UNIVERSITY GRANTS COMMISSION

ANNUAL REPORT
FOR THE YEAR 1989-90

Presented to the Government of India
in compliance with Section 18
of the UGC Act, 1956
New Delhi

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UNIVERSITY GRANTS COMMISSION
(1989-90)

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* Upto 10th June, 1989.
** Upto 10th August, 1989. Shri K.P. Geethakrishnan was appointed w.e.f. 11th August, 1989 in place of Shri R.R. Gupta.
*** Appointed w.e.f. 30th may, 1989.
NOTE: Prof. G. Padmanaban, Dr. M. Aram and Shri Kireet Joshi were Members upto 6th April, 1989 and Prof. V.C. Kulandaiswamy was upto 16th June, 1989.

UNIVERSITY GRANTS COMMISSION
ANNUAL REPORT

April 1989-March 1990

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 University Grants Commission for the year 1989-90 to be laid before both the Houses of Parliament..

INTRODUCTION

The University Grants Commission was established by an Act of Parliament. Section 12 of the UGC Act 1956 calls upon the Commission "to take in consultation with the Universities or other bodies concerned, such steps as it may think fit for the promotion and coordination of the University education and for determination and maintanance of standards of teaching, examination and research in the Universities." Accordingly, the Commission has statutory authority of recommending to Universities the measures necessary for improvement of education and also advice them to take necessary action in that regard. This also enjoins upon the Commission to enquire into the financial needs of universities and allocate/disburse funds for the development of the infrastructural facilities and other components of the university system.
The Commission has identified the following elements which help the Univeristy sector develop its academic leadership:

1. Courses of studies.
2. Quality of students and scholars.
3. Special Assistance Programmes.
4. Faculty improvement.
5. Infrastructural facilities including library and laboratory and other campus facilities.
6. Identification of research areas and funding.
7. Extension activities.
8. Common services and facilities.

In all the above areas, the Commission has contributed a great deal by making important recommendations which have been widely accepted in the University system. Such exercises are not one time, but these are continuing ones and the improvements/corrections to these recommendations continue to flow from the Commission. In making the recommendations, the UGC does not take a superior position over the University system, but holds consultations with over 7000 academics of the University system every year through meetings,

* The University Grants Commission Act 1956 (Act No. 3 of 1956) as amended upto 1st October, 1984.

national/ regional seminars and Visiting Committees. The role of UGC is that of a coordinator and promoter of the cooperative mechanism of the academics of the University system which help the Universities to develop excellence in the frontier areas of knowledge and maintain their academic leadership in the country. There are many recommendations, given in the following paragraphs, which have been fully operationalised in regard to the above stated components:

a) National qualifying Test for junior research fellows/lecturers assures the quality of manpower inputs to the University system and in turn, helps the universities to maintain the standards of teaching and research in an indirect manner.

b) In almost all subject areas, over 1000 academics from the university system have helped UGC to design standard teaching courses through national seminars etc. These include courses in Futurology to take care of emerging trends in specific areas. Model curricula have been designed for various subjects through Curriculum Development Centres.

c) For orientation of teaching staff to keep pace with the fast expanding knowledge, the UGC has commissioned 48 academic staff colleges which are monitored centrally at one point for deciding the extent and the number of courses to be organised by these academic staff colleges. The scheme is being assessed through an expert Committee.

d) On the advice of expert groups and on the basis of the discussions the Commission holds with the University faculty, substantial sums of money have been provided to the universities and to selected departments under COSIST and Special Assistance Programmes to upgrade their laboratories.

e) When the Commission felt that it would need a very large financial resource for strengthening some of the science laboratories of the University system and that too for more than one University in the same subject area, amendment of UGC Act was made in 1984 to obtain under Clause 12 (CCC) an authority for establishing common facilities. The Commission has consequently established inter-university centres in several areas. One of them, the Nuclear Science Centre is a unique facility which has been set up on JNU campus and has recently been commissioned for use. An Inter University Consortium for using the DAE facilities has also been established. Serveral others are in the offing.

f) The INFLIBNET programme, to become operational soon, adds another dimension to the role of the UGC in evolving a computer communication network for linking libraries and information centres in universities, deemed universities, institutions of national importance, UGC information centres, R & D institutions, and colleges so that they could optimally utilise their resources for the benefit of the academic community at large. This would also provide mutual interaction to academics in widely separated locations.

g) The Commission has been emphasising the need to decentralise authority and confer autonomy to university departments and colleges with a view to create an elastic

and dynamic system for promotion of innovation in teaching and research and to ensure efficient functioning of centres of academic excellence by breaking away from the normal rigidities of the system.

h) The Countrywide Classroom Programme of the Commission has effectively utilised the TV network to take high-quality university-level education to rural, semi-urban and even the remotest parts of the country. More than three-fourth of the programmes telecast have been from Indian sources.

i) Women's studies programmes have been incorporated in the university system with the objective of utilising women's full potential as human resource for national development and changing the present attitude and values in society regarding women's role and rights.

Within the broad components mentioned above, the thrust areas pursued during the year 1989-90 have been as follows:

1. Redesigning of Courses and Introduction of New courses.
2. Autonomous colleges.
3. Academic Staff Colleges for orientation of teachers.
4. Setting up of more inter-university centres.
5. Drawing up of academic calendar for universities.
6. Special Assistance Programmes.
7. Qualifying test for recruitment of lecturers.
8. Strengthening the infrastructure of science and technology by bringing in more departments for support.
9. Superconductivity and condensed matter science.
10. Adult Education and the National Literacy Mission.
11. Enhanced facjlities for scheduled castes/tribes, minorities and woman.
12. Fellowships/scholarships.
13. Spread of mass communication and educational technology network.

Future Projections: In the guidelines for the eighth plan development schemes circulated to universities, the Commission has identified the following priorities for the university system in the coming five years:

i) Existing departments of the Universities may be oriented to provide a better climate for teaching and research and to make extension an integral component of education.

ii) It is necessary to modernise the courses giving specific orientation for the purpose of making them relevant to regional and national development.

iii) Specialised courses or areas of study in the existing departments as well as on an inter-departmental basis which would also warrant curriculum innovations, restructuring of courses at undergraduate and post-graduate levels to link them better with societal needs and various development sectors including rural and agricultural.

iv) Laboratory and liberary facilities and services and workshop facilities, central instrumentation and maintenance of equipment may be upgraded.

v) Additional academic staff requirement to meet the urgent needs, keeping in view full utilization of existing staff positions may only be considered.

vi) Facilities including services like water supply and electricity on the campus for supporting various academic activities may be given due importance.

vii) Teaching aids may be provided to all the departments. Libraries should be transformed into information centres and steps be taken to link the library with various departments through modern communication technology. Library services be strengthened to extend its acceess with a view to making it whole-day institution working with modern facilities including computer search and documentation services.

viii) Infrastructural gaps in academic buildings and laboratory equipment may be appropriately bridged keeping in view the optimal use of such facilities.

ix) Common facilities for students including counselling services and linkage with appropriate employment agencies may be improved.

Section-1

GROWTH OF INSTITUTIONS, ENROLMENT AND FACULTY

1.01 Higher education system in India has been under considerable stress in the past decade due to the challenges offered by increase in numbers on the one hand and the need to maintain standards on the other. Higher education in recent years is being looked upon particularly by the weaker sections, as the only means to vertical, social and economic mobility. This has further, necessitated that institutions of higher education are equipped with a certain minimum of facilities by way of physical infrastructure, technical and research support and resources for purchase of equipment, books etc. It has been the endeavour of the Commission to provide the necessary facilities so as to strike a balance between the conflicting demands of quality and quantity in the higher education system.

This section of the report presents in numerical terms of higher education scenario of the country over the past decade as reflected by the growth in enrolment, staff and the number of institutions.

1.02 **New Universities:**

During the year, the following two new universities were set up:

i) Tamil Nadu Veterinary and Animal Sciences University, Madras.

ii) Yashwantrao Chavan Maharashtra Open University, Nasik (Maharashtra).

Thus, the total number of universities as on 31st March, 1990 was 146.

1.03 **Universities declared fit to receive Central Assistance:**

The following universities were declared fit to receive Central assistance including assistance for institutional development in terms of the rules framed under Section 12 (B) of the UGC Act:

1. Guru Ghasidas University, Bilaspur
2. Sri Jagannath Sanskrit Vishwavidyalaya, Puri
3. Mother Teresa Women's University, Kodai Kanal
4. Telugu University, Hyderabad
5. Tripura University, Agartala
6. Vidya Sagar University, Midnapore

1.04 **Institutions set up under Acts of State Legislature:**

During the year, the Nizam Institute of Medical Sciences, Panjagutta (Hyderabad) was set up as an institution under Andhra State legislature's Act. This is the second such institution set up in the country, the first one being the Sanjay Gandhi Post-graduate Institute of Medical Education & Research set up in 1987-88.

1.05 **New Institutions Deemed to be Universities under Section 3 of the UGC Act:**

During the year, the Government of India, on the recommendations of the UGC, declared the following institutions as institutions deemed to be universities under Section 3 of the UGC Act.

Deccan College Post-Graduate and Research Institute, Pune

Jamia Hamdard, Hamdard Nagar, New Delhi.

National Museum Institute of the History of Art, Conservation and Museology, National Museum, New Delhi

With these, the total number of institutions deemed to be universities increased to 28 as on 31st March, 1990.

A chronological list of universities and institutions deemed to be universities is given in *Appendix-I.*

1.06 **Colleges under Section 2(f):**

At the end of 1989-90, 4115 colleges including postgraduate colleges had been included in the list maintained under Section 2 (f) of the UGC Act.

1.07 **Student Enrolment:**

In terms of absolute numbers, there has been a consistent increase in enrolment as well as institutions over the years as reflected in table 1.1. It will be seen that in 1980-81, the number of students enrolled was 27.52 lakhs spread over 112 universities, 11 institutions deemed to be universities and 4722 colleges whereas in 1989-90 there were as many as 42.47 lakh students enrolled in 146 universities, 28 institutions deemed to be universities and 6949 colleges.

Table 1.1

Year	Number of Universities	Number of Colleges*	Number of Students
1980-81	112+11 institutions deemed to be universities	4,722	27,52,437
1981-82	118+13 institutions deemed to be universities	4,886	29,52,066
1982-83	120+13 institutions deemed to be universities	5,039	31,33,093
1983-84	124+15 institutions deemed to be universities	5,246	33,22,939
1984-85	125+15 institutions deemed to be universities	5,590	34,04,096
1985-86	132+17 institutions deemed to be universities	5,816	36,05,029
1986-87	136+19 institutions deemed to be universities	6,512	37,54,409
1987-88	142+22 institutions deemed to be universities	6,689	39,10,828
1988-89	144+25 institutions deemed to be universities	6,784	40,74,676
1989-90	146+28 institutions deemed to be universities	6,949	42,46,878

*Excludes junior colleges and those offering diploma/certificate courses.

1.08 Growth Rate of Enrolment:

The growth of student enrolment in the University System over a 20-year period from 1970-71 to 1989-90 is given in *Appendix-II*. The average decadal growth rate of enrolment during 1980-81 to 1989-90 was 4.8 per cent as compared to 4.0 per cent recorded in the earlier period viz. 1970-71 to 1979-80. A look at the year-wise growth rate of enrolment during the ten year period 1980-81 to 1989-90 also brings out the fact that there was no definite trend in the growth rate till 1985-86, which rose in one year and fell in another. From 1986-87 to 1989-90 the growth rate has remained consistent between 4.1 to 4.2 per cent. While the lowest growth rate recorded during this period was 2.9 per cent in 1984-85, the highest was 7.3 per cent in 1981-82. In 1989-90, the growth rate was 4.1 per cent. The all-India average annual compound rate of growth of enrolment during the five year period 1985-86 to 1989-90 was 4.2 per cent as indicated in *Appendix-III*. It will also be seen from the appendix that there were wide deviations from this average growth rate among different States. Tamil Nadu, for instance, recorded an average annual compound rate of growth of

enrolment of 9.5 per cent during the period while Orissa recorded a mere 2.9 per cent. As many as 12 States had average growth rates lower than the all-India average of 4.2 per cent.

1.09 **Stage-wise Enrolment:**

Stage-wise enrolment at the graduate, post-graduate, research and diploma/certificate levels during 1985-86 to 1989-90 given in *Appendix-IV* shows that percentage enrolment at these different levels in 1989-90 was the same as it was in 1988-89.

Over the five-year period also, percentage of enrolment at the graduate, postgraduate/research and diploma/certificate levels has remained alomst the same in each year viz. 88.1 per cent, 10.6 per cent and 1.3 per cent respectively.

Appendix-V gives *stage-wise* enrolment separately in the university departments/university colleges and affiliated colleges during the four year period from 1986-87 to 1989-90. It will be seen that enrolment in the affiliated colleges as percentage of total enrolment for all the stages taken together remained in the vicinity of 83 per cent in each of these years. Stage-wise enrolment in the affiliated colleges accounted for nearly 88 per cent of the total enrolment at the graduate level, 57 per cent at the postgraduate level 15 per cent at the research level and 43 per cent at the diploma/certificate level during 1989-90. The remaining enrolment at these different levels was accounted for by the University Departments/University Colleges. The position in the earlier years was almost similar.

1.10 **Faculty-wise Enrolment:**

Faculty-wise distribution of student enrolment for the five-year period 1985-86 to 1989-90 given in *Appendix-VI* shows enrolment in each faculty as a percentage of total enrolment in all the faculties taken together. It will be seen that enrolment in the faculty of Arts (including Oriental Learning) has been the highest as percentage of total enrolment in each year, followed by the faculty of Commerce, Science and Law in that order. Year to year variations in the percentage of enrolment in each faculty to total enrolment in all the faculties taken together have been of a very marginal nature. For example, enrolment in the faculty of Arts has been 40.4 per cent in each of the four years from 1986-87 to 1989-90 and was 40.7 per cent in 1985-86. Similarly, in the faculty of Commerce, the enrolment percentage was 21.7 per cent in 1985-86 and 21.9 per cent for four years from 1986-87 to 1989-90. Percentage share of the faculty of science remained 19.6 during 1986-87 to 1989-90 and was marginally lower at 19.4 per cent in 1985-86. Enrolment trends in other faculties present a similar picture except that percentage shares of these faculties in total enrolment have been far too small as compared to the faculties of Arts, Commerce and Science.

1.11 **Establishment of New Colleges:**

The number of new colleges set up during 1989-90 was 165, thus raising the total number of affiliated colleges to 6949 in 1989-90 as compared to 6784 colleges in 1988-89 (*Appendix-VII*). Of the 165 newly established colleges, 127 were arts/science/commerce

colleges. The remaining were professional colleges belonging to different faculties as follows:

Medicine/Pharmacy/Ayurveda/Nursing/Dentistry/Homoeopathic(16) Engineering/Technology (5), Law (6), Physical Education & Education (5), Agriculture (2), Veterinary Science (1), Music/Fine Arts (1). The number of colleges in the faculty of Oriental Learning increased by two from 1988-89 to 1989-90.

1.12 **State-wise Growth of Colleges:**

State-wise distribution of the newly established colleges during the period 1985-86 to 1989-90 is given in *Appendix- VIII*. The number of colleges in the country increased by 1133 during this period. The highest increase during this period was recorded in the state of U.P. (402). Other states where the increase was substantial were Karnataka (139), Bihar (101), Madhya Pradesh (73), Andhra Pradesh (73) and Maharashtra (67).

These six States among them accounted for over 75 per cent of the increase in the total number of colleges during the period. Increase in the number of colleges in some of the other states was negligible while in some it was not substantial. Noticeably, the increase in the number of colleges in the union territory of Delhi was just one over this period. It will also be seen (*Appendix -IX)* that out of a total increase of 1133 in the number of colleges during 1985-86 to 1989-90, increase in the number of arts/science/commerce colleges was 499, accounting for nearly 45 per cent of the total increase.

1.13 **Staff Strength:**

Appendix-X shows the strength and distribution of teaching staff in the university departments/university colleges during the period 1985-86 to 1989-90. In 1989-90, there were 56,732 teachers in the university departments/university colleges. Out of these, 7262 were professors, 14864 readers, 32337 lecturers and 2269 tutors and demonstrators. The percentage of senior teachers viz. professors and readers to the total teaching staff has been in the vicinity of 39 per cent from 1986-87 to 1989-90 while it was close to 40 per cent in 1985-86. Teaching staff in the university departments/university colleges increased by 1759 in the year 1989-90 as compared to an increase of 1808 in 1988-89 over the preceding year. Teaching staff in the affiliated colleges (*Appendix-XI*) totalled 1,99,335 in 1989-90 which included 27708 senior teachers, 1,62,856 lecturers and 8,771 tutors and demonstrators. There was an increase of 5,240 in the total staff strength in the affiliated colleges in 1989-90 over the year 1988-89 as compared to an increase of 5287 in 1988-89 over 1987-88.

1.14 **Doctorate Degrees Awarded:**

The faculty-wise position of doctorate degrees awarded during 1984-85 to 1988-89 is given in *Appendix-XII*. During this five year period the number of doctorate degrees awarded was the highest (viz. 7346) during 1985-86. It has been gradually declining thereafter and was 7012 in 1988-89. In terms of faculty-wise position, the faculty of arts has had the

highest number of doctorate degrees awarded followed by the faculty of Science. The number of such degrees awarded in Arts in 1988-89 was 2802 and in Science 2766. The ranking of other faculties in terms of number of doctorate degrees awarded was as follows:

Agriculture (495), Engineering/Technology (284), Commerce (221), Education (207), Medicine (82), Law and Veterinary Science (40 each). The number in the faculty of 'Others' consisting of Fine Arts etc. was 75.

Section-2

INTER-UNIVERSITY CENTRES/INFORMATION CENTRES

2.01 In recent years, the Commission has taken the lead in setting up Inter-University Centres in different areas with the objective of providing national research facilities within the university system.

The Nuclear Science Centre at the Jawaharlal Nehru University Campus was the first such centre set up in 1984. Subsequently the Inter-university centre in Astronomy and Astro-Physics was set up at Poona University in 1988 and the Inter-university consortium at Indore in 1989. It is through such centres that the Commission has been able to provide experimental facilities under one roof which it can not afford to provide to various universities individually and separately. These centres are autonomous institutions providing common facilities to the universities in terms of Section 12 (ccc) of the UGC Act. The Commission has also set up information centres in selected universities for providing current awareness/information services in different subjects of humanities, Social Sciences and Sciences. An account of the various centres set up by the Commission is given below.

2.02 **Nuclear Science Centre, JNU Campus, New Delhi**

Set up in 1984, the Centre aims to provide research facilities in the university sector for accelerator oriented research in various fields such as Atomic Physics, Condensed Matter Physics, Nuclear Chemistry, Bio-Sciences and various allied areas besides the fundamental Nuclear Physics. It will be connected with the Universities and other teaching institutions to provide a balanced man-power growth, both scientific and technical. The main facility in this centre in its first phase is a 15 million volt tandem accelerator. Equipped with a 380 KV injector with three changeable ion sources and nano-second light and heavy ion pulsing system, 15 UD Pelletron provides a versatile ion accelerator capable of accelerating almost any ion across the periodic table from proton to uranium to energies upto 200 mev. During the year 1989-90 the work on each front made excellent progress. (This has resulted in the beam line being made available on 18th December, 1990. The accelerator was commissioned and dedicated to the nation by the Union Minister of Human Resource Development).

The work on the two projects HIRA (Heavy Ion Reaction Analyser) and the GDA (Gamma Detector Array) has started. Coordination Committees have been appointed and working groups have been formed. Major design of the HIRA has been completed and orders for fabrication have been sent. Procurement of the detectors and electronics for the GDA project has since begun. Primary design for a general purpose scattering chamber has been completed and its fabrication is being done indigenously.

2.03 Inter-University Centre in Astronomy and Astro-Physics at Poona University Campus:

The centre has been functioning as an autonomous institution since December 1988. Its main objectives are to provide a centre of excellence for teaching, research and development in astronomy and astrophysics as well as to promote nucleation and growth of active groups in this area in the university system. Besides conducting vigorous research programme of its own, the centre will provide the academics from universities an access to state of the art astronomical instrumentation, theoretical know-how, well equipped electronics laboratories, an excellent library, data centre and high quality computing facilities. The centre will actively cooperate with universities in initiating and strengthening teaching and research in Astronomy and Astro- Physics in the Universities.

To achieve these objectives IUCAA will function on several different fronts:

(i) The IUCAA faculty will participate in teaching at the M.Sc. level in Physics and Astrophysics, and provide guidance to research students for Ph.D degree in Astronomy and Astro-Physics in collaboration with various universities.

(ii) It will coordinate participation of the academic community in major programmes in this field.

(iii) It will arrange refresher courses as well as advanced level schools and workshops in topics of current research.

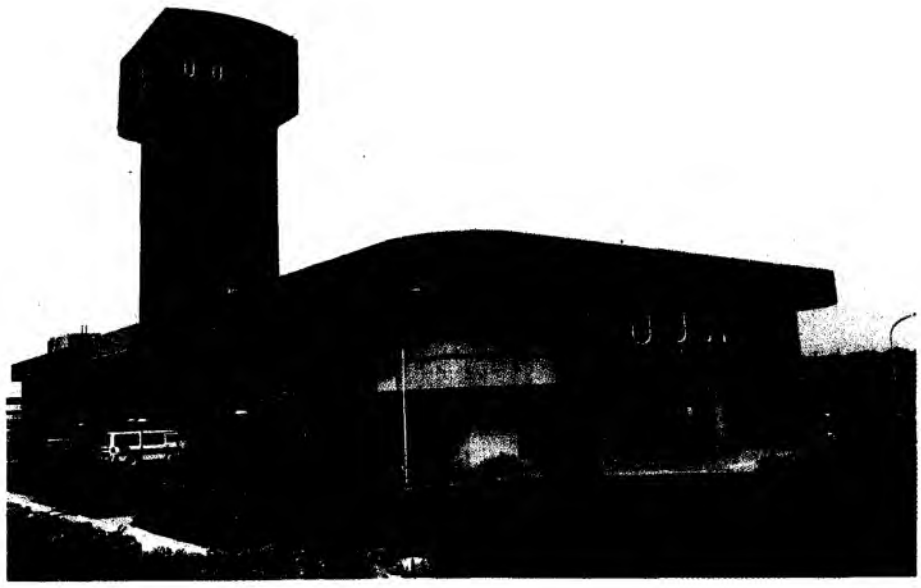
(iv) It will take up programmes for science popularisation and foster collaborative research projects between groups in universities, IITs and other similar groups in India and abroad.

The observational programme will be taken up on the national facilities like GMRT and also on the inter-national facilities by the participating university teachers and students in collaboration with the IUCAA and GMRT faculty. The centre will have necessary laboratory facilities where different kinds of focal plane instruments and back-up equipment would be procured, maintained and used effectively. The electornic lab/optical bench etc. as well as services of trained electronics engineers will also be provided.

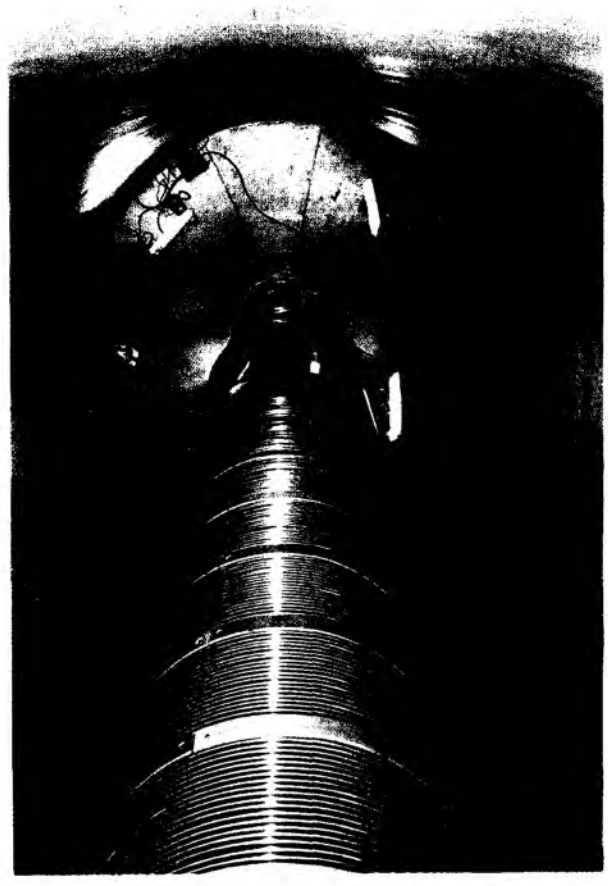
2.04 Western Regional Instrumentation Centre, Bombay University

In the year 1989 the Commission decided to upgrade the existing Western Region Instrumentation Centre at Bombay University to the status of an Inter University Centre in Instrumentation.

The Centre would provide a range of training programme for the staff of the University Science Instrumentation Centres and to develop instrumentation required for teaching and research. The centre will have specific responsibility of developing instruments for R&D teaching, training of suitable manpower at all levels in the university sector through proper

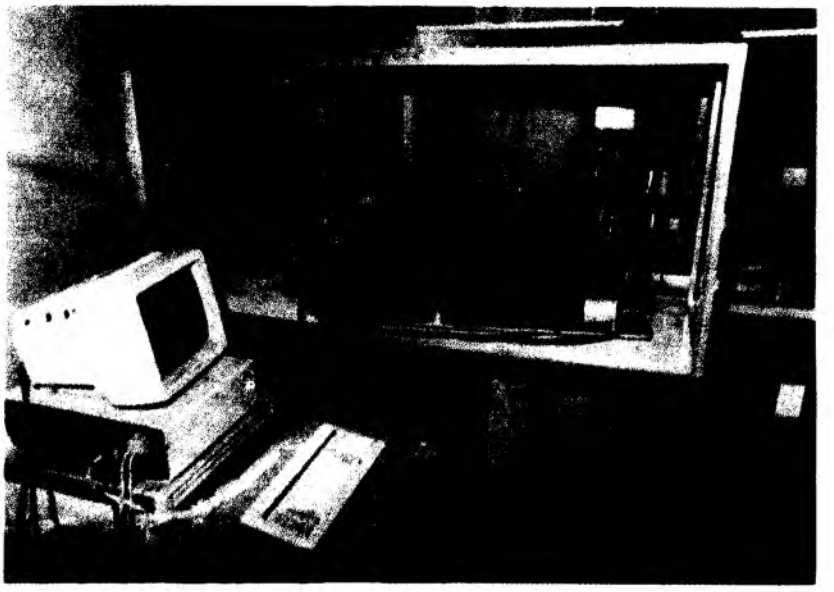


1. Nuclear Science Centre, JNU, Campus, New Delhi.



2. The Pelletron Accelerator inside the accelerator tank, Nuclear Science Centre, New Delhi.

3. Prof. S. Chandrasekhar giving an address at the Inter-University Centre in Astronomy and Astro-Physics, Poona.



4. EXAFS equipment developed as a project of Inter-University Centre, Indore.

5. On line Access Facility, National Science Information Centre, Bangalore.

networking of the universities and collaborating with national laboratories and the instrument industries. The Centre will function as a nodal institution in the university sector to provide the necessary linkage between universities and the national laboratories and the industries with a view to bring together their expertise in instrumentation for improving the level of instrumentation of universities. It will provide for suitable mechanism of collaborations between the universities, national laboratories and industries to ensure that the research, design and development of instrumentation at the Centre would result in their prompt production.

The proposed Centre will have the following objectives:

(i) Training of USIC staff and students for proper use and maintenance of instruments.

(ii) Teaching of instrumentation at postgraduate and doctoral level for students and USIC senior staff.

(iii) Conducting advanced study programmes such as refresher courses, workshops, seminars, etc. for teachers, research workers from universities, national laboratories and industry.

(iv) Development of scientific instruments of direct relevance to teaching and research in universities and colleges and dissemination of the know-how available to industry for production.

(v) Development of state of the art production of worthy instruments for scientific means between universities, national laboratories and industry.

(vi) Development of instruments required to support national technological missions undertaken by the universities.

The project report and Memorandum of Association of the proposed Centre has since been sent to the Govt. of India for approval.

2.05 **Inter-University Consortium, Indore:**

The Department of Atomic Energy (DAE) has decided to set up the Synchrotron Radiation facility at the Centre for Advanced Technology (CAT), Indore. To take advantage of the facilities being set up by DAE and make use of these facilities for the entire university system, it was decided that an Inter-University Consortium be set up at Indore. The Consortium is a joint venture of the UGC and the DAE to provide a new networking to enable the teachers and research scholars of universities, institutions deemed to be universities, IITs and other institutions of higher learning to participate in design, fabrication, operation, management and utilisation of DAE's frontline research facilities, such as the Dhruva Reactor (Bombay), the Variable Energy Cyclotron Centre (Calcutta) and the Synchrotron Rediation Source Centre (Indore).

The main objectives of the Consortium are as follows:

(i) Design, development and fabrication of the various components of the SRS such as microtron and other electron accelerators which are used as injectors in SRS, undulators, wigglers etc.

(ii) Development of techniques and technologies for the utilisation of these electron accelerators for a variety of purposes.

(iii) Design, development, fabrication and commissioning of atleast two beamlines handling facilities.

(iv) Utilisation of SRS in various branches of science and technology such as material science, chemistry, biology, medicine and electronics.

A memorandum of understanding was signed by the Chairman, UGC with the Chairman, Atomic Energy Commission (AEC) in July 1989 in pursuance of which the UGC has set up an Inter University Consortium on the campus of the Devi Ahilya Vishwavidyalaya, Indore to act as a caretaker till the Consortium is registered as a Society.

The Department of Atomic Energy have already frozen the design for five beamlines through the Centre for Advanced Technology (CAT). The University researchers would examine the beamline systems and handling facilities and suggest any modification to meet their requirements. In addition, the University system would undertake the design, fabrication and commissioning of two or three remaining beamlines for its own utilisation. There would also be promotional activity to stimulate researchers in the University system to optimally utilise the unique radiation source for application in the field of material science, chemistry, biology, medicine etc.

2.06 **Crystal Growth Centre, Anna University, Madras:**

There is at present a world-wide interest in growing single crystals of the Gallium Arsenide due to their potential applications in fields like Micro-electronics, fast computers, opto-electronics, and defence optical communications, for the speed of electrons in gallium arsenide is several times more than its speed in silicon. The Commission has, therefore, been providing assistance to Anna University for crystal growth through the programme of Strengthening of Infrastructure in Science and Technology (COSIST). A break through was achieved when a team of scientists at the Crystal Growth Centre, Anna University successfully grew a Gallium Arsenide, Single Crystal for the first time in India, which only a few countries in the world have so far grown. Because of this significant break through, it was decided to develop this centre and make available its research facilities for use by other Indian Universities. Accordingly, a Memorandum of Understanding (MOU) between the University Grants Commission and the Anna University, Madras was signed during the year for upgradation of the Crystal Growth Centre at the Anna University.

In accordance with the MOU, the upgraded Crystal Growth Centre will provide common facilities to all Universities and research scholars. The Centre will also serve as a field

station for universities by conducting Associateships and Visiting Scientists programmes. This will enable universities to use most effectively the facilities available at the Centre. The Centre will promote, guide and coordinate activities of crystal growth and will also develop interface with industries in a planned manner through an entrepreneurship programme.

The Centre, as an autonomous organisation within the Anna University, will have a core academic programme to undertake research and also to undertake teaching and developmental activities. There will be a Scientific Advisory Committee with an eminent scientist from outside the university as its Chairman to review the programme and advise its Managing Committee.

2.07 **Centre in Astronomy, Osmania University, Hyderabad:**

The University Grants Commission agreed 'in principle' to the proposal of the Osmania University for setting up a National Centre for Astronomy at Rangapur near Hyderabad.

The primary objective of the centre would be to provide within the university system high class facility for observational astronomy, primarily in optical and infrared wavelength regions, which cannot be obtained or managed within the resources and framework of individual universities. This facility will be open for use of the astronomers from various universities and institutes. It is expected to attract young talented persons to the field of observational astronomy and provide them training for making them competent astronomers. In achieving this goal, the Centre will continuously interact with other astronomers of the country and upgrade the existing facilities.

It is envisaged that the Centre would, inter-alia, undertake design and development of optical and auxiliary instruments for research work in astronomy and astro-physics.

2.08 **Science Information Centre, Indian Institute of Science, Bangalore:**

The Centre has been providing authentic and up-to-date abstracting services in disciplines like Physics, Biological Sciences, Chemistry, Mathematics, Earth Sciences and Engineering.

It provides to the users full length photo-copies of current papers and educates them in generating queries relevant to their requirements to ensure optimal utilisation of the information services. A computerised management system streamlines the journal procurement, follow up, renewal, receipt etc. for journals received in the Centre.

The Centre also runs a training programme of one-year duration to provide adequate knowledge of computers and Information Technology applications.

2.09 **Information Centres in Humanities and Social Sciences, MS University, Baroda and SNDT Women's University, Bombay:**

The Commission has set up two Information Centres in the disciplines of humanities and social sciences--one at the SNDT Women's University, Bombay and the other at the M.S. University, Baroda. The SNDT Centre covers disciplines like Sociology, Gujarati, Women's Studies, Home Science, Library Science and Special Education while the Centre at the MS University of Baroda covers Economics, Political Science, Education and Psychology.

The Centres have been actively engaged in providing current awareness/information services, reference services, information access to teachers and students, bibliographic support and latest documentation in the respective disciplines.

Resources available in University libraries are optimally utilised and services are developed on a computational data base built up by scanning hundreds of Indian and foreign journals at these centres.

2.10 **INFLIBNET Programme:**

The background and objectives of the programme are spelt out in the report for the year 1988-89. It was mentioned therein that the report of the Working group to prepare a blue print for the establishment of Information and Library Network (INFLIBNET) was endorsed by the UGC and sent to Planning Commission for financial allocation. In this connection, the following progress was achieved during the year 1989-90:-

(i) A meeting of the Working groups on Higher Education and Library and Information was held in the office of the Planning Commission in June 1989 to consider the report. The general consensus was that the INFLIBNET was an essential input to the higher education system and that its implementation was long overdue.

(ii) The Commission constituted the following six task groups to workout the finer technical details so as to help the National Centre of INFLIBNET in implementing the programme.

Sl. No.	Task Group on	Agencies Involved
1.	Network Design	Space Application Centre, National Centre for Software Technology, and Mahanagar Telephone Nigam Ltd.
2.	Library Automation	Selected Librarians from reputed institutes, National Informatics Centre and IIT, Kanpur.

Sl. No.	Task Group on	Agencies Involved
3.	Union Catalogue, Data Capturing, Standardisation etc.	INSDOC, National Informatics Centre, DESIDOC (Defence Scientific Information and Documentation Centre), Documentation Research and Training Centre and Selected Librarians.
4.	Retrospective Conversion	Space Application Centre and selected Librarians from reputed institutions.
5.	Bibliographic Database services, Sectoral information Centres, etc.	National Informatics Centre, all National Information System for Science and Technology Sectoral Centres and National Centre for Science Information, Bangalore.
6.	Training	National Social Science Documentation Centre, Central Drug Research Institute, INSDOC and Documentation Research and Training Centre.

The Task Groups completed their assignments and submitted their reports to the Commission.

(iii) In order to share the experience in networking and also to identify the areas of cooperation with European Economic Community (EEC), an International Consultation meeting was held in March, 1990 in which representatives from EEC and experts from the University of Sussex and International Development Research Centres, Singapore participated. The Indian team led by the Minister of State for Science and Technology and Education was of the view that the project needed to be implemented at an early date in order to avoid wasteful expenditure resulting from duplication of efforts in acquiring books and journals.

The Commission is awaiting a favourable response from the Planning Commission by way of separate allocation of funds for implementing the project.

Section-3

HI-TECH AREAS AND R&D EFFORTS

3.01 Superconductivity Programme:

The Commission has supported 35 institutions under the programme of superconductivity during the last three years (*Appendix- XIII*). Major support was given to ten institutions whereas others were provided speed money to develop educational programmes, interact with leading groups as well as attend various conferences and seminars in the country to develop viable activities. The standing committee in its meeting held in March, 1990 reviewed the progress of the work done by the universities and arrived at the following major decisions:

(i) Five institutions be phased out of the programme;

(ii) Three institutions be given six months time to show satisfactory progress;

(iii) Three institutions be upgraded in terms of facilities provided to them;

(iv) Twelve institutions be given money for travel, contingency, purchase of minor equipments etc. for a period of next two years.

The committee also recommended to establish a consortium of universities in the area of superconductivity, education and research. The consortium may be in the nature of an unregistered body. It is envisaged that members of the consortium will work in close cooperation with one another and extend their facilities to affiliate members as well as other interested scientists.

The modalities for setting up of the consortium, its administrative structure, finance etc. are being worked out. Major thrust programmes undertaken during the year were;

(a) involvement of more and more applied science & technology personnel for developing capabilities in various areas for superconducting applications;

(b) continuation of basic and fundamental research alongwith support to long range applications programmes in generators, superconducting devices, magnetic separators etc.

(c) setting up of facilities for cable, thin film and other material preparations.

The academic progress made under the programme can be gauged by the fact that since the inception of the programme in 1987, 35 students have been awarded Ph.D/M.Phil degree in superconductivity by various universities while 120 students are actively working in this area. About 300 publications in reputed journals have appeared and 20 national/international conferences have been organised at different universities. A number of collabora-

tions within and outside India have also been established.

3.02 **Development of Multi-disciplinary teaching and training in Biotechnology (Department of Biotechnology, Government of India--UGC Collaborative Programme):**

A collaborative programme between the Department of Biotechnology (DBT) Government of India and the UGC has been in operation since 1985-86 for strengthening teaching and training in Biotechnology on a selective basis in universities which have active research groups in the field. Six universities viz. Banaras Hindu, Jadavpur, Jawaharlal Nehru, Madurai Kamraj, M.S. University of Baroda and Poona identified in this field, have since been conducting M.Sc./M.Tech. courses in Biotechnology for which the DBT is providing financial assistance by way of equipment, books and journals, contingent funds academic staff salaries and studentships while the Commission is paying salaries of administrative and technical supporting staff and a part of building construction cost. The Commission has also been providing two junior research fellowships at each centre for the last two years for pursuing Ph.D. in Biotechnology. Assistance is also provided to the universities for organising workshops/seminars in biotechnology.

3.03 **Development of Ocean Science and Technology:**

The Commission has been collaborating with the Department of Ocean Developmet (DOD), Government of India for promoting Ocean Science and Technology in the university sector. The need for this collaboration and joint funding arises particularly for those universities located in coastal areas which have developed facilities and expertise to train necessary manpower for the user agencies and to advance the learning of marine sciences. Formulation of perspective plan in teaching, training and research in collaboration with other institutions has also been taken up as part of this programme.

3.04 **Atmospheric Sciences:**

The Commission started this programme in 1987-88 with the objective of promoting meteorological and atmospheric Sciences in the University system and providing employment opportunities for trained persons at the computer systems set up by the Council of Meteorological and Earth Sciences for medium range forecasting. For this purpose, post-M.Sc/M.Tech. and research level courses in Atmospheric Sciences have been initiated by the Commission in seven universities viz., Andhra, Calcutta, Cochin, Gujarat, Poona, Roorkee and the Indian Institute of Science, Bangalore. These courses include Physical Meteorology, Fluid Mechanics, Dynamic Meteorology, Air Pollution and Atmospheric Chemistry, Hydrometeorology, Numerical Weather Prediction, Non-Conventional Sources of Energy and Satellite Meteorology etc.

A Standing Committee headed by the Chairman, UGC has been constituted to overview the progress of the programme.

3.05 **Indian Middle Atmospheric Programme (IMAP):**

The Commission has been providing financial assistance to university scientists for undertaking multi-department/agency, co-operative and coordinated national programme to study the middle atmosphere over the Indian Sub-Continent. Under the programme, considerable progress has been achieved in initiating new projects, development of new instruments and operation of cooperative research. Research projects submitted by university scientists are processed by the IMAP-Co-ordinating Committee and on their recommendations, funded by the UGC. The participation of university scientists in the Indian Middle Atmospheric Programme is to continue upto March, 1990 to keep in line with the International Middle Atmosphere Cooperation (IMAC). The Commission has also agreed to contribute towards the establishment of a data centre to be established under IMAP. On the recommendatins of the Inter-Agency Board meeting of IMAP held in April 1989, the Commission also agreed to (a) continuation of JRF's already working in the IMAP projects for their full tenure and (b) provide one PC-AT system each to the Andhra, Mysore and Poona Universities.

3.06 **Mass Communication and Educational Technology:**

a.. Country-wide Classroom

The Commission has been effectively utilising the fast expanding communication infrastructure in the country through its 'Country- wide Classroom' programmes of university level education for undergraduate students which are telecast to reach the farthest comers of the country. It has been the endeavour of the Commission to present, through these programmes, the latest advances in all fields of education by adopting a multi-disciplinary approach. An interesting component of these programmes is 'Omnipresence' which means taking the viewers to 'where the action is' viz. a workshop, hospital, rural set-up or a conference etc. The programmes are in English and are telecast daily for two hours through INSAT . IB and the Doordarshan network.* There are separate programmes telecast for teachers in the university system which enable them to enrich their knowledge. The Commission has provided colour TV sets to a large number of colleges in order to ensure wider viewing of the programmes.

During the period under report, the 'Country-wide Classroom' programmes on different subjects were telecast on 267 days. A total of 728 programmes covering a duration of 238 hours and 44 minutes have been used in these telecasts. Sourcewise, 76 per cent of the programmes telecast were Indian while the remaining were from foreign sources. There has been an increase in the percentage of Indian programmes telecast during this year as compared to the last year, largely due to the efforts of the EMRCs/AVRCs set up by the Commission and also the UGC-INSAT Project coordination Cell. Subjectwise break up of

* From July 1990, INSAT-ID.

the programmes received from UGC Media Centres during the year was as follows:-

Pure Sciences (98), Applied Sciences (106), Arts (41), History & Culture (21), Philosophy & Psychology (14), General (25).

During the year, another AVRC at Manipur University, Imphal became operational. Thus seven out of nine AVRCs set up by the Commission are operational and in addition there are four EMRCs. Charts indicating the significant contribution made by the EMRCs and the AVRCs are given at the end of the report.

The Commission also invites proposals from teachers working in universities and colleges and from free lance producers to participate by producing TV programmes with the help of private production agencies on contractual basis.

b. Manpower development and training is an important component in the use of educational media. The Educational Media Research Centres organise workshops to expose the academics and persons associated with the Media Centres for programme production, use of equipment, effective utilisation of the broadcasting medium as well as to motivate them in software making. As part of the periodical training programme the following workshops were held during the year:

1 Workshop for training of Cameramen on use of TV Camera at C.I.E.F.L.,Hyderabad.

2. Indo-French workshop on Video Production for Academics from colleges and Universities at M.C.R.C., Jamia Millia Islamia.

3. Workshop on E.T.V. Script Writing for College teachers at A.V.R.C., Madurai Kamraj University.

Distance learning is sought to be made more effective through the production of model course material. To begin with, such material is to be produced in 15 subjects in the form of audio/video cassettes, which could be used for self instruction and put out as video/TV broadcast. In this connection, the Commission has taken up a project on 'Non-broadcast Mode Education Material'. The Committee constituted by the Commission to advise on matters relating to the preparation of model video course material for undergraduate students has identified 15 subjects and eight production centres for production of model video course material. Workshops in different disciplines have been held and recording has started in some of these. It is expected that the work may be completed by March, 1991.

With a view to create the interest of the public in general and the academic community in particular, as also to encourage a healthy competition in the production of educational video programmes, the Commission organised a video festival at the St. Xavier's College, Calcutta during the year. Mother Teresa inaugurated the festival.

The Media Centres of the UGC sent their entries for different awards. A jury having representation from various fields like academic, educational film making, media, media

critic and the student community, gave away cash awards and commendation certificates in various categories. The festival was well acclaimed by the academics, general public and the media. Diagrams indicating number of programmes received and telecast are given at the end of the report.

c. Race to Save the Planet

Another important venture of the Commission has been the co-production arrangement entered into with WGBH Boston for the production of a TV series titled 'Race to Save the Planet' (now renamed as 'State of the World'). It is a ten-part series exploring the human dimensions of international environmental issues including future of the earth and providing needed insights to understand the roots and proccesses of modernisation, industrialisation and the relationship between human society and the natural resources. The series focus on solutions, constructive ideas and new approaches from all over the world and the need to evaluate policies for creating a sustainable environmental future. It is proposed to bring out the series in two languages viz. Hindi and Tamil by adding more Indian footage. The series will be in 26 parts each and the work would be done mostly by the existing EMRCs/AVRCs. (The English programme has since been telecast through Doordarshan network, commencing from October, 1990).

3.07 **Major Research Projects (Humanities and Social Sciences):**

The Commission provides assistance to teachers, both in service as well as superannuated, from universities and colleges for undertaking research or learned works in their fields of specialisation. Research projects under the scheme may be undertaken by an individual teacher or a group of teachers who could collaborate. Priority is accorded to such topics of research which have an inter-disciplinary bias. Research projects are approved on the recommendations of experts and expert committees constituted by the Commission. The assistance by the Commission for the research projects includes funding for appointment of junior research fellows, research associates, visits for the fieldwork, apparatus, equipment, postage, stationery, computation work, books & journals, printing of questionnaires, contingencies and such other items needed for the project.

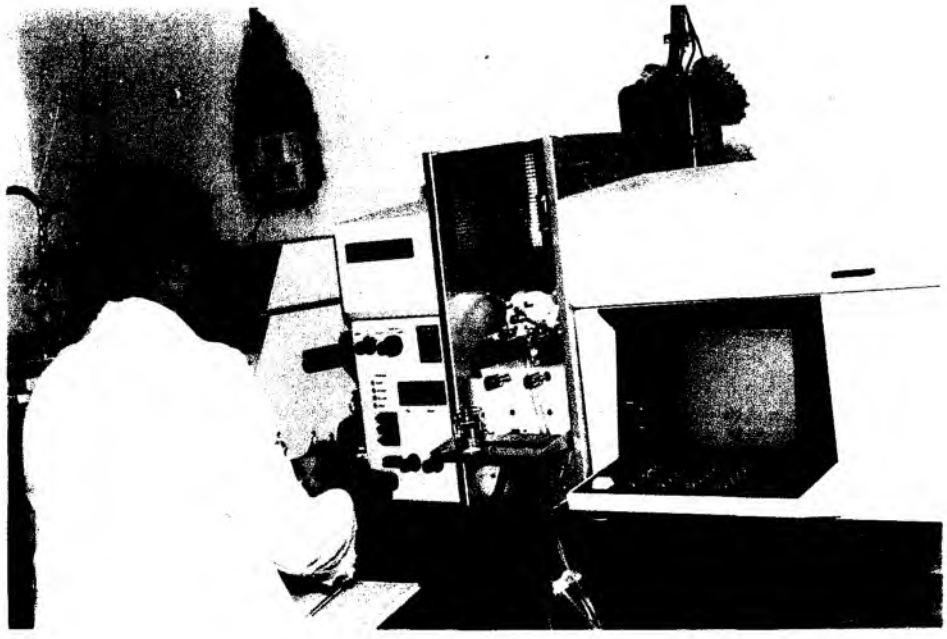
There is no ceiling of assistance provided by the Commission for a major research project. During the period under report, the Commission approved 69 major research projects inclusive of those of superannuated teachers in different disciplines of humanities and social sciences.

3.08 **Minor Research Projects (Humanities and Social Sciences):**

Under this programme, a university or college teacher intending to undertake a short-term research project or an investigation for a doctoral degree under approved supervision, is provided financial assistance upto a ceiling of Rs.15,000 by the Commission. Support under this programme was specifically provided to college teachers and junior teachers in the universities who did not have adequate resources to meet the expenses connected with

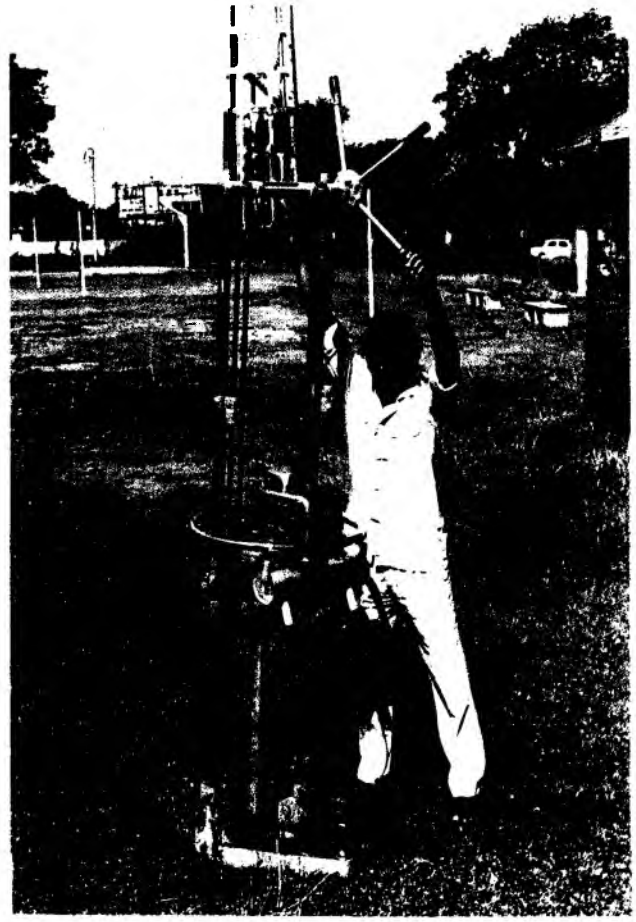
6. Bomem FT- IR equipment, Department of Physics, Aligarh Muslim University.

7. Atomic Absorption Spectrophotometer (Hitachi Z 7000), Centre for Water Resources, College of Engineering, Anna University, Madras.



8. Perkin—Elements Atomic Absorption Spectrophotometer of the Molecular Biology unit in use for measuring copper for diagnosis of Wilson's disease, Banaras Hindu University.

9. Thermografimetric analyser (TGA) from ambient to 1000°C at School of Physics, University of Madras.



10. Portable Coring Rig, Indian School of Mines, Dhanbad.

11. Educational Media Research Centre Activity, Poona University.

12. Educational Media Research Centre Activity, Gujarat University, Ahmedabad.

13. Students in Drama Workshop, DSA Gujarati Department, SNDT Women's University, Bombay.

their research either for a degree or as part of their individual project. The assistance was available for purchase of books and journals, field work, preparation of questionnaires, computation work, equipment and contingencies specially needed for the proposed project but not normally available in the institution where the teacher is employed.

During the year under report, the Commission approved 323 minor research projects in humanities and social sciences.

3.09 **Major Research Projects in Science:**

On the lines of projects in Humanities and Social Sciences, the Commission also provides assistance for major research projects undertaken by a teacher/group of teachers in Science subjects to enable them to keep abreast of the latest developments in their subject areas. The projects are monitored annually with the help of a monitor for each project and also by organising group monitoring for all projects in different disciplines. During the year the Commission approved 170 projects in different branches of science.

3.10 **Minor Research Projects in Science:**

Like in humanities, assistance was also provided by the Commission for undertaking minor research projects in science subjects. During the year under report, the Commission approved 900 projects at a total cost of Rs.1.25 crore.

3.11 **Major Research Projects in Engineering and Technology:**

The Commission is providing financial assistance to faculty members in the Universities/Colleges as well as to the retired teachers to enable them to take up well defined time-bound research projects in engineering/technology with particular stress on projects of national importance, R&D in new areas and of an inter-disciplinary nature. During the year, the Commission approved 18 such projects.

3.12 **Minor Research Projects in Engineering and Technology:**

The Commission also provided assistance for undertaking minor research projects in engineering and technology. During the year, five minor research projects were approved by the Commission.

3.13 **Career Awards:**

The scheme initiated by the Commission in 1979-80 aims at identifing young talented teachers, having proven competence and potential for research in their areas of specialisation, with a view to promote their professional growth by enabling them to devote their efforts and energies in research and study with lesser teaching responsibilities. Ordinarily, Career Award is offered for a period of three years to Lecturers and Readers in universities and colleges who are normally not more than 40 years of age and who have completed doctoral/post-doctoral or other equivalent professional training. The Commission pays the

awardees their full salary and allowances. In addition, the Commission provides each awardee with a research grant upto Rs.one lakh in the case of social sciences and humanities and Rs.1.5 lakh for science subjects and two or three research fellows during the tenure of the award depending upon actual requirements. The awardees may spend the duration of the award in their own institution or any approved institution in the country. They are also expected to participate in teaching programmes of the concerned department. Out of 20 awards available annually in science and engineering, seven awards were given during 1989-90 while in humanities and social sciences, 15 awards were given against as many positions available annually.

Section-4

COSIST PROGRAMME

4.01 Objectives and Progress

The Commission, on the recommendation of the erstwhile Science Advisory Committee to the Cabinet (SACC) and the Government of India (Ministry of Education), launched a scheme called "Strengthening of Infrastructure in Science and Technology" in the year 1983-84.

The main thrust of the scheme is to provide infrastructural support on a very selective basis to such departments which have shown promise of high quality research out-put or imparting good quality education or both. The ultimate goal is that in course of time such departments may stand at par with their counterparts elsewhere in the world and the country can have the best output from the already available academics. Normally, the support under the programme is meant for a period of five years and thereafter the question of extending further support is decided on the basis of performance of each department.

The departments which merit support under this scheme are selected through very stringent norms which are determined by the Standing Committee on Strengthening of Infrastructure in Science & Technology constituted by the Commission. This Committee comprises experts from different areas in Science and Technology and representatives from other funding agencies like DST, CSIR, AICTE etc. For final selection of departments assistance is taken from expert groups in the concerned areas.

One of the important aspects of this scheme is that it has an in-built system of continuous monitoring done by subject experts who visit the departments from time to time to assess the impact of the scheme. The COSIST supported departments have been given functional autonomy to constantly update their curricula, enrich their scope and contents and introduce teaching methods which are more conducive for student's learning than teachers' teaching and also to introduce new experiments which have direct bearing on the ongoing research programmes. Monitoring reports, reveal that many departments have taken positive steps in the above directions. Majority of the departments supported under the scheme have contributed significantly in the area of research as evinced from the research publications and the "impact factor" as well as in terms of Ph.D. output. In many of the COSIST supported departments the faculty members have bagged prestigious national and international awards. Also, the availability of adequate infrastructural support has helped these departments, to attract project support from various other funding agencies like DST, DAE, DRDO, CSIR, DOE, etc.

It is expected that in course of time COSIST supported departments will serve as nodal bodies and will play a catalytic role in motivating other departments to achieve excellence in research and teaching.

Since a major portion of the COSIST support is earmarked for acquisition of sophisticated equipment, adequate steps have been taken to ensure that these equipment are maintained properly and remain functional. For this purpose, an amount equivalent to 5% of the cost of the equipment in an innovative way is being provided to these departments.

The year-wise list of departments supported under the scheme since its inception is given below.

Year	No. of Deptts. selected	Total Expenditure incurred (Rs. in lakhs)
1983-84	12	452.2
1984-85	26	699.8
1985-86	16	380.3
1986-87	8	779.9
1987-88	19	999.5
1988-89	17	899.1
1989-90	12	799.7
Total	110	

A detailed list of the departments supported under the scheme is given at *Appendix-XIV*.

4.02 **Monitoring & Evaluation:**

As stated above, concurrent monitoring and evaluation is an integral part of the scheme. The departments are generally visited by subject experts after about one year from the date of providing the initial instalment of grant.

4.03 **Recommendations of the Sub-group**

The sub-group on higher education for the 8th Plan period discussed the programme and made recommendations regarding various aspects of the programme. Some of the important recommendations made by the sub-group are as follows:

(i) On-going Programme:

The on-going programme of COSIST should continue as such with the modification that, wherever necessary, staff and building may also be provided. At present generally building grant is provided only in very exceptional cases to house equipment which are purchased through the scheme. Supporting staff on a selective basis are provided for maintenance of equipment.

(ii) Linkages:

(a) Departments which have merited support under COSIST may be provided with additional grants so that they can invite other departments which are neither

funded through COSISTs or SAP to establish appropriate linkages. This endeavour is expected to help the developing departments in enriching the quality of their teaching and research. For this purpose each COSIST department has to identify certain departments with whom the linkages have to be established.

(b) For optimal utilisation of resources certain equipment requiring large investments may be used as national facilities and such equipment may be obtained through COSIST scheme. For this purpose grants for travel, maintenance or hiring charges and consumables may be provided for effective utilisation of these common facilities.

(iii) Funding New Departments:

There is a need to support new department s as per the established norms.

(iv) Extension of support to viable research groups:

There are certain departments in the country which cannot be considered as excellent ones in terms of their overall performance in teaching or research or both taken together. But in many such departments there are a few talented teachers who have shown promise of undertaking good quality research and in fact many of them through individual/group efforts have made significant contributions in their areas of specialisations, which have been duly recognised by experts in the concerned subjects. It has been decided by the Standing Committee on Strengthening of Infrastructure in Science and Technology that steps may be taken to identify such research groups or individuals and their performance be assessed with a view to provide them necessary infrastructural facilities to encourage them in pursuit of their activities. Similarly, interdisciplinary research/teaching proposals of high quality may also be considered for support under this scheme.

(v) Interfacing and Infrastructural Development with National Facilities:

It may not be possible to build up high quality research infrastructure in all areas within the educational system. Therefore, the laboratories within the higher education sector which are funded through COSIST scheme should establish appropriate interface with other R&D laboratories, like national laboratories or industries for joint research venture as well as for training in specialised areas.

Section-5

MAINTENANCE AND COORDINATION OF STANDARDS

5.01 Coordination and maintenance of standards in teaching and research are the statutory responsibilities of the Commission under Section 12 of the UGC Act and in this connection it consults the Universities as well as experts on its various panels. The commission has taken a number of decisions to foster better standards of education viz. by framing regulation regarding the qualification of teachers at the time of recruitment providing guidelines for minimum examination reform tendering advice to the Universities regarding minimum number of days on which classes should be held in a year, etc. The Commission has also been impressing upon universities for modernisation and relevance of curricula and methods of teaching which require students to do assignment, tutorials, projects or field work, using their initiative and creativity. A number of journals have been started particularly to help teachers to improve their professional competence. In recent years the Commission has been striving to maintain quality through proper consolidation of the existing facilities in order to meet the development requirements of the country, especially the need for trained personnel produced by the University system.

5.02 **Academic Calendar in Universities:**

On the recommendations of the Central Advisory Board on Education (CABE), the Commission in consultation with an expert Committee has formulated a Model Academic Calendar for suitable adoption by the universities in a State. The Calendar is as under:

1.	Beginning of academic session for the second year and third year students	Ist Monday of July
2.	Beginning of academic session for the Ist year students	3rd Monday of July
3.	Last date for admissions	14th August
4.	All examinations are completed	15th May (next year)
5	Declaration of all results	30th June (next year)

The Commission has desired that similar model may be developed by the universities for PG and research students. The Commission has also decided that the implementation of

the Academic Calendar be monitored by:

(i) a Committee under the Chairmanship of the Vice-Chancellor at the University level.

(ii) the State Council of Higher Education or the Committee of Vice-Chancellors of the Universities in the State at State level.

(iii) the UGC once in a year at the National level.

The Model Academic Calendar was circulated to Universities/State Governments for adoption.

5.03 **National Education Testing:**

The Programme of Action on the National Policy on Education (1986) laid down that "the teachers in universities and colleges will be recruited on the basis of a common qualifying test, the details of which will be formulated by the UGC." In pursuance of this, the Government of India in its notification of July 22nd 1988 regarding revised pay scales of teachers in universities and colleges stated that "only those candidates who, besides fulfilling the minimum academic qualifications, prescribed for the post of lecturer, have qualified in a comprehensive test to be specifically conducted for the purpose, will be eligible for appointment as lecturers." Keeping in view this policy and the recommendations made by a study group of academics that a qualifying test of eligibility nature for the recruitment of lecturers be conducted by the UGC, the Commission formulated a scheme of conducting qualifying test for first appointment as lecturers in universities, colleges and similar institutions. The scheme envisaged that recruitment of lecturers after January 1, 1990 would be made only from the candidates declared qualified in national qualifying test and other accredited tests. The universities, colleges and the State Governments would follow the selection procedures prescribed by them for the recruitment of regular, ad-hoc and part-time teachers but the selection will be made only from amongst the test qualified candidates. The state governments will be at liberty to either hold their separate tests at national level accredited by the UGC or draw upon the list of candidates declared qualified by the UGC in the national test. The test held by one State might also be accredited by another State for the purpose of recruitment of teachers.

The scheme lays down that the candidates who have already qualified the JRF examination held by the UGC/CSIR will be exempted from the test. Also, those who have already done M..Phil and Ph.D. will be exempted from appearing in the test upto December, 1990 and December, 1992 respectively.

The candidates who qualify in the eligibility test for lectureship will have to apply to the universities and colleges as and when the vacancies are advertised by them. The candidates who qualify only for lecturership will not be entitled to the award of JRF but the candidates who qualify for the JRF will be considered eligible for lectureship. The eligibility through these tests will not entitle the candidates for straight-away appointment as lecturers and they will have to apply to the advertisements issued by the universities and colleges and

get themselves selected as per selection procedure of the universities and colleges concerned.

Accordingly, the Commission conducted the National Level Test on 24th December, 1989 at 83 Centres for determining the eligibility for the award of Junior Research Fellowship and for determinig the eligibility for recruitment of lecturers in Universities and Colleges in 45 subjects (clubbed as 'A' category subjects) in the faculty of humanities and social sciences (including languages). A list of these subjects is given at *Appendix-XV* (a) Qualifying test in the remaining subjects (clubbed as category 'B') in the faculty of humanities and social sciences was conducted on 29the April, 1990. A list of these subjects is given at *Appendix-XV* (b) A total number of 48163 candidates were registered for this combined test out of which 37131 appeared and 1071 candidates were declared qualified for Junior Research Fellowship and eligibility for lecturership and 1326 were declared as eligible for lecturership only.

Similar test in pure science subjects (listed at *Appendix-XVI*, in the faculties of Sciences (Physical, Biological and Applied) was conducted jointly with the Council of Scientific and Industrial Research (CSIR) on 31st December, 1989. A total number of 36618 candidates were registered for this test, out of which 27431 appeared and 1041 candidates were declared qualified for Junior Research Fellowship and 1235 candidates were declared eligible for Lecturership only.

5.04 **Restructuring of Courses:**

The scheme of restructuring of courses was initiated by the Commission during the 5th Plan period with a view to making the first degree courses more relevant to environment and to the developmental needs of the Community and to link education with work/field/practical experience and productivity.

The scheme has been conceived as a major programme for reform of higher education at the undergraduate level. The programme aims at imparting to every undergraduate student grounding in the following important areas:

i. A set of foundation courses designed to create an awareness of areas such as Indian History and Culture, History of the Freedom Struggle in India and other parts of the world, social and economic life in India including concepts and processes of development, Scientific method including the role of science and technology in development, alternative value systems and societies based thereon, cultures of Asia and Africa (selected countries) and Gandhian thought.

ii. A set of core courses to give an opportunity to students to acquire bread familiarity with some chosen disciplines, including study of one or more of them in depth,

iii. Some applied studies/projects/field activity to form an integral activity of the course and to be carried out in the final year, and

iv. Involvement in a programme of national or social service for the first two years.

As on 31.3.1990, 9 Universities and 208 colleges had introduced restructured courses under the scheme.

5.05 **College Humanities and Social Science Improvement Programme (COHSSIP):**

College Humanities and Social Science Improvement Programme was initiated in 1974-75 to bring about qualitative improvements in teaching humanities and social science subjects at the undergraduate level in the affiliated colleges in various universities with particular reference to (a) adoption of new teaching methods, (b) extension of library services, (c) introduction of special courses, (d) inter-disciplinary programme (e) adoption of various measures of examination reforms(f) remedial teaching and (g) field/project work etc. COHSSIP thus provides an opportunity to colleges to make new experiments for the improvement of teaching, learning, curriculum and examinations. The total number of colleges assisted under this programme upto 31st March, 1990 was 595 in the first phase and 99 in the second phase.

5.06 **College Science Improvement Programme (COSIP):**

The programme, initiated in 1971, aims at bringing about qualitative improvement in the teaching of science subjects at the undergraduate level. It strives to accelerate the capabilities of undergraduate students and set in motion a process of continuous self-renewal. This is brought about through an integrated approach and simultaneous improvement in the subject matter, methods of instruction, syllabi, curricula, laboratory exercises, workshops, library and teaching materials. The programme has brought ,about awareness of the importance of science education both at college/ university level. As on 31st March, 1990 COSIP was being implemented in 314 colleges. The programme is under review.

5.07 **University Leadership Programme:**

The University Leadership Programme is aimed at improvement of instruction in selected subjects in all the colleges affiliated to a university. The department concerned in the selected university provides necessary guidance, advice and assistance to the college departments regarding curricular reforms, methods of instructions, syllabi and courses of study. The programme aims at improving instruction in the subject within the existing framework of the prescribed syllabi and the examination procedures. As on 31st March, 1990, 23 university departments in humanities and social science subjects and 15 university departments in science subjects were participating in the programme.

5.08 **Subject Panels:**

The Commission has panels of experts which advise it on matters related to the maintenance and improvement of quality of teaching and research in various subjects in Science, Humanities and Social Sciences. During the year under report the Commission agreed to evolve a new arrangement for the working of the subject panels with the following terms

of reference:

1. Collect information and material to report on prevailing standards of teaching and examinations in their subject areas.

2. Prepare periodically status reports regarding research facilities, research areas, performances and perspectives and indicate areas of thrust and importance and suggest measures to improve quality.

3. Examine research and other proposals referred to them by the Commission in order to make suitable recommendation in this connection, for consideration of the Commission.

4. Advice on measures for enhancing the quality of work in education and research and make recommendations in this connection, for consideration of the Commission.

5. Prepare lists of experts with their areas of specialisation for the use of the Commission and

6. Render advice on such other matters as may be referred to them by the Commission.

Important recommendations made by subject panels in science and humanities/ social sciences which met during the year were as follows:

5.09 **Chemistry:**

The panel considered 15 proposals received for Research Associateship and recommended five candidates for the award for various periods ranging from one year to three years.

5.10 **Electronics and Instrumentation:**

The panel recommended that the following universities may start the M.Sc. Electronics course with specialisation in the areas identified against each:

i. Bihar	Robotus
ii. Bangalore	HP devices
iii. Berhampur	Fibre optics
iv. Guvahati	Advanced Signal Processing (ASP)
v. Indore	Fibre optics
vi. Sardar Patel	Advanced Signal Processing (ASP)

While Bihar, Indore and Guvahati may start the course in 1989-90, Bangalore, Berhampur and Sardar Patel may start Courses in 1990-91. There are at present five universities viz.,

Delhi, Calcutta, Poona, Cochin and Kurukshetra which are conducting the M.Sc. Electronics course as per recommendations made by the panel in previous years.

The panel constituted a Committee to monitor the M.Sc. Electronics programme being offered in Delhi, Calcutta and Poona universities.

The panel also recommended that there should be a common entrance test for admission to M.Sc. Electronics course for all the universities including the universities where the course is already being run. To accommodate the local aspirants, 50 per cent seats may be reserved for the students of that region.

The panel was of the view that the Department of Electronics (DOE), Government of India may be involved in running the course effectively in universities by creating a pool of Visiting Professors who will visit different universities.

5.11 **Geography:**

The panel suggested the following additional parameters to be taken into account while considering a department for UGC support under the Special Assistance Programme:

1. Number of research scholars in the department;

ii. Admission policy of the institution;

iii. Bio-data of the teaching faculty;

iv. Special research activities in the department:

v. Collaborative arrangements with agencies in and outside India;

vi. Number of research papers published in Indian as well as foreign journals;

vii. Age of the department;

viii. Short write-up describing strong points and the development plans of the department.

The department of Geography of the Delhi University was approved 'in principle' for support under the Special Assistance Programme.

5.12 **Home Science:**

The Panel identified seven institutions for conducting national and international conferences, workshops, seminars. Further the panel identified the department of Food and Nutrition, M.S. University of Baroda for Special Assistance Programme.

5.13 **Physics:**

The panel considered, among other things, the proposals received for Career Awards and recommended three candidates for the award. Also, the panel approved 'in principle' the proposal of the department of Physics, Bangalore University, to run M.Sc. course in Astrophysics.

5.14 **Political Science:**

The panel recommended that the Centre for International Politics and Organisation, School of International Studies, Jawaharlal Nehru University and the departments of Political Science of the universities of Bombay, Hyderabad and Panjab may be provided support under the Special Assistance Programme of the Commission. The panel also recommended that the department of Political Science of the North Bengal University be included under the University Leadership Programme.

5.15 **Special Assistance Programme (SAP):**

The objectives of this programme are to provide substantial assistance in terms of competent and promising men and essential equipment to a number of university departments carefully selected on the basis of their work and achievement in order to raise quality, specially at the postgraduate and research level. The primary aim of the scheme is to encourage "pursuit of excellence".

Keeping in view these objectives, the Commission initiated the Scheme of recognising certain departments as Centres of Advanced Study (CAS) in 1963-64. In due course of time, when more resources were available, the Commission extended the assistance to other departments at DSA/DRS levels. Presently, the Commission is providing Special Assistance at three levels i.e. Centres of Advanced Study (CAS), Departments of Special Assistance (DSA) and Departmental Research Support (DRS).

The Scheme of Special Assistance to selected departments (DSA) was initiated in 1972 as a supporting programme for Centres of Advanced Study (CAS). Its chief aim has been to promote advanced study and group research effort so that the identified department can strengthen research in one or two thrust areas and, after evaluation, could be recognised as a Centre of Advanced Study.

The Scheme of Departmental Research Support was initiated in 1977 as a programme supportive to the Department of Special Assistance (DSA) programme with the basic objective of promoting group research effort so that, after evaluation, the identified department could be recognised as a Department of Special Assistance.

The Commission, on the recommendations made by Expert Committees, has been providing assistance on 100% basis for Special Assistance Programme by way of staff (academic and non-academic), building, equipment, books and journals, JRF/Research Associates, contingencies, chemicals and glasswares, travel, seminar/symposia, visiting faculty,

transport maintenance etc.

The performance of the departments participating in the scheme of special assistance is continuously monitored. Even before the selection of the department for participation under this scheme its achievements are examined by the concerned subject panel. The recommendations of the panels are considered by the standing Committee and finally by the Commission. After approval of the Commission, expert committees visit these departments and further assess their needs after detailed discussions with faculty and students.

The departments participating under SAP at the level of CAS/DSA/DRS are required to constitute an advisory committee as per guidelines of the Commission to monitor the implementation of the programme. This Committee is required to meet once a year and examine the annual report and future programmes of the Centre. The departments are further reviewed periodically after 3/5 years with the help of expert visiting committees. These committees visit the departments and discuss in detail the achievements made by the departments during that particular phase and constraints, if any, encountered by them in implementing the scheme and make recommendations accordingly. The report of the expert committees are finally placed before the Commission for approval. The performance of departments, which are directly selected as Centres of Advanced Study, is also evaluated with the help of Evaluation Committees appointed by the Commission.

This is one of the prestigious schemes of the UGC which has been monitored effectively in order to maintain highest standards of teaching/research at the P.G. level in the university system. A review of the scheme has brought out that it has enabled the SAP departments to have collaborative programmes at the national/International levels and attract as well as retain the best talents in the country. Based on the recommendations of the expert committee, a department is permitted to continue at the same level or upgraded to the next higher level or even discontinued, keeping in view its performance. The Commission, on the recommendations made by the expert committees, has derecognised a number of departments as their performance was not found to be of the highest standard.

During the year under report, three new departments merited support under DRS and 11 new departments under DSA in humanities and social sciences. Out of these 11 departments, one department was upgraded from the position of DRS to DSA. Similarly in Science subjects out of 37 departments reviewed by the committees, 8 were upgraded to CAS and 12 to DEA. Three departments were discontinued as their progress was not found satisfactory while the remaining were to continue as such. Thus, as on 31.3.1990. there were 15 CAS, 84 DSA and 16 DRS in humanities and social sciences *(Appendices XVII, XVIII and XIX.)* Similarly in science subjects, 29 CAS, 95 DSA and 61 DRS *(Appendices XX, XXI and XXII).*

5.16 **Curriculum Development Centres:**

The scheme, initiated in 1986, aims at setting up centres in different disciplines to carry out a thorough review of the existing syllabi and courses in different universities at various levels of higher education and to suggest measures for modernising and restructuring them into unit courses and also to develop alternative models emphasising different aspects of

study of the subject concerned.

The proposed curriculum lays emphasis on learning rather than teaching as the core element of human resource development and requires redesigning of the curriculum packages in a modular form with greater thrust on the student's motivation to learning than to teacher's lecturing. Also the curriculum is to be so framed as to make education socially relevant and meaningful to the needs of its beneficiaries. Students are to be given home assignments, tutorials, problem-solving sessions, term papers etc. Project/field work are inherent components of the curriculum to ensure regular use of library and laboratory facilities by the students and greater mobility of students from one region to another. The curricula are being developed by groups of experts in the concerned subjects from different universities, laboratories and other bodies. In the case of undergraduate curriculum, the experts have been chosen from colleges as well.

As on 31st March, 1990, 27 CDCs had been set up in various subjects (10 in Science subjects and 17 in humanities and social sciences subjects). A list of these centres is given at *Appendices XXIII (a) and (b).*

The Commission in all received model curricula in 22 disciplines which were discussed at national level workshops for circulation to universities.

5.17 **Examination Reforms:**

The Commission has been emphasising implementation of various measures of examination reforms such as continuous internal evaluation, development of question banks, grading system, semester system and some minimum reforms relating to syllabi , question papers and conduct of examinations. The position relating to the implementation of various measures of examination reforms as on 31.3.1990 was as under:

i. Continuous internal evaluation at different levels has been introduced by 52 universities, 18 institutions deemed to be universities and 23 agricultural/technological universities;

ii. Question banks have been or are being developed in 18 universities, 8 institutions deemed to be universities and 5 agricultural universities;

iii. Grading system is in operation in 23 universities, 12 institutions deemed to be universities and 22 agriculture/technological universities;

iv. Semester system is in operation in 51 universities, 13 institutions deemed to be universities and 19 agricultural/technological universities;

v. Eighty -nine universities/institutions have taken or are taking steps to demarcate the syllabus in each paper into well-defined units/areas of content alongwith a topic-wise break-up.

vi. Eighty- five universities/institutions have decided that examiners should be free to

repeat questions set in the previous examinations;

vii. Eighty-four universities/institutions have decided that the choice should be restricted to each unit of syllabus instead of giving wide choice to students for answering of questions.

viii. Eighty-one universities have supported the view that no examination should be held without fulfilling the requirements of a minimum number of lectures/t utorials/laboratory sessions; and

ix. Eighty-six universities/institutions have informed that they are taking steps to ensure the smooth conduct of examinations such as effective security measures, proper supervision and invigilation, and stern action in all cases involving copying and use of unfair means.

5.18 **Preparation of University Level Books by Indian Authors:**

The Commission has been operating the scheme since 1970-71 under which financial assistance is provided to outstanding academics and scholars in the universities, colleges and other institutions of higher learning and research for preparation of high quality books, monographs and other reference materials for use in the universities and colleges. The operation of the scheme has been suspended and the scheme is under review. It will operate again after the guidelines are revised.

5.19 **Publication of Learned/Research work including Doctoral Theses:**

The Commission has been providing assistance to universities under the scheme of publication of learned/research work including doctoral thesis. The honorarium payable for evaluating Ph.D. thesis/learned research work is Rs.200 per work/thesis to each of the experts upto a maximum of two experts as per the guidelines laid down by the Commission for the purpose.

5.20 **Hari Om Ashram Trust Awards:**

During the year, the Commission presented the Hari Om Ashram Trust Awards to 10 outstanding scholars for their significant contribution in different fields. The award carries a citation and a cash prize of Rs.10,000.

5.21 **Swami Pranavananda Awards:**

The Commission selected three distinguished schoiars for this prestigious award for the year 1988 for their outstanding contributions to human knowledge. The award carries a citation and a cash prize of Rs.10,000.

5.22 **Gandhian Studies:**

The Commission continued to give support to universities for various programmes of

Gandhian Studies and values and strengthening of Gandhi Bhavans. The Commission also continued the approved positions of research associates in Gandhian Studies.

There are 11 universities which run academic programmes leading to the award of degree/diploma in Gandhian Thought. To review this programme, the Commission has constituted a Review Committee on Gandhian Studies under the Chairmanship of Prof. Devendra Kumar, Director, Science for Villages, Wardha.

5.23 **Buddhist Studies:**

The Commission has been providing assistance to selected universities on cent per cent basis outside the plan allocation for the promotion of Buddhist Studies. Assistance is provided mainly for the appointment of staff and purchase of books with a view to strengthening teaching and research related to Buddhist Studies.

5.24 **Nehru Studies:**

The Commission has been providing assistance to universities for the promotion of Nehru Studies. Assistance is provided mainly for the appointment of staff and purchase of books with a view to strengthening teaching and research in this area.

Section-6

DEVELOPMENT OF UNIVERSITIES

6.01 Development grants are provided by the Commission to those universities, which are declared fit under Section 12 (B) of the UGC Act in order to facilitate the procurement of such infrastructural facilities as are not normally available to them from the state governments/other bodies supporting them. The Commission generally provides assistance for academic buildings, student hostels, equipments, books and journals, staff quarters and other facilities designed to promote the quality and level of teaching and research as well as to foster corporate life on the campus.

6.02 **Expert Committees to Universities:**

During the year, the Commission completed its task of sending expert Committees to visit universities essentially to know (a) the status of implementation of 7th plan development proposals (b) directions/programmes of the universities during the 8th Five Year Plan (c) implementation of National Policy on Education and Programme of Action (1986) and (d) implementation of reservation policies for scheduled castes/tribes etc. The recommendations made by these committees were helpful in formulation and finalisation of Eighth Plan development proposals of the universities. The reports of these committees during the year were considered by the Commission. These were also referred to the universities and State Governments for necessary action.

6.03 **Guidelines for fomulating proposals for the Eighth Plan Development Schemes of Universities:**

During the year under report, the Commission formulated a document providing guidelines to the universities for their advance preparation in formulating the development proposals for the Eighth Plan Period. The document spelt out among other things, the following priorities to be kept in mind by the universities while formulating their eighth plan development schemes:

(i) Existing departments of the universities may be oriented to provide a better climate for teaching and research and to make extension an integral component of education.

(ii) It is necessary to modernise the courses giving specific orientation for the purpose of making them relevant to regional and national development.

(iii) Specialised courses or areas of studies in the existing departments as well as on an inter-departmental basis which would also warrant curriculum innovation, restructuring of courses at undergraduate and postgraduate levels to make them linked with societal needs and all development sectors including rural and agricultural may also be pursued.

(iv) Laboratory and library facilities and services and workshop facilities, central instrumentation and maintenance of equipment may be upgraded.

(v) Additional academic staff requirement, to meet the urgent needs, keeping in view full utilization of existing staff positions.

(vi) Facilities including services like water supply and electricity on the campus for supporting various academic activities may be given due importance.

(vii) Teaching aids may be provided to all the departments. Libraries should be transformed into information centres and steps be taken to link the library with various departments through modern communication technology. Library services be strengthened to extend its access with a view to making it whole-day institution working with modern facilities including computer search and documentation services.

(viii) Infrastructural gaps in academic buildings and laboratory equipment may be appropriately bridged keeping in view the optimal use of such facilities.

(ix) Common facilities for students including counselling services and linkage with appropriate employment agencies may be improved.

6.04 **Revised Pattern of Assistance for Building Projects:**

During the year, the Commission looking at the difficulties of matching share and consequent delay in the implementation of projects, agreed to provide during the 8th plan 100 per cent grant for other buildings for the new projects.

6.05 **Campus Development in Central Universities and Institutions Deemed to be Universities:**

The Commission continued to provide assistance for campus development of central universities and institutions deemed to be universities. During the year 1989-90, grants amounting to Rs.275.79 lakhs were released by the Commission for the purpose.

6.06 **Grants under Plan Development Schemes to Medical Colleges and Hospitals of Central Universities:**

The Commission continued to provide grants under plan development schemes to medical colleges and hospitals of central universities like the Aligarh Muslim University, Banaras Hindu University and the University College of Medical Sciences, Delhi University. During the Seventh Plan period, an amount of Rs. 745.70 lakhs was allocated for medical colleges and the attached hospitals of the above universities by an Expert Committee which examined their Seventh Plan development proposals. Against this allocation, the Commission released during 1989-90 grants to the tune of Rs.93.07 lakhs for medical colleges and Rs.77.00 lakhs for the attached hospitals of the universities mentioned above. University-

wise break-up of the total allocation for the 7th plan and the grants released during 1989-90 is given in Table 6.1 below:

Table 6.1

University	Allocation for 7th Plan	Grants released during 1989-90 Medical Colleges and Hospitals
	(in lakhs of rupees)	
Aligarh Muslim University	263.00	65.32
Banaras Hindu University	282.70	54.75
University College of Medical Sciences (Delhi University)	200.00	50.00
Total:	745.70	170.07

6.07 Sub-Plan for Development Schemes of Central Universities: The Commission is making separate allocation under the Sub-plan for the development of central universities, medical colleges of central universities and hospitals attached to them and the Delhi Colleges buildings under annual budget of the UGC. During the year 1989-90, grants relreased/sanctioned to the central universities for various schemes under the Sub-plan amounted to Rs.2398.19 lakhs as per details given below:

Table 6.2

Scheme	Grants released/sanctioned during 1989-90 (Rupees in lakhs)
General Development in Humanities and Social Sciences	616.65
General Development in Sciences	4 40.60
Medical Colleges	93.07
Hospitals	77.00
Schools attached to Central Universities	44.10
Campus Development	269.66
Delhi Colleges Buildings	161.67
New Central Universities	210.00
Faculty Housing/Guest Houses	7.00
Students Hostels	155.10
Physical Education including sports	34.00
Miscellaneous	289.34
Total	2398.19

6.08 **Grants for the Development of Science:**

Grants given to the universities for science education and research during 1985-86 to 1989-90 are shown in Table 6.3.

6.09 **Grants for the Development of Humanities and Social Sciences:**

Grants paid to the universities during 1985-86 to 1989-90 for the development of humanities and social sciences are indicated in Table 6.4.

6.10 **Development of Engineering & Technology:**

The Commission has been providing financial assistance to university maintained departments in Engineering and Technology. During the year 1989-90, 35 universities were provided assistance by the Commission for promoting higher education and research in the field of Engineering and Technology.

The Commission has also been providing assitance for the award of PG Scholarships/Senior Research Fellowships for the students of engineering & technology in university departments.

Grants amounting to Rs .1,217.86 lakhs were released by the Commission to various Universities/institution for this purpose during 1989-90. The Commission also approved the Introduction of the following courses in Engg./Technology at Anna University, Madras during the year.

(i) M. Tech.,Course in Bio-Technology

(ii) M.Tech. Course

(iii) M.Tech.,Course in Footwear Science and Engineering.

6.11 **Management Courses:**

The Commission has also been providing assistance to universities/institutions for conducting programmes in Management Studies. A sum of Rs.77.30 lakhs was sanctioned for the purpose during 1989-90. This amount is a part of the overall grant released for the development of engineering/technology as indicated in para 6.10 above. During the year, the Commission also approved the introduction of MBA programme at the M.S. University of Baroda.

6.12 **Development of Computer Facilities and Computer Education for Manpower Training:**

The Commission has been providing financial assistance to universities for setting up computer facilities and computer centres. As many as 105 Universities were covered under

Table-6.3

GRANTS FOR THE DEVELOPMENT OF SCIENCE

Sl. No.	Item of Expenditure	1985-86	%	1986-87	%	1987-88	%	1988-89	%	1989-90	%	Total
1.	Staff	76.24	4	148.58	8	265.19	13	127.45	6	68.69	3	686.15
2.	Equipment	330.57	17	312.90	16	124.25	6	129.37	7	201.54	10	1098.63
3.	Books & Journals	141.84	7	109.50	6	91.26	5	87.85	4	68.83	3	499.28
4.	Buildings	105.40	5	233.04	12	84.44	4	206.63	10	98.45	4	727.96
5.	Centres of Advanced Study*	271.85	14	106.99	5	89.85	5	55.35	3	5.73	-	529.77
6.	Special Assistance to selected departments	442.02	22	193.90	10	325.56	16	225.74	11	470.96	21	1658.18
7.	Nuclear Science Centres	393.00	20	456.00	23	529.60	26	766.50	38	461.97	21	2607.07
8.	Inter-University Centres	-	-	-	-	-	-	34.00	2	135.00	6	169.00
9.	Inter-University Consortium @	-	-	-	-	-	-	-	-	20.60	1	20.60
10.	Other Schemes**	221.99	11	398.61	20	515.08	25	378.03	19	664.47	31	2178.18
	Total***	1982.91	100	1959.52	100	2025.23	100	2010.92	100	2196.24	100	10174.82

* Including staff, buildings, books, equipment etc.

** Includes projects support, departmental/Institutional Support, Career awards, research scientists, meritorious scholarships for B.Sc. students and other miscellaneous schemes.

*** Includes payment made by adjustment.

@ Set up in 1989

Note: A statement showing grants paid to universities during 1989-90 (major Head-wise) under Plan and Section III is given in Appendix-XXIV.

Table-6.4

GRANTS FOR THE DEVELOPMENT OF HUMANITIES AND SOCIAL SCIENCES

Sl. No.	Item of Expenditure	1985-86	%	1986-87	%	1987-88	%	1988-89	%	1989-90	%	Total
1.	Staff	120.80	14	207.20	19	342.84	27	189.90	22	192.80	13	1053.54
2.	Equipment	129.33	15	240.19	22	193.17	15	158.71	19	218.54	15	939.94
3.	Buildings	187.48	22	199.17	18	273.87	22	158.12	19	429.52	29	1248.16
4.	Books & Journals	242.00	29	227.39	21	153.25	12	108.50	13	233.35	16	964.49
5.	Centres of Advanced Study*	13.05	2	35.87	3	14.13	1	22.12	3	15.97	1	101.14
6.	Special Assistance to selected departments	63.42	2	57.65	5	97.93	8	33.89	4	174.48	12	427.37
7.	Area Studies	12.32	1	20.06	2	51.28	4	22.15	3	10.39	-	116.20
8.	Other Schemes**	74.69	9	113.91	10	146.57	11	151.03	17	212.63	14	698.83
	Total***	843.09	100	1101.44	100	1273.04	100	844.42	100	1487.68	100	5549.67

* Including staff, buildings, books, equipment etc.

** Includes projects support, research scientists, departmental/Institutional support, Career awards, and other miscellaneous schemes like development of Archival Cells, Museums, Archaeological Studies/ Excavation.

*** Includes payment made by adjustment.

the scheme for installation of computer systems upto 1989-90. The Commission also provides Rs.1.25 lakhs to a college for the purchase of two PC/XTs Computer systems, one Voltage Stablizer, one Air-conditioner and one Printer. As on 31.3.1990, in all, assistance was provided to 790 colleges for the purpose. In order to make up the shortage of trained manpower in this field, the Commission has also been assisting unversities under the UGC- DOE Joint Programme for running several manpower training courses viz. (a) one year Diploma Course in Computer Application (DCA) (b) Three-year Master of Computer Application (MCA) course (c) B.Tech. and M.Tech .courses in Comptuer Science and (d) M.E. in Computer Science, (e) M.Sc. in Computer Science.

6.13 **Jubilee Grants:**

The Commission provides assistance to colleges to commemorate their centenary and 150 years of establishment. The Commission's assistance is provided for meaningful programme of capital nature. While providing grant-in-aid under this scheme, each proposal is evaluated by the Commission on its merit.

6.14 **Unassigned Grants:**

The Commission has been operating the scheme of 'Unassigned Grants' for providing assistance for the following items:

GROUP 'A'

i. Travel grant to teachers/scientific and technical officers for participation in international conferences/symposia held abroad.

ii. Travel grant to Vice-Chancellors for attending Commonwealth Vice-Chancellors' Conference.

iii. Travel grant to teachers/research scholars/scientific/technical officers for visiting centres of research or to attend academic conferences/seminars within India.

iv. Exchange of teachers.

v. Travel grant to teachers selected under the international collaboration exchange programme by CSIR, INSA and other agencies.

vi Organisation of Model Parliament in Universities.

GROUP 'B'

i. Travel grant to the teachers selected under the International Collaboration Exchange Programme by CSIR, INSA and others national agencies.

ii. Organisation of Seminars/Symposia and International/National/ Regional/State level conferences.

For Group 'A' Scheme the Commission is providing grants ranging from Rs.20,000/- to Rs. 5 lakhs per annum and for group 'B' ranging from Rs.1 lakh to 3 lakhs.

6.15 Development of Performing Arts, Museums & Archival Cells: The Commission has been taking keen interest in promoting areas such as Performing Arts, Museums, Archival Cells/Archaeology departments.

During 1989-90, 16 universities and eight colleges were provided assistance for the development of Museums; five universities for the development of Archaeology Centres and one university for Performing Arts.

6.16 **Centre for Third World Studies:**

The Commission during the year, continues assistance to the Jamia Millia Islamia for the Centre for Socio-Economic Studies of the Third World countries set up in 1987-88. The assistance is for a period of five years and includes grant for staff, space, seminars, contingencies, books and journals. The main objectives of the Centre are to:

a. promote research studies in strategies of planning and socio- economic development in developing countries;

b. investigate and document case studies of economic and social development;

c. examine institutional infrastructure set up for the planning and development process;

d. develop alternative models of development suited for the environmental conditions in different countries; and

e. organise international seminars, workshop etc. to study socio-economic development in developing countries.

The centre organised a one-day discussion of 'Detente II, Transition and the Third World' in April, 1989. Also a seminar on 'China and the Third World' was organised by the Centre in January, 1990.

6.17 **Centre for Scientific Socialism:**

The Commission is providing assistance to the Centre for Scientific Socialism set up by the Nagarjuna University. Assistance is provided for items such as teaching staff, research staff, books and journals, seminars, conferences, publication, additional space, contingency etc.

6.18 **Centre for Vedic Studies and a Tagore Cell:**

The Commission has identified the department of Sanskrit, Rabindra Bharati University for carrying out research on Vedic Studies and the department of Bengali of this university for the extablishment of a Tagore Cell.

6.19 **Centre for Regional Studies (Bhanja Literature):**

During the year, the Commission provided assistance to Berhampur University for the establishment of a Centre of Regional Studies- Bhanja Literature. The Centre has been established in the Oriya department of the university. Assistance to this Centre has been agreed to for a period of five years for appointment of faculty and for the purchase of books and journals and equipment. The objectives of this Centre will be:

a) Collection of research materials relating to regional literature: specifically of Upendra Bhanja.

b) Conducting research on Bhanja Literature.

6.20 **Centre for Manipuri Studies and Research and Tribal Research:**

During the year, the Commission provided assistance to the Manipur University, Imphal for the establishment of:

(i) Centre for Manipuri Studies and Research and

(ii) Centre for Tribal Studies.

The Centre for Manipuri Studies and Research will undertake research on the following topics:

(a) Manipuri Language and Literature

(b) Linguistics

(c) Manipuri Culture

(d) Manipuri Folklore

(e) Manuscriptology

(f) Lexicography.

The Centre for Tribal Research will undertake interdisciplinary research projects like:

(a) Socio-political aspects of the tribals of Manipur

(b) Ethno-history of Manipur

(c) Economic Development of the Tribals (with focus on tribal demography and tribal land system)

(d) Communication among tribals.

6.21 **Special Education to Teachers for Teaching Handicapped Children:**

The Commission has been providing assistance to universities/institutions for offering courses in Special Education for teachers teaching handicapped children. As on 31.3.1990, seven universities and two colleges were being assisted under the programme.

6.22 **Support for Publication of Journals:**

(a) Journals in Science Education:

The Commission has been sponsoring the publication of quarterly journals in Biology Education, Chemistry Education, Physics Education and Mathematic Education through Macmillan India Ltd. Madras. The first issue of these journals was brought out in July-September, 1984.

The journals are being published under the advice of an Editorial Board for each journal. The journals provide a selection of articles throwing light on recent trends in education and research in these areas which will infuse new vigour into teaching of various subjects at the under-graduate and postgraduate levels. They also provide a forum for exchange of ideas on innovation in teaching, new curricula and educational technology. The Progress is reviewed by a Committee constituted by the Commission.

(b) Journals in Humanities and Social Sciences:

The Commission provides assistance for the publication of journals in humanities and social sciences also. The grant is given for the publication of research journals in English or regional languages brought out by a department/institute in a particular discipline or on inter-disciplinary basis. The object of the scheme is to help the university/department to improve the quality of its journals and to ensure regularity of their publication.

The grant under this scheme is given to meet the annual deficit subject to a maximum of Rs. 5,000/- per year for a period of five years.

6.23 **Science Education Centres:**

The Science Education Centres are primarily meant to popularise science amongst the general public. The objective of the Science Education Centres is to generate ideas and materials for the improvement of science education at the University and school level and for the promotion of wider interest in science and scientific issues, through all means of

communication.

The main activities of such centres are as follows:-

i. Development of museums and to conduct short courses of museum methods and demonstration.

ii. Establishment of hobby workshops and to conduct short courses in these hobbies.

iii. Development of science laboratories open for carrying out short projects/investigations and trying out creative ideas.

iv. To conduct technical training course.

v. To organise study groups on science education problems.

vi. To organise science workshops to evolve demonstration, kits, models, teaching aids etc.

vii. To Publish a bulletin of science education.

viii. To organise community concerned activities.

ix. To maintain a mobile science laboratory.

x. To organise talent research schemes, quiz contests, etc.

xi. To arrange science courses for rural and urban living conditions.

xii To maintain a reading room/library etc.

Presently, the Commission is providing grants to four universities having such centres as follows:

i. Madurai Kamraj University

ii. Delhi University

iii. Gujarat Vidyapith

iv. Rajasthan University.

The Commission provides grants towards salaries of teaching and non-teaching staff, books & journals, design and fabrication of equipment, chemicals and glassware, contingency, travel and audio-visual aids.

6.24 University Science Instrumentation Centres (USIC):

Experimentation, which forms a major component of training and research in science and technology is of considerable importance in Science education and research. For the training of experimental scientists of high calibre and for sustaining the continued interest of students in an environment of rapid advances in science and technology, the university departments need to be continuously provided with highly reliable sophisticated instruments for teaching and advanced research. The Commission provides funds to procure such instruments from indigenous and foreign sources. However, modern instruments are becoming more and more sophisticated and hence expensive and, with limited resources available for the higher education system, liberal purchase of instruments is not possible. It is therefore, necessary to bring them in a common pool in the university for their better use. All this requires a well-planned structure with appropriate facilities and technicians to help the academic staff of the University in all aspect of instrumentation, and needs close cooperation among all acadmic staff. The Commission, therefore, introduced the scheme of USIC in individual universities. Under this scheme, the UGC supports Universities to create essential facilities where all major instruments in the university could be centralised for their maximum utilization, with workshops supported by well qualified personnel for fabrication, repairs and maintenance of all types of instruments. The main objectives of this programme are to generate manpower at different levels and to nurture and spread the culture of instrmentation in the higher education system.

USICs are non-vacation academic departments and have the requisite functional autonomy for their day to day functioning towards achievement of their objectives.

The Commission has also established Regional Instrumentation Centres at Bangalore and Bombay for supporting the USICs. The Commission provides financial assistance for staff salaries, equipment, contingencies and buildings on 100% basis for the first five years after which the State Government is expected to take over the responsibility of funding for posts and other recurring expenses.

As a result of this scheme, the equipment in the universities are being put to greater use. On the basis of the performance of the USICs some of them have been upgraded from USIC Level I to Level II and from Level II to Level III.

As on 31.3.1990, the Commission had approved the proposals of 64 universities for setting up of USICs.

6.25 UGC Film Study Centres:

The Commission has set up Film Study Centres in 22 universities/colleges in the first instance.

A UGC Central Cell is set up at the National Film Archives of India, Pune to ensure constant supply of suitable film classics and ancilliary support material and also undertake training and retraining programmes for the teacher co-ordinators.

During the year, it was decided to take up review of the working of these Film Study Centres and to decide whether they should be continued or not.

6.26 **Value-Oriented Education:**

Value oriented education figured in the discussions on the formulation of National Policy on Education (1986), the Policy points out that the growing concern over the erosion of essential values and an increasing cynicism in society has brought to focus the need for readjustments in the curriculum in order to make education a forceful tool for the cultivation of social and moral values. According to the Policy, value education has a profound positive content, based on our heritage, national goals and universal perceptions. The Policy also visualises a positive role for education in the development of new values through redesigning curriculum, textbooks, training and orientation of teachers, empowerment of women and bringing about changes in their status.

The Commission has given high priority to value-oriented education. It is felt that value orientation should be a focus of education and that teachers should be given necessary training in the effective methods of development of values among students. Value orientation covers the entire domain of the human personality and its integrated development. Specific vlaues correspond to different capacities: there are values of physical education, aesthetic education, mental education, spiritual education and so on. The imparting of these values should therefore become an integral part of the teaching- learning process. The UGC has sanctioned a project for undertaking studies relating to value-oriented education to be implemented at the Gujarat Vidyapith, Ahmedabad.

6.27 **Development of Sports Infrastructure in Universities and Colleges:**

During the year 1989-90, the Commission with the help of Expert Committees examined and approved in principle proposals of seven universities involving financial implication of Rs. 68.19 Lakhs under NSO programme. As regards proposals of colleges, it was decided by the Commission in Consultation with the Department of Youth Affairs and Sports that, for the present, proposals relating to development of play fields and purchase of Sports equipment of non-expendible nature may only be considered. In persuance of this, such proposals received from the colleges were considered by a Committee constituted by the Commissiion. On the recommendation of the committee, necessary steps were initiated during the year to sanction grants to colleges.

6.28 **Three-Year Degree Course in Physical Education, Health Education & Sports in Universities and Multi-faculty Colleges:**

During the year 1989-90, proposals of two universities and four colleges were approved by the Commission for the introduction of a three year degree course in Physical Education, Health Education and Sports. Thus, at the end of 1989-90, proposals of 20 universities and 36 colleges had been approved under the scheme.

6.29 **Dr. S Radhakrishnan Fellowship:**

During the year under report, the Commission agreed to the creation of endowment fund for the institution of one fellowship in the name of Late Dr. S. Radhakrishnan, former President of India and the Govt. of India was requested to provide a sum for the purpose.

6.30 **Futures Studies:**

The Commission has been providing assitance for courses in Futures Studies at the Post M.Tech./M.Sc. level since 1989. The following ten universities were offering courses in Futures Studies as on 31st March, 1990.

1. Andhra University
2. Osmania University
3. Sri Venkateswara University
4. Madurai Kamraj University
5. Annamalai University
6. Pondicherry University
7. Kerala University
8. Bharathidasan University
9. Devi Ahilya Vishwavidyalaya
10. Gandhi Gram Rural Institute.

The Commission provides assistance for recruitment of teaching staff, building, equipment, books & journals, visiting faculty and working expenses.

During the year 1989-90 the Commission paid Rs. 28 lakhs towards this programme.

6.31 **Autonomy to university Departments:-**

The Commission has been emphasising the need to decentralise authority and confer autonomy to the university departments with a view to create an elastic and dynamic system for promotion of innovation in teaching and research and efficient functioning of centres of academic excellence. Under a scheme evolved by the Commission during the year, selected departments, schools and centres in the university system can be granted academic autonomy as well as the necessary administrative and financial autonomy needed for achieving the objectives of the academic autonomy. The University department recognised

as Centres of Advanced study (CAS) and those receiving special assistance from the Commission under programmes like departments of Special Assistance (DSA), Strengthening of Infrastructure in Science and Technology (COSIST), Area Studies, Media Centres, etc. are proposed for grant of authonomy by the concerned universities in the first instance. Similarly, steps will be initiated to confer autonomous status to other departments also. The autonomy will be granted on a five-year term basis which can be revoked in case there is convincing evidence about the mis-use of the autonomous status. Each autonomous department will have a Departmental Council with a sepcific term of membership. The department will also constitute an appropriate machanism to evaluate its own performance. Each authonomous department will, keeping in view the general policy of the univertsity, frame regulations regarding admissions, preparation of syllabi, methodology of evaluation and examination, identify thrust areas for research and formulate necessary financial and administrative arrangements including processing of cases for recruitment of faculty. In respect of shcools/Institutes/centres granted autonomous Status within the university set up a Governing Council will be consitiuted which will be responsible for academic, financial and other administrative affairs of the school/institute/centre.

6.32 **Area Studies Centres:**

Under this programme the Commission has been providing assistance to selected universities for undertaking indepth studies relating to various aspect of different countries & regions of the world particularly of those with which India has had close and direct contact. The objectives of this programme are three-fold:-

i. To train a body of scholars for specialised studies on problems & culture of a given area.

ii. To develop interdisciplinary research and

iii. To develop teaching and research in social science disciplines introducing a comparative & interdisciplinary dimension.

The Commission's assistance to the Centre of Area Studies covers additional academic staff, fellowships/scholarships strengthching of library facilities, field grant for research scholare to enable them to visit areas of their interest and for collection of source materials, assistance for inviting scholars to the centres etc. The working of the centres is reviewed periodically.

The Commission is providing financial assistance to the following 14 universities for development of 16 Area studies Centres:-

1.	Aligarh Muslim University	Centre of West Asian Studies
2.	Banaras Hindu university	Centre for Studies on Nepal

3.	Delhi University	Chinese & Japanese Studies
4.	Calcutta University	Centre for Soth East Asian Studies
5.	BombayUniversity	(1) Centre of African Studies (2) Centre of Soviet Studies.
6.	Madras University	Centre for South & South East Asian studies.
7	OsmaniaUniversity	Centre for Urban Development & Regional Planning.
8.	Gokhale Institute of Politics & Economics	Centre for Economics of East European Studies.
9.	Rajasthan University	South Asia Studies Centre
10.	Sri Venkateswara University	Centre for Studies on Indo- China.
11.	Jawaharlal Nehru University	(1) Centre for Gulf Studies (2) Centre for Soviet Studies
12	Goa University	Latin American Studies
13.	Andhra University	SAARC Studies
14.	Kashmir University	Centre for Central Asian Studies.

The reprots of the expert Committees to assess the development proposals of the Area Studies Centres for the five-year period starting from 1988-89 were considered by the Commission. It was decided to refer these reports to a Committee for further examination with a view to make the Area Studies programme truly inter-disciplinary and broad-based keeping in view the recent thinking of the Comission. The main recommendations made by the Committee were as follows:

1. Every Area Study Centre should endeavour to achieve a comprehensive understanding of the culture of a country in all its aspects.

2. The over-riding aim of such centres should be the development of quality in their programmes. For this purpose, they should clearly assess intellectual and financial resources available to them and select the subject they can best concentrate on.

3. In its process of selection, each centre should bear in mind the relevance of its studies to what its students may do after leaving the University more generally in India.

4. Close co-operation should be developed in a truly meaningful and practical manner with Institutions concerned with international affairs such as the Foreign Offices of the Ministries of External Affairs, Commerce and Defence, the Federation of Indian Chambers of Commerce and Industry etc.

5. Each centre should ultimately aim at offering comprehensive courses covering as many aspects as possible of its area including History, Economics, Politics, Language, Sociology and, not the least, their Science and Technology aspects.

The Commission accepted the recommendations made by the committee and agreed to provide 100% assistance to the 14 Universities listed above for the development of Area Studies Programme for a period of five years from 1.4.88 to 31.3.1993.

Section-7

DEVELOPMENT ASSISTANCE TO COLLEGES

7.01 With over 88 per cent of the undergraduate enrolment and 57 per cent of the post-graduate enrolment concentrated in affiliated colleges, their development has always received prime attention of the Commission. The college sector plays a vital role in the maintenance of desired standards, ensuring optimum utilisation of facilities, promoting innovation and change, relating education to emerging occupational pattern, ensuring viability and bringing about equality of educational opportunities by catering to weaker sections of society, particularly the scheduled castes and tribes and the educationally backward areas of the country.

The Commission continued to provide developmental assistance to single faculty and multi-faculty colleges and the colleges conducting undergraduate & post-graduate programmes in accordance with the Seventh Plan guidelines.

7.02 **College Development Councils**:

These councils, set up at the university headquarters, assist the univesities in processing the cases of colleges for development grants paid by the Commission. They serve as an important link between the university and the Commission in ensuring proper implementation of the schemes of the Commission meant for the college sector, and thereby ensuring proper planning and integrated development of affiliated colleges. A Council may consist of the Vice-Chancellor of the university concerned, coordinator/ Director/Dean of the Council, a few senior teachers of the university teaching departments particularly those who have taken up COSIP/COHSSIP etc., some principals of affiliated colleges and a representative of the State Government. The total membership of the council should not exceed 30. As per the revised guidelines in force since the beginning of the Seventh Plan, the Commission's assistance towards these councils was upto 31st March, 1990. During the year under report, the Commission considered the question of continuing assistance beyond 31st March, 1990 and agreed to extend the assistance upto 31st March, 1991 in the first instance. The Commission further desired that the universities should obtain assurance from respective State Governments for taking over the liability after 31st March, 1995. On receipt of the assurance, the assistance by the Commission may be extended upto 31.3.1995.

During the year 1989-90 grants amounting to Rs. 23.01 lakhs were released under the scheme.

7.03 **Grants for General Development**:

Grants paid to collges for general development and other schemes during the period 1985-86 to 1989-90 are detailed in table 7.1 below:

Table7.1
Grants paid to Colleges for General Development and other Schemes*

(Rs. in lakhs)

Sl. No.	Name of the Scheme	1985-86	1986-87	1987-88	1988-89	1989-90
1.	Development of affiliated colleges	1,159.28	2670.39#	2808.58#	3334.10#	2386.59#
2.	College Science Improvement Programme	50.15**	40.00**	56.00**	38.60**	27.99**
3.	College Humanities & Social Sciences Improvement Programme	76.91	189.97**	161.15**	116.25**	173.52**
4.	Centenary Grants	1.75	20.57	50.00	--	12.00

* A statement of development grants paid to colleges(Statewise) during 1989-90 is given in *Appendix -XXV.*

\# Includes assistance to UG/PG Colleges, Teacher's Training Colleges and Basic Assistance.

** includes ULP also.

7.04 **Autonomous Colleges:**

The Commission continued its efforts to promote and encourage the concept of autonomy through its scheme of autonomous colleges. As a result of continuous follow-up, 9 more colleges were granted autonomous status during the year under report, thus bringing the total number of such collegesto101 as on 31st March, 1990. During the year, the Commission agreed that the autonomous colleges which had been offered autonomy prior to the revised guidelines issued during the 7th Plan period and which have been brought in under the revised guidelines may continue to receive financial assistance from the Commission at par with those colleges conferred autonomy first time under the revised guidelines.

A Committee has been set-up for advising and monitoring the implementation of the scheme of autonomous colleges.

7.05 **Plan assistance to Delhi Colleges :**

Plan assistance provided to Delhi Colleges during the year 1989-90 was as follows :

(a) An amount of Rs. 34.00 lakhs was provided to 18 colleges for the implementation of the scheme of 'Restructuring of Undergrauate Courses'.

(b) An amount of Rs. 4.00 lakhs was provided to four Delhi Colleges under the Scheme of 'Basic Assistance' as per details given below:

1) Books and Journals : Rs. 1.00 lakh
2) Equipment : Rs. 3.00 lakh

(c) An amount of Rs. 65.03 lakhs was provided under the scheme of 'Development of Undergraduate Education' for books and journals, equipment and buildings as per details given below:

1) Books and Journals : Rs. 21.85 lakhs (32 colleges)
2) Equipment : Rs. 38.03 lakhs (24 colleges)
3) Buildings : Rs. 5.15 lakhs (6 colleges)

(d) An amount of Rs. 178.67 lakhs was provided to 25 colleges for construction/extension of buildings and other specific purposes.

(e) An amount of Rs. 6.84 lakhs was provided to 19 colleges for meeting 50 per cent of the expenditure incurred by the teachers towards international air passage, TA/DA etc. for attending international Conferences/Seminars/ Symposia abroad.

Section-8

DEVELOPMENT OF INSTITUTIONS DEEMED TO BE UNIVERSITIES

8.01 Section 3 of the UGC Act provides for declaring an instituion of higher education, other than a university, as an 'institution deemed to be university' which is having more specific and limited functions and scope and is doing work of a high standard in an academic field. An institution deemed to be a university enjoys the academic status and privileges of a university and is generally expected to aim at strtengthening its activities in its field of specialization rather than make efforts towards growing into multi-faculty university of the general type.

8.02 **Enrolment and New Institutions:**

During the year 1989-90, the following three institutions were granted the status of 'deemed university;

1. National Museum Institute of History of Art, Conservation & Museology, New Delhi.
2. Deccan College Post Graduate and Research Institute, Pune.
3. Jamia Hamdard, New Delhi

Thus, the total number of institutions deemed to be universities was 28 as on 31st March, 1990. A list of these institutions giving their enrolment, year of establishment and the year of their recognition as 'institution deemed to be university' is given in Table 8.1 below.

Table 8.1

Sl. No.	Name of the Institution	Year of Establish-ment	Year during which reco-gnised	Enrolment during 1989-90
1	2	3	4	5
1.	Indian Institute of Science (Bangalore)	1909	1958	415
2.	Indian Agricultural Research Institute (New Delhi)	1905	1958	703
3.	Gurukul Kangri Vishwa-vidyalaya (Hardwar)	1900	1962	663
4.	Gujarat Vidyapith (Ahmedabad)	1920	1963	840
5.	Tata Institute of Social Sciences (Bombay)	1936	1964	258

1	2	3	4	5
6.	Birla Institute of Technology and Science (Pilani)	1964	1964	2981
7.	Central Institute of English and Foreign Languages (Hyderabad)	1958	1973	657
8.	Indian School of Mines (Dhanbad)	1926	1967	262
9.	Gandhigram Rural Institute (Gandhigram)	1956	1976	1112
10.	School of Planning and Architecture (New Delhi)	1959	1979	629
11.	Dayalbagh Educational Institute (Agra)	1973	1981	1847
12.	Sri Sathya Sai Institute of Higher Learning (Prasanthi Nilayam)	1981	1981	707
13.	Banasthali Vidyapith (Banasthali)	1935	1983	1468
14.	Indian Veterinary Research Institute (Izatnagar)	1913	1983	85**
15.	International Institute for Population Science (Bombay)	1956	1985	61
16.	Thapar Institute of Engg. and Technology (Patiala)	1956	1985	918
17.	Birla Institute of Technology, Mesra(Ranchi)	1955	1986	1626
18	Rajasthan Vidyapith (Udaipur)	1937	1987	1492 #
19.	Tilak Maharashtra Vidyapith (Pune)	1921	1987	5121

1	2	3	4	5
20.	Rashtriya Sanskrit Vidyapith (Tirupati)	NA	1987	NA
21.	Shri Lai Bahadur Shastri Rashtriya Vidyapith (New Delhi) **	1962	1987	NA
22.	Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore	1957	1988	2215
23.	National Dairy Research Institute, Karnal (Haryana)	1957	1989	313
24.	Central Institute of Higher Tibetan Studies, Sarnath, Varanasi (UP)	1967	1988	290
25.	Central Institute of Fisheries Education, Varsova, Bombay	1961	1989	132
26.	National Museum Institute of History of Art, Conservation & Museology.	1989	1989	346
27.	Deccan College Post Graduate and Research Institute, Pune	1939	1990	110
28.	Jamia Hamdard, New Delhi	1962	1989	NA

* Pertains to 1987-88

** Pertains to 1988-89

Pertains to 1986-87

8.03 **Maintenance Grants**

The quantum of grants paid to institutions deemed to be universities during 1985-86 to 1989-90 is given in Table 8.2 below:

Table 8.2

	1985-86	1986-87	1987-88	1988-89	1989-90
		(Grants paid in lakhs of Rupees)			
Institutions deemed to be Universities	1614.25 97.89*	1954.03	2490.00	2568.72 6.53*	2475.75

* By adjustment

8.04 **Major Achievements:**

Major achievements and programmes of the deemed universities as reported by them during 1989-90 are given below:

i) **Indian Institute of Science, Bangalore:**

The Institute conducts Master of Engineering Programmes in the departments of Computer Science and Automation, Electrical Communication Engineering, Electrical Engineering, Higher Voltage Engineering, Aerospace Engineering, Chemical Engineering, Civil Engineering, and Medical Engineering. It also conducts Master of Technology programme in the department of Management Studies, Instrument Technology and the Centre for Electronics Design and Technology. The Centre for Application of Science and Technology to Rural Areas(ASTRA) has been carrying out a number of field research programmes related to rural development A450 M^2 Solar Pond is being constructed at Masur for supply of hot water to rural community. This pond is being built to demonstrate the technical and economic feasibilities of small ponds in rural areas.

This Institute has developed technology for pulping of waste fibre from sisal leaves at atmospheric pressure in small quantities of about 30 kg. for use in making of hand made paper.

The curriculum development cell attached to the Centre for Electrics Design and Technology took up the production of video tapes. Also, during the year, over 200 members of the faculty participated in symposia/conferences/seminars and workshops held at national/international levels.

ii) **Indian School of Mines, Dhanbad**

During the year, the school introduced two Industry Oriented academic programmes viz. M.Tech.(Longwall Mine Mechanisation) and advance diploma in Longwall Mine Mechanisation.

A number of courses were restructured during the year like the courses of Computer and Numerical Methods, Petroleum Engineering Design, Reservoir Engineering, Electromagnetic Methods and Offshore Exploration courses of M.Tech. (Mining Geophysics) programme, course of Physics of M.Sc. Tech. (ACP) programme.

The NSS group of the school organised various camps/ programmes in the neighbouring villages to apprise and educate ignorant people about various schemes of the Government on health specially vaccination, hygiene etc. Also the faculty of the school participated in about 60 conferences/seminars/ workshops during the year and published/presented 105 papers/articles and three books.

The school organises various Executive Development Programmes (EDP) for the working people in industry/ service organisation with the objective of refreshing their knowledge and apprising them with recent technological developments with in the campus and outside. During the year, 22 such EDPs were organised.

iii) **Birla Institute of Technology and Science, Pilani :**

During the year, the Institute started a course in collaboration with CSIR labortatories viz. M.E. Degree course in Micro Electronics in collaboration with Central Electronics Engineering Research Institute (CEERI), Pilani. The institute also modernised its various laboratories and workshops during the year and introduced a number of facilities, notably the HCL 60 Terminal Magnum III computer, CAD Work Stations and the Spectronic 200 Spectrophotometer. A seminar "Technology Upgradation the need and natioal effort" was held during February, 1990 in which delegates from Pilani and outside took part. Also, during the year, the students organised a number of activities under the NSS programme.

iv) **Tata Institute of Social Sciences :**

The department of Social Welfare administration at the Institute conducted its first certificate course in Social work in June, 1989. In addition to this department, two more departments are engaged in Social Work viz. the department of family and child welfare and the department of medical and psychiatric social work. The computer unit of the Institute is actively engaged in conducting training courses on SPSS/PC for the faculty, Ph.D. scholars and teachers from other colleges and universities. Under the scheme instituted by the Indian Council of Social Science Research (ICSSR), research and data processing guidance was provided to 33 Ph.D. scholars, six M.Phil. scholars and 27 researchers during the year by the faculty of the department of research and methodology and the staff of the unit.

The Instiute is publishing a journal called Indian Journal of Social Work which brought out two special numbers during the year, one on "Drug Abuse" and the other on "Social Work Intervention in Schools". In addition the faculty of the Institute published 65 papers and 10 books.

v) **Gurukul Kangri Vishwavidyalaya :**

The Institute restructured the postgraduate diploma course of Computer Application and the B.Sc. Chemistry course during the year. The department of Adult and Continuing Education of the Vishwa- vidyalaya also took up programme for improving conditions of backward classes and low income groups as well as programme for disseminating information on Population Education, Family Planning, Health and Sanitation and Sulabh Sauchalaya.

Some of the faculty members participated in national/ international seminars organised by different universities and institutions during the year.

vi) **Gujarat Vidyapith :**

The Vidyapith has started new departments of Rural Development and Rural Management in its rural campus.It has also started a postgraduate course in Home Science and M.Phil. Degree course in Futurology leading to Ph.D. with special reference to social and economic forecasting. Also a centre for studies in Marathi language and literature has been added to the Bhartiya Bhasha Sanskriti Bhavan in addition to the already existing facilities for the learning of Kannada and Malayalam. The department of Adult and Continuing Education of the Vidyapith has developed extensive programme of Adult and Population Education in 75 villages of Gandhi Nagar. The Vidyapith runs 240 Adult Education Centres and four Population Education Clubs. The programmes of Saksharata Abhiyan and Jan Shikshan Nilayam are covered by all the rural areas of Gujarat . As many as 620 Jan Shikshan Centres of the Government of India and 10 centres of the UGC have been instituted in 630 villages in cooperation with voluntary agencies.

The Prayojan Mulak Hindi Centre approved by UGC for teaching functional Hindi language has already started functioning. A national integration camp was also held at the Rural Campus Sadra for 1000 students from 62 universities all over the country. This campus was organised with assistance received from the Government of India.

A Museum of Indian culture started as teaching aid for history students has been attracting many students. During the year, nine faculty members of the Vidyapith participated in academic conferences, seminars and workshops.

vii) **Gandhigram Rural Institute :**

The Institute provides instruction and training in such branches of learning which promote a classless and casteless society and integrated rural development. It also functions as a centre for extension work. community development is offered as a core subject and all the students are given an opportunity to learn about the objectives, philosophy, principles of the community development movement in India. Students are encouraged to understand and record the on-going community development/rural development programmes organised by the service villages, voluntary institutins and Govternment agencies.

Nearly 2700 adult learners have become literates through the adult education programme of the Institute.

viii) **Central Institute of English & Foreign Languages, Hyderabad :**

The Institute has been offering courses leading to M.A., M.Litt. and Ph.D. degrees in different languages and also postgraduate certificate and diploma courses.In addition, the Institute has also been designing and running a number of short-term, need-based courses for teachers from various sectors. The Institute has two regional centres at Lucknow and Shillong. Also, four important national centres are functioning at the Institute viz. The Educational Media Research Centre, the Nodal Agency for English and Foreign languages, Curriculam Development Centre in English and the District Centres Coordination Cell.

During the year, work was carried out at the Institute on two national projects involving the designing of two new courses in English viz. "English 400" which is an intensive course in English for schools with emphasis on reading skills and "English 150" which is an intensive course in English for college entrants.

The Instiute also produced during the year audio and video instructional materials, which included 74 five - minute radio programmes for learners of English in Andhra Pradesh. It also carried out research on the theoretical and socio functional aspects of language teaching, linguistics and literature.

ix) **Dayalbagh Educational Institute, Dayalbagh, Agra :**

Since its inception the Institute has focussed on the introduction of innovative courses which have been so designed as to give inter-faculty and multi- disciplinary approach and work-based training in a major subject and core courses. During the year, it started an M.A. course in Home Science and set up a separate department of Computer Science and Applications was set up under the faculty of Science. TheInstitute has been encouraging women education at all levels and more than 50% of its enrolment comprises of women. The programmes run by the Institute under NAEP and Rural Development are oriented primarily to rural women. During the year 69 teachers participated in various conferences/seminars/ workshops and 25 research papers were published by the faculty.

x) **Sri Sathya Sai Institute of Higher Learning :**

During the year, the Institute started inter- disciplinary programmes for teaching and research such as Medicinal Chemistry,Topological methods for study of consumer's preferences, Bio-modeling etc.

The Institute has an operational model in which all curricular and co-curricular activities, including integral items and self-reliance programmes are conducted throughout the year. The Institute provides free education to all the students on its campus.

xi) **Banasthali Vidyapith :**

The Vidyapith restructured its integrated courses during the year with a view to training students for (a) modern liberal education having roots in Indian heritage (b) making them useful productive members of the society and (c) providing strong grounding for advance academic work.

In order to promote inter-disciplinary programmes of teaching and research it has also introduced M.Phil. programmes in Social Science and English lanugage teaching.

It has initiated changes in the examination system and more weightage is being given to continuous assessment. Modes of evaluation other than written test have also been included in the examination system. During the year, nine faculty members participated in academic conferences/seminars/ workshops and contributed articles and published work.

xii) **Thapar Institute of Engineering & Technology, Patiala :**

During the year, the Institute approved the introduction of three new courses from next academic session viz. M.E. Civil (Geo-Tech. Engg.), M.E. Industrial Engineering and M.Sc. (Material Science).

A review of the syllabi on various courses offfered at the Master's level has been made as a result of which the courses have been restructured. Similar action is under way regarding courses at the B.E. level. Steps have been taken to start new schools like the School of Basic and Applied Sciences, Schools of Humanities, Culturc and Liberal Arts, School of Magagement Studies.

The Institute has further strengthened its existing infrastructure by augmenting computer system, modernising laboratory facilities and providing video instruction facilities.

xiii) **Birla Institute of Technology, Mesra (Ranchi) :**

During the year the primary objective of the Institute has been to create infrastructure in inter-disciplinary areas of research and development. The curriculum is so designed as to place a strong emphasis on understanding of fundamentals as well as specialised knowledge. New courses like Environmental Engineering, Non-conventional Energy, Microprocessor Applications, Power Electronics, Computer Aided Design, Computer Aided Manufacturing, Environmental Geo-technique etc. have been introduced. As per norms and conditions of the Department of Science and Technology, Government of India, the Institute successfully offered courses like MCATTP Module I, MCATTP Module II and short-term courses sponsored by the Department of Electronics.

During the year, three books and three research papers were published in journals of international repute by faculty members.

xiv) **Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore :**

During the year, the Instiute introduced a new pattern called two Major and two ancillaries under which the option regarding subjects for the students has been widened to learning four subjects so as to facilitate their entry into higher education and seeking employemnt.

Examinaton Reform with 100% internal assessment for the Master's degree has been introduced from July, 1989. There is also a proposal to adopt similar assessment for the undergraduate programmes with safeguard for credibility and acceptability.

The Institute has included literacy work worth 100 marks wiht a curricular component for Master's degree students as part of their community and social service.

xv) **Jamia Hamdard**:

The Jamia Hamdard was granted the status of an Institution deemed to be university in May, 1989 and as a result the six institutions affiliated to it earlier were regrouped into five facultieis viz. the faculties of Islamic studies and Humanities, Science, Pharmacy, Medicine and Nursing. The Central Instrumentation Centre has been set up in the faculty of Science with equipment grant received from the UGC. Research work in this faculty is conducted in the department of Botany, Bio-chemistry, Elementology, History of Science and Medicine etc.

The faculty of Islamic Studies and Humanities has been bringing out two journals and has also published 25 books in English and Arabic. One of its books was prescribed in the New York University and another on Arabic Literature is prescribed in many Indian universities.

8.05 **Grants paid to Institutions deemed to be Universities**:

A statement indicating the grants paid to institutions deemed to be universities during 1989-90 under Non-Plan and Plan is given in Table 8.3 below:

Table 8.3

	Non-Plan	Plan	Total
		(Rupees in lakhs)	
1. Banasthali Vidyapith	0.40	15.44	15.84
2. Birla Institute of Technology and Science	0.36	49.40	49.76
3. Central Institute of English and Foreign Languages	207.23	104.22	311.45

	Non-Plan	Plan	Total
4. Dayal Bagh Educational Institute	23.00	36.24	59.24
5. Gandhigram Rural Institute	129.50	44.55	174.05
6. Gujarat Vidyapith	119.50	47.47	166.97
7. Gurukul Kangri Vishwavidylaya	82.25	13.08	95.33
8. Indian Institute of Science	1423.96	271.62	1695.58
9. Indian School of Mines	392.52	43.77	436.29
10.School of Planning and Architecture	-	1.09	1.09
10.Indian Veterinary Research Institute	-	1.09	1.09
11. Sri Sathya Sai Institute of Higher Learning	-	89.78	89.78
12. Tata Institute of Social Sciences	144.33	12.31	156.64
13. Thapar Institute of Engineering and Technology	2.31	17.49	19.80
14. Birla Institute of Technology, Mesra, Ranchi.	2.65	12.03	24.68
15. Sh. Lai Bahadur Shastri Rashtriya Sanskrit Vidyapith, New Delhi.	0.36	-	0.36
16. Rajasthan Vidyapith	-	9.88	9.88
17. Tilak Maharashtra Vidyapith	-	15.90	15.90
18. Avinashilingam Institute for Home Science	-	116.01	116.01
19. Central Instituteof Higher Tibetan Studies	-	5.90	5.90
20. Indian Agricultural Research Institute	0.14	0.20	0.34
21. Jamia Hamdard	12.35	82.53	94.88
Total:	2550.86	988.91	3539.77

Section-9

NON-PLAN GRANTS TO UNIVERSITIES

9.01 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 recurring expenditure of all faculties on items such as salaries of staff (both teaching and non-teaching), maintenance of laboratories, libraries, buildings etc. In the case of Aligarh Muslim University and the Banaras Hindu University, such grants are also given for the maintenance of hospitals attached to the medical colleges of these universities.

In addition, non-plan grants are paid both to the Central, as well as State Universities for specific purposes subject to the agreed levels of expenditure. Non-plan grants include grants for scholarships and fellowships under engineering and technology, teacher fellowships, national fellowships, national associateships, national lectures, junior research fellowships and research associateships. These also include grants for fellowships and awards reimbursed to non-university institutions (like the IITs, PG Institute of Medical Education & Research, NCERT etc.). During the year the Commission agreed that an advance grant to cover the payemnt of JRF, scholarships, Research Associateship, Research Fellowship and similar other awards for a period of three months without waiting for any progress reports of expenditure etc. may be made to the univerities in the beginning of each financial year on prorata basis of the grants paid in the previous years.

Non-plan grants paid under various schemes during 1989-90 are given in Table 9.1 below:

Table 9.1

Statement of non-plan grants paid under various schemes during 1989-90

S.No.	Purpose	Amount
		(Rs. in lakhs)
1.	MaintenancegrantstoUniversities	12340.85
2.	Maintenance grants to Institutions deemed to be Universities	2500.65
3.	Maintenance grants to Anna and Roorkee Universities for specific purposes	83.13
4.	Maintenance grants to Constituent/ Affiliated Colleges of Delhi University	4955.07
5.	Maintenance grants to Constituent/ Affiliated Colleges of B.H.U.	50.92

S.No.	Purpose	Amount
6.	House Building Advance to Institutions deemed to be universities and Central Universities.	168.37
7.	Teacher Award for schemes like Teacher Fellowship, National Fellowship/Associateship, National Lecturers, Retired Teachers, Emeritus Fellowship etc.	24.10
8.	ResearchFellowships/Associateships	1061.72
9.	Scholarships/Fellowships under Engg. & Tech.	112.49
10.	Grants to non-university Institutions	21.40
		21,318.70*

* This does not include Rs.378.87 lakhs released towards UGC administration charges, pay of officers, establishment etc.

9.02 **Non-plan Grants to Central Universities**:

Grants paid by the Commission towards the maintenance of Central universities for the years 1985-86 to 1989-90 are indicated in Table 9.2. It will be seen that the quantum of grants paid year after year has been increasing. During 1989-90, grants amounting to Rs.12,340.84lakhs were released towards maintenance of the Central universities.

Table 9.2

(Rupees in lakhs)

S.No.	University	1985-86	1986-87	1987-88	1988-89	1989-90
1.	Aligarh Muslim University	1621.37	1888.62	2540.05	2748.06	2912.95
2.	Banaras Hindu University	2479.45	2811.65	3366.15	3394.04	3559.60
3.	Delhi University	1166.31	1427.02	1655.82	1889.25	1926.58
4.	Hyderabad University	297.36	361.08	423.75	489.01	567.60

S.No. University	1985-86	1986-87	1987-88	1988-89	1989-90
5. Jawahar Lal Nehru University	621.43	735.27	952.20	1023.84	1130.23
6. North Eastern Hill University	549.20	669.85	752.60	843.00	884.98
7. Visva Bharati	485.59	521.11	713.10	773.40	832.32
8. Jamia Millia *	-	-	-	30.00	526.58
Total:	7220.71	8414.60	10403.67	11190.60	12340.84

* Became a Central University in 1988-89.

The maintenance expenditure of the medical colleges at the Aligarh Muslim University and the Banaras Hindu University and the attached hospitals was met out of block grants of the university, whereas in the case of University College of Medical Sciences, Delhi University, the maintenance grant was paid directly tc the institution.

9.03 **Maintenance Grants to Central Universities, Institutions Deemed to be Universities and State Universities:**

In compliance with the observations made by the Public Accounts Committee in its 73rd Report, a statement showing maintenance grants (Non-Plan) in respect of Central Universities, institutions deemed to be universities and such of the State Universities which have furnished the information for the year 1987-88 is given in *Appendix-XXVI.*

Section-10

FACULTY IMPROVEMENT PROGRAMME

10.01 The Commission has been providing financial assistance for various programmes of faculty improvement which provide opportunities to teachers to keep in touch with the developments in their fields of study and research and to interact with experts in their subject areas and related fields. These programmes aim at improving the professional competence of teachers so that they can impart high quality instructional programmes and contribute to raising standards of higher education. A resume of these programmes supported by the Commission during 1989-90 is given below:

10.02 **Seminars, Symposia, Refresher Courses, Workshops etc.**

The Commission provides financial assistance to universities and colleges for organising seminars, symposia, refresher courses, workshops etc. in accordance with approved norms. Universities are required to organise such programmes under the scheme of 'Unassisgned Grants' within the ceiling grant ranging from Rs.1.00 lakh to Rs.3.00 lakhs that is made available to each university for the purpose. The number of proposals accepted by the Commission during 1989-90 is given below:

Sl. No.	Programme	Humanities & Social Sciences	Sciences	Total
1.	Seminars	68	16	84
2.	Symposia	13	5	18
3.	Workshops	26	8	34
	Total:	107	29	136

In addition, the Commission also provides TA/DA to university and college teachers to participate in similar activities organised by non-university institutions.

10.03 **Conferences**:

The Commission provides a token contribution to universities and colleges for organisation of conferences at the state, regional, all-India and international levels. The purpose of these conferences is to provide an opportunity to faculty members and researchers to

discuss their research findings. The number of conferences at various levels for which the Commission provided token contribution during 1989-90 was as follows:-

State level	4
Regional level	2
All-India level	20
International level	3
Total	29

10.04 **Strengthening the Teaching of English Language**:

The Commission continued to provide financial assistance to universities for organising specialised Summer Institutes for English Language Teaching (ELT) in collaboration with the British Council and the Central Institute of English & Foreign Languages (CIEFL), Hyderabad. Assistance by the Commission is provided for books, equipment and staff. The British Council provides experts for these seminars while the CIEFL organises pre- institute workshops for the resource persons. The Commission has identified 16 universities as Centres for conducting the seminar. These are M.S. University of Baroda, Gauhati, Kerala, Utkal,Kashmir, Vikram, Bhagalpur, Panjab, Burdwan, Shivaji, Osmania, Lucknow, Meerut, Kurukshetra, Rajasthan and Pondicherry.

10.05 **Academic Staff College Scheme**:

Phase I : Orientation Programmes for newly appointed Lecturers:

The scheme was initiated by the Commission during 1987-88. 48 Academic Staff Colleges (ASC) were approved to organise orientation programmes for newly appointed lecturers in universities and colleges. The main objectives of this programme are to enhance the motivation and general awareness of teachers, ensure systematic orientation in specific subjects, techniques and methodologies and to provide opportunities for professional and career development so that teachers can fulfil their role and responsibility. Each ASC is expected to organise five to six orientation programmes of four weeks duration in a year. While 85-90 per cent of the teachers are to be enrolled from the notified catchment area of the ASC, the remaining 10-15 per cent can be invited from outside the State on an all-India basis. Out of 48 ASCs, 44 have started organising orientation programmes. The ASC at Jawaharlal Nehru University proposed to organise the programme during 1990-91, although it has already been organising refresher courses. The remaining three universities of Viswa Bharati, Calcutta and Jadavpur in West Bengal could not establish the Academic Staff Colleges.

Phase II : Refresher courses for in-service teachers:

During 1988-89, the Commission had identified 93 university departments/institutions on regional/national basis to conduct subject oriented refresher courses for existing teachers. During the year under report another seven university departments/Institutions were ap-

proved for this purpose. For the present, the teachers at the level of lecturers are being invited to participate. Subsequently such courses are proposed to be organised for readers and professors as well. The duration of the course is three-four weeks depending on the needs of the teachers and the syallabus to be covered. A course accommodates upto 40 teachers. A centre is expected to organise five refresher courses in the allotted discipline in social sciences, sciences and humanities and two-three courses in languages in a year. The Commission, in collaboration with the National Institute of Educational Planning and Administration, organised two seminars-cum-meetings of the directors of the ASCs in July and December, 1989. The main objectives of these meetings were to (a) discuss the issues of planning and management of the ASCs and (b) review the feedback received from the ASCs on the conduct of orientation programmes/refresher courses.

The data supplied by the ASCs bring out that the programme gained considerable momentum during the year under review as reflected in the following table:

Programme Conducted by ASCs during 1989-90

Type of Programme	No. of programmes	No. of teacher participants
1. Orientation	191	5,775
2. Refresher	225	6,316
Total:	416	12,091

The projection obtained from the ASCs also reveal that in the year 1990-91, they plan to organise 175 orientation programmes covering nearly 6,400 new teachers and 294 refresher courses covering about 10,000 in service teachers.

The Commission provided 100 per cent assistance to the ASCs for organising orientation/refresher courses till the end of the 7th plan. Grants to the tune of Rs.7.23 crores have already been sanctioned to the universities for this programme till 31st March, 1990, including Rs.2.70 crores during 1989-90. While deciding the Annual plan of the Department of Education for 1990-91 at a meeting held in the Planning Commission in January, 1990, It was decided that before institutionalising the ASC scheme in the 8th plan the UGC should undertake a comprehensive review of the scheme. A Committee has since been constituted for the purpose. In the meantime, it has been decided to extend assistence to the universities for another year on adhoc basis up to 31st March, 1991 on the existing pattern.

10.06 **National Fellowships**:

The scheme of National Fellowships provides an opportunity to teachers of outstanding eminence to take a year or two off from their normal duties to devote themselves exclusively to research and writing the results of their study. Under the scheme, 30 fellowships are available at any point of time. The teachers who are awarded this fellowship receive their normal salary, allowances and fellowship allowance of Rs.500/- per month in

addition to a non-iapseable grant of Rs.5,000/- per year for secretarial assistance, travel and contingent expenditure. During 1989-90, five scholars were working under the scheme.

10.07 **Visiting Associateships**:

The scheme aims at assisting outstanding university/ college teachers, generally below 40 years of age and engaged in research, to visit and work for short periods (not exceeding three months at a time) at other university centres/research institutions/national laboratories which have special facilities relevant to their fields of work. The Commission meets the actual cost of travel of the Visiting Associates. In addition, each Associate receives an allowance of Rs.1200/- per month to cover his living expenses. In case free accommodation is not provided by the host institution, an allowance of Rs.2000/- per month is paid. An additional amount of Rs.500/- is also provided so that such of the scholars. who are required to undertake field work. Three types of Associateships are awarded viz. for one year, three years, and five years. The number of awards made under each category during 1989-90 is given below:

	No. of awards
One year award	4
Three year award	4
Five year award	1

10.08 **National Lectures**:

This programme operated by the Commission since 1970 enables outstanding teachers and research scholars to visit universities colleges for delivering a series of lectures in their fields of specialisation and to participate in academic programmes of host institutions and also establish effecive contacts with teachers and research workers in the host institutions. The Commission provides to the identified teacher an honorarium of Rs.1500/- and a grant of Rs.250/- for preparing necessary materials for delivering lectures and preparation of teaching aids in addition to travel expenses. Local hospitality is provided by the host institution. While finalising the programmes of visits to universities and colleges, a National Lecturer is expected to include in his/her programme atleast one developing university located in a backward region so that the teachers and students in such a university may also get the benefit of the specialised knowledge and latest development in the concerned discipline. The National Lectuers, in the course of their lectures, besides reviewing the major developments in their fields of specialisation, would also report on their relevance to developments in the related subjects.

During the year, the Commission awarded National Lectureship to 65 scholars. The scheme has since been discontinued in the eighth plan.

10.09 **Guest/Part-Time Teachers**:

Guest/Part-time teachers are appointed by universities and colleges in exceptional circumstances in such specialised fields/subjects where professional expertise is required to strengthen and supplement teaching as also in cases where the work-load does not justify

the appointment of a full-time regular teacher throughout the academic year. As per the revised guidelines in force w.e.f.1.4.1988, guest/part-time teachers are paid an honorarium of Rs.1000/- p.m. if the workload is 7-10 hours per week.

10.10 **Emeritus Fellowships**:

Under the scheme, fellowships are provided to such of the highly qualified and experienced superannuated Professors in universities who have been actively engaged in research during their career. The fellowship is for a period of two years or the age of 65 years whichever is earlier. The objective is to enable such Professors to pursue active research in their fields of specialisation and to utilise their services for monitoring educational programmes of the Commission. The awardee gets besides his usual superannuation benefits a fellowship amount of Rs.4,000/- p.m. and non-lapseable contingent grant of Rs.10,000/-p.a. towards secretarial assistance, travel, stationery, postage, telephone rent, consumables etc. Additional modest support can also be provided to enable the fellow to pursue his research and academic activities on the merits of each case. During the year the Commission also decided to pay house rent allowance w.e.f. 1.4.1990 to such of the Emeritus Fellows at the Central Government rates, who live in rented private accommodation. The total number of fellowships at any given time is 60. During 1989-90, 37 awards were made and all the positions were filled up.

10.11 **Visiting Professors/Visiting Fellows**:

The Commission provides assistance to universities for appointment of Visiting Professors/ Visiting Fellows. The honorarium payable to Visiting Professors is Rs.5000/- p.m. In the case of Visiting Fellows, a daily allowance of Rs.200/- is paid.

10.12 **Participation of Retired Teachers in Research Projects:**

The Commission has been providing honorarium to superannuated teachers participating in approved research projects as principal investigators. The honorarium payable to retired teachers for the purpose is Rs.2000/- p.m. It is laid down under the scheme that a retired teacher should teach four to six hours a week in addition to his research/project work for which he should attend the university/college during normal working hours.

10.13 **Research Scientists**:

The Commission reviewed the case of those Research Scientists who had completed the five year contract period as Research Scientists 'A' and those who are already working as Research Scientists A/B/C. For the former category, the Commission on the recommendations of the Review Committees decided to continue seven Research Scientists in the same category and five to be promoted as Research Scientists 'B' category i.e. equivalent to that of Reader. At the same time, as provided in the rules of the scheme, nine Research Scientists belonging to 'A' category have been dropped as their work was not found objective and subject oriented. The work of the scientists who are already working in A/B/C/ category was reviewed by the committees by way of what was called mid- term review. The process of conducting mid-term review of the work of Research Scientists has generally been ap-

preciated and it has been decided that this exercise may in the interest of the scheme continue on a regular basis in the future.

10.14 **Travel Grants for Attending Conferences etc.**:

The Commission provides financial assistance to the extent of 50 per cent to college teachers for attending international academic conferences abroad for presenting papers on the findings of their research work. Grants to the tune of Rs.21.00 lakhs were paid by the Commission for the purpose during 1989-90. Similar assistance is available for university teachers under the scheme of "unassigned grants" given to universities.

10.15 **Staff Quarters and Teachers' Hostels**:

The Commission has also been providing grants on a limited basis for the construction of staff quarters and teachers' hostels. Grants amounting to Rs.136.49 lakhs were released for the purpose during 1989-90.

10.16 **Teacher Fellowships**

The scheme enables teachers to acquire M.Phil./Ph.D. degree and thereby improve their competence & methodology of teaching. Teacher fellowships are mainly meant for teachers working in affiliated colleges including professional colleges and offering instructions in subjects pertaining to humanities, social sciences and sciences. The teachers working in professional colleges and offering courses in medicine, agriculture and engineering subjects are not covered under the scheme. The Commission is awarding two types of teacher fellowships, short -term and long-term. The duration of the short-term fellowship is one year which can be utilised for pursuing the M.Phil. course. The normal duration of the long-term fellowship was three years meant to enable the teachers to conduct research for the award of Ph.D. (including M.Phil, wherever necessary). The tenure of the long-term fellowship could be extended by one year in special cases.

10.17 **Traditional Scholars**

On the recommendation of an Expert Committee, the Commission introduced during the year, a scheme under which it will select traditional scholars of Sanskrit, Pali, Prakrit, Arabic and Persian for induction into the university system. The scheme is expected to bring together the traditional Indian scholarship and modern learning within the universities. The selected traditional scholars will be provided with emoluments/honoraria equivalent to those offered to the Visiting Professors. They will be available, at the designated university campuses, to the faculty members/ research scholars for consultation, guidance and for giving formal lectures and informal talks. The appointments will be made for a period of one year. However, some scholars, because of their life-style, may be unable to leave their habitats. In such cases, the university/college teachers and research scholars would go to them for guidance and consultation. The Commission has decided that additional grant may be given to the universities which make the appointments.

10.18 UGC Professorship

During the year, the Commission generally accepted the report of the committee appointed by it for the institution of UGC professorship in Indian Universities and agreed in principle to institute 100 to 150 positions of UGC professorships covering all the disciplines for the teachers of the university system. The Commission also agreed that the proposed professorships may have the following norms:

(i) the UGC Professorship will carry a basic pay scale of Rs.7300-7600 per month plus other allowances as admissible at Central Universities. (ii) The appointee will have the continuity of service in all respects and will be treated as 'On Duty'. The university will only provide the benefit of annual increment and the same will be protected however the university will be free to make a temporary appointment due to the vacancy caused by such appointments. (iii) The appointment will be for a period of five years and (iv) such appointee should preferably be under 60 years of age, but in any case the appointment will not continue beyond the age of 65 years. The funding for this programme will be made by the UGC on 100% basis. The Commission also decided that there will be an apex jury headed by Chairman, UGC or an eminent person and will consist of five to six other members, who are not aspirants for such assignments, drawn from different broad areas like Physical Sciences, Biological Sciences, Engineering & Technology and Humanities and Social Sciences. The jury will get input from different committees in various disciplines to select names. The concurrence of the Government of India to the scheme is awaited.

Section-11

PROGRAMMES FOR STUDENTS

11.01 The Commission has been implementing various academic & welfare programmes for the well-being of the student community so as to generate an enviornment conducive to study, learning and research. Efforts of the Commission in this regard have contributed to the maintenance and improvement of standards of higher education in the country. All development programmes of the Commission including appointment of staff, construction of academic buildings, libraries and laboratories, purchase of equipment, books and journals have a direct or indirect bearing on the well-being of the students and promotion of congenial environment and conditions for pursuing academic programmes. In addition, the Commission has initiated a number of programmes for needy and economically weaker students on the one hand and meritorious students on the other, like the provision of scholarships and fellowships, hostel facilities etc. An account of these programmes is given in the ensuing paragraphs.

11.02 **Junior Research Fellowships 'at any one given time basis':**

The Commission continued to provide assistance to universities for the implementation of the scheme relating to allocation of junior researach fellowships 'at any one given time basis'. Since 1984, the junior research fellowship award is made only to those who qualify in the national level test conducted by the UGC/CSIR or test declared equivalent there to for the purpose.

Number of Fellowshipsfcr the NET qualifying candidates had been allocated to universities under 'at any one given time basis' scheme. universities have to make the award to the qualified candidates keeping in view the number of junior research fellowships available for utilization against the number allocated. In addition the Commission also provide supernumerary\personal fellowships over and above the allocated quota to accommodate the JRF qualified candidates.

11.03 **Junior Research Fellowships for Scheduled Caste/Tribe Students:**

Earlier, there was reservation for Scheduled Caste/Tribe students to the extent of 10 per cent of the Junior Research Fellowships allocated to various universities under the UGC scheme"JRF at any one given time basis".After the introduction of the NET- JRF examination by the UGC, the scheme for provision of reservation of 10 per cent positions of JRF for SC/ST candidates was modified. Instead of reservation, now provision for relaxation of upto 10 per cent in the cut-off marks in the above examination is made for the SC/ST candidates. During May, 1989 the Commission took a decision that, in view of the fact that the number of JRF qualified SC/ ST candidates is generally very small, all SC/ST candidates qualifying the JRF examination may be awarded the fellowship. It was also decided that in case there is no vacancy under the scheme of "JRF at any one given time basis" the Commission will provide personal supernumerary positions of JRF to the universities in respect of such SC/ST candidates. In addition, the Commission also awards directly 50 Junior Research Fellow-

ships every year in Science and Humanities including Social Sciences to SC/ST candidates through open selection. As per the revised procedure for open selection, candidates who could not qualify the UGC NET/Joint UGC-CSIR JRF examination even at the relaxed standard are interviewed and selected for the award. The awards for the year 1989-90 were yet to be finalised as the results of these examinations conducted in 1989 were not declared at the time of reporting.

11.04 **Border Hill Areas Scholarships:**

The Commission also awards 25 post-graduate scholarships by open selection to SC/ST/Backward Community candidates belonging to border hill areas in order to promote the channel of academic communication between students of these regions and rest of the country.

11.05 **Research Fellowships in Engineering and Technology:**

The Commission awards 60 research fellowships every year in engineering and technology to enable students in this discipline to undertake advanced study and research in their fields of specialisation leading to Ph.D., for which minimum qualification is Master's degree in Engineering/Technology. The candidate must have qualified GATE/Joint UGC-CSIR JRF examination within the last three academic years. The awards for 1988-89 were yet to be finalised at the time of reporting.

11.06 **Lump-Sum Grant to Universities for Meeting Contingent needs of Research Scholars:**

The Commission provides lump-sum grant to universities for meetingcontingent needs of the research scholars who are not in receipt ofany fellowship/scholarship. Assistance for this purpose is provided at two levels viz. Rs.25,000/- for the universities having an average of 100 full-time research scholars during the last three years and Rs.50,000/- for the universities having an average more than 100 full time research scholars.

11.07 **Research Associateships:**

The Commission centrally awards 150 research associateships annually including five each for Gandhian Studies, Nehru Studies and National Integration with a view to provide an opportunity to research scholars and teachers who have shown talent and competence to take up post-doctoral research work independently or on project assignments in science, humanities including social sciences and engineering /technology. During the period under report, the Commission invited applications from eligible candidates for the awrard of research associateships against the quota of 1987-88 and 1988-89. Interviews were held in March, 1990 for finalising the award.

11.08 **Research Associateships for Scheduled Caste/Tribe Students:**

During the period under report, the Commission invited applications from eligible scheduled caste/ scehduled tribe candidates for the award of research associateship against annual

quota of 40 positions each for the year 1987-88 and 1988-89. Interviews for the award were held in March, 1990 and the awards finalised.

11.09 **Junior Research Fellowship/Research Associateship to Foreign Nationals of Developing Countries:**

The Commission awards annually 20 junior research fellowships for doing research leading to M.Phil./ Ph.D. degree and seven research associateships for doing post-doctoral research to scholars from developing countries in science, engineering and humanities including social sciences and provides them financial assistance through the universities/ institutions in which they are placed or conducting research. Applications are invited from the eligible candidates through Indian Missions abroad. During the year, the Commission selected 21 scholars for the awrad of junior research fellowship and two for the award of research associateships against the quota of 1986-87 after obtaining clearance from the Ministry of External Affairs and the Ministry of Home Affairs from political angle and security angle resectively.

11.10 **Research Associateship for Disabled Students:**

During the year,the Commission invited applications from the physically handicapped scholars including the blind, deaf and the mute against annual quota of 30 positions each for two years together viz., 1987- 88 and 1988-89. The awards were being finalised.

11.11 **Youth and Sports - Implementation of National Education Policy:**

In the field of Youth and Sports, the following steps were taken by the Commission during the year,

(a) As reported last year, a model curriculum of Physical Education received by the Commission in 1987-88 was referred for examination to the panel on Physical Education, appointed by the Commission. During the year, the panel examined various recommendations made in the model curriculum. These recommendations alongwith the report will be circulated to the universities for adoption.

(b) The Committee appointed by the Commission to work out the modalities for compulsory participation of students in games, sports and physical education submitted its report to the Commission. The Commission referred the report to the Department of Youth Affairs and Sports for its approval before it could be sent to universities/colleges for adoption.

11.12 **Construction of Hostels**:

In the interest of social justice, the Commission has laid down that all universities, 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. As per guidelines laid down for the 8th plan effective from 1.4.90, the Commission would meet the entire expenditure for consturction of hostels in backward areas and 75 per cent of the expenditure in non-backward areas The earlier pattern was 75 and 50 per cent respectively.

The Commission has also been encouraging the construction of dormitories and/or double or triple seated rooms rather than single seated rooms in the hostels in order to keep the per student cost low.

During 1989-90 a grant of Rs.119.02 lakhs was paidto universities and colleges towards the construction/ renovationof hostels.

11.13 **Bharat Bhavan Hostel Complex in Universities :**

While considering the proposal of the Government of India in the Ministry of Human Resource Development for setting up a Bharat Bhavan Hostel Complex in Delhi University, the Commission felt the need for establishement of similar hostel complexes in all the universities so as to promote inter-state student mobility leading to the growth of a composite culture and strengthening of national integration. With this in view, the Commission appointed a Committee for formulating a scheme for setting up Bharat Bhavan Hostel Complex in universities.

The Commission, while accepting the recommendations of the committee on setting up of Bharat Bhavan Hostel Complex in universities in phases, has requested the Government of India to make available a separate allocation so that the scheme could beimplemented during the 8th plan period.

Section-12

CULTURAL EXCHANGE PROGRAMMES AND INTERNATIONAL COLLABORATION

12.01 **Cultural Exchange Programmes**:

Programmes of Cultural Exchange are intended to promote cultural, educational and scientific cooperation between India and other countries and are covered under specific agreements between the Government of India and Governments of other countries. Programmes connected with higher education in the university sector are assigned by the Government of India to the UGC for implementation. These programmes relate generally to exchange of visits of teachers for study-cum-lecture, exchange of views, developing contacts, development of bilateral academic links between institutions in the two countries, organisation of joint seminars, assignment of foreign language teachers and award of scholarships/fellowships. Visits under these programmes normally range from four to twelve weeks. In specific cases, these visits could be for a period of upto six months. In the case of assignment of foreign language teachers and award of fellowships/scholarships, these visits are normally for one academic year. These programmes prove useful to the teachers in keeping themselves abreast of advances made in their fields of specialisation and in exploring possibilities of developing collaborative programmes. During 1989-90, such programmes were being implemented by the Commission with 48 countries. During the year, the Commission hosted the visits of 126 foreign scholars from various countries and arranged their programmes at various institutions in India. The corresponding number of Indian scholars who were deputes abroad under these programmes during the year was 83.

12.02 **Bilateral Institutional Linkages**:

In the recent past, the Commission has been giving greater emphasis on the development of bilateral institutional linkages in specific areas between identified departments of universities and institutions of higher education in the two countries. As such, areas of bilateral collaboration have been identified with countries like the USSR, FRG, GDR, Bulgaria, Czechoslovakia, Hungary, Poland, France, Yugoslavia, Italy, Finland, Iran, Baharin etc. This programme is reviewed from time to time and additional areas are identified for collaboration.

A resume of the various activities under the Cultural Exchange Programmes for 1989-90 is given below:

12.03 **Delegations**:

i) A Chinese delegation consisting of 5 University Presidents visited India from 19th August, 1989 to 28th August, 1989 to study university/higher education system in India.

ii) A two-member Ugandan delegation visited India during 9th to 12th November, 1989 to identify areas/institutions and to study the educational system in the two countries and exchange views.

iii)A two members ARE (Egypt) delegation visited India during 6th to 16th January, 1990 under the Indo-ARE Cultural Exchange Programme to identify areas/ institutions for development of academic links between institutions of both countries.

iv) An Indian delegation of three members visited Bahrain from 13th March, 1990 to 22nd March, 1990 to study higher education system in Bahrain and to identify specific areas/institutions of collaboration.

v) A three member UGC delegation visited Somalia during 6th to 11th March, 1990 to study the educational systems in that country and exchange views for determining the areas of cooperation.

12.04 **Foreign Language Teachers**:

The Commission continued to provide foreign language teachers in Russian, German, Polish, Serbo-Croation, Rumanian, Bulgarian, Mongolian, Korean, Vietnamese, Hungarian, Portugese, Chinese and French language to the universities having a proper infrastructure for teaching the foreign languages concerned as per the provisions of the Cultural Exchange Programme. The Commission, however, feels that foreign language teachers should support the indigenous Indian staff and not replace them. With this in view, the Commission has emphasised that the department in the university should develop a proper infrastructure in the teaching of the foreign language concerned with the help of Indian faculty members and reach a level when they can interact with foreign language teachers from abroad. During the year 1989-90, 40 teachers in Russian, 11 in German, 10 in French, three in Spanish and one each in Polish, Serbo-Croation, Rumanian, Hungarian, Portugese, Bulgarian, Mongolian, Korean, and Chinese were assigned to universities in India.

12.05 **Fellowships and Scholarships**:

The following fellowships/scholarships were offered during 1988-89:

Seven scholars visited FRG for one year post-doctoral fellowships, four students in German language for three months, three German language teachers for three months and Ph.D. students for six months under Indo-FRG Cultural Exchange Programme.

12.06 **Travel Grants to Teachers who have offers of Fellowships/ Stipends for their Maintenance in a Foreign Country**

The Commission continued to provide travel grant to teachers for their visit to foreign countries for collection of material for their research work or to avail offer of a fellowship or assistance from an agency from that country where the scholar has been offered partial or full financial assistance for his maintenance. Twelve teachers were provided assistance under this scheme during the year.

12.07 **Collection of Source Material for Research Work in UK and other Countries:**

The Commission continued to provide travel and maintenance expenses to senior Indian scholars in humanities and social sciences for their visit to UK for a period of 6-8 weeks to enable them to collect material for their research work, which is ordinarily not available in India. The period of 12 man-months available under this programme was almost fully utilised and eight scholars were assisted during the year.

12.08 **Development of Canadian Studies**:

Under the scheme, the Commission has identified some universities for the development of Canadian Studies in specific disciplines. Although the universities have been identified for a single discipline to start programmes in Canadian Studies, the intention is that in course of time they would develop into multi-disciplinary centres of Canadian Studies. A scholar from Rajasthan University visited Canada to familiarise himself with teaching and research being done in Canadian universities with a view to introducing Canadian Studies in the area of Political Science in Rajasthan University. It was agreed with the Shastri Indo-Canadian Institute that there will be an exchange of scholars between the two countries for a period of two man-months per year. The Commission nominated four scholars against this provision for visit to Canada to discuss problems with senior scholars.

12.09 **INDO-US Fellowship Programme**:

Against 15 fellowships of ten months each to American scholars for their post-doctoral research work in India, the Commission received nominations for 13 long-term fellowships of ten months duration and six short term fellowships of two-three months duration. The Government of India allocated 12 fellowships to UGC for the visit of Indian teachers from universities/colleges and institutes of technology for post-doctoral work in USA. The Commission converted four fellowships into 12 short-term visitorships of 3 months each and made nominations against the residual eight long-term fellowships of ten months each and 12 short-term visitorships of three months each.

12.10 **CSIR-CNRS (France) Exchange of Scientists Programme**:

Under this programme, the CSIR allocates 200 man-days for the visit of Indian scientists to France and similarly the UGC allocates 200 man-days to the CNRS for the visit of French scientists to India in connection with their research work during the year. During 1989-90, seven Indian scholars visited France and one French scholar visited India.

12.11 **Commonwealth Academic Staff Fellowships and Scholarships**:

The Commonwealth Academic Staff Fellowships and Scholarships are intended to help teachers of universities/ colleges in developing commonwealth countries to enhance their experience in the universities or similar institutions in U.K. Under this programme, the Commission coordinates with the Association of Commonwealth Universities in U.K. and makes nominations for the award of Commonwealth fellowships and scholarships to enable promising faculty members in universities and colleges in India to do research work at

universities or other institutions in U.K. No special areas of study have been prescribed but medicine and surgery have been excluded because these disciplines are already provided for under Commonwealth Medical Awards. During 1989-90 the Commission recommended 21 teachers for fellowships and 14 for scholarships. Out of these the Association of Commonwealth universities have finally selected 16 for fellowships and 14 for scholarships.

12.12 **Visits Abroad**:

In pursuance of the decision taken on recommendation 3.8 contained in the 73rd report of the Public Accounts Committee (Sixth Lok Sabha) on University Grants Commission, the information in respect of the visits abroad of the Chairman, Vice-Chairman and Officers of the Commission during the year 1989-90 is given in *Appendix-XXVII*.

Section-13

ADULT, CONTINUING & EXTENSION EDUCATION AND DISTANCE LEARNING

13.01 **National Literacy Mission(NLM)** :

The Commission continued to provide assistance to universities for eradication of illiteracy-both through Centre Based Approach as well as MPFL (in regard to non- NSS and non-NCC studies). Population education activities through students in its Adult Education Centres, Continuing Education and Jan Shikshan Nilayams. With the adoption of the Area Based Development Approach the Commission approved upto 1989-90 various programmes numbering 17,560 Adult Education Centres, 862 Continuing Education Courses, 1331 Population Education Clubs plus population education activities in Adult Education Centres and 1056 Jan Shikshan Nilayams in respect of 92 universities and their 1278 colleges as per new guidelines framed in 1988. As in previous years, the Commission continued to provide funds to university departments/centres for adult and continuing education and extension to the extent of Rs.50,000 towards the purchase of audio-visual equipment. This grant is not admissible to those universities which have been given grants for this purpose earlier. In addition the Commission continued its assistance to universities for the purchase of a jeep/vehicle to manage the adult education programme.

During the year, the Commission resolved to implement important strategies under the National Literacy Mission for the spread of universal literacy in the country. In this connection, the Commission considered the minutes of the meeting of the Group on Students Mobilisation constituted by the Ministry of Human Resource Development and resolved as under :

a) The whole university system must involve itself in NLM. Involvement in NLM should be in a spirit of mission, and the Vice-Chancellors themselves have to place this work centre stage. Vice-Chancellors should also take steps to involve teachers.

b)Involvement of teachers and students should be on a voluntary basis. We should examin how the existing projects given to universities/colleges can be phased out (after the current courses conclude) or converted into mobilization/training units.

c)Work for NLM should be the main function of the departments of Adult/Continuing Education. While instruction, research, etc. in adult education are relevant, their main concern should relate to NLM. Whatever reorientation is needed, it should be undertaken expeditiously.

d)The exact nature of student involvement should be decided by universities/colleges themselves-this ccould be in the nature of obligatory work, or purely voluntary service activity, but large scale involvement of students should be ensured.

e)NLM should be an essential part of the courses for teachers organised in academic staff colleges.

f) Several films on involvement of students in NLM (e.g. in Kottayyam) should be got made with a view to motivating and informing teachers and students.

The above resolution of the Commission was brought to the notice of the universities through personal appeal by the Chairman, UGC and all Vice-Chancellors were requested to chalk out a programme to play a major role to wipe out illiteracy in the country.

Also, during the year the Commission, on the recommendations of the Ministry of Human Resource Development, agreed to the deputation of 100 teachers from universities/colleges by supporting the full cost for a period of two years on whole time basis to work for the Nationwide Literacy Movement. The Standing Committee on Adult, Continuing & Extension Education was reconstituted by the Commision to advise it on policy matters and over-viewing the implementation of the entire programme.

13.02 **Mass Programme for Functional Literacy (MPFL)**:

The revised guidelines on adult education programme, interalia, contain a provision for giving academic incentives to students for their active involvement in the mass programmes for functional literacy as also incentives to the institutions based on their performance and achievements under extension programmes. During the year, universities were advised to continue and strengthen their involvement in the programme through Non-NSS, Non-NCC etc., for which Commission's assistance was available.

13.03 **Planning Forums**:

The scheme of Planning Forums aims at creating an awareness of the need for planned development of the country among the students and the teaching community. To acquaint them with planning at grass-root level, the forums work in close collaboration with the developmental machinery at district and block levels. They also create agencies for developing plan consciousness among the educated youth in particular and through them among the general public through intensive intellectual debate on strategies and programmes of plans at national, state and district levels. Under a revised scheme of the University Grants Commission evolved during 1989-90, universities and colleges will organise Planning Forums through their departments of Economics or other social science departments. While academic support will be provided by these departments for the successful functioning of the Planning Forums, the Commission will extend financial assistance to the tune of Rs.10,000/- annually to the universities and colleges for the setting up of the forums on 100 per cent basis for a period of five years, for the purchaseof materials, zeroxing, preparation of maps and charts, typing, hiring of film strips, and travel expenses. The funds would be made available on year to year basis depending upon the progress of work. The Planning Commission will enlist each Planning Forum for supply of its organ 'Yojana'. In addition, the State Planning Departments will supply literature on State Plans. Each Planning Forum is expected to work as a repository of all plan literature, slides, film strips etc. brought out from time to time by the various departments of Central as well as State Governments. It will also serve as a Plan Information Centre in the area.

13.04 **Population Education**

The Commission has been providing assistance to universities and colleges for setting up population education clubs for the promotion of population education. It has also impressed upon the universities to utilise the Adult Education Centres/Jan Shikshan Nilayams for the spread of population education at the grassroot level. In addition, the working groups and the Population Education Resource Centres (PERCs) set up under the UNFPA-UGC project have been providing support services inpopulation education programmes run by universities/ colleges in specified areas in terms of development of curricula, training and extension activities. Some universities have included population education as a foundation course at the undergraduate & postgraduate levels under the scheme of restructuring of courses. During the year, the Commission agreed to continue financial assistance for the PERCs upto December, 1990 for the present. An important aspect of the functioning of PERCs has been the establishment of linkages within their service area as also with other departments such as departments of Women and Child Development, Health and Family Welfare, Science and Technology and some non-governmental organisations and international agencies. Other important activities undertaken by the working groups and PERCs are curriculum development, preparation of learning materials, conducting evaluation studies and research relating to perception of the programme by different groups and extension activities.

13.05 **Coaching Classes for Competitive Examinations for Weaker Sections Amongst Educationally Backward Minority Communities**

The Commission continued to provide assistance to universities and colleges for conducting coaching classes to prepare candidates belonging to the educationally backward amongst minority communities for various competitive examinations as well as for admission to professional and technical courses. Out of the 42 centres (universities and colleges) identified for conducting such classes, assistance was provided during the year to 13 universities and eight colleges from which progress reports and grant utilisation certificates were received regarding programmes organised during the preceding years. In addition, four more colleges were identified and funded during the year for organising coaching classes, thus raising the total number of identified centres to 46. The Commission also approved two Regional Resource Centres (RRCs) for conducting classes under the scheme.

The centres located in universities provide coaching for all-India services as well as state services, while the centres located in colleges are responsible for organising coaching classes for lower categories of examinations.

13.06 **Distance Education/Correspondence Courses**:

Distance Education/Correspondence Education, essentially based on the supply of instructional material for home study, is supported and supplemented by personal contact programmes, radio programmes, audio-visual aids etc. The objectives of the scheme are (a) to meet the increasing demand for education by utilising alternative systems and (b) to bring about equalisation of opportunities by providing facilities in backward regions, to weaker sections

of the community who have to take up jobs owing to their pecuniary circumstancs and to women who find it difficult to go to a college as they belong to traditional families and communities.

Correspondence courses were being conducted by 38 universities/institutions during 1989-90. A list indicating the courses run by them is given at *Appendix- XXVIII*. During the year, the Commission provided assistance for this purpose to two universities by way of staff, personal contact programmes, study centres, preparaion of lessons, library facilities etc.

13.07 **Assitance for Non-Collegiate Women's Education Board, Delhi University**

The Commission accepted the recommendations of a Committee appointed by it to assess the quantum of assistance for the Non-Collegiate Women's Education Board of the university of Delhi and agreed to provide financial assistance to the Board as under:

Non-Recurring

i. Building & Furniture Rs.55.00 lakhs
ii. Van Rs. 1.00 lakh

Recurring (Five Year period)

Staff i. One Deputy Registrar
ii. Two posts of Academic Staff

The Commission decided that this may be treated as 7th and 8th Plan assistance by the University.

Section - 14

FACILITIES FOR SCHEDULED CASTES AND SCHEDULED TRIBES

14.01 The Commission has over the years made special efforts for providing facilities to persons belonging to the scheduled caste and scheduled tribe communities in universities and colleges. These include reservation of seats in various courses offered by universities and colleges, reservation in recruitment for non-teaching posts and posts of lecturers, and reservation of seats in hostels. The Commission has also made provisions of reservation in various scholarships and fellowships awarded by it and initiated a number of schemes for the advancement of persons belonging to these communities. Details of these schemes are given in the following paragraphs.

14.02 **Reservations in admission to various courses in Universities and Colleges**:

The Commission has requested the universities to reserve 15 per cent of seats for admission in various courses for scheduled caste candidates and 7.5 per cent for those belonging to scheduled tribes with a provision for inter changeability, where necessary. While making the reservation as above, provision may be made to give concession of 5 per cent marks in the minimum percentage of marks required for admission to any course of study. In case by allowing the above concession, some seats in the reserved quota remain unfilled, a further relaxation in the marks may need to be given to them in order of merit inter-se amongst them, so that all the reserved seats for SC and ST candidates are filled by the candidates belonging to these two categories only. Detailed guidelines for full implementation of reservation in admission for SC and ST students in all courses and faculties/departments in all universities and colleges from academic year 1989-90 onwards have been issued in this regard.

14.03 **Reservation in Appointments to the Posts of Lecturers and Non-Teaching Posts**

Universities/Colleges have also been requested to make reservation in the appointments to the posts of lecturers and non-teaching posts @ 15% for Scheduled Castes and 7.5% for Scheduled Tribes. The instructions of the Govt. of India banning dereservation of posts, reserved for SCs and STs, have been brought to the notice of universities and it has been impressed upon them to launch special drive, covering both direct recruitment and promotion so that the actual representation of SCs and STs reach the prescribed percentage.

14.04 **Reservation of Seats in Hostels**

Universities/Institutions have been requested that out of the total number of seats available in each hostel, such number of seats is allocated to Scheduled Caste and Scheduled Tribe students, as is not less than the prescribed 15% and 7.5% for these categories respectively.

14.05 **Setting up of Special Cells in Universities/Institutions**:

With a view to ensure the effective implementation of the various orders for admissions, employment, reservation in hostels, introduction of remedial courses and other measures for improvement in the educational level of Scheduled Castes and Scheduled Tribes, the Commission has set-up special SC/ST cells in various universities/ institutions. The Commission has been providing financial assistance to universities/institutions on 100 per cent basis for the purpose. During the year 1989-90, the Commission accepted 10 proposals for the setting up of Cells. With this, the number of special cells approved in various universities and institutions upto 31.3.1990 rose to 87.

The Commission's assistance for Special Cells was available to the universities upto the period ending 31st March, 1990. The Commission, therefore, agreed to extend the period of assistance under the scheme to universities/institutions upto 31.3.1991, which is further extendable upto 31.3.1995, if the University/Institution concerned sends an assurance from the State Government for taking over liability thereafter.

14.06 **Junior Research Fellowships for Scheduled Caste/Tribe Students**

Earlier there was reservation for Scheduled Caste/Scheduled Tribe (SC/ST) students to the extent of 10 per cent of the Junior Research Fellowhips allocated to various universities under the UGC scheme "JRF at any one given time basis". After the introducation of the NET-JRF examination by the UGC, provision of reservation of 10 per cent positions of JRF for SC/ST candidates was abolished and in its place provision for relaxation of upto 10 per cent in the cut off marks in the above examination is made for the SC/ST candidates. During May, 1989 the Commission took a decision that, in view of the fact that the number of NET qualified SC/ST candidates is generally very small, all SC/ST candidates qualifying the JRF examination may be awarded the fellowship. It was also decided that in case there is no vacancy under the scheme of 'JRF at any one given time basis', the Commission will provide personal supernumerary positions of JRF to the universities in respect of such SC/ST candidates. Apart from the above, the Commission also continued the scheme to award directly 50 Junior Research Fellowships in science and humanities including social sciences to SC/ST candidates through open selection. As per the revised procedure for open selection, candidates who could not qualify the UGC NET/Joint UGC-CSIR-JRF examination even at the relaxed standard are interviewed and selected for the award. The awards for the year 1989-90 were yet to be finalised as the results of the NET examinations conducted in 1989 were not declared at the time of reporting.

14.07 **Reservation of Research Associateships**

During the period under report the Commission invited applications from the eligible Scheduled Caste/Scheduled Tribe candidates for the award of Research Associateship against annual quota of 40 positions each for the year 1987-88 and 1988-89. Interviews for the award were held in March, 1990 and the awards were being finalised.

14.08 **Reservation of Teacher Fellowships**:

With a view to provide opportunities to teachers belonging to SC/ST categories working in affiliated colleges, the Commission has instituted 50 teacher fellowships (20 for Ph.D and 30 for M.Phil.) under the Scheme of 'Direct Award' to teachers belonging to SC/ST categories'. The duration of short-term fellowship for pursuing the M.Phil. courses is one year. The normal tenure of long-term teacher fellowship for research for Ph.D degree is three years(including one year for M.Phil.). The tenure can be extended by one year in genuinely deserving cases. The Commission awarded 50 Teacher Fellowships during the year 1989-90 under the scheme.

In order to fill up the backlog vacancies of Teacher Fellowships during the last five years commencing from 1985-86 to 1989-90, 29 Teacher Fellowships were also awarded to the teachers belonging to the SC/ST categories.

14.09 **Postgraduate Scholarships to Candidates belonging to**

Scheduled Castes/Tribes etc. of Border Hill Areas:

The Commission has instituted 25 scholarships for students belonging to scheduled castes/tribes and backward communities of border hill areas for enabling them to undertake postgraduate studies in science, humanities and social sciences.

14.10 **Remedial Coaching Classes**:

The Commission has been implementing the scheme of organising remedial coaching classes for students belonging to weaker sections of the society, specially the Scheduled Castes and Scheduled Tribes. Such classes may have not more than 20 students who may be put under a teacher.

14.11 **Assistance to Colleges catering to the needs of Scheduled Caste and Scheduled Tribe Students**

The Commission is providing assistance upto Rs.4 lakhs to Colleges having at least five permanent teachers excluding the Principal and Physical Training Instructor/ Director and a minimum of 100 students in degree and post-degree courses provided at least 35 of these belong to Scheduled Caste and Scheduled Tribe communities. Colleges with larger enrolment are eligible for such a grant if the number of scheduled caste and scheduled tribe students is not less than 20% of the total enrolment in degree and post-degree courses or at least 35 students in case of colleges with enrolment upto 175 students.

14.12 **Reservations in the UGC Office**:

The Commission continued its efforts during the year to give due representation to the reserved categories of Scheduled Castes and Scheduled Tribes and to make good the shortfall wherever existing in the office of the Commission in accordance with the orders issued by the Government of India on the subject.

The following officials belonging to the reserved categories of Scheduled Castes and Scheduled Tribes were appointed during the year under report:

Sl. No.	Cadre	Appointment made by direct recruitment		Post filled by Promotion	
		Scheduled Caste	Scheduled Tribe	Scheduled Caste	Scheduled Tribe
1.	Education Officer	-	1	-	-
2.	Junior Stenographer	2	-	-	-
3.	Lower Division Clerk (LDC)	16	5	-	-

Section-15

HIGHER EDUCATION AND WOMEN

15.01 There has been tremendous expansion of educational opportunities for women in the field of higher education - both general and technical. In equal measure, the response of women to grab these growing opportunities has been overwhelming as reflected by consistent increase in women enrolment in all faculities and at all levels of education. Besides, women education at the university and college levels has itself been reoriented in response to the changing requirements of the society and the demands of the public and private sectors. Incresing numbers of women year after year, have been competing for admission to specialised and professional courses. The following paragraphs present an account of expansion in terms of numnbers and other opportunities of women participation in higher education and the efforts made by the Commission in this regared.

15.02 **Growth of Enrolment:**

There has been remarkable growth in the number of women enrolled in institutions of higher education as shown in Table 15.1.

It will be seen from the table that women enrolment has grown from a mere 0.40 lakhs in 1950-51 to 13.67 lakhs in 1989-90 recording an increase of more than 34 times over the forty year period. The number of women enrolled per hundred men enrolled during this period has gone up more than three times from 14 in 1950-51 to 47 in 1989-90.

Table 15.2 shows the enrolment of women as a proportion of total enrolment during the period 1980-81 to 1989-90. It will be seen that enrolment of women as percentage of total enrolment increased progressively from 27.2 per cent in 1980-81 to 29.6 per cent in 1985-86 and 32.2 per cent in 1989-90. In absolute terms, the number of women enrolled increased from 7.49 lakhs in 1980-81 to 13.67 lakhs in 1989-90.

Table 15.1

NUMBER OF WOMEN PER HUNDRED MEN

	1950-51	55-56	60-61	65-66	75-76	81-82	82-83	83-84	84-85	85-86	86-87*	87-88*	88-89*	89-90*
Total women enrolment (in thousands)	40	84	150	271	595	817	880	940	992	1067	1149	1224	1292	1367
Number of women per hundred men	14	17	23	24	33	38	39	40	41	42	44	46	46	47

* Estimated

Table 15.2
Total enrolment and enrolment of Women

Year	Total Enrolment	Women Enrolment	Percentage of women
1980-81	27,52,437	7,48,525	27.2
1981-82	29,52,066	8,16,704	27.7
1982-83	31,33,093	8,80,156	28.1
1983-84	33,07,649	9,40,253	28.4
1984-85	34,04,096	9,92,139	29.1
1985-86	36,05,029	10,67,484	29.6
1986-87*	37,54,409	11,48,849	30.6
1987-88*	39,10,828	12,24,089	31.3
1988-89*	40,74,676	12,91,672	31.7
1989-90*	42,46,878	13,67,495	32.2

* Estimated

15.03 **Women's Colleges:**

Table 15.3 shows the number of colleges meant exclusively for women. This number has gone up from 609 in 1980-81 to 851 in 1989-90 recording an increase of over 40 per cent during the decade.

Table 15.3
Women's Colleges

Year	Number of colleges for women only
1980-81	609
1981-82	624
1982-83	647
1983-84	676
1984-85	712
1985-86	741
1986-87	780
1987-88	786
1988-89	824*
1989-90	851*

* Provisional

15.04 **State-wise distribution of Women Enrolment:**

State-wise distribution of enrolment of women for the years 1985-86 to 1989-90 is given in *Appendix -XXIX.*

It will be seen that enrolment of women as a percentage of total enrolment during this period has gone up in all the States except Manipur where it declined from 34.4 per cent in 1985-86 to 33.7 per cent in 1989-90. The all-India average of women enrolment as a percentage of total enrolment rose from 29.6 in 1985-86 to 32.2 in 1989-90. A compartive picture of women enrolment in the past two years shows that women enrolment as a percentage of total enrolment has gone up marginally in 1989-90 as compared to 1988-89 in all the States. As in the earlier years, Kerla (52.7%) continued to lead in terms of women enrolment as percentage of its total enrolment in 1989-90 followed by Punjab (47.5%), Delhi (45.6%). Haryana (41.3%) Meghalaya/Nagaland (38.8%) and West Bengal/Tripura/Sikkim (37.8%). On the other hand, as in earlier years, Bihar remained at the bottom with women enrolment only 16.2 per cent of its total enrolment in 1989-90. As many as 14 states and the Union Territory of Delhi had percentage of women enrolment higher than the all-India average of 32.2%. These were Gujarat, Haryana, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya/Nagaland, Punjab, Tamil Nadu, and West Bengal/Tripura/Sikkim.

15.05 **Stage-wise Distribution:**

Sex-wise distribution of enrolment at different stages of study is given in **Appendix XXX.** It will be seen that during the period 1981-82 to 1989-90, enrolment of women as a percentage of total enrolment has been consistently going up at all levels viz. graduate, post graduate and reserch levels. For example at the graduate level enrolment of women as a percentage of total enrolment increased from 27.7% in 1981-82 to 32.1% in 1989-90. Similarly at the post-graduate level, the corresponding increase was from 28.6% to 33.6% and at the research level from 27.7% to 35.7%. It is interesting to observe that percentage of women enrolment at the research level has increased faster than percentage enrolment at other levels. Women enrolment at the diploma/certificate level which was 25.2% of total enrolment at that level in 1989- 90 showed a mixed trend, rising in one year and falling in the other, during the period under reference. In the last three years, however, it has been consistently on the rise.

15.06 **Faculity-wise Distribution:**

Faculty-wise distribution of women enrolment given in **Appendix-XXXI** shows that women enrolment in each faculty as a percentage of total enrolment in that faculty registered a gradual increase from 1981-82 to 1989-90 except that in some faculties it declined in a certain year so as to rise again the following year. The highest percentage of women enrolled in any faculty was recorded by the faculty of Education with 52.9 per cent of its total enrolment in 1989-90 accounted for by women, followed by the faculty of Arts (43.6%),'others' (39.2%), Science (32.9%), Medicine (31.9%) and Commerce (20.6%). It is interesting to note that even in the faculty of Enginearing/Technology, women enrolment as a percentage of total enrolment has consistently gone up from 4.5 per cent in 1981-82 to 7.6 per cent in 1989-90 thus indicating a healthy trend of more and more women opting for professional courses.

15.07 **Promotion of Women's Studies in Universities:**

The Commission has been assisting the universities since 1986 to promote women's studies programmes and setting up of Centres/Ceils for women's studies to undertake research projects, development of curricula, training and extension.

The objectives for incorporating women's studies within the university system are both academic and social. These include changing the present attitudes, values in society regarding women's role and rights, promoting awareness of the need to develop and utilise women's full potential as human resource for national development, revitalising university education and bringing it closer to social issues and working towards their solution, and promoting increased collaboration between different disciplines in teaching, curriculum design, research and extension activities.

To streamline and strengthen the programme, the Commission has a standing Committee on women's studies which reviews, advises and monitors the implementations of the scheme. The Committee is assisted by two sub-committees, one which scrutinises proposals for setting up centres/cells in the university system and also monitors the work of existing centres/cells and the other which scrutinises the reserch proposals relating to women's studies.

During the year, the Commission agreed to continue to provide financial assistance for development of women's studies for another period of five years upto March,1995. It also desired that steps be taken to evaluate the on- going programmes. As on 31st March, 1990 the Commission provided assistance to 20 universities and eight colleges/university departments for setting up women's studies Centres/Cells. A workshop at SNDT women's university was organised during October,1989 to review the progress made by the Centres/Cells of Women's Studies.

15.08 **Part-time Reserch Associateships for Women:**

The scheme was introduced by the Commission with a view to provide opportunity to talented women scholars who are unable to devote full time to research. The first batch of part-time research associateship to women scholars was approved by the Commission last year against the annual quota of 1987-88. During the year under report, the Commission invited applications from the eligible women candidates for the award against the annual quota of 40 awards for the year 1988-89. Interviews for these positions were held during the year and the awards were being finalised. The scheme has been welcomed by scholars throughout the country.

Section-16

ORGANISATIONAL SET UP AND FINANCES

16.01 **Organisational Set-up:**

The Commission consists of twelve members. The Chairman and the Vice-Chairman are its full-time working members. The Secretariat of the Commission is headed by a Secretary. He is assisted by a Financial Adviser, a Director (Science) and two Additional Secretaries.

The Secretary of the Commission is organised on the pattern of Bureaus, Divisions and Sections. The basic unit is a Section which is headed by a Section Officer who has adequate supporting staff comprising of Assistants, Upper Division Clerks and Lower Division Clerks/Typists, normally numbering between five and eight depending on the work-load. Usually, for two sections, there is a Branch Officer who is designated Under Secretary/Education Officer or an officer of equivalent rank. Normally, four to five sections constitute a Division. There are four divisions dealing with development programmes of universities and colleges and four divisions dealing with research programmes, selections and awards and adult education etc. There are also separate divisions dealing with international cooperation, mass communication and information/statistics. A division is handed by a Deputy Secretary or an Officer of equivalent rank like Co- ordinator, Principal Scientific Officer, etc. In some cases a division is headed by a Joint Secretary called Bureau Head. The work of a group of Joint Secretaries/ Deputy Secretaries/other officers of equivalent rank is assigned to Additional Secretary/Director (Science)/ Financial Advisor called Bureau Chief. At present the entire work of the Commission is looked after by four Bureau Chiefs who are assisted by eight Bureau Heads. For specialised items of work, which are generally of a specified duration, or for specific assignments, the Commission engages Consultants. At present, there are three Consultants who advise the Commission on matters pertaining to data-based systems of management, mass communication and educational technology, and physical education & sports.

According to Section 10 of the UGC Act, the Commission appoints a Secretary and other employees as necessary for the efficient functioning of the Commission. These appointments are made on the basis of the recruitment rules framed by the Central Government. The manner of appointment includes direct recruitment, promotion, deputation and contractual appointment.

16.02 **Non-Plan Funds:**

The University Grants Commission received a grant-in-aid of Rs.21,009-00 lakhs from the Government of India during the year under report. In addition, an amount of Rs. 675.17 lakhs was obtained under miscellaneous items including refund of Rs.3.62 lakhs as unspent balance out of the grants paid in the previous years. Thus the total non-plan receipts (including opening balance of Rs.46.73 lakhs) during 1989-90 were Rs.21,734.52 lakhs and

against this grants paid amounted to Rs.21,697.57 lakhs. Detailed break-up of non-plan grantspaid under various schemes during 1989-90 is given in Table 16.1 below:

Table-16.1

Statement of non-plan grants paid under various schemes during 1989-90

S.No.	Purpose	Amount
		(Rs. in lakhs)
1.	Pay Establishment	87.13
	a. Pay of Officers	54.13
	b. Allowances, Honoraria (including DA, Interim Relief, Bonus, CCA, LTC, TA etc.)	94.49
	c. TA/DA of Commission/Committee members	1.18
	d. Other charges like printing & Stationery postage, telephones, electricity/water charges, upkeep of motor vehicles, publication, library books and journals, purchase of furniture and fixture, maintenance of UGC buildings, other expenditure, rent rates and taxes, departmental charges, conveyance allowance etc.	98.41
	e. Contributions for CGHS, Pension & leave salary, CP Fund, GP fund, gratuity etc.	42.62
		378.87
2.	Maintenance grants to Central Universities	12,340.85
3.	Maintenance grants to Institutions deemed to be Universities	2,500.65
4.	Maintenance grants to Anna and Roorkee Universities, Birla Institute of Technology (Ranchi) and Thapar Institute of Engineering and Technology (Patiala) for specific purposes.	83.13
5.	Maintenance grants to Constituent/ Affiliated Colleges of Delhi University	4,955.07

S.No.	Purpose	Amount
6.	Maintenance grants to Constituent/ Affiliated College of B.H.U.	50.92
7.	House Building Advance to Institutions deemed to be universities and central Universities.	168.37
8.	Teachers award for schemes like Teacher Fellowship (both general & SC/ST Candidates), National Fellowship/ Associateship, National Lectures, Emeritus Fellowship etc.)	24.10
9.	Research Fellowships/Associateships	1,061.72
11.	Scholarships/Fellowships under Engineering and Technology.	112.49
12.	Grants to non-university Institutions	21.40
		21,697.57

From the above table it would be observed that a major component of the non-plan funds was earmarked for meeting the maintenance expenditure of central universities, deemed universities and colleges affiliated to the central universities. Out of the total non-plan grants, about 56.9 per cent was paid as block grant to central universities, 11.5 per cent to deemed to be universities, 0.4 per cent to Anna and Roorkee Universities and Birla Institute and Thapar Institute for certain specific purposes and 23.08 per cent for maintenance of colleges affiliated to central universities. The house building advance was 0.8 per cent of the total non-plan allocation. A grant of Rs.1219.77 lakhs (5.6 per cent) was given to provide various incentives to teachers and for various categories of research fellowships.

16.03 **Plan Funds:**

During the year under report, the Commission received grants-in-aid of Rs.12964.00 lakhs from the Government of India for general dvelopment of the universities and Institutions including SACC programme. In addition, a separate allocation of Rs.12.00 lakhs was also made available for development of engineering and technical education in the universities/institutions eligible to receive grant under the UGC Act. Miscellaneous receipt under Plan head was a marginal amount of Rs. 148.79 lakhs which was mainly obtained by way of interest on bank accounts, refund of unspent balances out of grants paid in previous years etc. A plan

grant of Rs.14,246.13 lakhs was paid to various institutions as indicated in Table 16.2 below.

Table 16.2
Statement of Plan Grants Paid under Six Major Schemes of UGC during 1989-90

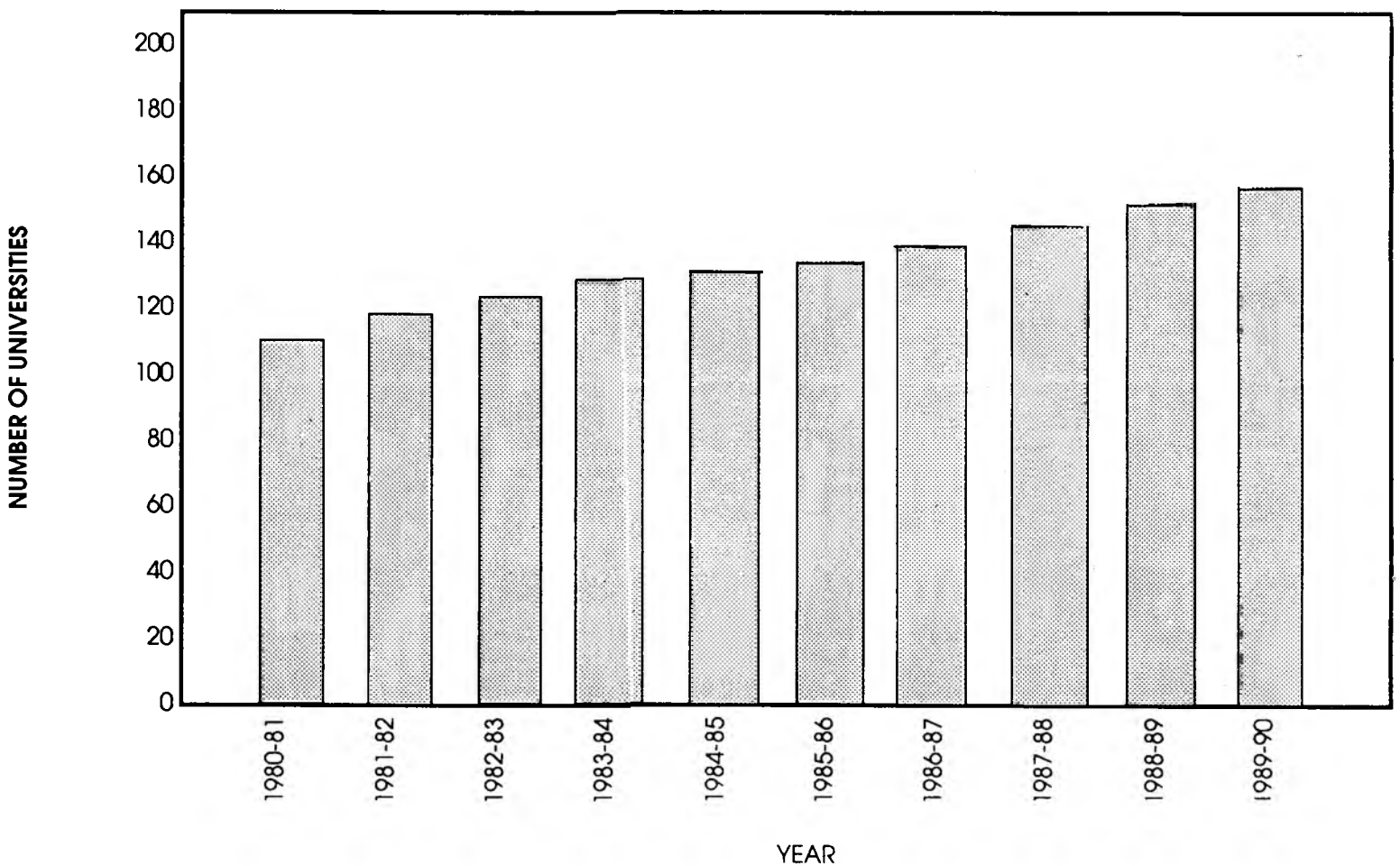
S.No.	Scheme	Universities	Colleges	Misc.	Total
		(Rs. in lakhs)			
1.	Restructuring of courses, Adult, Continuing and Extension Education Programmes	640.14	82.48	-	722.62
2.	Programmes for Quality Improvement of Education	4,924.90	2,559.65	15.47	7,500.02
3.	Programmes for Quality Improvement of Research and SACC*	3,365.75	641.95	86.82	4,095.52
4.	Mass Communication and Improvement of Weaker Sections of the Society	452.60	56.58	0.78	509.95
5.	Establishment of Autonomous Colleges and Improvement of Management System of Universities and the UGC	1.64	126.09	72.43	200.16
6.	Development of Engineering and Technology	1,209.33	8.55	-	1,217.86
	Total:	10,594.36	3,475.28	175.50	14,246.13

* Science Advisory Committee to the Cabinet.

ILLUSTRATIONS AND APPENDICES

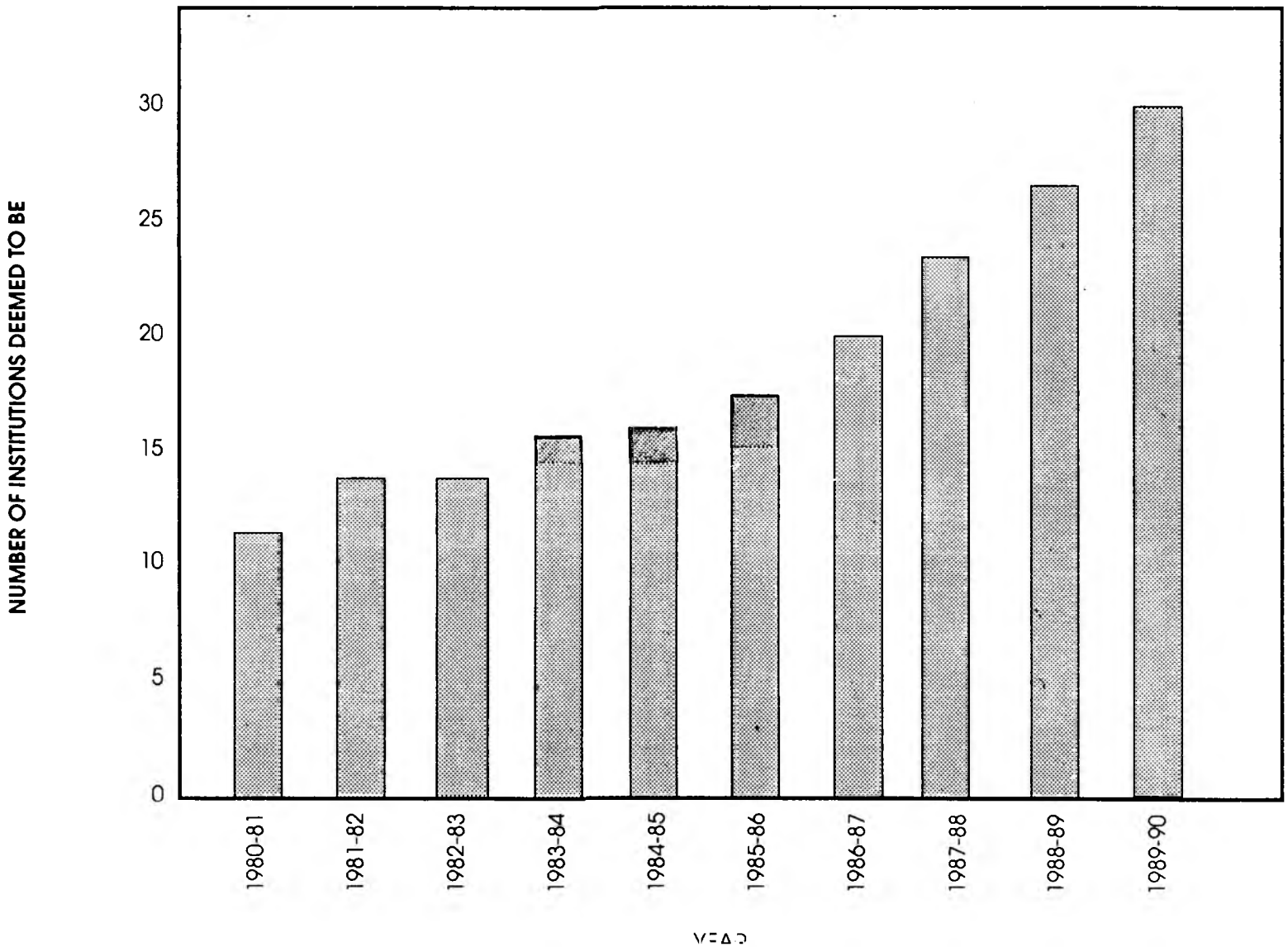
GROWTH OF UNIVERSITIES

1980–81 to 1989–90



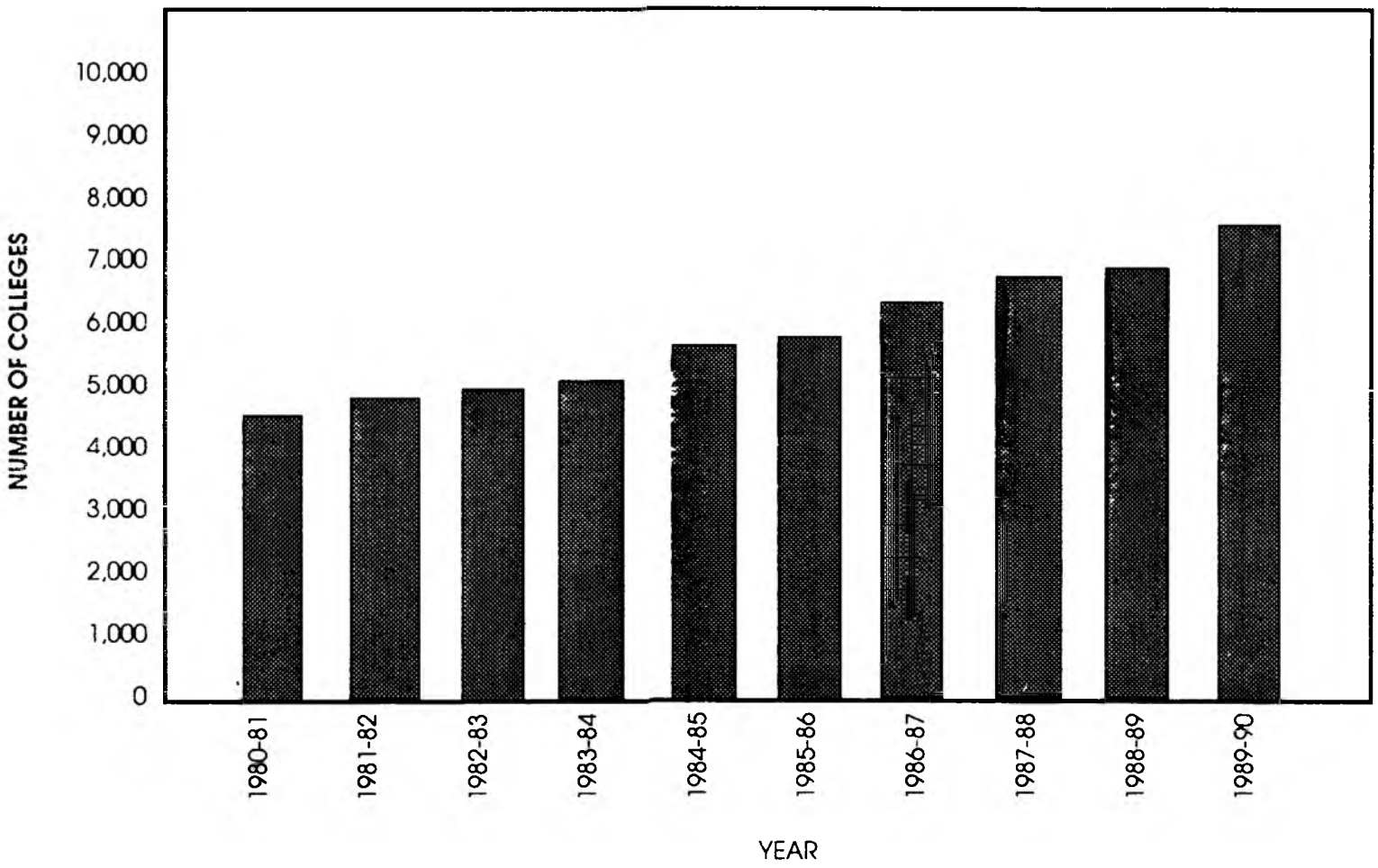
GROWTH OF INSTITUTIONS DEEMED TO BE UNIVERSITIES

1980–81 to 1989–90



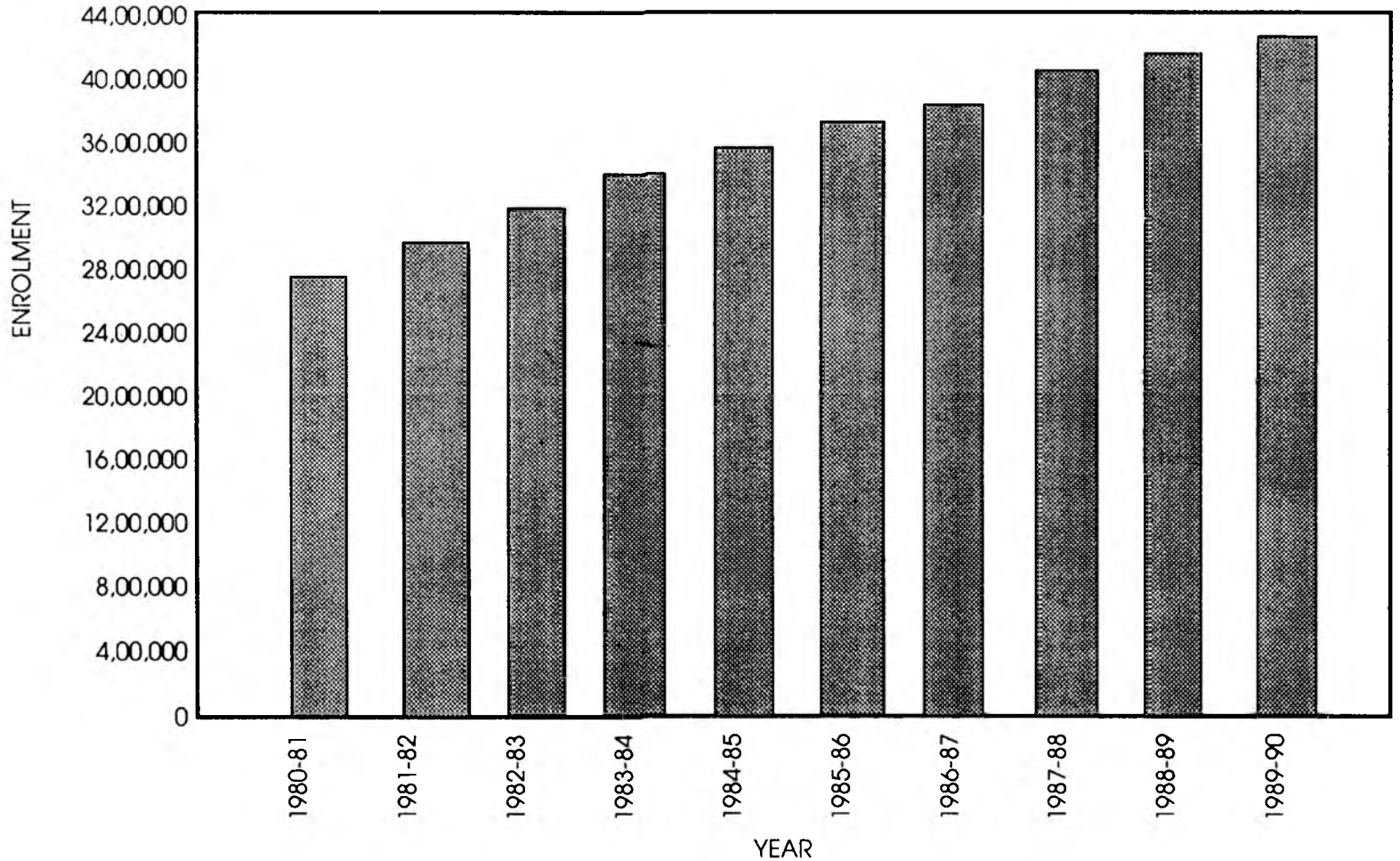
GROWTH OF COLLEGES

1980–81 to 1989–90



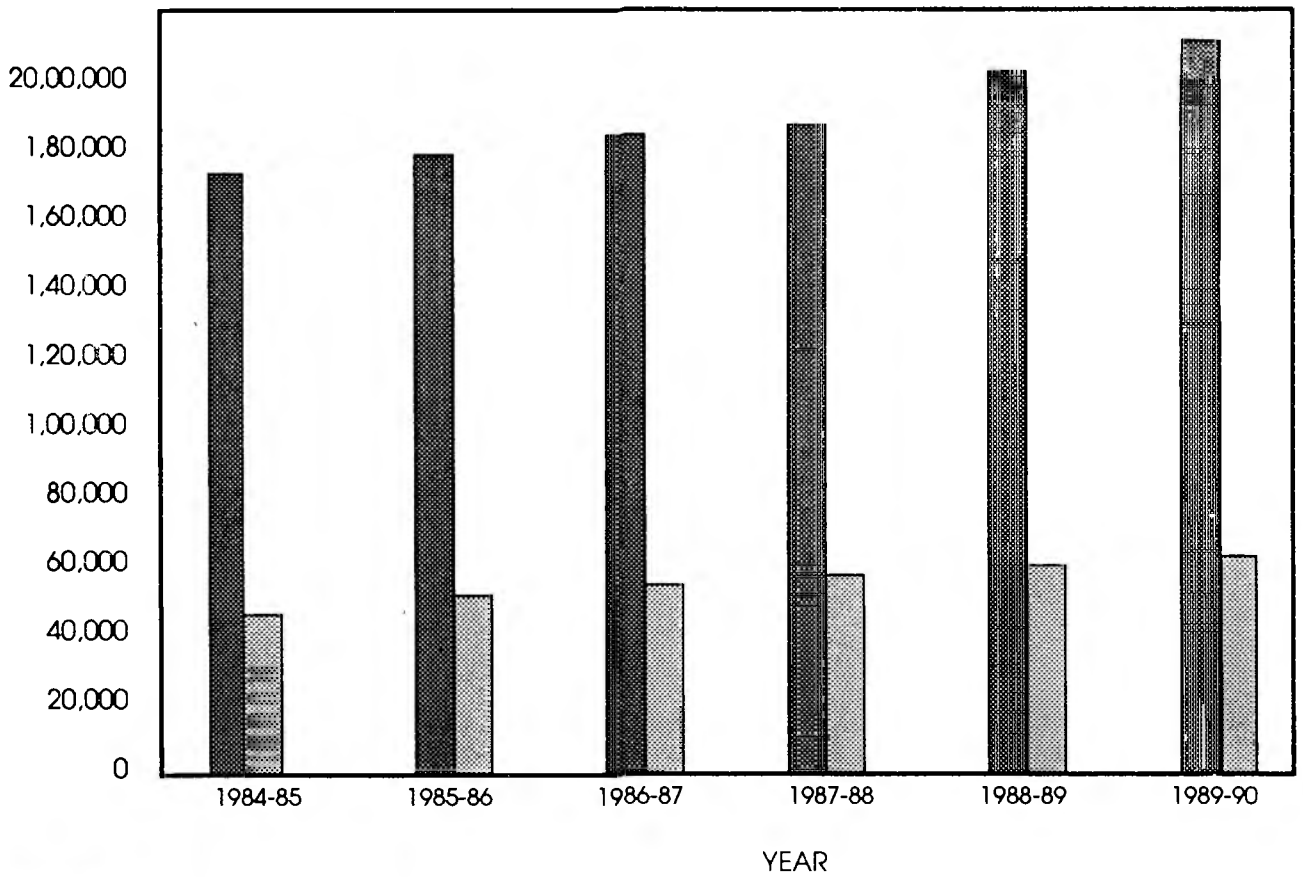
GROWTH OF STUDENT ENROLMENT

1980–81 to 1989–90
(UNIVERSITY LEVEL)



TEACHING STAFF IN UNIVERSITY DEPARTMENTS/UNIVERSITY COLLEGES AND AFFILIATED COLLEGES

1984–85 to 1989–90



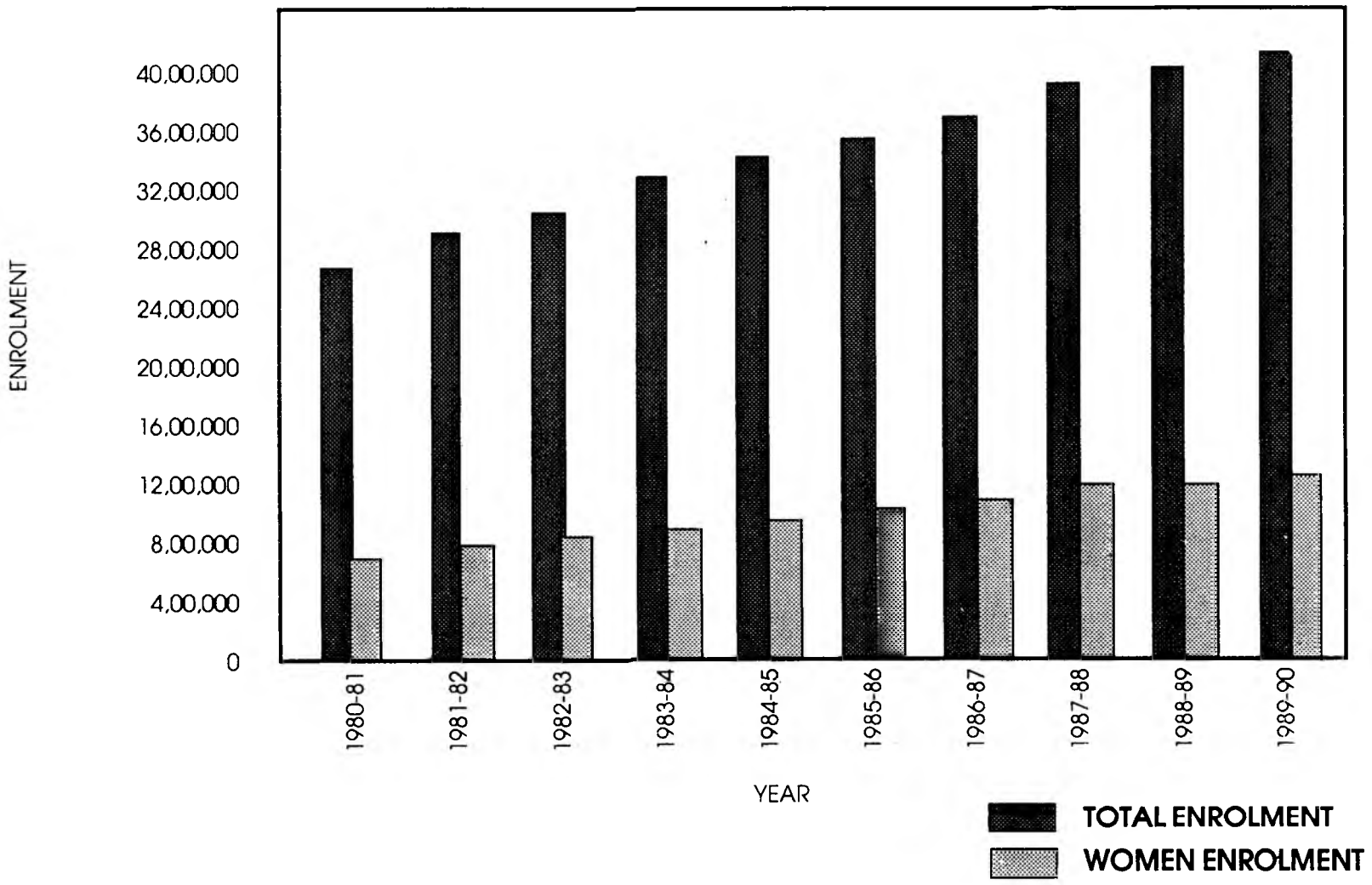
Includes Principals/Senior Lecturers/Readers/ Assistant Professors/Temparary Lecturers and Tutors/Demonstrators (AFFILIATED COLLEGES)

Includes Professors, Readers, Lecturers and Tutors/Demonstrators (UNIVERSITY COLLEGES)

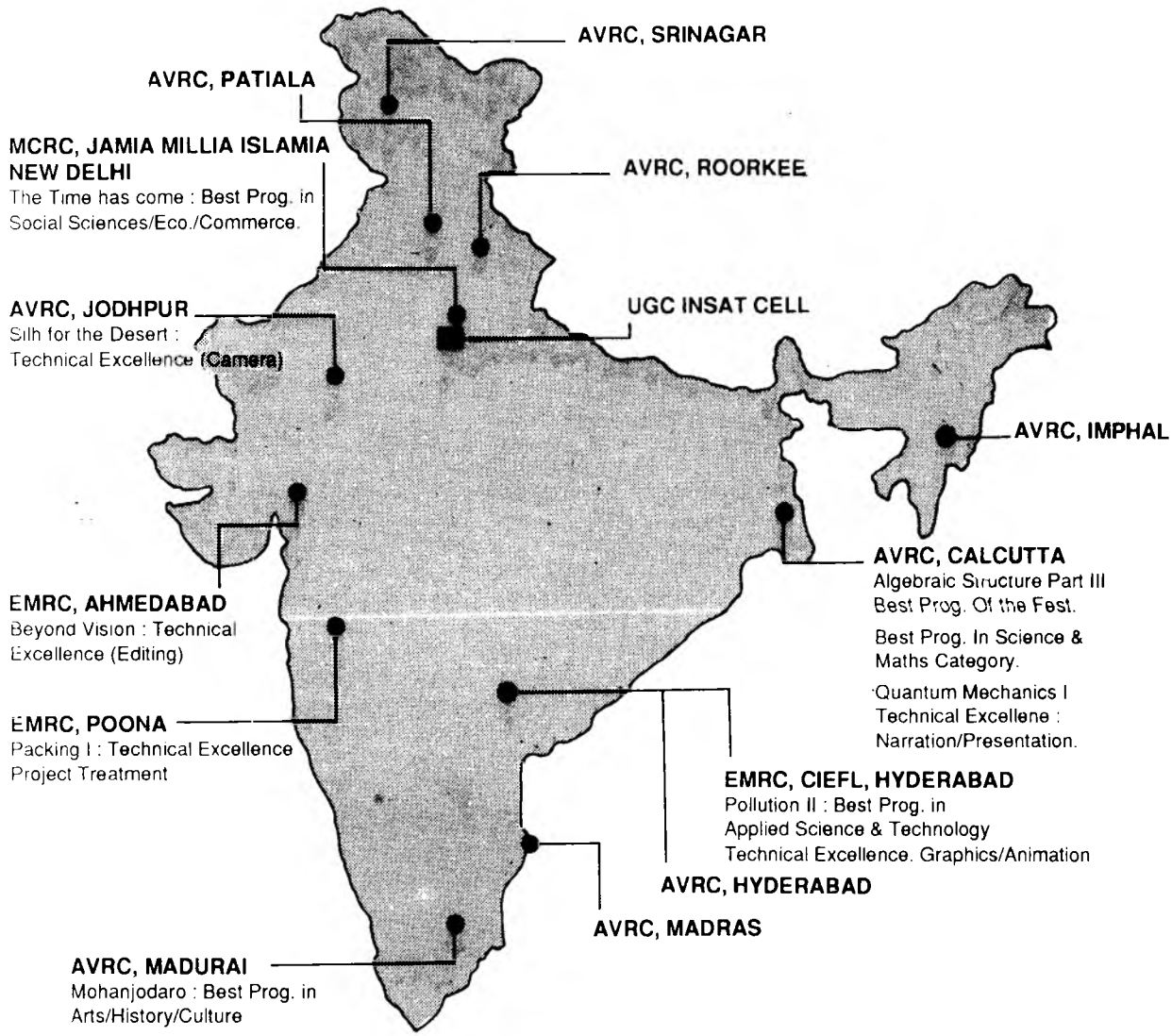
WOMEN ENROLMENT

(UNIVERSITY LEVEL)

1980–81 to 1989–90



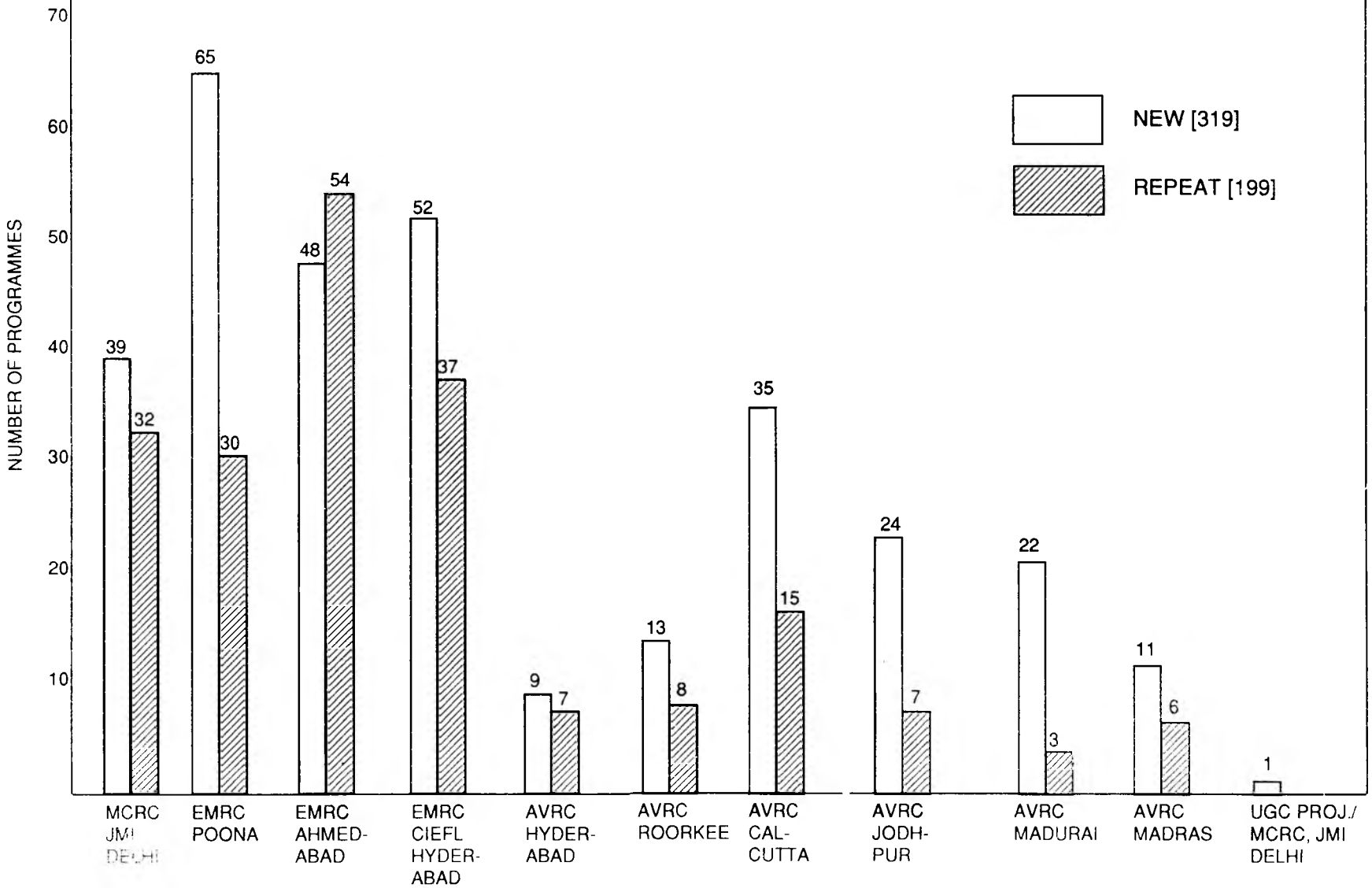
AVRC's and EMRC's at Universities



AVRC Stands for Audio Visual Research Centre
EMRC Stands for Educational Media Research Centre

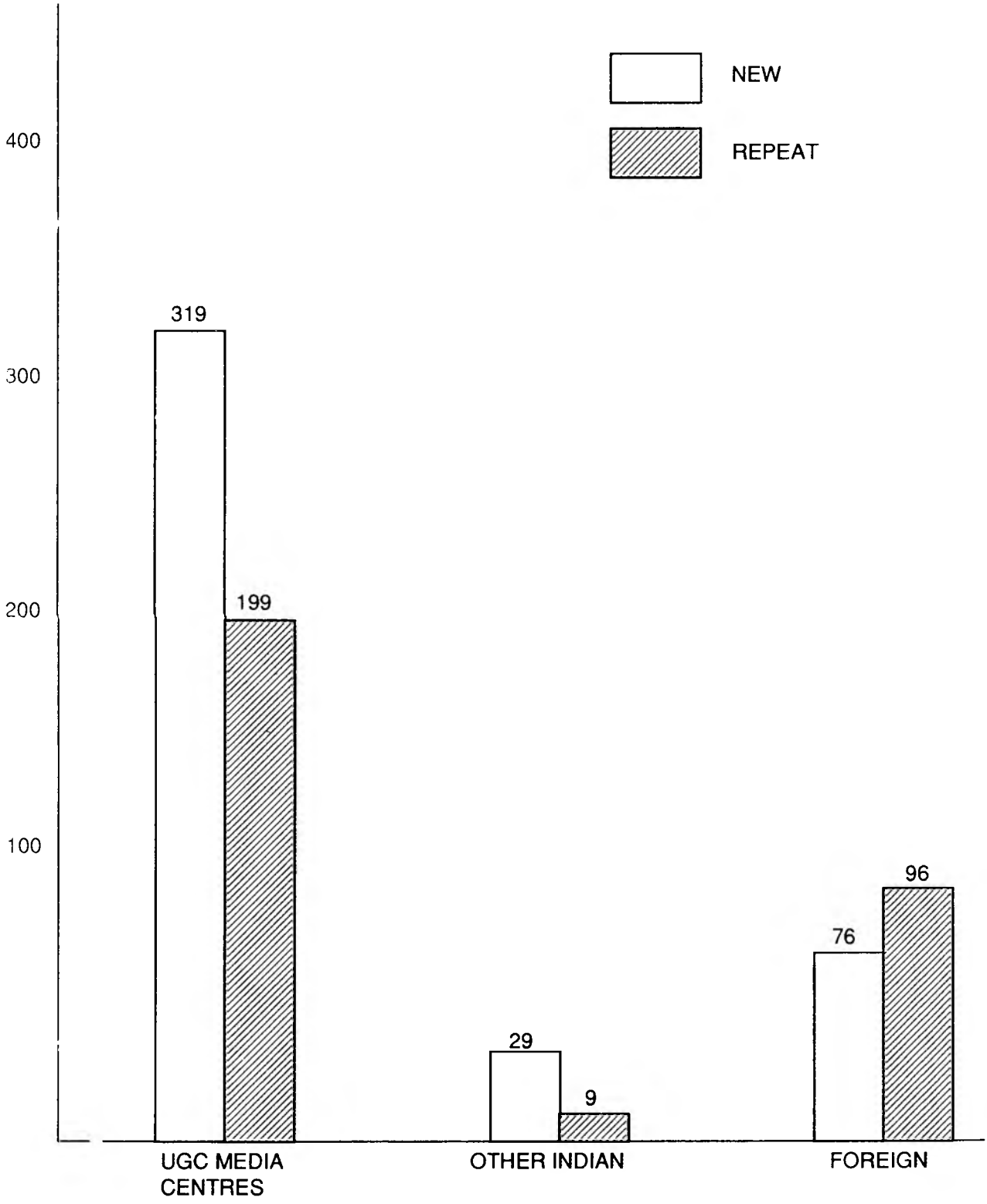
TELECAST OF UGC MEDIA CENTRE PROGRAMMES

APRIL 1989 TO MARCH 1990



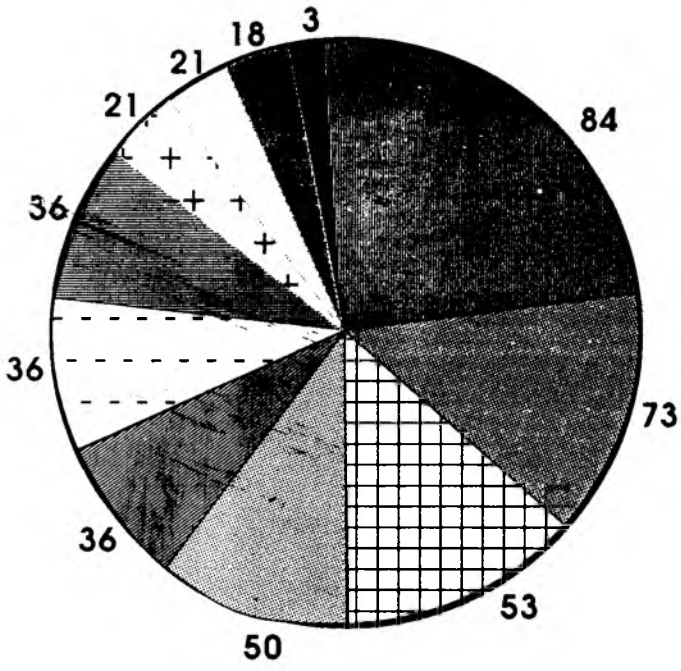
UGC COUNTRYWIDE CLASSROOM TELECAST

APRIL 1989 TO MARCH 1990

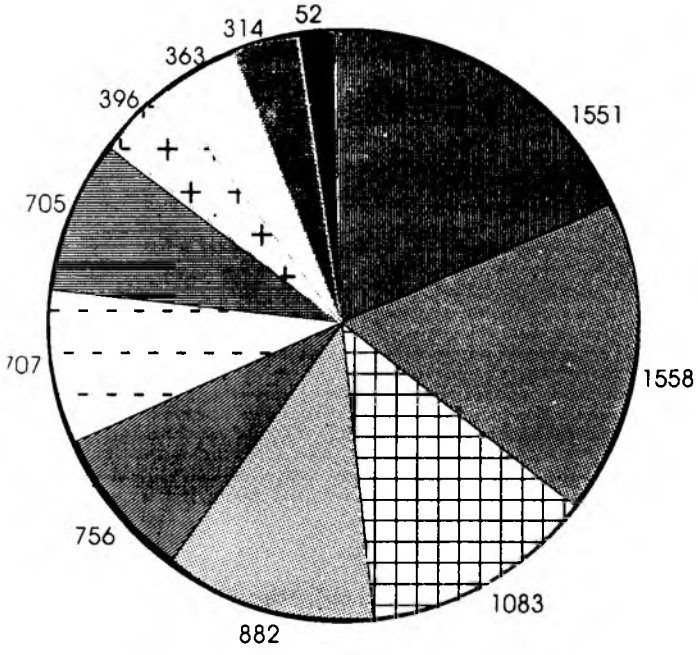


PROGRAMMES RECEIVED FROM UGC MEDIA CENTRES DURING APRIL 1989 TO MARCH 1990

NUMBER-WISE BREAKUP (TOTAL NO. : 431)



DURATION-WISE BREAKUP (IN MINS.) (TOTAL NO. : 431)



EMRC, CIEFL, HYDERABAD

EMRC, POONA

EMRC, AHMEDABAD

MCRC, JMI, DELHI

AVRC, MADURAI

AVRC, JODHPUR

AVRC, CALCUTTA

AVRC, ROORKEE

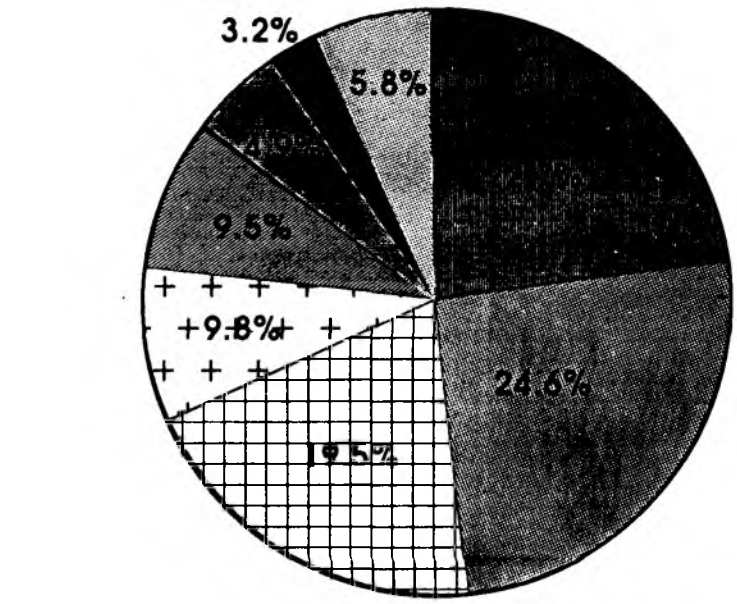
AVRC, HYDERABAD

AVRC, MADRAS

AVRC, MANIPUR/
EMRC, AHMEDABAD

SUBJECT-WISE BREAKUP OF PROGRAMMES RECEIVED FROM UGC MEDIA CENTRES DURING APRIL 1989 TO MARCH 1990

(TOTAL NO. : 431)



PURE SCIENCES (98)

APPLIED SCIENCES (106)

SOCIAL SCIENCES (84)

LANGUAGE & LITERATURE (42)

THE ARTS (41)

HISTORY & CULTURE (21)

PHILOSOPHY & PSYCHOLOGY (14)

GENERAL (25)

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APPENDIX - I

List of Universities and Institutions Deemed to be Universities in India
(as on 31.3.1990)

Sl. No.	Name of the University /Institution	Year of establishment
1.	Calcutta	1857
2.	Bombay	1857
3.	Madras	1857
4.	Allahabad	1887
5.	Banaras Hindu	1916
6.	Mysore	1916
7.	Patna	1917
8.	Osmania	1918
9.	Aligarh Muslim	1921
10.	Lucknow	1921
11.	Delhi	1922
12.	Nagpur	1923
13.	Andhra	1926
14.	Agra	1927
15.	Annamalai	1929
16.	Kerala	1937
17.	Utkal	1943
18.	Dr. Hari Singh Gaur	1946
19.	Rajasthan	1947
20.	Punjab	1947
21.	Gauhati	1948
22.	Kashmir	1949
23.	Roorkee	1949
24.	Poona	1949
25.	M.S. Universityof Baroda	1949
26.	Karnataka	1949
27.	Gujarat	1950
28.	S.N.D.T.Women's	1951
29.	Visva Bharati	1951
30.	Bihar	1952
31.	Sri Venkateswara	1954
32.	Sardar Patel	1955
33.	Jadavpur	1955
34.	Kurukshetra	1956
35.	Indira Kala Sangeet	1956
36.	Vikram	1957
37.	Gorakhpur	1957
38.	Rani Durgavati	1957
39.	Sampurnanand Sanskrit	1958
40.	Marathwada	1958
41.	G.B. Pant University of Agriculture and Technology	1960
42.	Burdwan	1960
43.	Kalyani	1960
44.	Bhagalpur	1960
45.	Ranchi	1960
46.	K.S. Darbhanga Sanskrit	1961
47.	Panjab Agricultural	1962
48.	Punjabi	1962
49.	Orissa University of Agriculture & Technology	1962
50.	North Bengal	1962
51.	Rabindra Bharati	1962
52.	Magadh	1962
53.	Jodhpur	1962
54.	Sukhadia	1962
55.	Shivaji	1962
56.	Devi Ahilya	1964
57.	Jiwaji	1964
58.	Ravi Shankar	1964

APPENDIX - I (Contd.)

Sl. No.	Name of the University /Institution	Year of establishment
59.	University of Agricultural Sciences	1964
60.	Andhra Pradesh Agriculture	1964
61.	Bangalore	1964
62.	Jawaharlal Nehru Krishi	1964
63.	Dibrugarh	1965
64.	Kanpur	1965
65.	Meerut	1965
66.	Madhurai Kamraj	1965
67.	Saurashtra	1965
68.	South Gujarat	1965
69.	Berhampur	1967
70.	Sambalpur	1967
71.	Gujarat Ayurveda	1968
72.	Jawaharlal Nehru	1968
73.	Mahatma Phule Krishi	1968
74.	Calicut	1968
75.	Awadesh Pratap Singh	1968
76.	Assam Agricultural	1968
77.	Guru Nanak Dev	1969
78.	Jammu	1969
79.	Punjabrao Krishi	1969
80.	Haryana Agricultural	1970
81.	Himachal Pradesh	1970
82.	Barkatullah	1970
83.	Rajendra Agricultural	1970
84.	Tamilnadu Agricultural	1971
85.	Cochin	1971
86.	Kerala Agricultural	1972
87.	Gujarat Agricultural	1972
88.	Konkan Krishi	1972
89.	L.N. Mithila	1972
90.	Marathwada Krishi	1972
91.	Jawaharlal Nehru Technological	1972
92.	North Eastern Hill	1973
93.	Kumaun	1973
94.	Hemvati Nandan Bahuguna	1973
95.	Kashi Vidyapith	1974
96.	Bidhan Chandra Krishi	1974
97.	Hyderabad	1974
98.	N.D.University of Agriculture & Technology	1974
99.	C.S. Azad University of Agriculture & Technology	1974
100.	Avadh	1975
101.	Bundelkhand	1975
102.	Rohilkhand	1975
103.	Maharishi Dayanand	1976
104.	Kakatiya	1976
105.	Nagarjuna	1976
106.	Bhavnagar	1978
107.	Anna	1978
108.	Himachal Pradesh Krishi	1978
109.	Manipur	1980
110.	Gulbarga	1980
111.	Mangalore	1980
112.	Birsa Agricultural	1980
113.	Vidyasagar	1981
114.	Sri Jagannath Sanskrit	1981
115.	Sri Krishnadevaraya	1981
116.	Tamil	1981
117.	Bharathiar	1982
118.	Bharathidasan	1982
119.	Sher-e-Kashmir University of Agricultural Sciences & Technology	1982
120.	Andhra Pradesh Open	1982

APPENDIX - I (Contd.)

Sl. No.	Name of the University /Institution	Year of establishment
121.	Sri Padmavati Mahila	1983
122.	Amravati	1983
123.	Guru Ghasi Das	1983
124.	Mahatama Gandhi	1983
125.	Mother Teressa	1984
126.	Alagappa	1985
127.	Arunachal	1985
128.	Pondicherry	1985
129.	Goa	1985
130.	Indira Gandhi National Open	1985
131.	Telugu	1985
132.	Dr. Yashwant Singh Parmar	1986
133.	Andhra Pradesh University of Health Sciences	1986
134.	University of Agricultural Sciences, Dharwad	1986
135.	North Gujarat	1986
136.	Indira Gandhi Krishi	1987
137.	Kota Open	1987
138.	Ajmer	1987
139.	Tripura	1987
140.	Kuvempu	1987
141.	Rajasthan Agricultural	1987
142.	Purvanchal	1987
143.	Jamia Millia Islamia	1988
144.	Dr. M. G. R. Medical	1989
145.	Yashwant Rao Chavan Maharashtra Open Univ.	1990
146.	Tamilnadu Veterinary & Animal Sciences	1990
	INSTITUTE ESTABLISHED UNDER STATE LEGISLATURE ACT	
1.	Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow.	1983
2.	Nizam's Institute of Medical Sciences, Hyderbad	1990
	INSTITUTIONS DEEMED TO BE UNIVERSITIES	
1.	Indian Institute of Sciences, Bangalore	1958
2.	Indian Agricultural Research Institute	1958
3.	Gurukul Kangri Vishvavidyalaya, Hardwar	1962
4.	Gujarat Vidyapith, Ahmedabad	1963
5.	Tata Institute of Social Sciences, Bombay	1964
6.	Birla Institute of Technology and Science, Pillani	1964
7.	Indian School of Mines, Dhanbad	1967
8.	Central Institute of Englissh and Foreign Languages, Hyderabad	1973
9.	Gandhigram Rural Institute, Gandhigram	1976
10.	School of Planning and Architecture, New Delhi	1979
11.	Dayalbagh Educational Institute, Agra	1981
12.	Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam	1981
13.	Banasthali Vidyapith, Rajasthan	1983
14.	Indian Veterinary Research Institute, Izatnagar	1983
15.	International Institute for Population Sciences, Bombay	1985
16.	Thapar Institute of Engineering & Technology, Patiala	1985

17.	Birla Institute of Technology, Mesra	1986
18.	Rajasthan Vidyapith	1987
19.	Rashtriya Sanskrit Vidyapith, Tirupati.	1987
20.	Sri Lal Bahadur Shastri Sanskrit Vidyapith, New Delhi	1987
21.	Tilak Maharashtra Vidyapith, Pune.	1987
22.	Sri Avinash Lingam Institute for Home Sciences & Higher education for Women	1988
23.	Central Institute of Higher Tibetan Studies	1989
24.	National Dairy Research Institute	1989
25.	Central Institute of Fisheries Education	1989
26.	Jamia Hamdarad, New Delhi	1989
27.	National Museum Institute of the History of Art Conservation & Museology, Delhi.	1989
28.	Deccan College Post-Graduate and Research Institute, Pune.	1990

APPENDIX – II

Growth of Student Enrolment (1970-71 to 1989-90)

Year	Total enrolment	Increase over the preceding year	Percentage increase
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
1977-78	25,64,972	1,33,409	5.5
1978-79	26,18,228	53,256	2.1
1979-80	26,48,579	30,351	1.2
1980-81	27,52,437	1,03,858	3.9
1981-82	29,52,066	1,99,629	7.3
1982-83	31,33,093	1,81,027	6.1
1983-84	33,07,649	1,74,556	5.6
1984-85	34,04,096	96,447	2.9
1985-86	36,05,029	2,00,933	5.9
1986-87	37,54,409	1,49,380	4.1
1987-88	39,10,828	1,56,419	4.2
1988-89	40,74,676	1,63,848	4.2
1989-90	42,46,878	1,72,202	4.1

Note: Data for the years 1986-87 to 1988-89 are revised estimates and that for the year 1989-90 are first estimates.

APPENDIX–III

Growth of Enrolment (Excluding PWC/Inter/Pre–Prof.) during the period from 1985–86 to 1989–90

S.No.	State/Union Territory	1985–1986		
		Enrolment	Increase over the preceding year	Percentage increase
1.	Andhra Pradesh	2,52,374	-5,277	-2.0
2.	Assam	69,854	-4,107	-5.6
3.	Bihar	2,60,001	23,045	9.7
4.	Gujarat	2,18,209	17,912	8.9
5.	Haryana	75,905	6,283	9.0
6.	Himachal Pradesh	19,602	1,722	9.6
7.	Jammu & Kashmir	25,212	208	0.8
8.	Karnataka	2,45,139	6,002	2.5
9.	Kerala	1,41,082	7,780	5.8
10.	Madhya Pradesh	2,64,170	12,788	5.1
11.	Maharashtra	4,85,714	50,407	11.6
12.	Manipur	9,884	593	6.4
13.	Meghalaya/Nagaland	10,296	1,830	21.6
14.	Orissa	80,711	10,606	15.1
15.	Punjab	1,34,479	8,131	6.4
16.	Rajasthan	1,72,466	2,879	1.7
17.	Tamilnadu	2,49,647	7,038	2.9
18.	Uttar Pradesh	4,93,492	18,423	3.9
19.	West Bengal/ Tripura/Sikkim	2,97,705	31,672	11.9
20.	Delhi	99,087	2,998	3.1
	Total	36,05,029	2,00,933	5.9

APPENDIX–III (Contd.)

S.No.	State/Union Territory	1986–1987		
		Enrolment	Increase over the preceding year	Percentage increase
1.	Andhra Pradesh	2,62,141	9,767	3.7
2.	Assam	72,788	2,934	4.2
3.	Bihar	2,69,361	9,360	3.6
4.	Gujarat	2,26,457	8,248	3.8
5.	Haryana	79,214	3,309	4.4
6.	Himachal Pradesh	20,739	1,137	5.8
7.	Jammu & Kashmir	26,659	1,447	5.7
8.	Karnataka	2,53,645	8,506	3.5
9.	Kerala	1,46,119	5,037	3.6
10.	Madhya Pradesh	2,73,099	8,929	3.4
11.	Maharashtra	5,06,454	20,740	4.3
12.	Manipur	10,523	639	6.5
13.	Meghalaya/Nagaland	10,760	464	4.5
14.	Orissa	83,084	2,373	2.9
15.	Punjab	1,39,562	5,083	3.8
16.	Rajasthan	1,78,088	5,622	3.3
17.	Tamilnadu	2,73,463	23,816	9.5
18.	Uttar Pradesh	5,11,603	18,111	3.7
19.	West Bengal/ Tripura/Sikkim	3,07,946	10,241	3.4
20.	Delhi	1,02,704	3,617	3.7
	Total	37,54,409	1,49,380	4.1

APPENDIX–III (Contd.)

S.No.	State/Union Territory	1987–1988		
		Enrolment	Increase over the preceding year	Percentage increase
1.	Andhra Pradesh	2,72,286	10,145	3.8
2.	Assam	75,845	3,057	4.0
3.	Bihar	2,79,058	9,697	3.6
4.	Gujarat	2,35,017	8,560	3.6
5.	Haryana	82,668	3,454	4.4
6.	Himachal Pradesh	21,942	1,203	5.8
7.	Jammu & Kashmir	28,189	1,530	5.7
	Karnataka	2,62,447	8,802	3.5
9.	Kerala	1,51,335	5,216	3.6
10.	Madhya Pradesh	2,82,330	9,231	3.3
11.	Maharashtra	5,28,080	21,626	4.3
12.	Manipur	11,204	681	6.5
13.	Meghalaya/Nagaland	11,246	486	4.3
14.	Orissa	85,527	2,443	2.9
15.	Punjab	1,44,838	5,276	3.6
16.	Rajasthan	1,83,894	5,806	3.3
17.	Tamilnadu	2,99,552	26,089	8.7
18.	Uttar Pradesh	5,30,379	18,776	3.7
19.	West Bengal/ Tripura/Sikkim	3,18,539	10,593	3.4
20.	Delhi	1,06,452	3,748	3.7
	Total	39,10,828	1,56,419	4.2

APPENDIX–III (Contd.)

S.No.	State/Union Territory	1988–1989		
		Enrolment	Increase over the preceding year	Percentage increase
1.	Andhra Pradesh	2,82,821	10535	3.9
2.	Assam	79,030	3,185	4.2
3.	Bihar	2,89,104	10,046	3.6
4.	Gujarat	2,43,901	8,884	3.9
5.	Haryana	86,273	3,605	4.5
6.	Himachal Pradesh	23,214	1,272	5.8
7.	Jammu & Kashmir	29,807	1,618	5.7
8.	Karnataka	2,71,554	9,107	3.5
9.	Kerala	1,56,738	5,403	3.6
10.	Madhya Pradesh	2,91,872	9,542	3.4
11.	Maharashtra	5,50,629	22,549	4.3
12.	Manipur	11,929	725	6.5
13.	Meghalaya/Nagaland	11,753	507	4.5
14.	Orissa	88,041	2,514	2.9
15.	Punjab	1,50.313	5,475	3.8
16.	Rajasthan	1,89,889	5,995	3.3
17.	Tamilnadu	3,28,129	28,577	9.5
18.	Uttar Pradesh	5,49,844	19,465	3.8
19.	West Bengal/ Tripura/Sikkim	3,29,497	10,958	3.4
20.	Delhi	1,10,338	3,886	3.7
	Total	40,74,676	1,63,848	4.,2

APPENDIX–III (Contd.)

S.No.	State/Union Territory	1989–1990			
		Enrolment	Increase over the preceding year	Percentage increase	Average annual Compound rate of growth during the period from 1985–86 to 1989–90
1.	Andhra Pradesh	2,93,768	10,947	3.9	3.9
2.	Assam	82,381	3,351	4.2	4.2
3.	Bihar	2,99,743	10,639	3.7	3.6
4.	Gujarat	2,53,316	9,415	3.9	3.8
5.	Haryana	90,034	3,761	4.4	4.4
6.	Himachal Pradesh	24,579	1,365	5.9	5.8
7.	Jammu & Kashmir	31,518	1,711	5.7	5.7
8.	Karnataka	2,80,977	9,423	3.5	3.5
9.	Kerala	1,62,347	5,609	3.5	3.6
10.	Madhya Pradesh	3,01,738	9,866	3.4	3.4
11.	Maharashtra	5,74,140	23,511	4.3	4.3
12.	Manipur	12,701	772	6.1	6.5
13.	Meghalaya/Nagaland	12,282	529	4.5	4.5
14.	Orissa	90,629	2,588	2.9	2.9
15.	Punjab	1,55,994	5,681	3.6	3.8
16.	Rajasthan	1,96,079	6,190	3.3	3.3
17.	Tamilnadu	3,59,432	31,303	9.5	9.5
18.	Uttar Pradesh	5,70,023	20,179	3.7	3.7
19.	West Bengal/ Tripura/Sikkim	3,40,832	11,335	3.4	3.4
20.	Delhi	1,14,848	4,887	8.7	8.7
	Total	42,46,878	1,72,202	4.1	4.2

Note: Data for the years 1986–87 to 1988–1989 are based on revised estimates and that for 1989–90 are based on first estimate.

APPENDIX–IV

Student Enrolment in the Universities: Stage–wise (1985–86 to 1989–90)

Stage	1985–86		1986–87		1987–88		1988–89		1989–90	
	Enrolment	% of total	Enrolment	% of total	Enrolment	% of total	Enrolment	% of total	Enrolment	% of total
Graduate	31,78,897	88.2	33,07,634	88.1	34,45,439	88.1	35,89,790	88.1	37,41,500	88.1
Post–graduate	3,37,679	9.4	3,56,669	9.5	3,71,529	9.5	3,87,094	9.5	4,03,453	9.5
Research	40,346	1.1	41,299	1.1	43,019	1.1	44,821	1.1	46,716	1.1
Diploma/ certificate	48,107	1.3	48,807	1.3	50,841	1.3	52,971	1.3	55,209	1.3
Total	36,05,029	100.0	37,54,409	100.0	39,10,828	100.0	40,74,676	100.0	42,46,878	100.0

Note: Data for the years 1986–87 to 1988–1989 are based on revised estimates and that for 1989–90 are based on first estimate.

APPENDIX–V

Stage-wise Enrolment: Universities and Affiliated Colleges 1989-90

Stage	University Deptts./University-Colleges	Affiliated Colleges	Total	% in affiliated colleges			
				1989–90	1988–89	1987–88	1986–87
Graduate	4,58,463	32,83,037	37,41,500	87.8	87.8	87.7	87.7
Postgraduate	1,75,562	2,27,891	4,03,453	56.5	56.6	56.5	56.5
Research	39,709	7,007	46,716	15.0	15.0	15.0	14.9
Diploma/certificate	31,248	23,961	55,209	43.4	43.4	43.6	43.2
Total	7,04,982	35,41,896	42,46,878	83.4	83.4	83.3	83.3

Note: Data for the years 1986–87 to 1988–1989 are based on revised estimates and that for 1989–90 are based on first estimate.

APPENDIX–VI

Student Enrolment in the Universities : Faculty–wise 1985–86 to 1989–90

Stage	1985–86		1986–87		1987–88		1988–89		1989–90	
	Enrolment	% of total	Enrolment	% of total	Enrolment	% of total	Enrolment	% of total	Enrolment	% of total
Arts (including oriental learning).	14,66,295	40.7	15,18,282	40.4	15,81,542	40.4	16,45,414	40.4	17,17,437	40.4
Science	7,00,991	19.4	7,35,864	19.6	7,68,022	19.6	8,00,266	19.6	8,34,087	19.6
Commerce	7,82,068	21.7	8,22,216	21.9	8,57,971	21.9	8,93,984	21.9	9,31,765	21.9
Education	82,636	2.3	86,352	2.3	89,949	2.3	93,718	2.3	95,979	2.3
Enginering/ Technology	1,76,540	4.9	1,83,966	4.9	1,92,148	4.9	2,01,289	4.9	2,09,371	4.9
Medicine	1,23,0.57	3.4	1,27,650	3.4	1,31,013	3.4	1,37,257	3.4	1,42,270	3.4
Agriculture	41,901	1.2	42,800	1.1	43,410	1.1	44,007	1.1	45,229	1.1
Veterinary Science	9,486	0.3	9,761	0.3	10,168	0.3	10,594	0.3	10,957	0.3
Law	1,96,106	5.4	1,98,984	5.3	2,05,318	5.3	2,13,920	5.3	2,22,961	5.3
Others	25,949	0.7	28,534	0.8	31,287	0.8	34,227	0.8	36,822	0.8
Total	36,05,029	100.0	37,54,409	100.0	39,10,828	100.0	40,74,676	100.0	42,46,878	100.0

Note: Data for the years 1986–87 to 1988–89 are based on revised estimates and that for 1989–90 are based on first estimate.

APPENDIX–VII

Distribution of Colleges according to Course of Study: 1985–86 to 1989–90

Course of study	Number of colleges*				
	1985–86	1986–87	1987–88	1988–89	1989–90
Arts, Science & Commerce	4,132	4,354	4,488	4,547	4,674
Technical/Professional	655	695	723	742	766
Break–up					
(a) Engineering/Technology	242	253	260	263	268
(b) Medicine/Pharmacy/ Ayurveda/Nursing/ Dentistry/Homoeopathy	320	342	364	376	392
(c) Agriculture	63	67	66	69	71
(d) Veterinary Science	30	33	33	34	35
Law	199	202	210	217	223
Education Physical Education	441	479	488	495	500
Oriental Learning	321	720	714	714	716
Music/Fine Arts	68	62	66	69	70
Total	5,816	6,512	6,689	6,784	6,949

* Excludes Junior colleges and colleges having only diploma/certificate courses.

Note: Data for the years 1988–89 and 1989–90 are provisional.

APPENDIX – VIII

Increase in Number of Colleges during the period from 1985-86 to 1989-90: State-wise

State/ Union territory	1985-86		1986-87		1987-88		1988-89		1989-90		Increase during the period from 1985-86 to 1989-90
	No. of colleges (UC + AC)	Increase over the preceding year	No. of colleges (UC + AC)	Increase over the preceding year	No. of colleges (UC + AC)	Increase over the preceding year	No. of colleges (UC + AC)	Increase over the preceding year	No. of colleges (UC + AC)	Increase over the preceding year	
1. Andhra Pradesh	492	22	495	3	534	39	545	11	565	20	73
2. Arunachal Pradesh	-	-	3	3	3	-	3	-	3	-	3
3. Assam	171	9	180	9	181	1	185	4	190	5	19
4. Bihar	568	64	617	49	644	27	644	-	669	25	101
5. Goa	-	-	19	19	19	-	24	5	24	-	24
6. Gujarat	302	7	311	9	317	6	321	4	326	5	24
7. Haryana	143	-	142	–1	147	5	149	2	151	2	8
8. Himachal Pradesh	33	6	34	1	40	6	44	4	48	4	15
9. Jammu & Kashmir	39	-	41	2	41	-	41	-	41	-	2
10. Karnataka	556	21	603	47	648	45	667	19	695	28	139
11. Kerala	188	4	200	12	203	3	202	–1	206	4	18
12. Madhya Pradesh	472	27	502	30	515	13	525	10	545	20	73
13. Maharashtra	834	33	874	40	863	–11	881	18	901	20	67
14. Manipur	23	-	23	-	24	1	25	1	25	-	2
15. Meghalya/ Nagaland	34	-	37	3	38	1	38	-	38	-	4
16. Orissa	225	10	248	23	254	6	254	-	261	7	36
17. Punjab	226	–2	231	5	227	–4	232	5	232	-	6
18. Rajasthan	221	–1	237	16	248	11	248	-	255	7	34
19. Tamilnadu	311	14	311	-	314	3	326	12	333	7	22
20. Tripura	-	-	-	-	12	12	12	-	12	-	12
21. Uttar Pradesh	562	1	964	402	963	–1	964	1	964	-	402
22. West Bengal/ Sikkim	357	9	372	15	381	9	382	–1	390	8	33
23. Delhi	57	-	57	-	59	2	58	–1	58	-	1
24. Pondicherry	2	2	11	9	14	3	14	-	17	3	15
Total	5,816	226	6,512	696	6,689	177	6,784	95	6,949	165	1,133

UC = University college AC = Affiliated college

Note : Data for the years 1988-89 and 1989-90 are provisional.

APPENDIX – IX

Increase in Number of Affiliated Colleges (Arts, Science and Commerce only) during the period from 1985–86 to 1989–90 (State-wise)

State/ Union territory	1985-86		1986-87		1987-88		1988-89		1989-90		Increase during the period from 1985-86 to 1989-90
	No. of colleges	Increase over the preceding year	No. of colleges	Increase over the preceding year	No. of colleges	Increase over the preceding year	No. of colleges	Increase over the preceding year	No. of colleges	Increse over the preceding year	
1. Andhra Pradesh	319	-	323	4	343	20	350	7	358	8	39
2. Arunachal Pradesh	-	-	3	3	3	-	3	-	3	-	3
3. Assam	141	9	150	9	150	-	151	1	155	4	14
4. Bihar	400	41	448	48	467	19	467	-	487	20	87
5. Goa	-	-	10	10	10	-	14	4	14	-	14
6. Gujarat	200	4	207	7	212	5	210	–2	213	3	13
7. Haryana	107	-	107	-	111	4	112	1	113	1	6
8. Himachal Pradesh	28	6	29	1	33	4	33	-	35	2	7
9. Jammu & Kashmir	23	-	25	2	25	-	25	-	25	-	2
10. Karnataka	354	12	373	19	404	31	411	7	426	15	72
11. Kerala	130	1	141	11	142	1	142	-	145	3	15
12. Madhya Pradesh	360	29	385	25	399	14	408	9	423	15	63
13. Maharashtra	548	16	563	15	565	2	582	17	595	13	47
14. Manipur	19	-	19	-	20	1	21	1	21	-	2
15. Meghalya/ Nagaland	25	-	28	3	29	1	29	-	29	-	4
16. Orissa	154	9	175	21	179	4	179	-	183	4	29
17. Punjab	175	–1	180	5	179	–1	184	5	184	-	9
18. Rajasthan	128	–1	136	8	143	7	143	-	146	3	18
19. Tamilnadu	208	3	204	–4	206	2	212	6	215	3	7
20. Tripura	-	-	-	-	9	9	9	-	9	-	9
21. Uttar Pradesh	391	1	391	-	391	-	392	1	392	-	1
22. West Bengal/ Sikkim	281	8	295	14	306	11	306	-	312	6	31
23. Delhi	38	-	38	-	39	1	38	–1	38	-	-
24. Pondicherry	2	2	6	4	7	1	7	-	9	2	7
Total	4,031	139	4,236	205	4,372	136	4,428	56	4,530	102	499

Includes constituent colleges.

Note: Data for the years 1988–89 to 1989–90 are provisional

APPENDIX–X

Number and Distribution of Teaching Staff in the University Departments/University Colleges according to designation (1985–86 to 1989–90)

Year	Professors	Readers	Lecturers*	Tutors/ Demonstrators	Total
1985–86	6,501	13,279	27,789	1,992	49,561
	(13.1)	(26.8)	(56.1)	(4.0)	(100.0)
1986–87	6,445	13,248	29,360	2,097	51,150
	(12.6)	(25.9)	(57.4)	(4.1)	(100.00
1987–88	6,858	13,982	30,198	2,127	53,165
	(12.9)	(26.3)	(56.8)	(4.0)	(100.0)
1988–89	7,037	14,347	31,390	2,199	54,973
	(12.8)	(26.1)	(57.1)	(4.0)	(100.0)
1989–90	7,262	14,864	32,337	2,269	56,732
	(12.8)	(26.2)	(57.0)	(4.0)	(100.0)

Note : Figures in parentheses indicate the percentages of the cadres to the total staff in the corresponding year.
* Including Assistant Professors and Assistant Lecturers.

APPENDIX–XI

Number and Distribution of Teaching Staff in the Affiliated Colleges according to designation (1985–86 to 1989–90)

Year	Senior teachers*	Lecturers**	Tutors/Demonstrators	Total
1985–86	26,413	1,45,728	7,934	1,80,075
	(14.7)	(80.9)	(4.4)	(100.0)
1986–87	25,104	1,49,888	8,246	1,83,238
	(13.7)	(81.8)	(4.5)	(100.0)
1987–88	26,055	1,54,257	8,496	1,88,808
	(13.8)	(81.7)	(4.5)	(100.0)
1988–89	27,367	1,58,187	8,541	1,94,095
	(14.1)	(81.5)	(4.4)	(100.0)
1989–90	27,708	1,62,856	8,771	1,99,335
	(13.9)	(81.7)	(4.4)	(100.0)

Note : Figures in parentheses indicate the percentages of the cadres to the total staff in the corresponding year.
* Including Principals/Senior lecturers/Readers
** Including assistant professors and assistant lecturers

APPENDIX–XII

Number of Doctorate Degrees awarded : Faculty–wise (1984–85 to 1988–89)

Faculty	1984–85	1985–86	1986–87	1987–88	1988–89
Arts	2,754	2,886	2,858	2,830	2,802
Science	2,922	2,838	2,814	2,790	2,766
Commerce	185	263	249	235	221
Education	239	219	215	211	207
Engineering/Technology	210	194	224	254	284
Medicine	70	61	68	75	82
Agriculture	576	627	583	539	495
Veterinary Science	102	155	101	47	40
Law	25	34	36	38	40
Others	56	69	71	73	75
Total	7,139	7,346	7,219	7,092	7,012

APPENDIX–XIII

Universities/Insititutions Conducting Superconductivity Programme as on 31.3.1990

1.	Aligarh
2.	Alllahabad
3.	Andhra
4.	Anna
5.	A.P.S. University
6.	Banaras
7.	Bangalore
8.	Calcutta
9.	Cochin
10.	Goa
11.	Hyderabad
12.	Jadavpur
13.	Jiwaji
14.	Kalyani
15.	Madras
16.	Madurai
17.	Baroda
18.	Marathwada
19.	North Bengal
20.	Poona
21.	Punjabi
22.	Rajasthan
23.	Saurashtra
24.	Shivaji
25.	Sri. Venkateswara
26.	Utkal
27.	Indian Institute of Science
28.	Mangalore
29.	Bhopal
30	Kumaon
31.	Jamia Millia Islamia
32.	Delhi
33.	Jammu
34.	Bhagalpur
35.	G.B. Pant

APPENDIX–XIV

Details of Departments Supported under COSIST

S. No.	*Name of the Department/ University*	*Year of Support*	*PG Education and Research* (Thrust Area)	*Major Equipment provided*
1.	2	3	4	5
			PHYSICS	
1.	Department of Radio Physics & Electronics, Calcutta University.	1983-84	Solid state and Electronic devices, Micro-electronics techniques, Fabrication of Impantdiodes including establishment of a mm wave laboratory and photovoltaic devices.	Semiconductor characterisation unit for concentration, impurity profile, lifetime etc. measurement. Plasma and dry etching equipment, Environmental control equipment, Cryotemperature generator.
2.	Department of Physics, Punjab University.	1983-84	Experimental Nuclear Physics	Multiuser data analysis system with 4 ADCS, Helium leak detector, Systems for characterisation and study of electrical/optical properties of materials and devices, Opto-acoustic spectrometer.
3.	Department of Physics, University of Poona, Pune.	1983-84	PG Education only	Geir-Dunkle integrating sphere-spectrophotometer (range 0.32-2.5 μ), Magnetic susceptibility measuring set up, Photoacoustic spectrometer, 'Neuromatic' 2-Channel neuromyograph.
4.	Department of Physics, Indian Institute of Science, Bangalore.	1983-84	Crystal growth and material preparation	Programmed temperature controlled furnace, Accessories for crystal pulling unit (RF Heater, pulling mechanism, environment control, temperature control), Liquid helium liquifier, Cryogenic measuring facilities.
5.	Department of Physics, Banaras Hindu University.	1984-85	Physics of materials with particular refrence to synthesis, crystal growth and characterisation of crystals, lasers and molecular photo-physics.	Electron microscope TEM with STEM, EBIC, EDAX & ELS attachment; DTA/TGA/DSC facility, Mask processor, Mask aligner vacum chucks, scribers and ultrasonic bonders, Universal Czochralski crystal puller, Nd/YAG Laser pumper, Dye laser with facilities for pressure tunning and polarization control.
6.	School of Physics, University of Madras.	1984-85	Nuclear and theoretical physics.	X-ray diffractometer 1730/10 alongwith microprocessor, High purity germanium detectors, Multichannel analyser with two point digital spectrum stabilizer, Mossbaver spectrometer with large velocity.
7.	Department of Physics, Roorkee University.	1985-86	Solid state physics (theoretical and experimental), Physics of Molecular Collision.	Computer peripheral devices, Simultaneous thermal analysis system for PG/DTA.
8.	School of Physics Andhra University	1987-88	Physics of materials and space physics	Fabry-Perot Interferometer, VHF Doppler sounder, Transportable digital ionosonde-IPS-42.

APPENDIX–XIV (Conted.)

S. No.	Name of the Department/ University	Year of Support	PG Education and Research (Thrust Area)	Major Equipment provided
1	2	3	4	5
9.	Department of Physics Aligarh Muslim University	1987-88	Theoretical Physics interacting with experimental Nuclear Physics and high energy. Physics. Laser Spectroscopy and study of materials.	FTIR, EPR Unit, Compton suppressed Gamma ray spectrometer.
10.	Department of Physics University of Delhi	1987-88	Theoretical Physics	Experiments Rutherford Scattering, X-ray Flourescence, Electro-optics, Characterisation of surface acoustic wave devices, moving-film X-ray diffractometer.
11.	Department of Physics University of Allahabad	1987-88	Solid State & Molecular Physics.	Microvax II* add ons, Multichannel analyser with accessories, Microwave Net work analyser, Thermal analysis system, RF impendence analyser.
12.	School of Physics University of Hyderabad	1987-88	Theoretical Physics, Physics of Materials with particular reference to disordered materials High TC Super conductors.	NMR magnetometer, Microvax II, Liquid nitrogen plant, Liquid helium plant.
13.	Department of Physics, Jadavpur University	1987-88	Physics of the condensed matter, High energy and theoretical physics.	Semiautomatic scanning and measurement system for Nuclear track, Bubble chamber scanner tape drive.
14.	Department of Physics, Rajsthan University, Jaipur	1988-89	High JC and High Energy particle plugs.	XPS, AES and EDX, TG, DTG, DTA, DSC, with recorder.
15.	Department of Physics, Osmania University, Hyderabad	1988-89	Condensed matter physics	Liquid Nitrogen plant PC and mini Computer, Laser facilities, Logic analyser.
			CHEMISTRY	
16.	Department of Chemistry, Punjab University	1983-84	Organic and Physical Chemisty	G.L.C, Fischer spinning band columns, Inverted chromatography, Chromatotron molecular stills, Photocorrelation spectrometer, HPLC.
17.	Solid State and Structural Chemistry, Indian Instt. of Science, Bangalore.	1983-84	Solid state and Structural Chemistry	IR spectrometer, Raman spectrometer, Closed circuit helium cryostat
18.	Department of Chemistry, University of Delhi	1984-85	Synthesis & Structural Organic Chemistry with particular reference to biologically active compounds, peptides etc., Physical Chemistry with particular reference to studies of miceles and instrumentation.	Computer system, HPLC, Polarograph, Programmable thermostat.
19.	Department of Chemistry, University of Hyderabad	1984-85	Orgaic Synthesis	—
20.	Department of Chemistry, Jodhpur University.	1984-85	Phytochemistry of arid zone plants, soil Chemistry and Physical Chemistry.	Stop flow spectrometer, C,H,N analyser, HPLC, Mini computer.

APPENDIX–XIV (Contd.)

S. No.	Name of the Department/ University	Year of Support	PG Education and Research (Thrust Area)	Major Equipment provided
1	2	3	4	5
21.	School of Chemistry, University of Madras.	1984-85	Inorganic Chemistry	Nd-YAG laser, ESR spectrometer with photo-chem accessories, Stop flow acc., Corrected spectra accessories for Spectrofluorimeter.
22.	Department of Chemistry, University of Poona.	1984-85	Radiation and Nuclear Chemistry	Liquid scientillation counter, Multi-channel analyser, Ga-Li and Si-Li detector, Gamma source.
23.	Department of Chemistry, Rajasthan University.	1984-85	Organometallic Chemistry and or ganofluorine Chemistry.	X ray diffraction unit.
24.	Department of Organic Chemistry, Indian Instt. of Science, Bangalore.	1984-85	Organic Chemistry.	High resolution mass spectrometer with GC
25.	Department of Chemistry, North-Eastern Hill University.	1986-87	Physical & Organic Chemistry.	Proton NMR spectrometer, Gas Chromatograph, Closed helium cryocooler attachement for ESR-Spectrometer, Electro Chemical Instrument (Cyclic Voltmeter), Liquid nitrogen cryostat.
26.	School of Chemistry, Andhra University.	1987-88	Marine Natural Product	FT-NMR with multiprobe, GLC Tracer with FID, Automatic C,H,N, analyser
27.	Department of Chemistry Jadavpur University	1987-88	Analytical Chemistry	NMR, AAS, Ion Chromatograph, Spectrofluorimeter, HPLC, Solution Calorimeter.
28.	Department of Chemistry, Guru Nanak Dev University	1987-88	Organic Chemistry	High resolution multi nuclear 90 MHz FT-NMR, Mass spectrometer, Polarographic analyser, Densitometer, vis. Spectrophotometer.
29.	Department of Chemistry Gorakhpur University	1987-88	Physical & Inorganic Chemistry	NMR 60 MHz,IR Spectrophotometer, Element Analyser, Photirradiation & Corrosion measurement System.
30.	Department of Chemistry, Banaras Hindu University	1987-88	Structural Chemistry	Mass Spectrometer, Peripherial mini Computer with suitable software, I.R. Electrochemistry ststem.
31.	Department of Physical and Inorganic Chemistry University of Bangalore.	1988-89	Physical and Inorganic Chemistry.	Multi Nuclear NMR, CHN analyzer.
			LIFE SCIENCES & BIO-SCIENCES	
32.	Department of Bio-Chemistry, Instt. of Med. Scs. Banaras Hindu University.	1983-84	Molecular Biology & Genetic Engineering	Drive unit for ultracentrifuge, HPLC, Circular dichromic spectrophotmeter, GLC Large fermentor.
33.	Department of Botany, Calcutta University.	1983-84	Cell Biology, Chromosome Research	Liquid scintillation counter, HPLC, Gilson analyser, Lyophilser, CO_2 incubator and specialised electrophoresis unit, Gas chromatograph equipped with flameionisation and nitrogen detector unit.

APPENDIX–XIV (Contd.)

S. No.	Name of the Department/ University	Year of Support	PG Education and Research (Thrust Area)	Major Equipment provided
1	2	3	4	5
34.	School of Life Sciences, Jawaharlal Nehru University.	1983-84	Radiation Biology, Tissue culture and Molecular Biology including Genetic Engineering.	GLC, Refrigerated centrifuge, ESR spectrophotometer, HPLC.
35.	School of Bio-Sciences, Madurai Kamraj University.	1983-84	Molecular Genetics, Immunology, Plant pathology and plant physi ology.	Ultracentrifuge, Liquid Scintillation counter.
36.	Department of Micro biology, M.S. University of Baroda.	1983-84	Industrial Microbiology and Microbial Genetics.	HPLC, Electron microscope, Lyophilizer, Scintillation counter.
37.	PG School of Biological Studies, Ahmednagar College (Poona Univ.)	1983-84	Evolutionary Genetics.	NMR spectrometer, Refrigerated high speed centrifuge with rotors. UV Spectrophotometer with special attachement for study of DNA melting profiles & DNA reassociation. Radioimmunoassay & Fraction plot accessories for the liquid scintillation counter.
38.	Department of Biochemistry Osmania University.	1984-85	Chemistry & Biochemistry of amonio peptides and proteins, metal toxicity and fungal metabolism.	UV-VIS recording spectrophotometer, Processor controlled liquid scintillation system, AAS Orion ion analyser & electrodes for F, NH^2 NO_3 CA etc., HPLC 3- Temary gradient model LC-4A.
39.	Entomology Research Institute, Loyola College, Madras University, Madras.	1984-85	Host specificity in relation to insect-plant interaction.	HPLC, Refrigerated centrifuge, UV spectrometer, Mini bomb calorimeter.
40.	Department of Micro biology & Cell Biology Indian Instt. of Science, Bangalore.	1984-85	Gene structure, Organisation and functions in micro-organism and Eukaryotes, microbial metabolism & applied Microbiology Immunolgy of pathogenic organism, Tyneruimmunology immunodiagonistic technology.	Electron microscope model EM-109 R with ultra microtome, Fast protien liquid chromomatography system, fermenter, UV-Spectrophotometer, UV transilluminator with camera, high voltage electrophoresis system.
41.	Department of Biochemistry, Indian Instt. of Science, Bangalore.	1984-85	Lipids and Biomembranes, molecular Endocrinology, Neurochemistry and Bio-energetics.	High speed centrifuge, Liquid scintillation counter, Ultra centrifuge with rotors, spectro fluorimeter, HPLC.
42.	Department of Zoology, Calcutta University.	1985-86	Genetics and Vertebrate Endocrinology.	Image analyser, HPLC.
43.	Department of Zoology, Delhi University.	1985-86	Cell and developmental Biology, reproductive Endocrinology, Physiology and Taxicology.	Flow cytometer, HPLC, Tissue culture, Hybridoma facility, GLC, Liquid scientillation counter.
44.	Department of Zoology, Banararas Hindu University, Varanasi.	1985-86	Reproductive Physiology & Endocrinolgoy, Biochemistry and Cytogenetics.	Liquid scintillation counter, Gamma counter, Ultra centrifuge, Plasma-2000 spectrometer, UV spectrophotometer, X-ray machine, High speed refrigerated centrifuge.
45.	Department of Botany, Delhi University.	1985-86	Biology of reproduction plant physiology, Molecular Biology	Growth chambers, Liquid scientillation counter, Densitometer, Polarizing microscope.

APPENDIX–XIV (Contd.)

S. No.	*Name of the Department/ University*	*Year of Support*	*PG Education and Research* (Thrust Area)	*Major Equipment provided*
1	2	3	4	5
46.	Department of Botany, Banaras Hindu University.	1985-86	Algology and Ecology	Amino-acid analyser, GLC, C,N, H-analyser, High-voltage Electrophoresis.
47.	School of Marine Sciences, Cochin University.	1985-86	Costal and Esturine, Oceanography and Coastal water and mud banks.	Electron microscope, Liquid scintillation counter, scintillation balance, Differential thermal analyser, X-ray diffraction analyser C,N,H analyser, Proton precision magnetometer.
48.	Molecular Bio-physics Unit, Indian Instt. of Science, Bangalore.	1985-86	Bio-Molecular structure and interaction.	Rotating anode, X-ray generator, Micro processor controlled light resolution CD spectrometer, Protein sequenator, Liquid scintillation counter.
49.	Department of Bio-Chemistry, M.S. University	1986-87	Nutrition and Nutritional Bio-Chemistry. Neurochemistry.	Spectrophotometer, Refrigerated & Ultracentrifuges, Liquid scintillation counter.
50.	Department of Bio-Chemistry, Lucknow University.	1987-88	Plant Bio-chemistry and Enzymology	Spectrophotometer,, Super speed refrigerated centrifuge, Ultroscan laser densitometer, Total chromatographic system..
51.	Department of Bio-Chemistry, Calcutta University.	1987-88	Nutrition Bio-chemistry and Microbiology, Physiology	Ultracentrifuge, Refrigerated centrifuge, HPLC, Liquid scintillation counter, Gamma counter with minigama & RIA.
52.	Depattment of Botany Patna University	1987-88	Mycology, Pathology & Algae.	TEM, High speed centrifuge, UV/VIS spectrophotometer-cum-scanner, DNA sequencing unit, Fermentation vessel with controls.
53.	Department of Botany Bhagalpur University	1987-88	Mycotoxicology, & Environmental Biology.	Lyophilyzer, Midget electrophoresis with laser densitometer, HPLC, Flow injection analysis system.
54.	C.A.S. in Botany University of Madras	1987-88	Mycology, Plant Pathology and Algae.	UV-VIS spectroflurimeter, Ultratome, Liquid scientillation system, Dissolved oxygen monitor, Ultrasonic disintegrator.
55.	Department of Marine Biology, Annamalai University	1987-88	Marine Microbiology & Toxicology.	HPLC, Microbial identification system, Plasma spectrophotometer, High speed refrigerated centrifuge.
56.	Department of Zoology Poona University	1987-88	Only postgraduate teaching	Electron microscope with other accessories and photographic unit.
57.	Department of Zoology Gujarat University	1987-88	Cell & Radiation Biology	Chromosome work station for automatic funding, counting, karyotyping, Binocular microscope, Interactive image analyser, MCP control unit for scanning.
			EARTH-SCIENCES	
58.	Department of Geology, Presidency College, Calcutta.	1984-85	Study of Crustal evolution and metalogenesis in some precambrian sheild.	ICPL, Thermal ionisation mass spectrometer.

APPENDIX–XIV (Contd.)

S. No.	*Name of the Department/ University*	*Year of Support*	*PG Education and Research (Thrust Area)*	*Major Equipment provided*
1	2	3	4	5
59.	Department of Geology, Gauhati University.	1984-85	Petrology (Sedimentary, metamorphic, Igenous and coal)	AAS with tubes, Flame photometer, Image analyser with photomicroscope projection attachment.
60.	Department of Geology, Kumaon University.	1984-85	Geophydrological, geomorphological and environmental investigation of the Gaula river in the outer lesser Himalaya, Natural resources and environmental degradation, Assessment through remote sensing of the outer range of lesser Himalaya	DTA/DTG, Additive Colour viewer, Transfexscope (APT-1 type)
61.	Department of Geology, MS University of Baroda.	1984-85	Quaternary Geology	AAS, EDX qualitative and quantitative analyser (attachement to the SEM), LKB liquid scintillation counters (for C_{14} & H_3), Digital type resistivity meter, Portable drilling unit for sample collection.
62.	Department of Earth Scs. University of Roorkee.	1984-85	Engg. Geophysics, Engg. Geohydrology, Engg. Geology.	Mobile laboratory, ICPL, Spectral data analyser.
63.	Department of Geophysics, Osmania University.	1985-86	Exploration Geophysics.	Pulse EM system, Multi sensor Well logging unit (Truck mounted with sensor).
64.	Department of Geology Jadavpur University	1984-85	Economics Geology, Petrology, Minerology and Geo-Chemistry.	ICP unit, DTA/TGA.
65.	Department of Geology Punjab University	1986-87	Exploration Geology and Geo-Chemistry, Himalayan Geology	Stereoscopic of inocular microscopes, ICPS, Mass spectrometer.
66.	Department of Geology, University of Mysore.	1987-88	Paleontology & Geochemistry of Precambrian rocks.	Microscopes, Electron probe microanalyser with attachment, Chiller, UPS, Logitech. (a)
67.	Depatment of Geology, Banaras Hindu University	1987-88	Micro-paleontology & Stratigraphy	SEM* with accessories
68.	Department of Applied Geology, Indian School of Mines, Dhanabad.	1987-88	Structural Geology & Mineral Exploration	XRD with Texture Gonimeter, ICP sequential spectrometer, Logitech section cutting & polishing machine, Rock strength testing machine.
			MATHEMATICS	
69.	Depatment of Maths, Punjab University.	1984-85	Number theory, Algebra, analysis (Pure Maths, deptt), Magneto hydrodynamics (Applied Maths Deptt.)	—
70.	Department of Mathematics, Ramanujan Instt., Madras University	1985-86	Analysis, Algebra, Geometry, Topology.	—
71.	Department of Mathematics. University of Delhi	1987-88	—	—
72.	Department of Statistics Poona University	1987-88	—	—

APPENDIX–XIV (Contd.)

S. No.	Name of the Department/ University	Year of Support	PG Education and Research (Thrust Area)	Major Equipment provided
1	2	3	4	5
73.	Department of Maths, & Statistics, University of Allahabad	1987-88	—	—
			ENGINEERING/TECHNOLOGY	
74.	Department of Civil Engg. University of Roorkee.	1985-86	Transportation Engg., Enviornmental Engg., Remote Sensing and Photogrammetric Engg.,	Temperature and humidity control system for transportation laboratory, Multipurpose mobile laboratory, Terrestrial plotter with digital read-out, Zoom transferoscope.
75.	Department of Civil Engg., Indian Instt. of Science, Bangalore.	1985-86	Hydromechanics and water resources.	Tri-axial and consolidation testing facility, differential thermal analyser and surface area measuring device, Laser Doppler anemometer, Dynometer turbine. Calcorup plotter.
76.	Department of Chemical Engineering, Anna University.	1984-85	Process Development Transport processes, Crystal Growth	GC, AAS, HPLC, Modular crystal growth unit, Rotary drier complete with drive, tilting arrangement, electrically heated and with blower.
77.	Deptt. of Chemical Tech. Division of Chemical Engg., University of Bombay.	1984-85	Multiphase reaction, Multiphase reactors, Separation processes.	Fourier transform infrared, Liquid nitrogen plant, Core facilities for membrane processes, Laser-Doppler anemometer.
78.	Department of Electrical Engineering, Indian Instt. of Science, Bangalore.	1984-85	Power Electronics & Drives, Remote sensing Singal & image processing.	Minicomputer system, Logic Analyser, Current transducers, Torque and Speed transducers, High resolution VCR with colour camera and colour monitor, On-board power supply for the VCR and camera, RGB video digitizer, Exansion of the image processing system.
79.	Department of Electrical Engineering Roorkee Univ.	1985-86	Measurement and instrumentation with an emphasis on industrial instrumentation and power systems, process instrumentation.	Multiuser micrporcessor development system, General purpose data acquisition system, computer with perriferial attachment power system stimulator with relays.
80.	Department of Electronics Engineering, Instt. of Technology, Banaras Hindu University.	1984-85	Microwave Engineering, Communication system Engineering.	Signal generator built-in doubler, Automatic scalar network analyser, Ultra high vacum system, Suction pump and turbomolecular pump having a mass analyser and ovening facility, Hydrogen plant with molecular gas purifier, Contractless resistvity measurement equipment.
81.	Deptt. of Electrical Communication Engineering, Indian Instt. of Science, Bangalore.	1984-85	Computer-software, hardware and optical communication, digital circuits.	32-bit minicomputer, Lasers and accessories Fibre-optic test-set-up, Programmable digital test and measuring instruments.
82.	Deptt. of Electronics Engineering, Roorkee University.	1985-86	Communication systems and control and guidance (with an emphasis on pictures and speech processing and digital control)	Spectrum analyser, Digital picture storage system with camera and monitor, 16-bit microprocessor development system, Digital network, analyser.

APPENDIX–XIV (Contd.)

S. No.	Name of the Department/ University	Year of Support	PG Education and Research (Thrust Area)	Major Equipment provided
1	2	3	4	5
83.	Deptt. of Mech. & Ind. Engg., Roorkee University.	1985-86	CAD/CAM, welding engineering, Refrigeration and air-conditioning.	CNC/Milling Machine, CAD/CAM facility, 2-D/3-D drafting system, solid & surface, modelling & manufacturing, 6-axis Robot, Drafting plotter.
84.	Department of Production Engineering, Jadavpur University.	1985-86	Manufacturing systems, Automation and robotics.	CNC-II, Vision system, Auto-Inspect System, Censors and Actuators.
85.	Department of Metallurgy, Indian Instt. of Science, Bangalore.	1985-86	Mineral processing, Hydro-metallurgy pyro-metallurgy, computer modelling, metallic glasses.	Impact tester, X-ray diffractometer, Lathe & shaping machine, Electro-Chemical measurement console, UV-visible Spectometer, High-temperature impendance spectrometer, Gas analysis chromatograph, Analytical scanning electron microscope.
86.	Department of Metallurgical Engineering, Banaras Hindu University.	1985-86	Rapid solidification and metallic glasses, Deformation and fracture, phase stability and phase tranformation process metallurgy.	Surface area analyser, Instron testing machine, Dilatometer, Quantitative image analyser, High-speed movie camera, Lathe and milling machine.
87.	Department of Earthquake Engineering, Roorkee University	1984-85	Structural Dynamics, Soil and Rock Dynamics Engineering, Seismology & Seinotectonics.	15T overhead cross with supporting system, High speed and high resolution data acquisition and processing system dedicated to dynamic testing set up including airconditioned housing, Shake table platform with foundations and platforms for model fabrication, Motor set up for controlled power supply for vibration testing/processing of data.
88.	Department of Mining Engg. Indian School of Mines, Dhanbad.	1986-87	Rock mechanics and ground control, Mining systems and techniques, Mine environment.	Ventilation with word leonard set for speed control, Remote monitor for slacks and fire aross, Accoustics emission equipment for rock noise and failure, Modern rock blasting facility with high speed camera, Portable coring rig.
89.	Department of Mining Engg., Instt. of Technology, Banaras Hindu University.	1986-87	Mine planning and design, Exploration and Exploitation.	I.C.D. emission spectrometer, Particle size analyser and sinslin-II, Airbom dust measruinmg unit.
90.	Department of Electrical Engg. Jadavpur University.	1986-87	Power system control, measurment and instrumentation.	Super micro-computer with multiterminal facilities, Real time data-acquisition and local area networking facility, Multichannel Programmable polygraph, image processing systems, Minicomputer.
91.	Centre for Water Resource Anna University.	1987-88	Ground Water Resources and Water Resources Management	Bore hole deep water camera with VCR and accessories, Scaler water quality analyser, AAS, SAS Terrameter Loggerunit and VES soft vare, Exploration rig, Drag balance and Signal conditioner cum balancing unit, Electronic distance meter.

APPENDIX–XIV (Contd.)

S. No.	*Name of the Department/ University*	*Year of Support*	*PG Education and Research* (Thrust Area)	*Major Equipment provided*
1	2	3	4	5
92.	Civil Engineering Department, Jadavpur University	1987-88	Structural Engineering & Water Resources Management	H & V Shake Tables, Electronic Triaxial, Wind Tunnel with measuring equipment/instruments with microcomputer.
93.	Chemical Engineering Department, Indian Institute of Science.	1987-88	Multiphase phenomenon	Computer system Video System, Haake Viscometer, HPLC, Pressure reactor, Laser holograph, Minimax polymer evaluation system.
94.	Electronics and Communication Department, Cochin University of Science and Technology	1987-88	Microprocessor application & Microwave Antennas	Image Scanner, CAD System (PCB design system), LAN System, RF network analyser Polar display with aumillary power supply Broad band microwave units, Microwave frequency counter.
95.	Pharmaceutical Sciences Department Punjab University	1987-88	Pharmaceutical Chemistry and Pharacology.	HPLC, NMR, IR, UV-Double Beam Spectrophotmeter, Precision Polarimeter, Computerised animal activity monitor with accessories, Electromagnetic blood flow meter
96.	Metallurgical Engineering Department Roorkee University	1987-88	Metal casting Technology	Vacuum induction melting Unit: Capacity 5 kg. Vaccum 10-5 Torr., Dissolved gas analyser (O,N,H), Water testing facility, Corrosion meter, chamber and potentiostat.
97.	Department of Aerospace I.I.Sc. Bangalore.	1988-89	Aerodynamic	Aerodynamic.
98.	Institute of Medical Science	1988-89	Medical Science Cancer Research	Teaching, Training, Treatment.

APPENDIX–XIV (Contd.)

COSIST Departments Supported during 1989–90

S.No.	Name of Department/University	PG Education and Research (Thrust Area)	Major Equipment Provided
CHEMISTRY AND SCIENCE			
1.	Deptt. of Geology Mohanlal Sukhadia Univ., Udaipur	Tectonics and Geo Chemistry	Image Analyser with microscope projection attachment, Automatic thinning and polishing section machine. Table top Scanning electron microscope & Grinders
2.	Deptt. of Chemistry, Osmania Univ., Hyderabad	Bioactive Natural Products, heterocyclics, Kinetics of electron transfer reactions and Bio–coordination Chem.	90 MHZ NMR; Flash photolysis equipment UV/Vis/IR Spectrophotometer with microprocessor, PC/AT
MATHEMATICS			
1.	Department of Mathematics Bombay University	Probability, Analysis & Combinatrics	2 PC/AT with terminals
2.	Department of Mathematics Sambalpur University	Analysis & Relativity	CPU with 4 mB RAM & peripherals. Xerox Machine
3.	Department of Mathematics Andhra University	Analysis and Number Theory	PCs–3, Xerox/Electronic typing machines
4.	Department of Mathematics Jodhpur University	Special Functions, MHD Fluid Dynamics	CPU with 4 mB RAM & peripherals. Xerox Machine
STATISTICS			
1.	Department of Statistics Panjab University	Probability, Statistical Inferences Multivariate Analysis	Computer Processing Unit with 4 mB RAM and other accessories including soft ware
2.	Department of Statistics Calcutta University	Probability, Statistical Inference, Operational Research & Quality Control, Multivariate Analysis	CPU with 4 mB RAM and other accessories. Xerox Machine
3.	Department of Statistics Karnataka University	Statistical Inference, Inference in Stochastic Procsses, Population Studies	CPU with 4 mB RAM and other accessories
BOTANY			
1.	Department of Botany Allahabad University	Palaeo Botany–Morphology Microbiology–Mycology Plant Pathology, Plant Physiology	Vehicle, Stereo microscope., Stereobinocular Microscopes, Cold room assembly, Glass house with temp. humidity control equipment, Centrifuge, Climatizar, Amino acid analyser, Automatic Freezing microtome
2.	Department of Botany Lucknow University	Plant Physiology, Plant Genetics; and Plant Virology	UV–VIS Spectrophotometer Portable Spectroradiometer, Ultracentrefuge, Gamma Counter, Inverte phase contrast microscope Research photomicroscope, Electrophoresis equipment, HPLC
3.	Department of Genetics Osmania University	Plant Genetics and Tissue Culture	Preparatory Ultracentrifuge, Plant Growth chamber, FPLC equipment, CO_2 Incubators

APPENDIX–XV (a)

List of Subject (Category 'A') for which Junior Research Fellowship Eligbility for Lecturership–Test was held on 24th December, 1989

01. Economics
02. Political Science
03. Philosophy
04. Psychology
05. Sociology
06. History
07. Anthropology
08. Commerce
09. Education
10. Social Work
11. International Relations
12. Home Science
13. Rural Development
14. Public Administration
15. Population Studies
16. Music
17. Management
18. Mathili
19. Bengali
20. Hindi
21. Kannada
22. Malyalam
23. Oriya
24. Punjabi
25. Sanskrit
26. Tamil
27. Talugu
28. Urdu
29. Arabic
30. English
31. Linguistics
32. Chinese
33. Dogri
34. Nepali
35. Manipuri
36. Assamese
37. Gujarati

APPENDIX–XV (a) (Contd)

38. Marathi
39. French
40. Spanish
41. Russian
42. Persian
43. Rajasthani
44. German
45. Japanese
46. Adult Edu. / Continuing Edu.
Andragogy/Non-formal Education
47. Physical Education
48. Work Education
49. Arab Culture
50. Indian Culture
51. Islamic Studies
52. West–asian Studies
53. South–east Asian Studies
54. African Studies
55. i) Labour Welfare & Industrial Welfare
ii) Social Welfare
iii) Rural Sociology
iv) Rural Services
56. i) Rural Economics
ii) Co–operation
iii) Demography
iv) Development Planning/Developmental Studies
v) Econometrics
vi) Applied Economics
vii) Business Economics
57. Co–operative Management
58. Law
59. Library Science & Information Science
60. Gandhian Thought/Peace Making/Peace Studies
61. Buddhis Studies
62. Religious Studies/theology
63. Journalism/Mass Communication
64. Communicative English
65.

65.	i) Dance ii) Drama/Theatre
66.	Museology
67.	Archaeology
68.	Criminology
69.	Tamil & Indian Literature
70.	Tribal & Regional Literature
71.	Folk Literature
72.	Comparative Literature
73.	i) Jyotisa ii) Siddhanta–jyotisa iii) Navya Vyakaran iv) Mimamsa v) Navya Nyaya vi) Sankhya Yoga vii) Tulanatmaka Darsana viii) Sukla–Yajurveda ix) Madhya Vedanta x) Dharma Shastra xi) Sahitya xii) Purana Itihas xiii) Agama
74.	Accuntancy & Business Statistics
75.	Urban & Regional Planning
76.	Resource Development
77.	Speech and Hearing
78.	Prakrit and Jainology including Aradhmagdhi
79.	i) Drawing And Painting ii) Fine Art iii) History Of Art
80.	South Indian Philosophy/studies

APPENDIX–XVI

List of Science Subjects for which test for Junior Research Fellowship and Eligibility for Lectuership was conducted jointly by the UGC and CSIR on 31st December, 1990

Sl. No	Subject
1.	Life Sciences
2.	Chemistry
3.	Earth, Atmospheric & Ocean Sciences
4.	Physics
5.	Mathematics
6.	Statistics

APPENDIX–XVII

List of Centres of Advanced Study in Humanities and Social Sciences as on 31–3–1990

Sl. No.	Subject	University/Instt.	Thrust area (s)
1.	Economics	Bombay University	Public Finance & Industrial Economics
2.	Economics	Delhi University	Economics of Development & Economic History
3.	Economics	Gokhale Instt.	Agricultural Economics
4.	Linguistics	Annamalai University	Dravidian Linguistics
5.	History	A.M.U., Aligarh	Medieval Indian History
6.	Sanskrit	Poona University	Sanskrit Literature
7.	Philosophy	Madras University	Advaite & Allied System of Philosophy
8.	Education	M.S. Univ. of Baroda	Education Research
9.	Psychology	Utkal University	Educational Psychology and Social Psychology
10.	Psychology	Allahabad University	1) Applied and experimental and Social Psychology 2) Organisational Psychology
11.	Sociology	Delhi University	Sociology
12.	Archaeology	Deccan College, Pune	Indian Archaeology
13.	Philosophy	Jadavpur University	1) Theory of knowledge and reality–Indian & Western 2) Logic & language–Indian & Western 3) Ethics, Religion, Social and Poltical Philosophy–Indian & Western 4) Philosophy of mind.
14.	Anthropology	Ranchi University	1) Advanced anthropological Theory & Methodology 2) Macro–analysis, qualification methods and system analysis
15.	Linguistics	Osmania University	1) Historical and Comparative method (Indo–Aryan and Dravidian). 2) Phonetics (linguistics and experimental) 3) Contact and convergence study with special reference to Munda, Dravidian and Indo–Aryan Languages in Central India 4) Socio–Linguistics and Applied Socio–Linguistics w.s.r.t. language teaching, literacy & translation 5) Psycho–Linguistics

APPENDIX–XVIII

List of Departments of Special Assistance in Humanities and Social Sciences as on 31–3–1990

Sl. No.	Subject	University/Instt.	Thrust Area (s)
1.	Commerce	AMU, Aligarh	1) Enterpreneurial Studies in backward regions and weaker Sections; 2) Energy & Water Management
2.	–do–	Andhra University	Investigation of the problems of local industries in A.P.
3.	–do–	Allahabad University	1) Finance & Accounting 2) Public enterprise Management 3) Marketing
4.	–do–	Banaras Hindu Univ.	Corporate studies, Banking, Insurance & Finance
5.	–do–	Calcutta University	1) Accounting and Finance 2) Economic Environment & Human resources development
6.	–do–	Delhi University	1) Accounting & Finance 2) International Business 3) Organisation behavior/human relations
7.	–do–	Gauhati University	1) Rural development 2) Accounting & Financs
8.	–do–	Rajasthan University	1) Accounting & Business data processing 2) Rural Management 3) Banking & institutional finance
9.	Economics	Andhra University	1) Agricultural economics and cooperation 2) Regional and Urban economics
10.	–do–	Calcutta University	Urban Economics
11.	–do–	Jadavpur University	1) Regional economics studies with special emphasis on a) Trade and Industry b) Transport energy
12.	–do–	M.S. Univ. of Baroda	1) Economics of education and human resources 2) Growth processes of Indian economy
13.	–do–	Marathwada	1) Regional development 2) Agricultural Economics 3) International Economics
14.	–do–	Presidency College, Calcutta	Indian Economy
15.	–do–	Punjabi University	1) Regional economics 2) Economics of Socialism
16.	Economics	S.V. Tripuati	1) Labour economics 2) Agricultural economics
17.	–do–	Sardar Patel Univ.	Agricultural economics
18.	–do–	Osmania University	Economics of planning
19.	–do–	Madras University	Economics of applied welfare and applied development
20.	–do–	Utkal University	Rural Development and Regional Planning.
21.	–do–	Rajasthan Univ.	Economic Development issues with special reference to Rajasthan Economy
22.	–do–	J.N. University	1) Planning and industrialisation 2) Trade and development
23.	Pol. Science	Calcutta Univ.	Indian politics w.s.r.t. regional politics
24.	–do–	Delhi University	1) Indian poltical studies 2) Peace studies 3) Political theory 4) Politics and developing countries 5.) Development administration in India
25.	–do–	Jadavpur Univ.	1) International relations 2) Defence and strategic studies

APPENDIX–XVIII (Contd.)

Sl. No.	Subject	University/Instt.	Thrust Area (s)
26.	Pol. Science	M. S. Univ. of Baroda	1) International relations theory/ International Political economy/World Over studies 2) Comparative foreign policy studies with particular emphasis on Indian foreign policy analysis 3) International organisations and contemporary and projected dimensions of the International legal order 4) Strategic studies of defence analysis 5) Conflict analysis and pace research studies
27.	–do–	Rajasthan Univ.	Indian political traditions and contemporary political structures and processes in India.
28.	Pol. & Public Administration	Poona Univ.	Indian Govt., Politics and administration with particulars reference to Maharashtra
29.	Ancient History	Allahabad Univ.	1) Socio–economic history of India 2) Archeaology
30.	Modern History	Calcutta Univ.	1) Economic History of Modern India 2) Modern Indian History w.r.t. Agrarian History, Social History & Intellectual History
31.	History	MS Univ. of Baroda	1) Medieval archasology and history of modern India 2) Medieval art, archaeology Equigraphy and Nuniematics
32.	–do–	Mysore University	Problems and Modern South Indian History w.p.r.t. Socio–economics history of region
33.	Art History	MS Univ. of Baroda	Indian and Western are w.s.r.t. Vastha Shastra & Vashtushilps
34.	History	J.N. University	Indian History
35.	–do–	Patna University	Socio–economic history of Medieval Indian w.s. smphasis on urban problems
36.	–do–	Hyderabad University	Social and Cultural History of Deccan through ages
37.	Arts Philosophy	B.H. University	1) Different schools of Indian Philosophy in the context of Indian Culture 2) Indian religion with a comparative orientation 3) Philosophy of languages grammer.
38.	–do–	Delhi University	1) Indian logic and epistemology including the philosophy of languages 2) Social philosophy including w.s. emphasis on Indian thinking
39.	–do–	Punjab University	1) Social philosophy including the sociolistic thought in the context of Indian social reality 2) Philosophy of culturs including asssthetics and ethics w.s.r..t Indian Philosophical traditions
40.	Philosophy	Rajasthan University	1) Logic and Philosophy of Science 2) Indian Philosophy 3) Philosophy of Law
41.	–do–	Visva Bharati	1) Philosophy of art and culture 2) Metaphysics and culture
42.	–do–	Utkal University	1) Analytic studies of basic values 2) Analytic studies of basic concept in Indian Philosophy
43.	Philosophy	Allahabad University	1) Schools of Vedanta 2) Logic and epistemology
44.	–do–	Andhra University	Philosophy, religion and culture w.s.r.t. Vedanta and Budhism
45.	–do–	Poona University	1) Logic and Philosophy of Science 2) Classical Indian Philosophy 3) Socio-cultural and moral philosophy
46.	Social Work	M.S. Univ. of Baroda	Anti-poverty and Rural development programme

APPENDIX–XVIII (Contd.)

Sl. No.	Subject	University/Instt.	Thrust Area (s)
47.	Social Work	Delhi University	Social Policy and development and innovative forms of social work practice
48.	Sociology	J.N. University	1) Sociology of Development and modernisation 2) Sociology of profession and professionalization 3) Sociology of Social movement and mobilisation 4) Sociology of Agrarian structures and processes 5) Studies of marginal group; minorities & ethics communities
49.	–do–	Panjab University	1) Development Studies 2) Urban Studies 3) Population Studies
50.	–do–	Ravi Shankar University	1) Continuity change in folklore and traditional culture in the following aspects; 2) Studies of traditional culture 3) Studies of elite traditions 4) Dynamics of Indian Society
51.	–do–	Bangalore University	1) Dynamics of Rural transformations 2) Institution of process of Development.
52.	–do–	Osmania University	Rural urban development
53.	–do–	Poona University	Sociology of Development
54.	–do–	B. .H. University	Regionalism and patterns of Rural transformation w.s.r.t. U.P. from a comparative perspective.
55.	Psychology	Delhi University	1) Coginitive Processes 2) Applied Social Psychology
56.	–do–	Gorakhpur University	1) Environment and Human Development 2) Experimental theoretical Psychology
57.	Anthropology	Delhi University	Human Ecology
58.	–do–	Punjabi University	Anthropolgy of North West India Biological and Sociological Dimension (w.r.t. Punjab, Haryana & H.P.).
59.	–do–	Utkal University	Anthropolgyof Regional Development with special reference to Orissa.
60.	Education	Himachal Pradesh University	Education of the disadvantaged.
61.	–do–	Kerala University	Studies in learning curriculum and educational technology
62.	–do–	Kurukshetra University	1) Educational Management 2) Educational Technology
63.	Linguistics	Delhi University	1) Theoetical linguistics 2) Sociolinguistics 3) Applied Linguistics
64.	–do–	Deccan College, Pune	1) Experimental phonetics and phonology 2) Grammar and semantics of South Asian Linguistics
65.	English	Jadavpur University	Renaissance studies/19th century studies/Theory and practice of translation
66.	Sanskrit	Jadavpur Univ.	1) Litrature and literacy criticism and Philosophy of Language 2) Indian Philosophy
67.	–do–	Karnatak University	1) Literature and literacy criticism 2) Vedanta system of philosophy
68.	Budhist Studies	Delhi University	1) Pali based Budhism 2) Sanskrit (Hybrid) based Budhism and Budhist Philosophy 3) History, Art, Architecture and Culture of philosophy

APPENDIX–XVIII (Contd.)

Sl. No.	Subject	University/Instt.	Thrust Area (s)
69.	Comparative Literature	Jadavpur University	1) Comaparative Indian Literature 2) The third World Literatures 3) Translation 4) East-West Relations
70.	Urdu	Kashmir University	1) Culturology of Urdu literature with special reference to Kashmiri language and litt. 2) Urdu journalism and Mass Media
71.	Arabic	Aligarh Muslim University	1) Modern Arabic literature 2) Indo-Arabic literature and relations
72.	Telugu	S.V. University, Tirupati	1) Folkloristic studies 2) Comaparative study of South Indian Literatures
73.	Tamil	Madurai Kamraj University	1) Indian Comaparative literary studies 2) Tamil Nadu Folklore studies 3) Regional Mass Communication
74.	Punjabi	Punjabi University	1) Persian and Sanaskrit sources Punjabi Litt. 2) Poetic both Sanaskrit and Veteran Folkloristics and semiotics 3) Comaparative Litt. (w.r.t. MIL) 4. Courses in creative writing and literary appreciation
75.	Hindi	Sardar Patel University	1) Linguistics and linguistic approach to literature 2) Comaparative literature 3) Drama and Dramaturgy
76.	–do–	Allahabad University	Modern Hindi Poetry
77.	Gujarati	SNDT Women University	Modern Gujarati Literature
78.	Bengali	Burdwan University	1) Language and Culture of Rarh 2) Comparative study of the Litt. of Eastern Indian Language
79.	Oriya	Sambalpur University	Folk Literature; comparative literature; modern Literature (Poetry, fiction, etc.)
80.	Kannada	Mysore University	1) Comparative literature 2) Classical studies 3) Folklore
81.	Malayalam	Kerala University	1) Comparative Indian Literature and literary criticism 2) Comparative language studies 3) Socio-cultural factors of literary evolution 4) Folklore studies 5) Genic studies, thematic studies,Epoch and period studies.
82.	M.C. and Journalism	Osmania University	Print and communication Research
83.	–do–	Bangalore University	Audio Visual Research
84.	–do–	Banaras Hindu University	Development Communication

APPENDIX-XIX

List of Departmental Research Support Projects in Humanities and Social Sciences as on 31-3-1990

Sl. No.	Subject	University/Instt.	Thrust Area (s)
1.	Marathi	Marathwada University	Ancient Literature – Mahanubhave Modern literature, Folk literature ,
2.	Assamese	Gauhati University	Survey of dialects of Mayang & Doom Dooma area. Editing of old Manuscripts, collection & analysis of Folklore material Study of linguistic variation in South Kamrup and South Goalpara.
3.	Music & Musicology	Banaras Hindu University	Music and Musicology
4.	Education	SNDT Women Univ.	Development and trout of a package of techniques and materials for identifying and developing research aptitudes among PG students of education
5.	Philosophy	Hyderabad University	Philosophy of language and philosophy of Religion.
6.	Education	South Gujarat	Use of Tech. for developing the programme in group guidance Development of try out multi media package on population education
7.	Philosophy	NEHU	Rationality, Justification and Tribal through Indian Philosophy of Religion
8.	Anthropology	Calcutta University	Man and Environment : An Anthropological study
9.	–do–	Lucknow University	Social Anthropology and Morphological Genetic characters in Anthropology.
10.	Geo Politik	Panjab University	Geo Politik
11.	Pol. Science	Osmania University	Political Economy of India and State Politics in India
12.	History	Garhwal University	Multi-disciplinary Archeological studies in Mid. Central Himalaya People and their responses to material and environment
13.	Economics	Jammu University	Macro-Economics Analysis, Agricultural Economics
14.	Social Work	Lucknow University	1) Industrial Relations and personal Management 2) Medical and Psychiatric social work 3) Criminology and correctional administration 4) Family child welfare 5) Rural Development 6) Social Policy, planning and development 7) Social welfare administration and Social Security 8) Social Research and statistics
15..	Hindi	Sri Venkateshwara University	Comparative study of Hindi and Telugu literature
16.	Persian	Kashmir University	1) Teaching of modern classical Persian literature 2) Research in Persian literature

APPENDIX–XX

University-wise List of Centres of Advanced Study in Science, Engineering and Technology as on 31.3.1990

Sl. No.	Subject	Name of the CAS
1.	Annamalai	1. Marine Biology*
2.	Banaras Hindu University	(1) Zoology (2) Botany (3) Met Engn. (4) Physics (5) Electronics Engn.
3.	Bombay	(1) Applied Chemistry* (2) Mathematics*
4.	Calcutta	(1) Botany (2) Chemistry* (3) Radio Physics & Electronics (4) Applied Maths
5.	Delhi	(1) Botany* (2) Zoology* (3) Physics* (4) Chemistry*
6.	I.I.Sc. Bangalore	(1) Molecular Biophysics (2) Bio-Chemistry (3) Inorganic & Physical Chemistry (4) Solid State Chemistry (5) Physics
7.	Jadavpur	1. Geology
8.	Madras	(1) Math* (2) Botany*
9.	Panjab	(1) Maths (2) Geology* (3) Chemistry* (4) Physics
10.	Poona	(1) Physics
		Total = 29 CAS

* Completed 15 years

APPENDIX–XXI

University–wise List of Department of Special Assistance (DSA) in Science Engineering and Technology as on 31.3.1990

Sl. No.	University/Instt.	Department
1.	Andhra	(1) Physics (2) Botany (3) Zoology (4) Geology (5) Nuclear Physics (6) Chemical Engg.
2.	Anna	(1) Chemical Engg. (2) Water Resources Engg. (3) Env. Engg (4) Civil Engg. (5) Electrical Engg.
3.	Aligarh Muslim	(1) Geography (2) Physics (3) Maths
4.	Allahabad	(1) Chemistry (2) Botany (3) Maths (4) Physics
5.	Banaras Hindu	(1) Geography (2) Bio–Science (IMS) (3) Mining Engg. (4) Caramic Engg. (5) Electrical Engg.
6.	Bangalore	(1) Mathematics (2) Zoology
7.	Bombay	(1) Chemical Engg.
8.	Calcutta	(1) Physics (2) Zoology (3) Geology (4) Bio–chemistry
9.	Delhi	(1) Geology
10.	Gujarat	(1) Zoology
11.	Hyderabad	(1) Chemistry (2) Physics
12.	I.I.Sc. Bangalore	(1) Maths (2) Electrical Engg. (3) Metallurgical Engg. (4) Civil Engg. (5) Organic Chemistry (6) Mechanical Engg. (7) Automation (8) Aerospace Engg. (9) Electronics & Electrical (10) Micro biology & Cell Biology
13.	I.S.M. Dhanbad	(1) Mining Engg.
14.	Jadavpur	(1) Maths (2) Chemistry (3) Production Engg. (4) Electrical Engg. (5) Civil Engg.
15..	Jammu	(1) Physics
16.	Jawaharlal Nehru	(1) Life Science (2) Geography
17.	Kalyani	(1) Botany
18.	Kerala	(1) Botany (2) Bio–Science
19..	Kumaon	(1) Geology
20.	Lucknow	(1) Biochemistry (2) Botany
21..	Madras	(1) Chemistry (2) Physics (3) Bio–physics
22.	M.K. University	(1) Bio–Science (2) Maths
23.	M.L. Sukhadia	(1) Geology
24.	Marathwara	(1) Zoology
25.	Mysore	(1) Geology (2) Zoology
26..	M.S. University of Baroda	(1) Bio–Chemistry (2) Microbiology (3) Geology (4) Chemistry
27.	Nagpur	(1) Pharmacy
28..	Osmania	(1) Geography (2) Chemistry (3) Genetics
29.	Patna	(1) Botany
30.	Punjab	(1) Pharmacy (2) Zoology
31.	Poona	(1) Chemistry (2) Maths (3) Statistics (4) Zoology
32..	Presidency College Calcutta	(1) Geology
33.	Rajasthan	(1) Geography (2) Chemistry (3) Genetics
34.	Roorkee	(1) Physics (2) Earthquake Engg. (3) Civil Engg. (4) Mechanical Engg.
35.	Sardar Patel University	(1) Chemistry
36.	Saurashtra	(1) Bio–Sciences
37.	Burdwan	(1) Botany
Total	= 95	

APPENDIX–XXII

University–wise List of Departmental Research Support Projects in Science, Engineering & Technology as on 31.3.89

S.No.	University	Department
1.	Aligarh Muslim University	Zoology
2.	Andhra	(1) Chemistry (2) Mcchanical Engineering
3.	Ahmednagar College	Bio–Chemistry
4.	B.H.U.	(1) Geology and Geophysics
5.	Bangalore	(1) Geology (2) Physics (3) Chemistry
6.	Burdwan	Physics
7.	Bombay	Chemistry
8.	Calcutta	Geography
9.	Cochin	(1) Marine Science (2) Physics
10.	Devi Ahilya Vishwavidyalay, Indore	Life Science
11.	Delhi	Mathematics
12.	Dr. H.S. Gaur Vishwavidyalya	Botany
13.	Gorakhpur	(1) Chemistry (2) Botany
14.	Gujarat	Statistics
15.	Guru Nanak Dev University	(1) Chemistry (Inorg) (2) Life Science
16.	Indian School of Mines. Dhanbad	(1) Applied Geology & Geophysics
17.	Jodhpur	(1) Chemistry (2) Botany
18.	Kalyani	Zoology
19.	Karnatak	(1) Physics (2) Statistics (3) Geophysics
20.	Kumaon	Physics
21.	Lady Irwin College. New Delhi	Home Science (Common & Extantion)
22.	Lucknow	Geology
23.	Mysore	(1) Botany (2) Statistics
24.	M.S. University of Baroda	(1) Zoology (2) Botany (3) Home Science(Child development)(4) Met.Engg.
25.	Nagpur	(1) Geology (2) Zoology
26.	N.E.H.U.	Botany
27.	Osmania	(1) Geology (2) Geophysics (3) Physics (4) Botany
28.	Panjab	(1) Geography (2) Statistics
29.	Patna	Geology
30.	Punjabi	Physics
31.	Rajasthan	Physics
32.	Roorkee	(1) Electronic Engg. (2) Electronics & Communication Engg. (3) Metallurgy (4) Mathematics
33.	Sri Venkateswara	(1) Physics (2) Botany (3) Zoology
34.	M.L. Sukhadia	Physics
35.	S.V.T. Home Science College Bombay	Home Science (Food & Nutrition)
36.	Sri Avinashlingam College of Home Science. Coimbatore	Home Science (Home Management)
37.	Gauhati	Chemistry
Total	= 61	

APENDIX–XXIII (a)

List of UGC Curriculum Development Centres (Science Subjects)

* 1.	Department of Chemistry University of Rajasthan Jaipur.
2.	Department of Earth Sciences University of Roorkee Roorkee.
* 3.	The Ramanujan Instt. for Advanced Study in Mathematics University of Madras Madras.
* 4.	Department of Geography Punjab University Chandigarh.
* 5.	Department of Statistics Gujarat University Ahmedabad.
* 6.	Molecular Bio-physics Unit Indian Instt. of Science Bangalore.
* 7.	Department of Biochemistry M..S. University of Baroda Baroda.
8	Department of Physics Poona University Pune.
9	Department of Botany Calcutta University Calcutta.
10	Department of Zoology Gujarat University Ahmedabad.

* **Indicates disciplines** in which model curricula have been prepared.

APPENDIX–XXIII (b)

List of UGC Curriculum Development Centers (Humanities & Social Sciences Subjects)

* 1.	Department of Economics University of Bombay Bombay.
* 2.	Department of History Patna University Patna.
* 3.	Department of Philosophy Jadavpur University Calcutta.
* 4.	Department of Extension Services Central Instt. of English and Foreign Languages Hyderabad.
* 5.	Department of Psychology Utkal University Bhubaneshwar
* 6.	Department of Anthropology Ranchi University Ranchi.
7.	Department of Political Science M.S. University of Baroda Baroda.
* 8	Department of Education Kerala University Trivandrum.
* 9.	Department of Commerce Allahabad University Allahabad.
* 10	Performing Arts (Music & Dance) Sangeet Bhavan Visva Bharati Shantiniketan.
* 11.	Department of Plastic Arts Banaras Hindu University Varanasi.
* 12.	Department of Family and Child Welfare Tata Instt. of Social Sciences Deonar, Bombay.
* 13.	Department of Hindi Banaras Hindu University Varanasi.
* 14.	School of (Foreign languages) Jawaharlal Nehru University New Mehrauli Road New Delhi.
* 15.	Department of Sanskrit University of Poona Pune.
* 16	The Indian Law Institute (University of Delhi) Bhagwandas Road New Delhi.
* 17.	Department of Urdu Aligarh Muslim University Aligarh.

* Indicates disciplines in which model curricula have been prepared.

APPENDIX–XXIV

Grants paid to Universities during 1989–90 (Major head–wise) under Plan and Section III

Name of University	Development linkages between different Sectors	Schemes for Quality – improvement of Edn.	Programme for quality – improvement of research	Programme to Reduce disparities	Programme for improvement of Management	Total	Engg. & Tech.	Total	Section III	Grand Total
Central Universities	A	B	C	D	E	Total	Sector F	Total	Section III	Grand Total
Aligarh	0.20	156.61	27.36 *0.01	–	–	184.17 *0.01	137.94	372.11 0.01	–	322.11 * 0.01
Banaras	–	184.90	164.11 * 0.23	–	-	349.01 * 0.23	103.41	452.42 * 0.23	-	452.42 * 0.23
Delhi	14.93	359.31	148.26 * 0.04	15.00	-	531.50 * 0.04	-	531.50 * 0.04	4.39	535.88 * 0.04
Hyderabad	14.79	327.05	61.19 * 0.03	-	-	403.03 * 0.03	-	403.03 * 0.03	-	403.03 * 0.03
JNU	5.00	576.42	34.55	-	-	615.97	-	615.97	-	615.97
NEHU	3.00	193.82	9.01	-	-	208.83	-	205.83	-	205.83
Visva-Bharti	4.70	83.49	12.28	1.50	-	101.97	-	101.97	0.05	102.02
Pondicherry	1.70	336.85	4.57	1.50	-	344.62	16.06	360.68	0.06	360.74
Jamia Millia	4.95	99.41	5.64	102.99	-	212.99	84.99	297.98	2.90	388.88
Total	49.27	2311.86	466.97 * 0.31	120.99	-	2949.09* 0.31	347.40	3291.49* 0.31	7.39	3298.88* 0.31
Inter Univ. Centre, Poona	-	1.90	135.00	-	-	136.90	-	136.90	-	136.90
Nuclear Science Centre New Delhi	-	-	450.41	-	-	450.41	-	450.41	-	450.41
Total	-	1.90	505.41	-	-	587.01	-	587.01	-	587.31
Avinashilingam Instt. for Home Science	43.50	58.37	4.13	10.00	00.01	116.01	-	116.01	-	116.01
Banasthali Vidyapeeth	4.52	10.00	0.92	-	-	15.44	-	15.44	-	15.44
BIT Science, Pilani	-	14.31	10.29	-	-	24.60	24.05	48.65	0.75	49.40
BIT Missra	-	-	0.43	-	-	0.43	9.23	9.66	2.37	12.03
CIEFL, Hyderabad	-	26.62	3.31	74.29	-	104.22	-	104.22	-	104.22
CI of Higher Tibetan Studies, Varanasi.	-	4.70	1.20	-	-	5.90	-	5.90	-	5.90
Dayalbagh Edn. Institute, Agra	4.50	22.27	0.99	-	-	27.76	8.48	36.24	-	36.24
Gandhigram Rural Instt.	5.35	23.10	16.10	-	-	44.55	-	44.55	-	44.55
Gujarat Vidyapeeth	12.05	31.42	1.60	-	-	45.47	-	45.47	2.00	47.45
Gurukul Kangri Vishwavidyalaya	4.29	6.00	2.79	-	-	13.08	-	13.08	-	13.08
IARI, New Delhi	-	-	0.20	-	-	0.20	-	0.20	-	0.20

APPENDIX–XXIV (Contd.)

Institutions deemed to be Universities	A	B	C	D	E	Total	F	Total	Section III	Total
Indian Instt. of Science Bangalore	-	2.24 * 3.77	127.78	-	-	130.02 * 3.77&k3.20H	136.90	266.92 * 3.77	0.92	267.84 * 3.77
Indian School of Mines Dhanbad	-	2.85	5.25	-	-	8.10	29.68	37.76	5.99	43.75
International Instt. for Population Sc. Bombay	-	-	-	-	-	-	-	-	-	-
Indian Veterinary Research Instt. Izatnagar	-	-	-	-	-	-	-	-	-	-
Rajasthan Vidyapeeth	-	8.90	0.98	-	-	9.88	-	9.88	-	9.88
RS Vidyapeeth, Tirupati	-	-	-	-	-	-	-	-	-	-
School of Planning and Architect. New Delhi.	-	1.00	-	0.09	-	1.09	-	1.09	-	1.09
Shri L.B.S.R.S. Vidyapeeth, New Delhi.	-	-	-	-	-	-	-	-	-	-
Sh. S.S. Instt. of Higher learning Nilayam	1.56	81.22	0.70	-	-	83.48	5.55	89.03	0.75	89.78
Tilak Maharashtra Vidyapeeth, Pune	-	15.40	0.50	-	-	15.90	-	15.90	-	15.90
Tata Instt. of Social Science, Bombay	-	8.47	3.84	-	-	17.31	-	17.31	-	17.31
Thapar Instt. of Engg. & Tech., Patiala	1.00	1.45	0.30	-	-	2.75	14.54	17.29	0.20	17.49
Jamia Hamdard	-	52.00	20.81	-	-	72.81	9.72	82.53	-	82.53
Total	77.17	370.32 * 3.77	202.12	84.38	0.01	734.00 * 3.77	238.15	972.15 * 3.77	12.98	985.13 * 3.77
Andhra Pradesh State										
Andhra	15.00	26.68	66.72	-	0.04	108.44	27.01	135.45	2.07	137.52
Andhra Pradesh Agricultural	-	-	-	-	-	-	-	-	-	-
Andhra Pradesh Open	-	-	0.50	-	-	0.50	-	0.50	-	0.50
JNU Technical	2.69	1.60	1.65	4.80	-	10.74	47.44	58.18	-	58.18
Kakatiya	-	24.62	4.30	5.00	-	33.92	8.99	42.91	-	42.91
Nagarjuna	10.00	5.98	7.44	1.50	-	24.92	-	24.92	-	24.92
Osmania	11.50	43.97	210.17 * 0.52	6.70	0.30	272.64 * 0.52	6.23	278.87 *0.52	-	278.87 * 0.52
Sri Krishna Devarya	4.60	12.66	6.03	-	-	23.29	29.17	52.46	2.00	54.66
Sh. Padmavati Mahila Vishwavidalaya	1.07	26.95	5.07	-	-	33.09	-	33.09	2.00	35.09
Sri Venkateswara	1.34	33.56	28.18	-	-	73.08	15.72	88.80	0.40	89.20

APPENDIX–XXIV (Contd.)

State Universities	A	B	C	D	E	Total	F	Total	Section III	Total
Andhra Pradesh State (Contd.)										
Telugu University	-	10.00	-	-	-	10.00	-	10.00	-	10.00
Total	46.20	196.20	330.06 * 0.52	18.00	0.34	590.62 * 0.52	134.56	725.18 * 0.52	6.47	731.65 * 0.52
Assam State										
Assam Agricul.										
Dibrugarh	-	10.33	2.69	-	-	13.02	2.20	15.22	-	15.22
Guahati	1.50	15.38	9.19	-	-	26.07	-	26.07	-	26.07
Total	1.50	25.71	11.88	-	-	39.09	2.20	41.29	-	41.29
Bihar State										
Bhagalpur	3.00	17.34	16.28	-	-	36.62	-	36.62	-	36.62
Bihar	5.00	53.38	0.94	-	-	59.32	-	59.32	-	59.32
Birsa Agricul.										
KSD Sanskrit Vishwavidyalaya	-	4.00	-	-	-	4.00	-	4.00	-	4.00
LN Mithila	4.50	54.50	0.08	-	-	59.08	-	59.08	-	59.08
Magadh	6.00	0.82	0.12	-	-	6.94	-	6.94	2.00	8.94
Patna	2.00	7.92	44.81	-	-	14.39	17.81	32.20	-	32.20
Ranchi	11.25	9.60	14.39	-	-	35.24	-	35.24	-	35.24
Rajendra Agricult.	-	-	0.80	-	-	0.80	-	0.80	-	0.80
Total	31.75	147.56	37.08	-	-	216.39	17.81	234.20	2.00	236.20
Haryana State										
Haryana Agricul.	0.11	3.00	-	-	-	3.11	-	3.11	-	3.11
Kuruksehtra	8.00	37.90	35.85	5.00	0.50	87.25	-	87.25	-	87.25
Maharashi Dayanand	3.00	31.74	7.82	-	-	42.56	-	42.56	-	42.56
Total	11.11	72.64	43.67	5.00	0.50	132.92	-	132.92	-	132.92
Gujarat State										
Bhavnagar	9.75	27.99	19.95	-	-	57.69	-	57.69	-	57.69
Gujarat	0.21	20.50	44.10	42.50	-	107.31	-	107.31	-	107.31
Gujarat Agricul.	-	-	-	-	-	-	-	-	-	-
Gujarat Ayurveda	-	-	-	-	-	-	-	-	-	-
MS University of Baroda	0.98	16.64	17.86	-	-	35.48	17.66	53.14	0.08	53.22
Sardar Patal	8.55	12.28	62.45	2.90	-	86.18	-	86.18	-	86.18
Saurashtra	12.30	4.83	12.60	1.25	-	38.98	-	38.98	-	38.98
South Gujarat	7.29	0.20	1.45	-	-	8.94	-	8.94	-	8.94

APPENDIX–XXIV (Contd.)

State Universities	A	B	C	D	E	Total	F	Total	Section III	Total
Gujarat State (Contd.)										
Gujarat Vidyapeth North Gujarat	-	-	-	-	-	-	-	-	-	-
Total	39.08	82.44	158.41	46.65	-	326.58	17.66	344.24	0.08	344.32
Goa State										
Goa	-	9.54	4.58	-	-	14.12	-	14.12	-	14.12
Total	-	9.54	4.58	-	-	14.12	-	14.12	-	14.12
Himachal Pradesh State										
Himachal Pradesh	6.40	36.40	3.86	3.00	-	49.66	-	49.66	4.00	53.66
Himachal Pradesh Agric.	-	-	0.23	-	-	0.23	-	0.23	-	0.23
Dr. Yashuant Singh Parmer	-	-	-	-	-	-	-	-	-	
Total	6.40	36.40	4.09	3.00	-	49.89	-	49.89	4.00	53.89
J.K. State										
Jammu	10.10	76.57	9.92	-	-	96.59	4.00	100.59	4.00	104.59
Kashmir	11.08	7.48	-	-	-	18.56	-	18.56	-	18.56
Sher-e-Kashmir	-	-	-	-	-	-	-	-	-	-
Total	21.18	84.05	9.92	-	-	115.15	4.00	119.15	4.00	123.15
Kerala State										
Calicut	6.00	8.83	7.77	1.20	-	23.80	-	23.80	0.75	24.55
Cochin University of Science & Tech.	1.00	2.89	7.81	-	-	11.70	19.03	30.73	-	30.73
Gandhiji University	-	0.99	0.71	-	-	1.70	-	1.70	-	1.70
Kerala	25.89	24.99	17.55	1.45	-	69.88	-	69.88	-	69.88
Kerala Agricul.	-	-	0.06	-	-	0.06	-	0.06	-	0.06
Total	32.89	37.70	33.90	2.65	-	107.14	19.03	126.17	0.75	126.92
Karnataka State										
Bangalore	1.00	0.51	22.61	4.76	-	36.88	4.15	41.03	-	41.03
Gulbarga	-	12.75	2.07	-	-	14.82	-	14.82	-	14.82
Karnatak	5.00	31.11	16.07	-	-	52.18	-	52.18	-	52.18
Mangalore	-	32.05	4.50	-	-	36.55	-	36.55	-	36.55
Mysore	3.50	71.28	17.99	-	0.25	93.02	-	93.02	-	93.02
University of Agricul. and Science	-	-	0.55	-	-	0.55	-	0.55	-	0.55
Total	9.50	155.70	63.79	4.76	0.25	234.00	4.15	238.15	-	238.15

APPENDIX–XXIV (Contd.)

State Universities	A	B	C	D	E	Total	F	Total	Section III	Total
Manipur State										
Manipur	6.30	27.29	3.05	26.63	-	63.27	-	63.27	1.88	65.15
Total	6.30	27.29	3.05	26.63	-	63.27	-	63.27	1.88	65.15
Tripura State										
Tripura	-	20.00	2.42	-	-	22.42	-	22.42	-	22.42
Total	-	20.00	2.42	-	-	22.42	-	22.42	-	22.42
Madhya Pradesh State										
A.P.S. University. Rewa	4.50	17.68	1.72	-	-	23.90	-	23.90	-	23.90
Bhopal	9.62	7.59	9.27	5.00	-	31.48	-	31.48	-	31.48
Devi Ahilya	9.50	27.36	40.00	0.80	-	77.66	9.40	87.06	4.00	91.06
Dr. Hari Singh Gour	6.50	28.23	11.42	4.00	-	50.15	6.73	56.88	-	56.88
Guru Ghasidas	4.00	17.00	3.50	-	-	24.50	-	24.50	3.90	28.40
Indira Kala Sangeet	3.25	0.89	-	-	-	4.14	-	4.14	-	4.14
J.N. Krishi Vishwa	-	-	-	-	-	-	-	-	-	-
Jiwaji	5.50	22.97	3.15	3.00	-	34.62	-	34.62	-	34.62
Rani Durgawati	5.00	46.43	5.28	2.00	-	58.71	-	58.71	-	58.71
Ravi Shankar	7.20	19.12	8.76	6.20	0.30	41.58	-	41.58	1.50	43.08
Vikram	6.73	28.36	5.57	6.00	-	46.66	21.59	68.25	-	68.25
Total	61.80	215.63	88.67	27.00	0.30	393.40	37.72	431.12	9.40	440.52
Maharashtra State										
Amravati	-	-	-	-	-	-	-	-	-	-
Bombay	3.75	13.93	60.94	-	-	78.62	14.29	92.91	-	92.91
Konkan Krishi	-	-	-	-	-	-	-	-	-	-
MP Krishi Vishwayidyalaya	-	-	-	-	-	-	-	-	-	-
Marthwada	11.59	16.40	6.25	1.50	-	35.74	-	35.74	0.03	35.77
Marathwada Krishi Vishwavidyalaya	-	-	-	-	-	-	-	-	-	-
Nagpur	10.00	16.78	13.23	-	-	39.51	0.61	40.12	-	40.12
Poona	13.50	22.65	41.26	0.54	-	77.95	-	77.95	-	77.95
Punjabrao Krishi Vishwavidayalaya	-	-	-	-	-	-	-	-	-	-
SNDT Women's	4.26	23.60	13.62	1.50	-	42.98	2.86	45.84	3.90	49.74
Shivaji	9.17	9.83	3.03	1.00	-	23.03	-	23.03	3.25	26.28
Total	52.27	102.69	138.33	4.54	-	297.83	17.76	315.59	7.18	322.77
Orissa State										
Berhampur	9.93	17.72	4.24	-	-	31.89	21.86	53.75	-	53.75

APPENDIX–XXIV (Contd.)

State Universities	A	B	C	D	E	Total	F	Total	Section III	Total
Orissa State (Contd.)										
Orissa University Agricul. & Tech.	-	0.09	0.06	-	-	0.15	-	0.15	-	0.15
Sambalpur	7.80	8.57	10.98	-	-	27.35	6.98	34.33	2.55	36.88
Sri Jagannath Sanskrit Vishwavidyalaya	-	3.00	-	-	-	3.00	-	3.00	-	3.00
Utkal	10.00	32.22	16.22	-	0.25	58.69	10.80	69.49	-	69.49
Total	27.73	61.60	31.50	-	0.25	121.08	39.64	160.72	2.55	163.27
Punjab State										
Guru Nanak Dev	1.36	40.99	28.66	-	-	71.01	-	71.01	-	71.01
Panjab	13.62	13.10	53.66	-	-	80.38	0.71	81.09	2.00	83.09
Punjab Agricultural	-	-	4.88	-	-	4.88	-	4.88	-	4.88
Punjabi Patiala	4.00	4.30	21.89	21.00	-	51.19	-	51.19	3.80	54.99
Total	18.98	58.39	109.09	21.00	-	207.46	0.71	208.17	5.80	213.97
Rajasthan State										
Ajmer University M.L. Sukhadia	3.30	11.77	73.13	-	-	88.20	-	88.20	-	88.20
Jodhpur	-	30.21	41.82	9.70	-	81.73	2.97	84.70	-	84.70
Rajasthan	7.33	35.08	162.12	-	-	204.53	-	204.53	-	204.53
Rajasthan Agricultural	-	-	0.11	-	-	0.11	-	0.11	-	0.11
Bansthali Vidyapeeth	-	-	-	-	-	-	-	-	-	-
Kota Open	-	0.60	-	-	-	0.60	-	0.60	-	0.60
Total	10.63	77.66	277.18	9.70	-	375.17	2.97	378.14	-	378.14
Tamil Nadu State										
Alagappa	5.00	32.72	11.46	-	-	49.18	-	49.18	2.85	52.03
Anna	0.75	47.42	62.67	9.70	-	120.54	105.91	226.45	6.90	233.35
Annamalai	6.00	31.76	8.90	-	-	46.66	12.81	59.47	-	59.47
Bharathiar	7.00	49.02	0.87	-	-	56.89	28.30	85.19	2.00	87.19
Bharathidasan	5.55	24.94	1.66	-	-	32.15	-	32.15	-	32.15
Madras	7.99	22.32	42.16	0.50	-	72.97	-	72.97	-	72.97
Madurai Kamraj	16.00	31.75	20.85	20.30	-	88.90	6.00	94.90	-	94.90
Mother Teressa	1.00	10.00	0.2	-	-	11.02	-	11.02	-	11.02
Tamil Nadu Agricul.	3.86	22.89	1.57	-	-	28.32	-	28.32	-	28.32
Total	52.15	272.82	150.16	30.50	-	506.63	153.02	659.65	11.75	671.40
Uttar Pradesh State										
Agra	-	10.83	4.51	-	-	15.34	-	15.34	-	15.34
Allahabad	2.21	41.63	138.17	2.10	-	184.00	0.14	184.25	-	184.25

APPENDIX–XXIV (Contd.)

State Universities	A	B	C	D	E	Total	F	Total	Section III	Total
Uttar Pradesh (Contd.)										
Magadh	8.00	0.41	1.06	0.25	-	9.72	-	9.72	-	9.72
Bundelkhand	2.00	-	0.09	-	-	2.09	-	2.09	-	2.09
Chandarsekhar Azad	-	-	-	-	-	-	-	-	-	-
Garhwal	13.00	21.47	6.83	-	-	41.30	-	41.30	-	41.30
GB Pant	-	-	0.02	-	-	0.02	-	0.02	-	0.02
Gorakhpur	9.50	9.65	16.06	11.80	-	47.01	-	47.01	0.75	47.76
Kanpur	5.00	38.49	0.17	-	-	43.66	-	43.66	-	43.66
Kashi Vidyapeeth	4.88	15.80 * 2.76	1.90	1.50	-	24.08 * 2.76	-	24.08 * 2.76	0.78	24.86 * 2.76
Kumon	-	56.79	34.84	1.50	-	93.13	-	93.13	-	93.13
Lucknow	8.00	19.28	109.57	3.10	-	139.95	-	139.95	-	139.95
Meerut	-	4.28	8.95	2.72	-	15.95	-	15.95	-	15.95
ND Univ. of Agricul. and Technology.	-	-	-	-	-	-	-	-	-	-
Rohilkhand	4.00	0.87	8.41	-	-	13.28	-	13.28	-	13.28
Roorkee	4.01	28.80	56.78	21.03	-	110.62	128.22	238.84	0.75	239-59
Sampuranand Sanskrit	-	5.29	5.09	1.50	-	11.88	-	11.88	-	11.88
Purvanchal	-	-	-	-	-	-	-	-	-	-
Total	60.60	25359* 2.76	392.45	45.50	-	752.14* 2.76	128.36	880.50* 2.76	2.28	882.78* 2.76
West Bengal State										
Bidan Chandra Krishi Vishwavidyalaya	-	-	1.07	-	-	1.07	-	1.07	-	1.07
Burdwan	7.23	20.72	11.35	-	-	39.30	-	39.30	-	39.30
Calcutta	-	57.03	52.55	-	-	109.58	8.12	117.70	-	117.70
Jadavpur	2.90	7.53	129.58	-	-	140.01	41.07	181.08	-	181.08
Kalyani	3.50	7.91	18.57	2.00	-	31.98	-	31.98	-	31.98
North Bengal	6.00	17.73	3.92	-	-	27.65	-	27.65	5.00	32.65
Rabindra Bharati	3.00	14.28	4.16	0.29	-	21.73	-	21.73	-	21.73
Vidya Sagar	-	10.00	-	-	-	10.00	-	10.00	-	10.00
Visva-Bharati	-	-	-	-	-	-	-	-	-	-
Total	22.63	135.20	221.20	2.29	-	381.32	49.19	430.51	5.00	435.51

APPENDIX– XXV

Grants Paid to Colleges During 1989-90 under Plan

S.No. Name of the *Universities*	Section A	Section B	Section C	Section D	Section E	Total	Sectoin F	Total	Section III	G.T.
1. A.M.U.										
2. Banaras Hindu	1.36	0.05	-	-	-	1.41	-	1.41	-	1.41
3. Delhi	35.64	284.30 * 0.09	23.87	14.00	-	357.81 * 0.09	8.06	365.87 * 0.09	-	365.87 * 0.09
4. Hyderabad	-	-	1.50	-	-	1.50	-	1.50	-	1.50
5. Jamia Millia Islamia	-	-	-	-	-	-	-	-	-	-
6. JNU	-	-	-	-	-	-	-	-	-	-
7. NEHU	0.75	3.50	1.33	0.68	-	6.26	-	6.26	-	6.26
8. Pondicherry	-	1.77	0.14	0.02	-	1.93	-	1.93	-	1.93
9. Visva–Bharati	-	-	-	-	-	-	-	-	-	-
Total	36.39	290.93 * 0.09	26.89	14.70	-	368.91 * 0.09	8.06	376.97 * 0.09	-	376.97 * 0.09
* By Adjustment										
Andhra Pradesh										
1. A.P. Open	-	-	-	-	-	-	-	-	-	-
2. Andhra	2.67	31.99	6.96	-	-	41.62	-	41.62	0.50	42.12
3. A.P. Agri.	-	-	-	-	-	-	-	-	-	-
4. Jawahar Lal Technical	-	-	-	-	-	-	-	-	-	-
5. Kakatiya	-	12.74	1.41	-	-	14.15	-	14.15	-	14.15
6. Nagarjuna	1.04	23.48 * 0.07	4.29	0.30	6.00	35.11 * 0.07	-	35.11 * 0.07	-	35.11 * 0.07
7. Osmania	2.10	41.94	10.00	1.30	-	55.34	-	55.34	-	55.34
8. Sh. Krishna Devaraya	-	2.80	-	-	-	2.80	-	2.80	-	2.80
9. Sri Venkateswara	-	9.64	1.64	-	8.00	19.28	-	19.28	-	19.28
10. Sri Padmavathi Mahila	-	-	-	-	-	-	-	-	-	-
11. Telugu	-	-	-	-	-	-	-	-	-	-
12. Uni. of Health Science	-	-	-	-	-	-	-	-	-	-
Total	5.81	122.59 * 0.07	24.30	1.60	14.00	168.30 * 0.07	-	168.30 * 0.07	0.50	168.80 * 0.07
* By Adjustment										
Arunachal										
Arunachal Uni.	-	-	0.17	-	-	0.17	-	0.17	-	0.17
Total	-	-	0.17	-	-	0.17	-	0.17	-	0.17
Assam										
1. Assam Agri.	-	-	-	-	-	-	-	-	-	-
2. Dibrugarh	2.77	32.44	2.34	-	-	37.55	-	37.55	-	37.55

APPENDX–XXV (Contd.)

S.No. Name of the University	Section A	Section B	Section C	Section D	Section E	Total	Sectoin F	Total	Section III	G.T.
Assam (Contd.)										
3. Gauhati	1.60	50.82 * 0.37	6.51	-	-	58.93 * 0.37	-	58.93 * 0.37	-	58.93 * 0.37
Total	4.37	83.26 * 0.37	8.85	-	-	96.48 * 0.37	-	96.48 * 0.37	-	96.48 * 0.37
Bihar State										
1. Bhagalpur Uni.	-	28.40	4.35	1.00	-	33.75	-	33.75	-	33.75
2. Bihar	0.80	42.27	2.20	-	-	45.47	0.04	45.51	-	45.51
3. Birsa Agri.	-	-	-	-	-	-	-	-	-	-
4. K.S. Darbhanga Sanskrit	-	-	-	-	-	-	-	-	-	-
5. Magadh	-	47.98	3.72	-	-	51.70	-	51.70	-	51.70
6. L.N. Mithila	-	22.07	5.25	-	-	27.32	-	27.32	0.75	28.07
7. Patna	-	0.82	2.32	-	-	3.14	-	3.14	-	3.14
8. Rajendra Agri.	-	-	-	-	-	-	-	-	-	-
9. Ranchi	-	65.18	8.77	1.85	-	75.80	0.22	76.02	0.50	76.52
Total	0.80	206.92	26.61	2.85	-	237.18	0.26	237.44	1.25	238.69
Gujarat State										
1. Bhavnagar	-	0.38	0.11	-	-	0.49	-	0.49	-	0.49
2. Gujarat Uni.	-	22.35	7.67	0.60	-	30.62	-	30.62	0.05	30.67
3. Gujrat Ayurvedic	-	-	-	-	-	-	-	-	-	-
4. M.S. Uni. of Baroda	-	-	-	-	-	-	-	-	-	-
5. North Gujarat	-	12.17 * 0.22	0.07	-	-	12.24 * 0.22	-	12.24 * 0.22	-	12.24 * 0.22
6. Sardar Patel	-	4.11	0.11	-	-	4.22	0.11	4.33	-	4.33
7. Saurashtra	-	5.71	3.76	-	-	9.47	-	9.47	0.05	9.52
8. South Gujarat	-	13.10	0.36	-	-	13.46	-	13.46	0.08	13.54
Total	-	57.82 * 0.22	12.08	0.60	-	70.50 * 0.22	0.11	70.61 * 0.22	0.18	70.79 * 0.22
Goa State										
1. Goa Uni.	-	12.41	2.36	-	-	14.77	-	14.77	-	14.77
Total	-	12.41	2.36	-	-	14.77	-	14.77	-	14.77
Haryana State										
1. Haryana Agri.	-	-	-	-	-	-	-	-	-	-
2. Kurukshetra	4.60	55.59	17.55	0.10	-	77.84	-	77.84	-	77.84
3. Maharishi Dayanand	-	16.56	3.36	-	-	19.92	-	19.92	-	19.92
Total	4.60	72.15	20.91	0.10	-	97.76	-	97.76	-	97.76

APPENDX–XXV (Contd.)

S.No. Name of the University	Section A	Section B	Section C	Section D	Section E	Total	Sectoin F	Total	Section III	G.T.
Himachal Pradesh										
1. Himachal Pradesh	-	17.18	9.77	0.05	-	27.00	-	27.00	-	27.00
2. H.P. Krishi.	-	-	-	-	-	-	-	-	-	-
3. Dr. Y.S.P. Uni. of Horticulture and Forestry	-	-	-	-	-	-	-	-	-	-
Total	-	17.18	9.77	0.05	-	27.00	-	27.00	-	27.00
Jammu & Kashmir										
1. Jammu	-	13.28	3.25	-	-	16.53	-	16.53	-	16.53
2. Kashmir	-	6.58	5.54	-	-	12.12	-	12.12	-	12.12
3. Sher–e–Kashmir Uni. of Agri. Sci. and Technology	-	-	-	-	-	-	-	-	-	-
Total	-	19.86	8.79	-	-	28.65	-	28.65	-	28.65
Kerala State										
1. Calicut	-	45.55 * 0.04	7.31	1.50	-	54.36 * 0.04	-	54.36 * 0.04	0.30	54.66 * 0.04
2. Cochin Uni. of Sci. & Tech.	-	-	-	-	-	-	-	-	-	-
3. Kerala	-	39.12 * 0.80	20.40	-	-	59.52 * 0.80	-	59.52 * 0.80	0.25	59.77 * 0.80
4. Kerala Agri.	-	-	-	-	-	-	-	-	-	-
5. Gandhi Uni. Kottayam	-	33.47	16.79	-	-	50.26	-	50.26	-	50.26
Total	-	118.14 * 0.84	44.50	1.50	-	164.14 * 0.84	-	164.14 * 0.84	0.55	164.69 * 0.84
* By Adjustment										
Karnataka State										
1. Alughpur	-	-	-	-	-		-	-	-	-
2. Bangalore	0.60	19.21	4.39	0.15	-	24.35	-	24.35	-	24.35
3. Karnataka	-	34.94	3.94	1.45	-	40.33	-	40.33	-	40.33
4. Kovempu	-	3.06	-	0.11	-	3.17	-	3.17	-	3.17
5. Mangalore	1.00	6.58	3.49	-	-	11.07	0.05	11.12	-	11.12
6. Mysore	3.00	9.48	1.20	-	-	13.68	-	13.68	-	13.68
7. Gulbarga	1.00	14.59	5.40	0.28	-	21.17	-	21.17	-	21.17
8. Uni. of Agri. Science, Bangalore	-	-	-	-	-	-	-	-	-	-
Total	5.60	87.76	18.42	1.99	-	113.77	0.05	113.82	-	113.82

APPENDX–XXV (Contd.)

S.No. Name of the University	Section A	Section B	Section C	Section D	Section E	Total	Sectoin F	Total	Section III	G.T.
Manipur State										
1. Manipur	2.00	12.66	2.93	-	-	17.59	-	17.59	-	17.59
Total	2.00	12.66	2.93	-	-	17.59	-	17.59	-	17.59
Madhya Pradesh State										
1. A.P.S. Uni.	-	10.24	3.56	-	-	13.80	-	13.80	0.02	13.82
2. Bhopal	-	22.25	3.94	-	6.00	32.19	-	32.19	0.03	32.22
3. Guru Ghasidas	-	7.13	2.63	-	-	9.76	-	9.76	-	9.76
Madhya Pradesh State (Contd.)										
4. Indira Kala Sangeet	-	-	-	-	-	-	-	-	-	-
5. Indira Gandhi Krishi Vishwa Vidyalaya	-	-	-	-	-	-	-	-	-	-
6. Devi Ahilya Vishwa Vidyalaya.	-	18.88	1.26	-	-	20.14	-	20.14	-	20.14
7. Rani Durgawati	-	10.74	7.99	-	-	18.73	-	18.73	-	18.73
8. Jawaharlal Nehru Krishi	-	-	-	-	-	-	-	-	-	-
9. Jiwaji	-	17.45	2.41	0.13	4.00	23.99	-	23.99	0.02	24.01
10. Ravi Shankar	-	8.95	1.30	-	-	10.25	-	10.25	-	10.25
11. Dr. H.S. Gour	-	18.57	9.68	0.25	-	28.50	-	28.50	-	28.50
12. Vikram	-	4.64	1.34	-	-	5.98	-	5.98	-	5.98
Total	-	118.85	34.11	0.38	10.00	163.34	-	163.34	0.07	163.41
Maharashtra State										
1. Amaravati	0.08	36.41	4.69	0.02	-	41.30	-	41.30	0.20	41.50
2. Bombay	-	44.55	19.40	0.19	-	64.14	-	64.14	-	64.14
3. Konkan Krishi	-	-	-	-	-	-	-	-	-	-
4. Mahatma Phule Krishi	-	-	-	-	-	-	-	-	-	-
5. Marathwada Krishi	-	-	-	-	-	-	-	-	-	-
6. Marathwada Krishi	3.87	53.60 * 0.05	31.49	0.50	-	89.46 * 0.05	-	89.46 * 0.05	0.10	89.56 * 0.05
7. Nagpur	0.19	40.19	4.50	2.45	-	47.33	-	47.33	0.18	47.51
8. Poona	2.31	62.01	31.35	1.53	-	97.20	-	97.20	0.04	97.24
9. Punjabrao Krishi.	-	-	-	-	-	-	-	-	-	-
10. S.N.D.T. Women	0.50	4.01	2.00	-	-	6.51	-	6.51	-	6.51
11. Shivaji	-	27.35	9.52	0.30	-	37.17	-	37.17	0.13	37.30
Total	6.95	268.12 * 0.05	102.95	5.09	-	383.11 * 0.05	-	383.11 * 0.05	0.65	383.76 * 0.05

* By Adjustment

APPENDX–XXV (Contd.)

S.No. Name of the University	Section A	Section B	Section C	Section D	Section E	Total	Sectoin F	Total	Section III	G.T.
Orissa State										
1. Berhampur	1.00	17.43	5.21	-	-	23.64	-	23.64	0.07	23.71
2. Jagannat Sanskrit	-	-	-	-	-	-	-	-	-	-
3. Orissa Uni. of Agri. and Tech.	-	-	-	-	-	-	-	-	-	-
4. Sambalpur	-	30.41	1.74	-	-	32.15	-	32.15	-	32.15
5. Utkal	0.08	47.85 * 0.33	7.03	0.15	-	55.11 * 0.33	-	55.11 * 0.33	0.25	55.36 * 0.33
Total	1.08	95.69 * 0.33	13.98	0.15	-	110.90 * 0.33	-	110.90 * 0.33	0.32	111.22 * 0.33
Punjab State										
1. Guru Nanak Dev	1.40	63.91	27.18	1.23	-	93.72	-	93.72	-	93.72
2. Panjab	-	67.68	15.40	0.18	-	83.26	-	83.26	-	83.26
3. Punjab Agri.	-	-	-	-	-	-	-	-	-	-
4. Punjabi	2.16	37.00	12.94	0.09	-	52.19	-	52.19	-	52.19
Total	3.56	168.59	55.52	1.50	-	229.17	-	229.17	-	220.17
Rajasthan State										
1. Ajmer	1.75	25.07	5.24	-	-	32.06	-	32.06	0.01	32.07
2. Jodhpur	-	-	0.15	-	-	0.15	-	0.15	-	0.15
3. Kota Open	-	-	-	-	-	-	-	-	-	-
4. M.L. Sukhadia	-	3.48	0.25	-	-	3.73	-	3.73	-	3.73
5. Rajasthan Agri.	-	-	-	-	-	-	-	-	-	-
6. Rajasthan	-	47.18	11.36	-	3.00	61.54	-	61.54	0.25	61.79
Total	1.75	75.73	17.00	-	3.00	97.48	-	97.48	0.26	97.74
Tamil Nadu State										
1. Bharathidesan	-	27.81	2.66	-	16.00	46.47	-	46.47	-	46.47
2. Annamalai	-	-	-	-	-	-	-	-	-	-
3. Anna	-	-	-	-	-	-	-	-	-	-
4. Bharathian	-	14.27	5.37	-	15.59	35.23	-	35.23	0.20	35.43
5. Madras	0.20	77.46	16.92	-	27.00	121.58	-	121.58	-	121.58
6. Madurai Kamraj	0.25	112.29	16.44	1.35	40.50	170.83	-	170.83	-	170.83
7. Mother Teresa	-	-	-	-	-	-	-	-	-	-
8 Tamil Nadu Agri.	-	-	-	-	-	-	-	-	-	-
9. Tamil	-	-	-	-	-	-	-	-	-	-
Total	0.45	231.83	41.39	1.35	99.09	374.11	-	374.11	0.20	374.31

APPENDX–XXV (Contd.)

S.No. Name of the University	Section A	Section B	Section C	Section D	Section E	Total	Sectoin F	Total	Section III	G.T.
Tripura State										
1. Tripura	-	-	0.10	-	-	0.10	-	0.10	-	0.10
Total	-	-	0.10	-	-	0.10	-	0.10	-	0.10
Uttar Pradesh										
1. Agra	-	75.86	18.73	-	-	94.59	-	94.59	-	94.59
2. Allahabad	-	10.04	6.00	0.10	-	16.14	0.05	16.19	0.10	16.29
3. Avadh	7.03	36.75	6.72	-	-	50.50	-	50.50	0.25	50.75
4. Bundelkhand	-	28.78	6.27	-	-	35.05	-	35.05	-	35.05
5. C.A. Uni. Of Agri. & Tech.	-	-	-	-	-	-	-	-	-	-
6. G.B.Pant Uni. of Agri. & Tech.	-	-	-	-	-	-	-	-	-	-
7. Garhwal	-	16.26	9.70	-	-	25.96	-	25.96	0.05	26.01
8. Gorakhpur	-	84.96	15.08	0.77	-	100.81	-	100.81	0.92	101.73
9. Kanpur	-	104.71	19.83	0.33	-	124.87	-	124.87	-	124.87
10. Kashi Vidyapith	-	-	-	-	-	-	-	-	-	-
11. Kumaon	-	21.36	1.93	-	-	23.29	-	23.29	0.05	23.34
12. Lucknow	-	10.17	1.73	-	-	11.90	-	11.90	0.22	12.12
13. Meerut	0.25	112.59 * 0.07	28.03	-	-	140.87 * 0.07	-	140.87 * 0.07	0.03	140.90 * 0.07
14. N.D.Uni. of Agri. & Tech.	-	-	-	-	-	-	-	-	-	-
15. Rohilkhand	0.50	34.13	1097	0.15	-	45.75	-	45.75	-	45.75
16. Roorkee	-	-	-	-	-	-	-	-	-	-
17. Sampurananand	-	-	-	-	-	-	-	-	-	-
Total	7.78	535.61 * 0.07	124.99	1.35	-	669.73 * 0.07	0.05	699.78 * 0.07	1.62	671.40 * 0.07
West Bengal State										
1. Burdwan	1.32	34.05 * 0.68	6.91	-	-	42.28 * 0.68	-	42.28 * 0.68	0.10	42.38 * 0.68
2. B.C.Krishi.	-	-	-	-	-	-	-	-	-	-
3. Calcutta	0.02	58.34 * 0.22	32.41	22.15	-	112.92 * 0.22	-	112.92 * 0.22	0.07	112.99 * 0.22
4. Jadavpur	-	1.50	1.00	0.51	-	3.01	-	3.01	-	3.01
5. Kalyani	-	1.33	1.32	0.24	-	2.89	-	2.89	-	2.89
6. North Bengal	-	19.99 * 0.10	0.97	0.15	-	21.11 * 0.10	-	21.11 * 0.10	3.00	24.11 * 0.10

APPENDIX–XXV (Contd.)

S.No. Name of the University	Section A	Section B	Section C	Section D	Section E	Total	Sectoin F	Total	Section III	G.T.
West Bengal State (Contd.)										
6. North Bengal	-	19.99 * 0.10	0.97	0.15	-	21.11 * 0.10	-	21.11 * 0.10	3.00	24.11 * 0.10
7. Vidya Sagar	-	6.97	2.72	0.32	-	10.01	-	10.01	-	10.01
8. Rabindra Bharati	-	-	-	-	-	-	-	-	-	-
Total	1.34	122.18 * 1.00	45.33	23.37	-	192.22 * 1.00	-	192.22 * 1.00	3.17	195.39 * 1.00
Grand Total	82.48	2718.28 * 3.04	641.95	56.58	126.09	3625.38 * 3.04	8.53	3633.91 * 3.04	8.77	3642.68 * 3.04

* By Adjustment

Summary of Plan Expenditure–1989-90

Purpose	Develp. of Link between diff. section	Schemes for qualt. improv.of edu.	Pro. qualt. imp. Res.	Prog. to reduceof disparities.	Progm. for impro. of mgt.	Total	Develop. of Eng.& Tech.	Total	Section III grants for specific purpose	
	Section A	Section B	Section C	Section D	Section E	Total	Sectoin F	Total	Section III	G.T.
Central Universities	49.27	2311.86	466.97 * 0.31	120.99	-	2949.09 * 0.31	342.40	32.91 * 0.31	7.39	3298.88 * 0.31
Science Centre	-	1.90	585.41	-	-	587.31	-	587.31	-	587.31
Deemed Universities	77.17	370.32 * 3.77	202.12	84.38	0.01	734.00 * 3.77	238.15	972.15 * 3.77	12.98	985.13 * 3.77
State University	513.70	2072.63 * 2.76	2111.43 * 0.52	247.22	1.64	4946.62 * 3.28	628.78	5575.40 * 3.28	63.14	5638.54 * 3.28
Sub Total	640.14	4756.71 ** 6.53	3365.93 * 0.83	452.59	1.65	9217.02 * 7.36	1209.33	10476.35 * 7.36	83.51	10509.86 * 7.36
Colleges	82.48	2718.28 * 3.04	641.95	56.58	126.09	3625.38 * 3.04	8.53	3633.91 * 3.04	8.77	3642.68 * 3.04
Non–Uni. Inst.	-	-	-	-	16.26	16.26	-	16.26	-	16.26
Sub Total	722.62	7474.99 * 9.57	4007.88 * 0.83	509.17	144.00	12858.66 * 10.40	1217.86	14076.52 * 10.40	92.28	14168.80 * 10.40
Expenditure from Establishment	-	15.46	86.82	0.77	56.16	159.21	-	159.21	-	159.21
Grand Total	722.62	7490.45 * 9.57	4094.70 * 0.83	509.94	200.16	13017.87 * 10.40	1217.86	14235.73 * 10.40	92.28	14328.01 * 10.40

APPENDIX–XXVI

Statement Showing Maintenance Grants (Non–plan) and Recuring Expenditure (Non–plan) in respect of Central Universities, Institution Deemed to be Universities and State Universities for the year 1987–88

A. CENTRAL UNIVERSITIES

(Rs. in lakhs)

State/University	Non-plan maintenance Grant from UGC	Total Non-plan Recurring Expenditure
1	2	3
ANDHRA PRADESH		
1. Hyderabad	396.00	447.21
MEGHALAYA		
2. North Eastern Hill	704.60	N.A.
UTTAR PRADESH		
3. Aligarh Muslim	2,383.30	2,619.65
4. Banaras Hindu	3,182.40	3,339.92
WEST BENGAL		
5. Visva Bharti	671.10	N.A.
DELHI (U.T.)		
6. Delhi	1,546.49	1,779.63
7. Indira Gandhi Open	–	–
8. Jawaharlal Nehru	892.95	880.71

N.A. = Stands for not available.

APPENDIX–XXVI (Contd.)

B. INSTITUTIONS DEEMED TO BE UNIVERSITIES

(Rs. in lakhs)

State/University	Non-plan maintenance Grant from UGC	Total Non-plan Recurring Expenditure
1	2	3
ANDHRA PRADESH		
1. Central Instt. of English & Foreign Languages	170.32	157.97
2. Sri Sathya Sai Instt. Higher Learning	–	45.52
BIHAR		
3. Birla Institute of Technology	–	10.00
4. Indian School of Mines	309.90	338.90
GUJARAT		
5. Gujarat Vidyapeeth	115.05	N.A.
KARNATAKA		
6. Indian Instt. of Science	1,286.22	1,414.98
MAHARASHTRA		
7. International Instt. for Population Science	–	51.61
8. Tata Institute of Social Science	111.15	120.26
9. Tilak Maharashtra Vidyapeeth	–	20.30
RAJASTHAN		
10. Banasthali Vidyapeeth	–	104.14
11. Birla Instt. of Technology & Science	–	232.52
TAMIL NADU		
12. Gandhigram Rural Instt.	110.30	123.50
UTTAR PRADESH		
13. Dayalbagh Educational Institute	20.62	73.37
14. Gurukul Kangri	67.90	68.00
15. Central Institute of Higher Tibetan Studies	–	48.18
DELHI (U.T)		
16. Jamia Millia Islamia	298.54	365.79
17. School of Planning & Architecture	–	100.38

N.A. = Stands for not available.

APPENDIX–XXVI (Contd.)

C. STATE UNIVERSITIES:

(Rs. in lakhs)

State/University	Non-plan maintenance Grant from Stzte Govt.	Total Non-plan Recurring Expenditure
1	2	3
ANDIIRA PRADESH		
1. Andhra	768.49	1135.79
2. J.L. Nehru Tech.	308.14	407.66
3. Kakatiya	154.73	186.94
4. Nagarjuna	150.86	252.78
ARUNACHAL		
5. Arunachal (New University)	–	–
ASSAM		
6. Dibrugarh	135.00	186.18
BIHAR		
7. Magadh	1550.53	2201.16
GOA		
8. Goa	27.05	29.87
GUJARAT		
9. Gujarat	305.88	569.55
10. Gujarat Ayurveda	79.20	173.77
11. North Gujarat (New University)	–	–
12. Saurashtra	183.84	320.54
13. South Gujarat	138.85	259.02
HARYANA		
14. Kurukshetra	554.94	714.47
15. Maharishi Dayanand	342.73	406.44
JAMMU & KASHMIR		
16. Jammu	270.00	391.27
KARNATAKA		
17. Bangalore	412.38	714.96
18. Karnatak	588.61	810.62
19. Mangalore	126.76	160.05
20. Mysore	489.86	782.07
KERALA		
21. Cochin Univ. of Sc. & Tec'..	198.35	228.52

APPENDIX–XXVI (Contd.)

State/University	Non-plan maintenance Grant from Stzte Govt.	Total Non-plan Recurring Expenditure
1	2	3
MADHYA PRADESH		
22. Devi Ahilaya	103.61	207.63
23. Guru Ghasidas	28.01	63.31
24. Rani Durgavati	136.96	212.91
25. Vikram	141.76	236.73
MAHARASHTRA		
26. Amravati	31.94	103.31
27. Bombay	329.81	848,27
28. Marathwada	251.89	477.43
29. Shivaji	241.28	494.11
MANIPUR		
30. Manipur	150.00	173.51
ORISSA		
31. Berhampur	25.75	97.78
32. Sambalpur	139.50	200.71
PUNJAB		
33. Panjab	1,038.23	1,399.90
RAJASTHAN		
34. Jodhpur	574.10	680.54
35. M.L. Sukhadia	245.85	308.98
TAMIL NADU		
36. Alagappa	95.03	71.24
37. Anna	470.24	547.82
38. Bharathiar	60.03	150.66
39. Bharathidasan	60.03	166.55
40. Madras	197.14	642.24
41. Mother Teressa Women's	40.00	53.58
UTTAR PRADESH		
42. Avadh	0.85	78.18
43. Kumaon	132.67	186.36
44. Rohilkhand	–	1.17
WEST BENGAL		
45. Burdwan	423.28	577.93
46. North Bengal	304.68	331.47

APPENDIX–XXVI (Contd.)

State/University	Non-plan maintenance Grant from Stzte Govt.	Total Non-plan Recurring Expenditure
1	2	3
WEST BENGAL Contd.		
47. *Rabindra Bharti*	175.04	230.01
48. Vidya Sagar	25.00	48.59

NOTE :–

1. In the case of Central Universities and Institution deemed to be Universities, the maintenance grants paid by the University Grants Commission and the expenditure as reported by the Universities has been shown. In respect of State Universities the figures given in this appendix are based on the information received from different State Universities.

2. Only the maintenance grants received by the Universities from either the University Grants Commission or State Governments as the case may be and the total recurring expenditure (non–plan) has been given. Funds received by the Universities from sources other than State Govt. (for State Universities) and University Grants Commission (for Central Universities and Institutions deemed to be universities) have not been shown.

3. Recurring expenditure (Non–plan) includes only items like salaries of teaching staff, administrative staff, purchase of chemicals, maintenance of equipment, conduct of examination, maintenance of buildings and other expenditure on day to day activities.

APPENDIX–XXVII

Details of Foreign Tour Undertaken by the Chairman / Secretary / other officials of the Commission during the year 1989–90 (1.4.89 to 31.3.90)

	Name of the Country visited	From	To	Purpose	Remarks
1	2	3		5	6
Prof. Yashpal Chairman	Vienna, Austria	3 – 12 September 1989		To attend Bureau of U.N.A.C.S.T.D. Meeting in his capacity as one of the Vice–Chair persons.	Cost of Travel, Stady paid by U.N.A.C.S.T.D.
	Quebec, Canada	18 – 24 September 1989		IUPAP in his capacity as one of the Vice–Presidents	Cost of Travel and Stay paid by IUPAP
	New York, USA	23 – 26 October 1989		U.N. Meeting	Cost of Travel and Stay paid by U.N.
	Trieste, Italy	29th October to Ist November 1989		Scientific Advisory Council of ICTP, Italy.	Cost of Travel and Stay paid by ICTP.
	Riyadh, S. Arabia	10 – 16 November 1989		To receive Association of Space Explorers Award	Cost of Travel and Stay paid by the Association of Space Explorers, U.S.A.
	Colombo and Kandy, Sri Lanka	3 – 6 March 1990		Meeting with Sri Lankan President to discuss Admission of 500 SriLankan Students in Indian Universities and Colleges.	Cost of Travel met by UGC, stay etc. arranged
Prof. S.K. Khanna Secretary	Delhi-London-New York	19 July 1989 to 9 August 1989		Participation in the Conference of University Administration	Expenditure met by the U.G.C.
Dr. M.L. Mehta Additional Secretary II	Yugoslavia	27.8.89	3.9.89	Under Cultural Exchange Programme	Expenditure met by the U.G.C.
Dr. C.P. Srivastava Joint Secretary	a) Aden b) Iran c) Netherlands & Bulgaria	4.9.89 11.12.89 21.2.90	8.9.89 18.12.89 3.3.90	–do– As a member of the Indian delegation Under Cultural Exchange Programme	–do– –do– –do–
Shri Davis Thomas Deputy Secretary	Somalia	6.3.90	13.3.90	–do–	–do–
Dr. P.S. Rajput Education Officer	Baharain	13.3.90	23.3.90	–do–	–do–

APPENDIX–XXVIII

Universities having Facilities for Correspondence Courses during 1989–90

* 1988–89 Information
* 1987–88 Information

State/University	Title of Course	Enrolment		
		Men	Women	Total
ANDHRA PRADESH				
Andhra				
	B.A.	15,380	9.178	24,558
	B.Com.	3,004	891	3,895
	B.Sc.	381	52	433
	M.A.	2,111	1,627	3,738
	M.Com.	866	371	1,237
	B.Ed.	433	280	723
	M.Ed.	85	15	100
	P.G. Dip. in Cooperation & Rural Studies	95	5	100
	P.G. Dip. in Environmental Studies	202	22	224
	P.G. Dip. in Functional English	75	24	99
	P.G. Dip. in Translation Introductory Courses	66	30	96
Andhra Pradesh Open		530	153	683
	B.A.			
	B.Com.	11,381	4,985	16,366
	B.Sc.			
	B. Lib. & Infn. Science	401	175	576
	P.G. Dip. in Pub. Account	503	39	542
	P.G. Dip. in Public Relation	905	135	1,040
Kakatiya				
	B.A.	19	41	60
	M.A.	492	172	664
	M.Sc. (Maths)	201	32	233
	M. Phil.	64	28	92
	Diploma in Computer Application	17	3	20
	Diploma in Rural Development	13	2	15
	Diploma in Rural Banking & Cooperation	14	3	17

APPENDIX-XXVIII (Contd.)

State/University	Title of Course	Enrolment		
		Men	Women	Total
Kakatiya (Contd.)				
	Dip. in Business Mngt.	38	8	46
	B.Lib. & Infn. Science	41	27	68
	B.Ed.	155	85	240
	M. Com.	154	42	196
	Dip. in Personnel Mgnt. & Industrial Relation	161	70	231
	Cert. in Lib. & Infn. Sc.	62	38	100
Jawahar Lal Nehru Technology				
	B. Tech.	1,196	55	1,251
Osmania				
	B. A.	175	272	447
	B. Com.	397	361	758
	M.A. (Economics)	102	181	283
	M. Sc. (Maths)	1,619	320	1,939
	M. Com.	86	35	121
	B.Ed.	601	214	815
	M.Ed.	65	34	99
	PG Dip. in Maths	86	35	121
Sri Venkateswara				
	B. A.	30	11	41
	B. Com.	12	5	17
	M.A.	457	189	646
	M. Sc. (Maths)	267	50	317
	Cert. in Infn. System through COBOL	47	5	52
	Cert. in Scientific Application through FORTRAN	45	3	48
	Cert. in Word Processing and Data Management	44	8	52
	M.Com.	232	48	280
	B.Ed.	190	92	282
	Jr. Dip. in Linguistics **	5	9	14
	Sr. Dip. in Linguistics **	12	5	17
	Dip. in Pub. Admn.	51	8	59
	Cert. in Lib. Sc.	494	109	603

APPENDIX–XXVIII (Contd.)

State/University	Title of Course	Enrolment		
		Men	Women	Total
Central Institute of English & Foreign Languages				
	M.A.	2	18	20
	PG Dip. in Teaching of Engg.	131	96	227
	PG Cert. in Teaching of Engg.	494	387	881
BIHAR				
Patna				
	Inter Arts			
	Inter Com.			
	B.A.			
	B.A. (Hons)	4596	1036	5632
	B.Com.			
	B.Com. (Hons)			
Ranchi			–Not Available–	
GUJARAT				
Gujarat Vidyapeeth				
	M.A. (Gandhian Thought)	25	7	32
	M.Ed.	87	10	97
HARYANA				
Kurukshetra				
	B.A.	1,257	100	1,357
	B.Com.	222	116	338
	PG Dip. in Tourism & Hotel Mgnt.	265	20	285
	Pre–Deg. (10 + 2 System)	1,715	1,226	2,941
Maharishi Dayanand				
	B.Ed.	3,968	10,071	14,039
HIMACHAL PRADESH				
Himachal Pradesh				
	XI.	127	21	148
	XII.	75	8	83
	B.A.	536	42	578
	M.A.	6,498	2,646	9,144

APPENDIX–XXVIII (Contd.)

State/University	Title of Course	Enrolment		
		Men	Women	Total
Himachal Pradesh (Contd.)				
	M.Com.	2,495	1,085	3,550
	M.Ed.	1,930	827	2,757
JAMMU & KASHMIR				
Jammu*				
	B.A.	25	15	40
	B.Com.	12	1	13
	M.Com.	72	99	171
	B.Ed.	324	157	481
	LL.B.	295	32	327
	Cert. in Urdu	7	2	9
	Cert. in English Improvement	15	7	22
Kashmir				
	Higher Secondary	5	–	5
	B.A.	25	6	31
	B.Com.	4	2	6
	M.A.	55	21	76
	M.Com.	39	4	43
	B.Ed.	262	257	519
	Cert. in Hindi	–	2	2
	Cert. in Urdu	23	1	24
	Cert. in Lib. Infn. Sc.	41	65	106
	LL.B.	97	13	110
KARNATAKA				
Bangalore				
	B.A.	491	498	989
Mysore				
	B.A.	1,027	758	1,785
	B.Com.	169	222	391
	B.Ed.	408	92	500
	M.A.	1,562	872	2,434
	M.Com.	213	110	323
	PG Dip. in Business Taxation	151	21	172
	PG Dip. in Marketing Mngt.	362	69	431

APPENDIX–XXVIII (Contd.)

State/University	Title of Course	Enrolment		
		Men	Women	Total
Mysore (Contd.)				
	PG PUC Dip. in Kannada	53	17	70
	PG Dip. in English	125	67	192
	Dip. in Sanskrit	12	17	29
	Cert. in Kannada	34	28	62
	Diploma in Journalism	308	58	366
Under Open University System				
	B.A.	4,853	2,384	7,237
	B.Com.	528	107	635
	M.A.	5,111	1,487	6,598
	M.Com.	275	43	318
KERALA				
Calicut				
	Pre–Degree	66	16	82
	B.A.	283	106	189
	B.Com.	50	24	74
	M.A.	189	66	255
Open University System				
	B.A.*	2,503	625	3,128
	B.Com.*	1,495	374	1,869
Kerala				
	Pre–Degree	160	30	190
	B.A.	280	205	4 85
	B.Com.	86	40	126
	M.A.	630	353	983
	M.Com.	202	65	267
MADHYA PRADESH				
Bhopal				
	B.A.	85	31	116
	B.Com.	36	5	41
	B.Ed.	1,310	639	1,949
MAHARASHTRA				
Bombay				
	B.A.	2,019	1,886	3,905
	B.Com.	2,368	1,320	3,688

APPENDIX–XXVIII (Contd.)

State/University	Title of Course	Enrolment		
		Men	Women	Total
Bombay (Contd.)				
	M.A.	1,204	2,205	3,409
	M.Com.	2,011	1,914	3,925
	Dip. in Financial Mgnt.	402	116	518
	Dip. in Operation Res. for Mgnt.	107	11	118
	M.Sc. (Maths)	235	137	372
Poona				
	B.A.	144	90	234
	B.Com.	201	60	261
Shivaji				
	B.Ed.	54	23	77
S.N.D.T. Women's				
	U.E.T.(Univ. Ent. Test)	-	3,122	3,122
	B.A.	-	8,140	8,140
	B.Com*	-	295	295
	Cert. Improve Your English	-	25	25
	Cert. in Family saving & Investment	-	23	23
Tilak Maharashtra				
	B.A. (Visharad)	3,020	985	4,005
Yashwant Rao Chavan Open				
	B.A./B.Com.(Prep)	996	244	1,240
	B.A./B.Com.	2,075	576	2,651
	Cert. in Agriculture	81	-	81
ORISSA				
Berhampur				
	B.Ed.	524	222	756
Utkal				
	B.A.	3,592	2,050	5,642
	B.com.	252	22	274
	B.Ed.	695	307	1,002
PUNJAB				
Panjab				
	B.A.	1,341	346	1,687

APPENDIX–XXVIII (Contd.)

State/University	Title of Course	Enrolment		
		Men	Women	Total
Punjab (Contd.)				
	B.Com.	355	73	428
	M.A.	2,082	1,958	4,040
	Dip. in Statistics	52	27	79
	Dip. in Popu. Education	16	10	26
	Dip. in Office Orgn. & Procedure	103	33	136
Punjabi				
	Punjabi Praveshika	4	5	9
	Gyani	86	80	166
	B.A.	837	110	947
	B.Com.	87	14	101
	M.A.	2,353	1,893	4,246
	M.phil.	21	37	58
	M.B.A.	182	-	182
	B.Ed.	6	9	15
	M.Ed.	154	146	300
	PG Dip. in Mngt. of Pub. Enterprises	130	35	165
	PG Dip. in Pub. Relations and Advertosing	107	143	250
	Dip. in Library Sc.	156	300	456
	Dip. in personnel Mgnt, Ind. Relations.	196	7	203
	ip. in International Marketing	19	1	20
	Dip. in Marketing Mgnt.	109	–	109
	Dip. in Material Mngt.	168	–	168
	Dip. in Project Mngt.	41	1	42
	Dip. in Production Mngt.	58	–	58
	Dip. in Banking	21	–	21
	Dip. in Divinity	93	88	181
	Dip. in Finance & Bank Mngt.	42	1	43
RAJASTHAN				
Kota Open				
	B.A.	–	–	–

APPENDIX–XXVIII (Contd.)

State/University	Title of Course	Enrolment		
		Men	Women	Total
Under Open Univ. System				
	B.A. (Preparatory)	1,830	674	2,504
	B.A. (Foundation)	72	27	99
	B.Com. (Preparatory	338	17	355
	B.Com. (Foundation)	23	3	26
	B.Ed.	–	–	5,316
	BJ & MC	–	–	895
	Dip. in Lib. Sc.	2,298	1,202	3,500
	Dip. in Mngt (Module I)	656	21	677
	Dip. in Hotel Mgnt & Tourism	240	23	263
	Dip. in Labour Law	478	18	496
Note: The enrolment at Postgraduate level was not supplied by the university for the year 1989–90.				
TAMIL NADU				
Alagappa				
	Dip. in Computers and App. Software	280	64	344
Annamalai				
	Foundation courses (I & II Years)	445	358	803
	B.A.	2,250	1,755	4,005
	B. Litt.	1,008	866	1,874
	B.Sc. (Maths)	445	284	729
	B. Com.	1,620	760	2,380
	M.A.	3,348	2,484	5,832
	M.Sc.	1,803	951	2,754
	M. Com.	2,001	650	2,651
	B.Ed.	7,665	7,533	1,5,202
	M.Ed.	2,581	1,640	4,221
	B.A.L.	342	34	376
	B.G.L.	609	40	649
	P.G.D.B.A.	1,284	88	1,372
	PG Dip. in Marketing Mngt.	710	13	723
	PG Dip. in Production Mngt.	461	5	466
	PG Dip. in Personnel Mngt.	1,102	36	1,138

APPENDIX–XXVIII (Contd.)

State/University	Title of Course	Enrolment		
		Men	Women	Total
Annamalai (Contd.)				
	PG Dip. in Material Mngt.	740	5	745
	PG. Dip. in Financial Mngt.	257	10	267
	PG. Dip. in Company Law	19	4	23
	PG. Dip. in Labour Law	383	21	404
	PG. Dip. in Mngt. Law	14	2	16
	PG. Dip. in Taxation Law	57	6	63
	PG. Dip. in Criminology Law	3	3	36
	PG. Dip. in Insurance Law	16	3	19
	JOB ORIENTED COURSES			
	PG. Dip. in Chemical Process, Instrumentation & Control.	455	14	469
	PG. Dip. in Concrete Tech. & Design of Concrete Structure	442	7	449
	PG. Dip. in Maintenance Mngt.	143	3	145
	Dert. in Automobile Tech.	243	–	243
	PG. Dip. in Cooperative Mngt.	290	22	312
	PG. Dip. in Banking	37	9	46
	PG. Dip. in Construction Mngt.	220	6	226
Madras				
	B.A.	10,803	9,768	20,589
	B.Litt.	1,041	2,139	3,180
	B.Com.	9,424	6,544	15,968
	B.Sc. (Maths)	3,304	2,067	5,371
	M.A.	15,022	11,047	26,069
	M.Com.	4,242	2,401	6,43
	B.Ed.	2,787	3,189	5,976
	M.Ed.	699	418	1,027
	BL & I Sc.	682	397	1,079
	ML & I Sc.	380	131	511
	Dip. in Geography	31	31	62

APPENDIX–XXVIII (Contd.)

State/University	Title of Course	Enrolment		
		Men	Women	Total
Madras (Contd.)				
	PG Dip. in Journalism & M.C.	625	182	807
	Dip. in Labour Law	323	35	358
	Dip. in Taxation Law	202	28	230
	Dip. in Insurance Law	46	9	55
	Dip. in Mercantile Law	21	5	26
	Dip. in Criminal Law	42	7	49
	Dip. in Indian Constitution	12	1	13
	Cert. in Lib. & I Sc.	646	178	824
Open University System				
	B.A.	14,997	6,951	21,948
	B. Lit.	2,011	1,776	3,787
	B. Sc.	987	278	1,265
	B. Com.	5,017	1,096	6,113
Madurai Kamraj				
	B.A.	6,968	7,324	41,292
	B. Lit.	23	20	43
	B. Sc. (Maths)	797	558	1,355
	B.Com.	3,931	2,301	6,232
	M.A.	7,845	4,625	12,470
	M.Com.	2,391	942	1,451
	B.Ed.	628	823	1,451
	M.\ed.	371	448	819
	B.G.L.	845	136	981
	Cert. in J & MC	338	101	439
Open University System				
	Introductory courses	530	122	652
	Pre–Foundation courses	892	147	1,139
	Foundation courses	1,058	799	1,857
	Cert. in Child Health & Family Welfare	27	42	69
	Cert. in Lib I Sc.	270	101	371
	Cert. in Computers in Offic Mngt.	67	26	93
	Dip. in Labour Laws & Admn. Law	257	13	270

State/University	Title of Course	Enrolment		
		Men	Women	Total
Madurai Kamraj Open University System (Contd.)				
	Dip. in Taxation Law	72	5	**77**
	PG Dip. in Tourism	96	17	**113**
Mother Teresa Women's				
	M.A. (Women's Studies)	–	52	**52**
	PG Dip. in Computer Application	–	56	**56**
UTTAR PRADESH				
Allabadad				
	B.A. B.Com.	3,582	754	**4,336**
Kashi Vidyapeeth				
	B.A.	2,675	618	**3,293**
Meerut				
	B.A.	160	100	**260**
	B.Com.	24	16	**40**
	M.A	1,430	1,000	**2,430**
DELHI				
	B.A. (P)	12,066	13,434	**25,500**
	B.A. (H)	102	240	**342**
	B.Com (P).	8,667	2,829	**11,496**
	B.Com. (H)	1,171	452	**1,623**
	M.A.	340	991	**1,331**
	M.Com.	329	545	**874**
Indira Gandhi National Open				
	B.A. B.Com.	–NA–	–NA–	**16,978**
	Dip. in Distance Edu.	–NA–	–NA–	**1,207**
	Dip. in Mngt	–NA–	–NA–	**6,613**
	Dip. in Creative Writing	–NA–	–NA–	**426**
	Cert. in Rural Development	–NA–	–NA–	**287**
	CF & N (Cert. in food & Nutrition)	–	–	–
	BL & I Sc.	–NA–	–NA–	**1,522**
	Adv. Dip. in Management	–NA–	–NA–	**2,142**
	Special Dip. in Management	–NA–	–NA–	**463**

APPENDIX–XXIX

Percentage of Women Enrolment to total Enrolment: State–Wise (1985–86 to 1989–90)

S. No.	State/ Union territory	1985–86		
		Total Enrolment	Women Enrolment	Percentage of women
1.	Andhra Pradesh	2,52,374	86,632	27.2
2.	Assam	69,854	19,408	27.2
3.	Bihar	2,60,001	40,629	15.6
4.	Gujarat	2,18,209	72,808	33.4
5.	Haryana	75,905	27,478	36.2
6.	Himachal Pradesh	19,602	5,084	25.9
7.	Jammu & Kashmir	25,212	8,808	34.9
8.	Karnataka	2,45,139	64,339	26.3
9.	Kerala	1,41,082	70,789	50.2
10.	Madhya Pradesh	2,64,170	76,007	28.8
11.	Maharashtra	4,85,714	1,61,064	33.1
12.	Manipur	9,884	3,401	34.4
13.	Meghalaya/Nagaland	10,296	3,799	36.9
14.	Orissa	80,711	16,981	21.0
15.	Punjab	1,34,479	58,638	43.6
16.	Rajasthan	1,72,466	36,440	21.1
17.	Tamilnadu	2,49,647	88,301	25.4
18.	Uttar Pradesh	4,93,492	1,07,594	21.8
19.	West Bengal/Tripura/Sikkim	2,97,705	97,290	32.7
20.	Delhi	99,087	39,994	40.1
	Total	36,05,029	10,67,484	29.6

APPENDIX–XXIX (Contd.)

Percentage of Women Enrolment to Total Enrolment: State–wise

S.No.	State/ Union territory	1986–87		
		Total Enrolment	Women Enrolment	Percentage of women
1.	Andhra Pradesh	2,62,141	68,255	26.0
2.	Assam	72,788	20,913	28.7
3.	Bihar	2,69,361	40,576	15.1
4.	Gujarat	2,26,457	77,489	34.2
5.	Haryana	79,214	32,163	40.6
6.	Himachal Pradesh	20,739	5,297	25.5
7.	Jammu & Kashmir	26,659	9,550	35.8
8.	Karnataka	2,53,645	69,080	27.2
9.	Kerala	1,46,119	73,468	50.3
10.	Madhya Pradesh	2,73,099	84,458	30.9
11.	Maharashtra	5,06,454	1,75,319	34.6
12.	Manipur	10,523	3,412	32.4
13.	Meghalaya/Nagaland	10,760	4,143	38.5
14.	Orissa	83,084	18,980	22.8
15.	Punjab	1,39,562	63,349	45.4
16.	Rajasthan	1,78,088	99,974	22.4
17.	Tamilnadu	2,73,463	99,575	36.4
18.	Uttar Pradesh	5,11,603	1,09,220	21.3
19.	West Bengal/Tripura/Sikkim	3,07,946	1,09,059	35.4
20.	Delhi	1,02,704	44,569	43.4
	Total	37,54,409	11,48,849	30.6

APPENDIX–XXIX (Contd.)

Percentage of Women Enrolment to Total Enrolment: State–wise

S.No.	State/ Union territory	1987–88		
		Total Enrolment	Women Enrolment	Percentage of women enrolment
1.	Andhra Pradesh	2,72,286	72,378	26.66
2.	Assam	75,845	22,276	29.44
3.	Bihar	2,79,058	44,173	15.88
4.	Gujarat	2,35,017	80,955	34.44
5.	Haryana	82,668	32,677	39.55
6.	Himachal Pradesh	21,942	5,700	26.00
7.	Jammu & Kashmir	28,189	10,611	37.66
8.	Karnataka	2,62,447	72,113	27.55
9.	Kerala	1,51,335	77,738	51.44
10.	Madhya Pradesh	2,82,330	90,505	32.11
11.	Maharashtra	5,28,080	1,88,738	35.77
12.	Manipur	11,204	3,715	33.22
13.	Meghalaya/Nagaland	11,246	4,432	39.44
14.	Orissa	85,527	20,011	23.44
15.	Punjab	1,44,838	67,193	46.44
16.	Rajasthan	1,83,894	42,289	23.00
17.	Tamilnadu	2,99,552	1,10,041	36.77
18.	Uttar Pradesh	5,30,379	1,14,577	21..
19.	West Bengal/Tripura/Sikkim	3,18,539	1,16,702	36..
20.	Delhi	1,06,452	47,265	44..
	Total	39,10,828	12,24,089	31

APPENDIX–XXIX (Contd.)

Percentage of Women Enrolment to Total Enrolment: State–wise

State/ Union territory	1988–89		
	Total Enrolment	Women Enrolment	Percentage of women
Andhra Pradesh	2,82,821	76,336	27.0
Assam	79,030	23,692	30.0
Bihar	2,89,104	46,070	16.0
Gujarat	2,43,901	85,021	35.0
Haryana	86,273	35,143	40.7
Himach Pradesh	23,214	6,038	26.0
Jammu & Kashmir	29,807	11,043	37.0
Karnataka	2,71,554	76,540	28.2
Kerala	1,56,738	81,330	51.9
Madhya Pradesh	2,91,872	95,057	32.6
Maharara	5,50,629	1,95,782	35.6
Manipu	11,929	3,956	33.1
Megha laya/Nagaland	11,753	4,494	38.2
Orissa	88,041	20,869	23.7
Punjab	1,50,313	70,362	46.8
Rajasth han	1,89,889	44,066	23.2
Tamiln adu	3,28,129	1,22,551	37.4
Uttar P radesh	5.49.844	1,21,026	22.0
West B engal/Tripura/Sikkim	3,29,497	1,22,735	37.3
Delhi	1,10,338	49,561	44.9
Total	40,74,676	12,91,672	31.7

APPENDIX–XXIX

Percentage of Women Enrolment to total Enrolment: State–Wise (1985–86 to 1989–90)

S. No.	State/ Union territory	1985–86		
		Total Enrolment	Women Enrolment	Percentage of women
1.	Andhra Pradesh	2,52,374	86,632	27.2
2.	Assam	69,854	19,408	27.2
3.	Bihar	2,60,001	40,629	15.6
4.	Gujarat	2,18,209	72,808	33.4
5.	Haryana	75,905	27,478	36.2
6.	Himachal Pradesh	19,602	5,084	25.9
7.	Jammu & Kashmir	25,212	8,808	34.9
8.	Karnataka	2,45,139	64,339	26.3
9.	Kerala	1,41,082	70,789	50.2
10.	Madhya Pradesh	2,64,170	76,007	28.8
11.	Maharashtra	4,85,714	1,61,064	33.1
12.	Manipur	9,884	3,401	34.4
13.	Meghalaya/Nagaland	10,296	3,799	36.9
14.	Orissa	80,711	16,981	21.0
15.	Punjab	1,34,479	58,638	43.6
16.	Rajasthan	1,72,466	36,440	21.1
17.	Tamilnadu	2,49,647	88,301	25.4
18.	Uttar Pradesh	4,93,492	1,07,594	21.8
19.	West Bengal/Tripura/Sikkim	2,97,705	97,290	32.7
20.	Delhi	99,087	39,994	40.1
	Total	36,05,029	10,67,484	29.6

APPENDIX–XXIX (Contd.)

Percentage of Women Enrolment to Total Enrolment: State–wise

S.No.	State/ Union territory	1986–87		
		Total Enrolment	Women Enrolment	Percentage of women
1.	Andhra Pradesh	2,62,141	68,255	26.0
2.	Assam	72,788	20,913	28.7
3.	Bihar	2,69,361	40,576	15.1
4.	Gujarat	2,26,457	77,489	34.2
5.	Haryana	79,214	32,163	40.6
6.	Himachal Pradesh	20,739	5,297	25.5
7.	Jammu & Kashmir	26,659	9,550	35.8
8.	Karnataka	2,53,645	69,080	27.2
9.	Kerala	1,46,119	73,468	50.3
10.	Madhya Pradesh	2,73,099	84,458	30.9
11.	Maharashtra	5,06,454	1,75,319	34.6
12.	Manipur	10,523	3,412	32.4
13.	Meghalaya/Nagaland	10,760	4,143	38.5
14.	Orissa	83,084	18,980	22.8
15.	Punjab	1,39,562	63,349	45.4
16.	Rajasthan	1,78,088	99,974	22.4
17.	Tamilnadu	2,73,463	99,575	36.4
18.	Uttar Pradesh	5,11,603	1,09,220	21.3
19.	West Bengal/Tripura/Sikkim	3,07,946	1,09,059	35.4
20.	Delhi	1,02,704	44,569	43.4
	Total	37,54,409	11,48,849	30.6

APPENDIX–XXIX (Contd.)

Percentage of Women Enrolment to Total Enrolment: State–wise

S.No.	State/ Union territory	1987–88		
		Total Enrolment	Women Enrolment	Percentage of wcvcvcvcvomen
1.	Andhra Pradesh	2,72,286	72,378	2626262626.6.6
2.	Assam	75,845	22,276	2929292929.9.4
3.	Bihar	2,79,058	44,173	1:5.5.5.5.5.5.8
4.	Gujarat	2,35,017	80,955	3434343434.4.4
5.	Haryana	82,668	32,677	3939393939.9.5
6.	Himachal Pradesh	21,942	5,700	2626262626.6.0
7.	Jammu & Kashmir	28,189	10,611	3737373737.7.6
8.	Karnataka	2,62,447	72,113	2727272727.7.5
9.	Kerala	1,51,335	77,738	5151515151.1.4
10.	Madhya Pradesh	2,82,330	90,505	3232323232.2.1
11.	Maharashtra	5,28,080	1,88,738	3535353535.5.7
12.	Manipur	11,204	3,715	3333333333.3.2
13.	Meghalaya/Nagaland	11,246	4,432	3939393939.9.4
14.	Orissa	85,527	20,011	2323232323.3.4
15.	Punjab	1,44,838	67,193	4646464646.6.4
16.	Rajasthan	1,83,894	42,289	2323232323.3.0
17.	Tamilnadu	2,99,552	1,10,041	3636363636.6.7
18.	Uttar Pradesh	5,30,379	1,14,577	2121212121.1.
19.	West Bengal/Tripura/Sikkim	3,18,539	1,16,702	3636363636.
20.	Delhi	1,06,452	47,265	4444444444.
	Total	39,10,828	12,24,089	3131313131.

APPENDIX–XXIX (Contd.)

Percentage of Women Enrolment to Total Enrolment: State–wise

State/ Union territory	1988–89		
	Total Enrolment	Women Enrolment	Percentage of women
Andhrarararara Pradesh	2,82,821	76,336	27.0
Assam nnnn	79,030	23,692	30.0
Bihar · · · ·	2,89,104	46,070	16.0
Gujararararat	2,43,901	85,021	35.0
Haryanararana	86,273	35,143	40.7
Himachcacichal Pradesh	23m214	6,038	26.0
Jammu uuuuu & Kashmir	29,807	11,043	37.0
Karnatatatatataka	2,71,554	76,540	28.2
Kerala alala a	1,56,738	81,330	51.9
Madhyayyyyya Pradesh	2,91,872	95,057	32.6
Maharararara rashtra	5,50,629	1,95,782	35.6
Manipupipipour	11,929	3,956	33.1
Meghahaaaa alaya/Nagaland	11,753	4,494	38.2
Orissa a a a a	88,041	20,869	23.7
Punjab ibibibb	1,50,313	70,362	46.8
Rajasthithithithan	1,89,889	44,066	23.2
Tamilnadnlnlnnadu	3,28,129	1,22,551	37.4
Uttar P· F F I Pradesh	5,49,844	1,21,026	22.0
West B E E I Bengal/Tripura/Sikkim	3,29,497	1,22,735	37.3
Delhi i i i	1,10,338	49,561	44.9
Total ! ! !	40,74,676	12,91,672	31.7

APPENDIX–XXIX (Contd.)

Percentage of Women Enrolment to Total Enrolment: State–wise

S.No.	State/ Union territory	1989–90		
		Total Enrolment	Women Enrolment	Percentage of women
1.	Andhra Pradesh	2,93,,766	80,459	27.4
2.	Assam	82,381	25,061	30.4
3.	Bihar	2,99,743	48,471	16.2
4.	Gujarat	2,53,316	89,605	35.4
5.	Haryana	90,034	37,216	41.3
6.	Himachal Pradesh	24,579	6,509	46.5
7.	Jammu & Kashmir	31,518	11,850	37.6
8.	Karnataka	2,80,977	80,363	28.6
9.	Kerala	1,62,347	85,484	52.7
10.	Madhya Pradesh	3,01,738	99,719	33.1
11.	Maharashtra	5,74,140	2,07,151	36.1
12.	Manipur	12,701	4,274	33.7
13.	Meghalaya/Nagaland	12,288	4,767	38.8
14.	Orissa	90,629	21,799	24.1
15.	Punjab	1,55,994	74,098	47.5
16.	Rajasthan	1,96,079	46,173	23.6
17.	Tamilnadu	3,59,432	1,36,222	37.9
18.	Uttar Pradesh	5,70,023	1,27,317	22.3
19.	West Bengal/ Tripura/Sikkim	3,40,832	1,28,828	37.8
20.	Delhi	1,14,365	52,129	45.6
	Total	42,46,878	13,67,495	32.2

Note: Data for the years 1986–87 to 1988–89 are based on revised estimates and that for 1989–90 are based on first estimate.

APPENDIX–XXX

Percentage of Women Enrolment to Total Enrolment: Stage-wise (1981–82 to 1989–90)

ar	Graduate			Postgraduate			Reseach		
	T	W	%	T	W	%	T	W	%
31-82	25,88,759	7,16,249	27.7	2,85,892	81,645	28.6	34,588	9,581	27.7
32-83	25,57,893	7,73,342	28.0	2,96,103	86,380	29.2	36,731	10,673	29.1
33-84	29,12,487	8,25,409	28.3	3,13,110	93,728	29.9	36,249	10,615	29.3
34-85	29,99,621	8,71,571	29.1	3,22,541	98,4155	30.5	38,160	11,332	29.7
35-86	31,78,397	9,33,996	29.65	3,37,235	1,05,218	30.1	40,346	12,526	31.0
36-87	33,07,634	10,10,157	30.5	3,679	1,13,231	31.7	41,299	13,340	32.3
37-88	34,45,439	10,76,230	31.2	56,669	1,21,490	31.5	43,019	73,812	32.1
38-89	35,89,790	11,35,2	39.1	3,87,094	27,341	33.0	44,821	508	34.6
39-90	37,41,500	12,01,344	39.1	4,03,403	1,37,560	33.6	46,716	16,678	35.7

APPENDIX–XXX (Contd.)

ar	Diploma/Certificate			Total		
	T	W	%	T	W	%
81-82	42,827	9,229	21.5	29,52,006	8,16,704	27.7
82-83	42,366	9,811	23.2	31,33,093	8,80,156	28.1
83-84	45,803	10,501	22.9	33,07,649	9,40,253	28.4
84-85	43,774	10,821	24.7	34,04,096	9,92,139	29.1
85-86	48,107	11,744	24.4	16,05,029	10,67,484	29.6
86-87	48,807	12,127	24.9	37,54,409	11,48,849	30.6
87-88	50,841	15,507	24.6	39,10,828	12,24,089	31.3
88-89	52,971	13,190	24.9	40,74,076	91,672	31.7
89-90	55,209	13,913	25.2	42,46,878	13,67,495	32.2

= Total enrolment

= Women enrolment

= Percentage of women enrolment total enrolment

te: Data for the years 1986-87 to 1988-89 are based on the revised estimate and that for 1989-90 are based on first estimate.

APPENDIX–XXXI

Percentage of Women Enrolment to Total Enrolment : Faculty–Wise (1981–82 to 1989–90)

Year	Arts			Science			Comme...		
	T	W	%	T	W	%	T	W	
1981-82	11,90,177	4,54,990	38.2	5,78,766	1,65,666	28.6	6,28,031	1,04,964	16.7
1982-83	12,59,587	4,87,602	38.7	6,23,545	1,79,650	2.8	6,69,813	1,16,837	17.4
1983-84	13,38,106	5,17,017	38.6	6,53,092	1,89,685	29.0	70,03,379	1,31,379	18.7
1984-85	13,72,277	5,40,686	39.4	6,69,563	2,00,632	30.0	7,38,506	1,42,222	19..
1985-86	14,66,295	5,76,251	39.3	7,00,991	2,15,730	30.8	7,82,068	1,56,748	20.0
1986-87	15,18,282	6,28,047	41.4	7,35,864	2,31,061	31.4	8,22,216	1,61,977	19.7
1987-88	15,81,542	6,71,075	42.4	7,68,022	2,45,720	32.0	8,57,971	1,72,201	20.1
1988-89	16,45,414	7,06,877	42.9	8,00,266	2,59,061	32.4	8,93,984	1,81,984	20.
1989-90	17,17,437	7,48,921	43.6	8,34,087	2,74,508	32.9	9,31,765	1,92,007	20.6

APPENDIX–XXXI (Contd.)

Year	Education			Engg/Tech.			Medi		
	T	W	%	T	W	%	T	W	
1981-82	71,168	34,383	48.3	1,30,189	5,866	4.5	1,13,794	29,792	2(
1982-83	74,167	34,896	47.0	1,42,440	7,173	5.0	1,13,902	31,648	27
1983-84	74,679	35,337	47.3	1,53,131	8,469	5.5	1,18,989	33,676	28
1984-85	76,522	36,555	47.8	1,59,046	10,052	6.3	1,18,890	35,190	
1985-86	82,636	38,569	46.7	1,76,540	12,182	6.9	1,23,057	37,549	
1986-87	86,352	43,608	50.5	1,83,966	12,694	6.9	12,27,650	38.933	
1987-88	89,949	46,296	51.5	1,92,148	13.555	7.1	1,31,013	40,484	30.
1988-89	93,718	48,764	52.0	2,01,289	14,591	7.3	1,37,257	43,205	3
1989-90	95,979	50,736	52.9	2,09,371	15,840	7.6	1,42,270	45,321	3