	97	101	113	123
Total	4,158	4,308	4,388	4,508	4,569

APPENDIX III

Enrolment in Correspondence Courses
(1974-75 to 1976-77)

S.No.	Name of the University	Degree Courses Offered	Year of Starting	Medium of Examination/ Instruction	Duration of Courses	Total No. of Students Enrolled			Remarks
						1974-75	1975-76	1976-77	
1	2	3	4	5	6	7	8	9	10
1.	Allahabad	B.A. B. Com.	1976-77	Hindi	2 years	—	—	—	To be implemented in 1977-78.
2.	Andhra	B.A. B. Com.	1972-73	English/ Telugu	3 „	366 254	742 786	1022 910	
3.	Bhopal	B.A. B. Com.	1975-76	Hindi/ English	3 „	— —	83 25	386 86	
4.	Bombay	B.A. Pts. I & II B. Com Pts. I & II M.A. Pts. I & II M. Com., Pts. I & II M.Sc., Pt. I	1973-74 1975-76	English English	2 „ 2 „ 2 „ 2 „ 1 „	485 280 — — —	636 191 266 177 41	1073 706 623 510 44	
5.	Delhi	B.A. (Pass) B. Com. (Pass) B. Com. (Hons.) M.A. in Hindi and Political Science	1962 1970 1977 1977	Hindi/ English	3 „ 3 „ 2 „ 2 „	7579 6769 — —	7048 6674 — —	6544 6930 — —	

1	2	3	4	5	6	7	8	9	10
6.	Himachal Pradesh	B.A.		Hindi/	3 years	792	819	819	
		M.A. in Hindi		English	2 "	534	556	570	
		English	1971-72		2 "	1519	1425	1212	
		Sanskrit	1971-72		2 "	106	106	110	
		Economics	1971-72		2 "	1752	1961	1386	
		Political Science	1971-72		2 "	1417	1416	1341	
		History	1971-72		2 "	632	600	606	
		M.Ed.	1971-72		1 "	1130	1365	1662	
		M.Com.	1975-76		2 "	—	1635	1321	
7.	Jammu	B.A./B. Com.	1976-77	English	3 "	—	—	—	
8.	Kashmir	B.A./B.Com.	1976-77	English	3 "	—	—	149	
9.	Madurai	B.A.	1971-72	English/	3 "	4495	5784	6293	
		B.Com.	1971-72	Tamil		4221	6175	7186	
		M.A. in Tamil	1975-76		2 "	—	—	1408	
		English	1975-76			—	—	3294	
		History	1975-76			—	—	1136	
		M.Com.	1975-76			—	—	1704	
10.	Meerut	B.A.	1969	Hindi/	2 "	1970	1095	950	
				English					

Appendix III (Contd.)

1	2	3	4	5	6	7	8	9	10	
11.	Mysore	B.A.	1972-73	English and	3	Years	3008	3419		
		B.Com.	1972-73	Kannada	3	„	243	348		
		M.A. in English	1972-73		2	„	230	213		
		Kannada	1972-73		2	„	516	448		
		History	1974-75		2	„	325	389		
		Political Science	1975-76		2	„	—	165		
		Sociology	1975-76		2	„	—	609		
12.	Osmania	B.A./B.Com.	1977-78	English	3	„	—	—	—	
13.	Panjab	B.A.	1971-72	English,	3	„	8037	7447	6165	
		B.Com.	1973-74	Hindi and			558	708	686	
				Punjabi						
		M.A. in Pt. I	1976-77	English	1	„	—	—	839	
		English								
		History					—	—	265	
		Political Science					—	—	423	
		Economics				—	—	795		
		Public Administration				—	—	530		
14.	Punjabi	B.A.	1968-69	English	3	„	2117	1428	*	
		M.A. in Punjabi	1974-75	Hindi and	2	„	246	353		
				Punjabi						
		English	1976-77		2	„	—	—	—	
		History	1976-77		2	„	—	—	—	
		Political Science	1976-77		2	„	—	—		

1	2	3	4	5	6	7	8	9	10
15.	Rajasthan	B.Com.	1968	Hindi/ English	3 years	669	943	*	
		M.A. in History	1971		2 „	1078	1299		
		Political Science	1971		2 „	2215	2476		
16.	Sri Venkates- wara	B.A.	1972-73	English/	3 „	176	237	186	
		B.Com	1972-73	Telugu		386	462	396	
17.	Utkal	B.A.	1975-76	English/ Oriya	2 „	—	1596	3373	
18.	Udaipur	B.A.	—	—	—	—	—	—	To be implemented from (1977-78)
19.	CIEFL Hyderabad	Postgraduate certificate in teaching of English	1972-73 (on its own) 1974-75 with Commission's Assistance	—	—	70	51	106	
		M.A. in Russian French German							

* Information is awaited.

** Some universities e.g. Kurukshetra and Patna have also introduced correspondence courses.

APPENDIX IV

Growth of Student Enrolment

(1960-61 to 1976-77)

<i>Year</i>	<i>Total Enrolment</i>	<i>Increase over the Preceding year</i>	<i>Percentage increase</i>
1960-61	5,56,559	75,025	15.6
1961-62	6,63,661	1,07,102	19.2
1962-63	7,52,095	88,434	13.3
1963-64	8,42,110	90,015	12.0
1964-65	9,50,277	1,08,167	12.8
1965-66	10,66,884	1,16,607	12.3
1966-67	11,90,713	1,23,829	11.6
1967-68	13,70,261	1,79,548	15.1
1968-69	15,66,103	1,95,842	14.3
1969-70	17,92,780	2,26,677	14.5
1970-71	19,53,700	1,60,920	9.0
1971-72	20,65,041	1,11,341	5.7
1972-73	21,68,107	1,03,066	5.0
1973-74	22,34,385	66,278	3.1
1974-75	23,66,541	1,32,156	5.9
1975-76	24,26,109	59,568	2.5
1976-77	24,31,563	5,454	0.2

APPENDIX V

Growth of Colleges during the Period from 1973-74 to 1976-77 : Statewise

S. No.	State/Union Territory	1973-74			1974-75		1975-76		1976-77		Increase during the period from 1973- 74 to 1976- 77
		Number of Colleges (Uni. Coll.+ Aff. Coll)	Number of Colleges (Uni. Coll.+ Aff. Coll)	In- crease over the precdg. year	Number of Colleges (Uni. Coll.+ Aff. Coll)	In- crease over the precdg. year	Number of Colleges (Uni. Coll.+ Aff. Coll)	In- crease over the precdg. year	Number of Colleges (Uni. Coll.+ Aff. Coll)	In- crease over the precdg. year	
1.	Andhra Pradesh	280	289	9	307	18	314	7	34		
2.	Assam/Manipur	175	165	-10	171	6	174	3	-1		
3.	Bihar	346	349	3	362	13	398	36	52		
4.	Gujarat	263	273	10	277	4	280	3	17		
5.	Haryana	111	123	12	129	6	129	—	18		
6.	Himachal Pradesh	40	34	-6	33	-1	27	-6	-13		
7.	Jammu & Kashmir	41	37	-4	37	—	37	—	-4		
8.	Karnataka	310	333	23	351	18	348	-3	38		
9.	Kerala	172	170	-2	177	7	178	1	6		
10.	Madhya Pradesh	352	358	6	354	-4	351	-3	-1		
11.	Maharashtra	549	558	9	562	4	565	3	16		
12.	Meghalaya /Nagaland]	20	23	3	28	5	28	—	8		
13.	Orissa	104	106	2	112	6	113	1	9		
14.	Panjab	202	206	4	211	5	213	2	11		
15.	Rajasthan	154	160	6	166	6	168	2	14		
16.	Tamil Nadu	258	267	9	272	5	273	1	15		
17.	Uttar Pradesh	508	512	4	521	9	524	3	16		
18.	West Bengal/Tripura	357	359	2	372	13	383	11	26		
19.	Delhi	66	66	—	66	—	66	—	—		
All India		4,308	4,388	80	4,508	120	4,569	61	261		

NOTE : The colleges situated in the Union territories of Andaman & Nicobar islands, Arunachal Pradesh, Mizoram, Pondicherry, Goa, Daman & Diu have been merged with the colleges in Panjab, Assam, Meghalaya, Tamil Nadu, Maharashtra and Gujarat respectively. The colleges in Chandigarh have been merged with the colleges in the Panjab.

APPENDIX VI

Growth of Enrolment (Excluding PUC/Inter/PP) during the Period from 1973-74 to 1976-77 : Statewise

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S.No. State/Union Territory	1973-74		1974-75		1975-76		1976-76		Average annual com-pound rate of growth during the period from 1973-74 to 1976-77		
	Enrolment	Enrolment	Increase over the preceding year	Per-centage increase	Enrolment	Increase over the preceding year	Per-centage increase	Enrolment		Increase over the preceding year	Per-centage
1. Andhra Pradesh	1,44,505	1,54,007	9,502	6.6	1,58,193	4,186	2.7	1,38,960	-19,233	-12.2	-1.3
2. Assam/Manipur	47,390	45,457	-1,933	-4.1	41,522	-3,935	-8.7	42,688	1,166	2.8	-3.4
3. Bihar	87,182	83,099	-4,083	-4.7	99,434	16,335	19.7	1,05,778	6,344	6.4	6.7
4. Gujarat	1,38,816	1,84,164	45,348	32.7	1,74,696	-9,468	-5.1	1,68,803	-5,893	-3.4	6.8
5. Haryana	52,439	54,100	1,661	3.2	58,565	4,465	8.3	57,219	-1,346	-2.3	3.0
6. Himachal Pradesh	12,462	12,339	-123	-1.0	11,949	-390	-3.2	9,255	-2,694	-22.5	-9.4
7. Jammu & Kashmir	22,095	24,377	2,282	10.3	20,738	-3,639	-15.0	18,806	-1,932	-9.3	-5.2
8. Karnataka	1,38,498	1,34,516	-3,982	-2.9	1,42,027	7,511	5.6	1,45,404	3,377	2.4	1.6
9. Kerala	80,897	78,701	-2,196	-2.7	78,854	153	0.2	83,671	4,817	6.1	1.1
10. Madhya Pradesh	1,46,866	1,56,216	9,350	6.4	1,56,252	36	Negligible	1,60,345	4,093	2.6	2.9
11. Maharashtra	2,85,536	2,94,929	9,393	3.3	3,09,575	14,646	5.0	3,09,753	178	0.1	2.8
12. Meghalaya/Nagaland	5,128	5,091	-37	-0.7	4,756	-335	-6.6	5,041	285	6.0	-0.6
13. Orissa	35,154	40,207	5,053	14.4	44,348	4,141	10.3	43,498	-850	-1.9	7.4

14. Panjab	1,00,204	1,04,532	4,328	4.3	1,05,715	1,183	1.1	1,04,656	-1,059	-1.0	1.5
15. Rajasthan	95,648	1,04,690	9,042	9.5	97,019	-7,671	-7.3	98,572	1,553	1.6	1.0
16. Tamil Nadu	1,57,570	1,60,206	2,636	1.7	1,62,734	2,528	1.6	1,63,902	1,168	0.7	1.4
17. Uttar Pradesh	3,25,354	3,51,537	26,183	8.0	3,51,483	-54	Negligible	3,62,970	11,487	3.3	3.7
18. West Bengal/Tripura	2,80,436	2,96,979	16,543	5.9	3,26,167	29,188	9.8	3,27,022	855	0.3	5.2
19. Delhi	78,205	81,394	3,189	4.1	82,082	688	0.8	85,220	3,138	3.8	2.9
All India	22,34,385	23,66,541	1,32,156	5.9	24,26,109	59,568	2.5	24,31,563	5,454	0.2	2.9

NOTE :—The enrolments relating to the Union Territories of Andaman & Nicobar Islands, Arunachal Pradesh, Mizoram, Pondicherry, Goa, Daman & Diu have been clubbed with the enrolments of Panjab, Assam, Meghalaya, Tamil Nadu, Maharashtra and Gujarat respectively. The enrolment of Chandigarh has been merged with that of Panjab.

APPENDIX VII

Student Enrolment : Stagewise

(1974-75 to 1976-77)

<i>Stage</i>	1974-75 <i>Enrolment</i>	<i>Percen- tage of total</i>	1975-76 <i>Enrolment</i>	<i>Percen- tage of total</i>	1976-77 <i>Enrolment</i>	<i>Percen- tage of total</i>
Graduate	20,75,039	87.7	21,46,919	88.5	21,41,542	88.1
Post-graduate	2,34,114	9.9	2,19,826	9.1	2,18,128	9.0
Research	17,977	0.8	18,381	0.7	21,910	0.9
Diploma/ Certificate	39,411	1.6	40,983	1.7	49,983	2.0
Total	23,66,541	100.0	24,26,109	100.0	24,31,563	100.0

APPENDIX VIII

Stagewise Enrolment : Universities and Affiliated Colleges

(1976-77)

Stage	University Departments	University Colleges	Affiliated Colleges	Total	Percentage in Affiliated Colleges		
					1976- 77	1975- 76	1974- 75
Graduate	1,28,245	93,165	19,20,132	21,41,542	89.7	89.4	90.1
Post- graduate	97,124	4,253	1,16,751	2,18,128	53.5	52.7	51.3
Research	19,267	201	2,442	21,910	11.2	11.0	10.9
Diploma/ Certificate	20,435	200	29,348	49,983	58.7	54.7	54.1
Total	2,65,071	97,819	20,68,673	24,31,563	85.1	84.8	85.1

APPENDIX IX

Student Enrolment : Faculty-wise

(1974-75 to 1976-77)

Faculty	1974-75		1975-76		1976-77	
	Enrolment	% of total	Enrolment	% of total	Enrolment	% of total
Arts/including Oriental Learning	10,56,077	44.6	10,79,990	44.5	10,78,967	44.4
Science	4,63,441	19.6	4,63,841	19.1	4,43,013	18.2
Commerce	3,89,504	16.5	4,14,946	17.1	4,30,387	17.7
Education	77,179	3.3	76,641	3.2	72,512	3.0
Engineering & Technology	90,685	3.8	96,067	4.0	1,00,040	4.1
Medicine	1,06,340	4.5	1,05,140	4.3	1,13,151	4.6
Agriculture	29,293	1.2	30,160	1.2	31,860	1.3
Veterinary Science	6,736	0.3	6,377	0.3	6,700	0.3
Law	1,34,811	5.7	1,41,298	5.8	1,40,680	5.8
Others	12,475	0.5	11,649	0.5	14,253	0.6
Total	23,66,541	100.0	24,26,109	100.0	24,31,563	100.0

APPENDIX X

Strength and Distribution of Teaching Staff in University Departments/
University Colleges according to Designation

(1971-72 to 1976-77)

<i>Year</i>	<i>Professors</i>	<i>Readers</i>	<i>Lecturers*</i>	<i>Tutors/ Demonstrators</i>	<i>Total</i>
1971-72	2,273 (10.0)	3,616 (15.8)	15,296 (67.0)	1,657 (7.2)	22,842 (100.0)
1972-73	2,460 (10.0)	3,938 (15.9)	16,431 (66.5)	1,875 (7.6)	24,704 (100.0)
1973-74	2,639 (9.9)	4,295 (16.1)	17,675 (66.3)	2,050 (7.7)	26,659 (100.0)
1974-75	2,803 (10.1)	5,141 (18.5)	17,700 (63.6)	2,186 (7.8)	27,830 (100.0)
1975-76	2,996 (9.5)	5,484 (17.3)	20,658 (65.3)	2,486 (7.9)	31,624 (100.0)
1976-77					
(a) University Departments	2,790	5,057	14,552	1,610	24,009
(b) University Colleges	265	650	6,272	946	8,133
Total	3,055 (9.5)	5,707 (17.8)	20,824 (64.8)	2,556 (7.9)	32,142 (100.0)

NOTE : Figures in parenthesis indicate the Percentage of the cadre to the total staff in the corresponding year.

* Including Assistant Professors and Assistant Lecturers.

APPENDIX XI

Strength and Distribution of Teaching Staff in Affiliated Colleges according to Designation

(1971-72 to 1976-77)

<i>Year</i>	<i>Senior Teachers*</i>	<i>Lecturers**</i>	<i>Tutors/ Demonstrators</i>	<i>Total</i>
1971-72	14,395 (12.4)	88,617 (76.1)	13,350 (11.5)	1,16,362 (100.0)
1972-73	15,068 (12.5)	91,701 (75.9)	14,051 (11.6)	1,20,820 (100.0)
1973-74	15,226 (11.7)	1,00,177 (77.1)	14,500 (11.2)	1,29,903 (100.0)
1974-75	16,396 (12.2)	1,03,456 (77.2)	14,100 (10.6)	1,33,952 (100.0)
1975-76	16,513 (12.1)	1,06,243 (78.1)	13,243 (9.8)	1,35,999 (100.0)
1976-77	16,797 (12.2)	1,07,255 (78.0)	13,421 (9.8)	1,37,473 (100.0)

NOTE : Figures in parentheses indicate the percentage of the cadre to the total staff in the corresponding year.

* Including principals.

** Including Assistant Professors & Assistant Lecturers.

APPENDIX XII

List of Centres of Advanced Study in Humanities and Social Sciences during Fifth Plan

<i>S. No.</i>	<i>Name of the Centre</i>	<i>Subject</i>	<i>Area of specialisation</i>	<i>Year of recognition</i>
1.	Deptt. of Economics Bombay University Bombay-32	Economics	Public Finance and Industrial Economics	1963
2.	Deptt. of Economics Delhi University Delhi	Economics	Economics of Develop- ment and Economic History	1963
3.	Gokhale Instt. of Politics & Economics Poona University	Economics	Agricultural Economics	1963
4.	Deptt. of Philosophy Madras University Madras	Philosophy	Advaita and Allied Systems of Philosophy	1964
5.	Deptt. of Sankrit Poona University	Sanskrit	Sanskrit Literature	1964
6.	Deptt. of Linguistics Annamalai University	Linguistics	Dravidian Linguistics	1963
7.	Deptt. of Education M.S. University of Baroda	Education	Educational Research	1963
8.	Deptt. of History Aligarh Muslim University	History	Medieval Indian History	1968
9.	Deptt. of Sociology Delhi University	Sociology	Sociology	1968

Appendix XII (Contd.)

Special Assistance Programme in Humanities and Social Sciences

<i>S.No.</i>	<i>Name of the University/College</i>	<i>Department</i>
<i>Fourth Plan</i>		
1.	Osmania University	Economics
2.	Presidency College, Calcutta	Economics
3.	Patna University	History
4.	Saugar University	Anthropology
5.	Bombay University	Sociology
6.	Deccan College Postgraduate & Research Institute, Poona-6	Archaeology
<i>Fifth Plan</i>		
1.	Utkal University	Psychology
2.	Allahabad University	Ancient History Culture & Archaeology
3.	Mysore University	History
4.	Allahabad University	Psychology
5.	Osmania University	Linguistics
6.	Panjab University	Sociology
7.	Calcutta University	History (M.I)
8.	Jadavpur University	Philosophy
9.	M.S. University of Baroda	History
10.	Andhra University	Economics

APPENDIX XIII

List of Centres of Advanced Study in Science during Fifth Plan

<i>S. No.</i>	<i>Subject</i>	<i>Area of specialisation</i>	<i>Department</i>	<i>Year of recognition</i>
1.	Physics	Theoretical Physics and Astrophysics	Department of Physics & Astrophysics Delhi University.	1963
2.		Radiophysics & Electronics	Institute of Radio-physics & Electronics Calcutta University.	1963
3.	Chemistry	Chemistry of Textile Fibres and Dyes	Department of Chemical Technology Bombay University.	1963
4.		Chemistry of Natural Products	Department of Chemistry Delhi University.	1963
5.	Botany	Plant Morphology and Embryology	Department of Botany Delhi University.	1963
6.		Plant Pathology and Mycology	Department of Botany University of Madras.	1963
7.	Zoology	Cell Biology and Endocrinology	Department of Zoology Delhi University.	1963
8.		Marine Biology	Department of Marine Biology Annamalai University.	1963
9.	Geology	Himalayan Geology and Palaeonotology	Department of Geology Panjab University.	1963

<i>S. No.</i>	<i>Subject</i>	<i>Area of specialisation</i>	<i>Department</i>	<i>Year of recognition</i>
10.	Mathematics	Pure Mathematics	Department of Mathematics Bombay University. (in collaboration with the Tata Institute of Funda- mental Research Bombay).	1963
11.		Pure Mathematics	Department of Mathematics Panjab University.	1963
12.		Pure Mathematics	Department of Mathematics University of Madras and Ramanujan Institute of Mathematics Madras.	1967
13.	Astronomy	Experimental Astronomy	Department of Astronomy and Niazmia Observatory Osmania University Hyderabad.	1964
14.	Bio- Chemistry	Proteins, Lipids, Vitamins	Department of Bio- chemistry, Indian Institute of Science Bangalore.	1968

List of Departments approved for Special Assistance Programme

- | | |
|-------------------------|---|
| 1. Physics | 1. University of Andhra. |
| | 2. University of Allahabad. |
| 2. Chemistry | 3. Indian Institute of Science, Bangalore. |
| | 4. University of Panjab. |
| | 5. University of Rajasthan. |
| | 6. University of Calcutta. |
| | 7. University of Osmania. |
| | 8. University of Madras. |
| | 9. University of Poona. |
| 3. Biochemistry | 10. University of Lucknow. |
| | 11. M.S. University of Baroda. |
| 4. Botany | 12. University of Panjab. |
| | 13. University of Andhra. |
| | 14. University of Calcutta. |
| | 15. Banaras Hindu University. |
| 5. Mathematics | 16. University of Poona. |
| 6. Geology | 17. University of Andhra. |
| | 18. University of Jadavpur. |
| 7. Zoology | 19. Banaras Hindu University. |
| 8. Metallurgy | 20. Banaras Hindu University. |
| 9. Molecular Biophysics | 21. Indian Institute of Science,
Bangalore (Added in 1976) |

APPENDIX XIV**Recommendations of the COHSIP Conference (January 1977)**

(i) COHSIP is meant for all the students and should be integrated into the normal programme of studies in the college. It is possible that some parts of the COHSIP though kept open to all, may not be taken up by all the students equally well. But the college should not disqualify students on its own by restricting the programme to a few. Similarly in the beginning it may be necessary for a time to have the COHSIP separated from other programmes in the college for the sake of special care and better organisation. But sooner rather than later the COHSIP must improve and vivify the normal approach to teaching so that improved methods of teaching-learning-assessment become the normal process in the college.

(ii) Teachers in the COHSIP colleges can and should adopt better methods of assessment. A combination of essay type and objective tests should be used to meet the requirement of specific situations. The COHSIP colleges should be encouraged to expose teachers to reorientation courses on methods of testing and evaluation.

(iii) No financial incentives should be given to teachers or students doing COHSIP work. However, special consideration may be given to well-thought out programmes for faculty development proposed by COHSIP colleges to encourage teachers doing excellent COHSIP work.

(iv) Amount sanctioned for non-recurring items and not spent during one academic year may be carried forward to the next academic year. Normally, books should be purchased as soon as possible, but in case of some special difficulty, grants for books may be carried over to the next year. Re-adjustments between different heads of budget in an approved programme are possible to the extent of 10 percent of the total grant for the year. However, major adjustments in a plan already accepted may be sent to the UGC as a fresh revised proposal.

(v) Teaching assistants paid under the COHSIP should preferably be post-graduate or research students. If a good case can be made out by a college for using first degree holders as teaching assistants, the UGC may agree, but normally this category of assistants should be considered least acceptable.

(vi) Persons with qualifications such as a B.A. Pass or B.Com. who are assigned clerical or computational work connected with COHSIP

teaching should be considered under the Budget provisions for "Office assistant" and not "teaching assistant".

(vii) Provision may be made for the one or two—part-time office assistants/typists but full-time office staff may not be employed under the programme.

(viii) Costly equipments whose price consumes a major part of the budget should not be provided under COHSIP. xerox machines may not be permitted.

(ix) Regular annual or semi-annual COHSIP conferences or orientation programmes for smaller groups (regions, zones etc.) should be sponsored by the UGC through COHSIP colleges.

(x) A quarterly COHSIP Newsletter for sharing news and views may be started. Professor Jayakar of Ramnarain Ruia College, Bombay may be requested to undertake this project.

(xi) Autonomy is necessary in fully implementing the new methods of teaching and evaluating under COHSIP and every COHSIP college should work towards this.

(xii) The initial period for the COHSIP will continue to be three years for the present.

(xiii) A set of guidelines for study tours under COHSIP should be worked out. In the meantime, this activity may not be given high priority.

APPENDIX XV**Guidelines for Introduction of M.Phil. Courses*****Objectives :***

The M.Phil. degree should be looked upon as the first research degree whose components will be course work as well as research work. It would provide facilities for undertaking research. Wherever possible, training would be provided in research methodology.

The M.Phil. degree will also provide an opportunity to candidates to proceed to the second research degree viz. Ph.D., it being understood that the research work done for M.Phil. degree could be incorporated for the research work to be done for the Ph.D. degree. Ordinarily, candidates who desire to pursue research would first be admitted to M.Phil course. Only those will be permitted to proceed for the second research degree (Ph.D) as have either obtained an M.Phil. degree or have given satisfactory evidence of having attained equivalent level of work.

Content :

(i) The M.Phil. students may be required to take (a) A number of courses on advanced topics and research methodology; and (b) Submit a dissertation and/or to undertake project work or design work—the exact proportion of these be decided by the panel of subject concerned, keeping in view the needs of the subject.

(ii) The M.Phil. students may be required to take a number of courses which should normally not exceed four courses to be prescribed by the department concerned. Apart from or in lieu of some of these courses, other courses, for the M.Phil. may be prescribed according to individual needs. Students may be encouraged to take courses in allied subjects including languages, wherever possible.

(iii) It is expected that the courses may be designed so that they not only enhance the capacity to take up research but also add to a students understanding of his subject.

(iv) M.Phil. students should be required to attend and participate in at least six seminars to be organised by the department/centre for the purpose of discussing new results or developments in the subject and/or interpretation of data.

(v) Out of the total credits for M.Phil. about 50% may normally be allocated to dissertations which may include project or design work.

Duration :

The duration of the M.Phil. course should be generally two semesters (one academic year) with permission to complete the dissertation subsequently either as a regular candidate or as an ex-student. The duration in which the course work and dissertation should be completed be fixed separately. The course work could be completed in a period not longer than five semesters in all. The semesters should include one successful seminar pertaining to the scholars dissertation.

Admission Requirements :

Admission to the M.Phil. programme should be made on the basis of :

- (i) Satisfactory performance at the Master's degree examination and test conducted by the department concerned.
- (ii) Admission recommended by the department concerned shall have to be approved by the Board of Research Studies in the Universities concerned.

Evaluation :

It would be desirable if the course work and the performance at the seminars is evaluated during the duration of the course on a continuous basis. The candidates who may be declared fit for the award of M.Phil. degree would be given grade A or B. Normally only the students placed in Grade A may be allowed to proceed to work for Ph.D. degree.

Attendance :

M.Phil. students will be required to participate in seminars and lectures during the semesters to the satisfaction of the department concerned which may recommend to the Board of Research Studies the removal of the name of students who were irregular in attendance from the M.Phil. rolls.

Administration on the M.Phil. Degree Programme :

- (i) M.Phil. programme should be instituted in universities having strong teaching departments in the concerned disciplines.

- (ii) M.Phil. Programme shall be administered by the department concerned through its M. Phil. Committee;
- (iii) The M.Phil. Committee will :
 - (a) recommend students for admission to the M.Phil. courses;
 - (b) draw the syllabus for the courses;
 - (c) assign these courses to the concerned teachers of the departments;
 - (d) organise seminars;
 - (e) to guide in the selection of topic for dissertation research;
 - (f) make arrangements for evaluation performance of the M.Phil. students at the seminars;
 - (g) recommend names of examiners for M.Phil. dissertation to the University; dissertation may include in all cases research work such as project or design; and
 - (h) recommend to the university for the award or otherwise of the degree to the students on the basis of the assessment.

Academic Staff :

The responsibility of introducing M.Phil. courses in the postgraduate teaching department in particular will rest with the department itself on the assumption that the department has the necessary infrastructure for instituting such additional responsibility i.e. having the requisite academic and supporting staff and other physical facilities, such as, library, laboratory etc. Marginal assistance could be provided by the Commission to such departments intending to introduce M.Phil. courses where a certain number of college teachers are accommodated to pursue their M.Phil./Ph.D. programme.

APPENDIX XVI

Computer Facilities available in the Universities

December 1977

<i>S.No.</i>	<i>Name of the University</i>	<i>Type of Computer</i>	<i>Remarks</i>
1.	Aligarh	IBM - 1130	
2.	Andhra (Waltair)	IBM - 1130	
3.	Annamalai	TDC - 316	Being installed
4.	Banaras Hindu	(i) TDC - 12	To be installed
		(ii) ICL - 1904	
5.	Bombay	(i) IBM - 1620	—
		(ii) TDC - 316	
6.	Calcutta	IBM - 1130	—
7.	Delhi	(i) IBM - 1620	—
		(ii) IBM - 360-44	—
8.	Dibrugarh	TDC - 312	—
9.	Gauhati	TDC - 316	—
10.	Gujarat (Ahmedabad)	IBM - 1620	
11.	Jadavpur (Calcutta)	B - 6700	Eastern Regional Computer Centre
12.	Jammu	TDC - 316	—
13.	Jawaharlal Nehru (New Delhi)	R - 1020	—
14.	Jodhpur	TDC - 12	—
15.	Karnatak (Dharwar)	TDC - 12	—
16.	Kerala (Trivandrum)	TDC - 316	—
17.	Kurukshetra	(i) TDC - 12	
		(ii) TDC - 316	
18.	Madras	IBM - 1130	—
19.	Mysore	TDC - 316	Being installed
20.	Osmania (Hyderabad)	TDC - 12	—
21.	Panjab (Chandigarh)	IBM - 1620	—
22.	Poona	ICL - 1904-S	To be installed
23.	Ranchi	TDC - 316	—

<i>S.No.</i>	<i>Name of the University</i>	<i>Type of Computer</i>	<i>Remarks</i>
24.	Roorkee	(i) TDC - 12 (Two) (ii) DEC - 2040 or 2050	— To be installed
25.	Sardar Patel (Vallabh Vidyanagar)	IBM - 1620	
26.	Utkal (Bhubaneshwar)	IBM - 1130	
27.	Birla Institute of Technology Pilani	IBM - 1130	
28.	Indian Institute of Science, Bangalore	IBM - 360	

APPENDIX XVII

TEACHER FELLOWSHIP PROGRAMME

Subject-wise break-up of Departments/Universities/Institutions identified by the Commission for implementing the programme of Teacher Fellowship direct in HUMANITIES INCLUDING SOCIAL SCIENCES

<i>Discipline</i>	<i>Universities/Institutions</i>
1. History	Aligarh, Calcutta, Delhi, Jammu, JNU, Patna, Rajasthan, Saugar, Allahabad (9).
2. Political Science	Aligarh, Calcutta, JNU, Lucknow, Madras, NEHU, Osmania, Panjab, Poona, Rajasthan (10).
3. Psychology	Allahabad, Andhra, Madras, Saugar, Utkal, Tata Institute of Social Sciences (6).
4. Hindi	Allahabad, Andhra, JNU, Patna, Saugar (5).
5. Sanskrit	Annamalai, Poona (2).
6. English	Panjab, Rajasthan, CIEFL (3).
7. Linguistics	JNU, Kerala, Panjabi, Osmania (4).
8. Urdu	JNU (1).
9. Tamil	Madurai (1).
10. Telugu	Osmania (1).
11. Oriya	Utkal (1).
12. Philosophy	Allahabad, Andhra, Calcutta, Delhi, Jadavpur, Karnatak, Madras, Poona, Rajasthan, Utkal (10).
13. Sociology	Bangalore, Bombay, Delhi, JNU, Panjab, Poona, SNDT, Tata Instt. of Social Sciences (8).
14. Economics	Andhra, Bombay, Calcutta, Presidency College, Calcutta, Delhi, Gujarat, Jammu, Kurukshetra, Lucknow, Baroda, Osmania, Panjab, Poona, Panjabi, Saugar, Rajasthan, TISC (17).
15. Commerce	Calcutta, Delhi, Panjab, Rajasthan, Madras, Osmania, Saugar (7).
16. Education	Gujarat, Baroda, Panjab (3).
17. Anthropology	Ranchi, Saugar, Utkal (3).
18. Archaeology	Deccan College, (PG Research Institute) Poona (1).

Total number of identified Departments in HUMANITIES AND SOCIAL SCIENCES : 92

Subject-wise break-up of Departments/Universities/Institutions identified by the Commission for implementing the programme of Teacher Fellowship direct in SCIENCE subjects

1. Chemistry Allahabad, Aligarh, Andhra, Banaras, Bangalore, Bombay, Burdwan, Calcutta, Presidency College, Calcutta, Delhi, Gauhati, Gorakhpur, Gujarat, Guru Nanak Dev, Himachal Pradesh, Jadavpur, Jammu, Jodhpur, Karnatak, Kerala, Kurukshetra, Lucknow, Madras, Madurai, Magadh, Baroda, Marathwada, Mysore, Nagpur, North Bengal, Osmania, Panjab, Patna, Poona, Rajasthan, Roorkee, Sardar Patel, Saugar, Saurashtra, Sri Venkateswara, Udaipur, Utkal, Vikram, Indian Instt. of Science, TIFR, 5 IITs, BARC, National Chemical Laboratory (52).
 2. Mathematics Allahabad, Aligarh, Andhra, Banaras, Bangalore, Bombay, Calcutta, Presidency College, Calcutta, Delhi, Gujarat, Jadavpur, Jammu, Kurukshetra, Lucknow, Madras, Madurai, Magadh, Baroda, Meerut, Mysore, Panjab, Patna, Panjabi, Rajasthan, Roorkee, Saugar, Utkal, BITS, IISc., TIFR, 5 IITs, BARC, (36).
 3. Botany Allahabad, Aligarh, Andhra, Banaras, Bangalore Burdwan, Calcutta, Presidency College, Calcutta, Calicut Delhi, Gauhati, Gorakhpur, Gujarat, Himachal, Pradesh, Kalyani, Karnatak, Kerala, Lucknow, Madras, Baroda, Marathwada, Meerut, Mysore, Nagpur, Osmania, Panjab, Patna, Poona, Rajasthan, Sardar Patel, Saugar, Shivaji, Sri Venkateswara, Utkal, Vikram (35).
 4. Statistics Delhi, Gujarat, Karnatak, Kerala, Madras, Poona (6).
 5. Geology Banaras, Jadavpur, Jammu, Karnatak, Lucknow, Madras, Baroda, Mysore, Nagpur, Panjab, Patna, Poona, Rajasthan, Roorkee, Saugar, Utkal, Vikram, CSIR Laboratory, Calcutta, Presidency College, Calcutta (20).
 6. Geophysics Banaras, Osmania, Roorkee, N.G.R. Laboratory (4).
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|------------------------|---|
| 7. Zoology | Aligarh, Andhra, Annamalai, Banaras, Bangalore, Calcutta, Presidency College, Calcutta, Calicut, Delhi, Gorakhpur, Gujarat, Jodhpur, Kalyani, Karnatak, Kerala, Lucknow, Madras, Baroda, Marathwada, Mysore, Nagpur, Osmania, Panjab, Patna, Poona, Rajasthan, Saugar, Saurashtra, Sri Venkateswara, Udaipur, Vikram, Shivaji (33). |
| 8. Biological Sciences | Himachal Pradesh, Kurukshetra, Madurai, JNU Saurashtra, BLTS, TIFR, IISc, Bangalore (8). |
| 9. Physics | Aligarh, Andhra, Banaras, Bombay, Presidency College, Calcutta, Calicut, Delhi, Jadavpur, Jammu, Madras, Madurai, Mysore, Nagpur, North Bengal, Osmania, Patna, Panjab, Punjabi, Rajasthan, Roorkee, Sardar Patel, Saugar, Sr, Venkateswara, Udaipur, Utkal, IISc., TIFR, 5 IITs, BARC, NPL New Delhi, Poona, Ranchi (36). |
| 10. Biochemistry | Madras, IISc., Bangalore (2). |
| 11. Marine Biology | Annamalai, Kerala (2). |
| 12. Microbiology | Indian Institute of Science, Bangalore (1). |
| 13. Geography | Allahabad, BHU, Calcutta, JNU, Mysore, Osmania, Panjab, Utkal (8). |
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Total number of identified Departments in SCIENCE Subjects : 243

APPENDIX XVIII

Minimum Qualifications Prescribed for Recruitment to the Posts of Lecturers

UNIVERSITY LECTURERS

- (a) A Doctor's degree or *research* work of an equally high standard; and
- (b) consistently good academic record with 1st or high 2nd class (B in the seven point scale) Master's degree in a relevant subject or an equivalent degree of a foreign university.

Having regard to the need for developing interdisciplinary programmes, the degrees in (a) and (b) above may be in relevant subjects.

Provided that if the Selection Committee is of the view that the research work of a candidate as evident either from his thesis or from his published work is of very high standard, it may relax any of the qualifications prescribed in (b) above.

Provided further that if a candidate possessing a Doctor's degree or equivalent research work is not available or is not considered suitable, a person possessing a consistently good academic record (weightage being given to M.Phil. or equivalent degree or research work of quality) may be appointed *provided he has done research work for at least two years or has practical experience in a research laboratory/organisation* on the condition that he will have to obtain a Doctor's degree or give evidence of research work of equivalent high standard within five years of his appointment, failing which he will not be able to earn future increments until he fulfils these requirements.

Explanation

1. Candidates for being eligible for recruitment to the posts of Lecturers must have a First or high Second Class (B in the seven point scale) at the Master's level and for determining consistently good record, average of 50-55% or (B in the seven point scale) may be expected at the two examinations prior to the Master's examination.

The following two examples would illustrate the above :

- (I) A candidate who has obtained 52% marks at the Higher Secondary/Pre-University/Intermediate and 58% at the Degree Level would have an average of 55% and as such could be considered.

(II) A candidate who has obtained 60% at Higher Secondary (Pre-University/Intermediate and 50% at the Degree Level would have an average of 55% and as such could be considered.

College Lecturers

- (a) A consistently good academic record with at least 1st or high second class (B in the seven point scale) at the Master's degree in a relevant subject or an equivalent degree of a foreign university; and
- (b) An M.Phil degree or a recognised degree beyond the Master's level or published work indicating the capacity of a candidate for independent research work.

Provided that if the Section Committee is of the view that the research work of a candidate as evident either from his thesis or from his published work is of a very high standard, it may relax any of the prescribed qualifications prescribed in (a) above.

Provided further that if a candidate possessing the qualification as at (b) above is not available or not considered suitable the college, on the recommendation of the Selection Committee may appoint a person possessing a consistently good academic record on the condition that he will have to obtain an M.Phil. degree or a recognised degree beyond the Master's level within five years of his appointment, failing which he will not be able to earn future increments till he obtains that degree or gives evidence of equivalent published work of high standard.

APPENDIX XIX

Table (A)

Viable and Non-Viable Colleges: 1973-74 and 1976-77
(Arts, Science and Commerce Colleges only)

(A) States having Three-Year degree courses in Arts, Science & Commerce

(NOTE: A viable college is a college having an enrolment of 400 or more after excluding PUC/Inter/PP)

S.No.	State	1973-74			1976-77		
		Viable Colleges	Non-viable Colleges	Total	Viable Colleges	Non-viable Colleges	Total
1	2	3	4	5	6	7	8
1.	Andhra Pradesh	101 (59·4)	69 (40·6)	170 (100·0)	93 (45·6)	111 (54·4)	204 (100·0)
2.	Assam	30 (25·4)	88 (74·6)	118 (100·0)	Shown in Table (B)		
3.	Bihar	Shown in Table (B)					
4.	Gujarat	84 (49·4)	86 (50·6)	170 (100·0)	125 (65·8)	65 (34·2)	190 (100·0)
5.	Haryana	37 (47·4)	41 (52·6)	78 (100·0)	39 (40·6)	57 (59·4)	96 (100·0)
6.	Himachal Pradesh	9 (42·9)	12 (57·1)	21 (100·0)	4 (19·0)	17 (81·0)	21 (100·0)
7.	Jammu & Kashmir	11 (64·7)	6 (35·3)	17 (100·0)	13 (59·1)	9 (40·9)	22 (100·0)
8.	Karnataka	80 (41·9)	111 (58·1)	191 (100·0)	92 (41·8)	128 (58·2)	220 (100·0)
9.	Kerala	66 (74·2)	23 (25·8)	89 (100·0)	71 (54·6)	59 (45·4)	130 (100·0)
10.	Madhya Pradesh	89 (40·6)	130 (59·4)	219 (100·0)	84 (44·4)	105 (55·6)	189 (100·0)
11.	Manipur	5 (29·4)	12 (70·6)	17 (100·0)	Shown in Table (B)		

Appendix XIX (Contd.)

1	2	3	4	5	6	7	8
12.	Maharashtra*	148 (44·3)	186 (55·7)	334 (100·0)	136 (40·7)	198 (59·3)	334 (100·0)
13.	Meghalaya	3 (18·8)	12 (81·2)	16 (100·0)	Shown in Table (B)		
14.	Nagaland	—	4 (100·0)	4 (100·0)	Shown in Table (B)		
15.	Orissa	16 (20·5)	62 (79·5)	78 (100·0)	Shown in Table (B)		
16.	Punjab	62 (42·2)	85 (57·8)	147 (100·0)	63 (38·0)	103 (62·0)	166 (100·0)
17.	Rajasthan	52 (49·1)	54 (50·9)	106 (100·0)	58 (61·1)	37 (38·9)	95 (100·0)
18.	Sikkim	Did not exist		—		1 (100·0)	1 (100·0)
19.	Tamil Nadu	101 (60·5)	66 (39·5)	167 (100·0)	108 (54·8)	89 (45·2)	197 (100·0)
20.	Tripura	6 (100·0)	—	6 (100·0)	6 (100·0)	—	6 (100·0)
21.	Uttar Pradesh**	2 (50·0)	2 (50·0)	4 (100·0)	3 (75·0)	1 (25·0)	4 (100·0)
22.	West Bengal	138 (69·0)	62 (31·0)	200 (100·0)	185 (78·4)	51 (21·6)	236 (100·0)
23.	Delhi (U.T.)	40 (93·0)	3 (7·0)	43 (100·0)	45 (97·8)	1 (2·2)	46 (100·0)
Total (A)		1080 (49·2)	1115 (50·8)	2195 (100·0)	1125 (52·2)	1032 (47·8)	2157 (100·0)

* Relates to all universities except Bombay.

** Relates to only Banaras Hindu university.

Appendix XIX (Contd.)

Table (B)

(B) States having Two-Year degree courses in Arts, Science & Commerce

(NOTE: A viable college is a college having an enrolment of 270 or more after excluding PUC/Inter/PP)

S.No.	State	1973-74			1976-77		
		Viable Colleges	Non-viable Colleges	Total	Viable Colleges	Non-viable Colleges	Total
1.	Assam	Shown in Table (A)			32 (25.4)	94 (74.6)	126 (100.0)
2.	Bihar	49 (25.0)	147 (75.0)	196 (100.0)	21 (10.8)	174 (89.2)	195 (100.0)
3.	Maharashtra*	42 (80.8)	10 (19.2)	52 (100.0)	56 (77.8)	16 (22.2)	72 (100.0)
4.	Manipur	Shown in Table (A)			5 (27.8)	13 (72.2)	18 (100.0)
5.	Meghalaya	Shwon in Table (A)			5 (29.4)	12 (70.6)	17 (100.0)
6.	Nagaland	Shown in Table (A)			—	7 (100.0)	7 (100.0)
7.	Orissa	Shown in Table (A)			40 (45.5)	48 (54.5)	88 (100.0)
8.	Uttar Pradesh**	196 (61.2)	124 (38.8)	320 (100.0)	234 (68.2)	109 (31.8)	343 (100.0)
Total (B)		287 (50.5)	281 (49.5)	568 (100.0)	393 (45.4)	473 (54.6)	866 (100.0)
Grand Total (A&B)		1367 (49.5)	1396 (50.5)	2763 (100.0)	1518 (50.2)	1505 (49.8)	3023 (100.0)

* Relates to only Bombay University.

** Relates to all universities except Banaras Hindu University.

NOTE (a) Figures in Parenthesis indicate percentage of viable and non-viable Colleges to the total.

(b) The above analysis excludes Colleges under Indira Kala Sangeet, K. S. Darbhanga, Rabindra Bharati and Sampurnanandra Sanskrit Universities.

(c) The above analysis is confined to Colleges for which enrolment data for the relevant years was available.

(d) The colleges of Union Territories other than Delhi have been included in the respective States.

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