# REPORT FOR THE YEAR <br> 1986-87 



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

NEW DELHI.

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New Delhi-110002
(INDIA)
$17-7196$
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Note

Figures given in the report have been rounded
1 Lakh $=1,00,000$
1 Crore $=1,00,00,000=10$ million

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## Vice-Chairman

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4. Shri R. Ganapati **
5. Shri Kireet Joshi ***
6. Mr. Justice M.H. Beg
7. Prof. Suresh Dalal ***
8. Dr. V.C. Kulandaiswamy
9. Dr. M. Aram
10. Prof.(Mrs.) Archana Sharma ***
11. Prof. G. Padmanaban ***
12. Prof. H.C. Khare

* w.e.f. 29th May, 1986
** Upto 30 th September, 1986. He had been replaced by Shri R.R. Gupta w.e.f. Ist December, 1986.
*** w.e.f. 7th April, 1986.


# UNIVERSITY GRANTS COMMISSION 

ANNUAL REPORT

## April 1986-March 1987

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 1986-87 to be laid before both the Houses of Parliament.

## SECTION 1 - PART I

## QUANTITATIVE GROWTH OF INSTITUTIONS, ENROLMENT AND STAFF STRENGTH

1.01 In recent years, efforts have been made by the Commission to regulate the growth of higher education as well as the establishment of new universities and colleges with a view to ensuring that higher education grows to meet the genulne needs of the society for trained manpower with appropriate levels of professional training, skills and specialisations or general educational attainments. As envisioned in the National Policy on Education (1986), institutions of higher education are expected to possess a modicum of facilities by way of basic infrastrucutre such as class rooms, libraries, laboratories, hostels, staff quarters, teachers' hostels and other inputs like technical and research support and resources for purchase of equipment, books and journals etc. and the Commission's endeavour in this regard is in harmony with the New Education Policy(NPE).

[^0]In the context of the growth of higher education in India during the last three decades or so, three important facts need to be emphasised. First, enrolment at the level of higher education as a proportion of the relevant age-cohort is hardly adequate inspite of the unprecedented growth that has taken place. Second, in spite of the fact that there is a need to regulate expansion in view of the limitations of resources, it is not easy to deny expansion altogether. The weaker sections of the society have looked upon higher education as the only means for vertical, social and economic mobility and, to deny them access to higher education would be against all canons of social justice and equity. Third, it would not be proper to determine the demand for education from the point of view of the labour market alone without due consideration to the social, cultural and humanistic aspects of education.

The development of higher education in India thus faces the challenge of quantity versus quality and a strategy has to be evolved to arrive at an acceptable balance between the two demands. An adequate realization of this objective requires concerted efforts, careful educational planning and coordination of resources and constant vigil as well. This calls for identification of priorities and regional needs and, above all, determination of relevance and excellence in higher education. This section of the report presents in numerical terms the higher education scenario of the country over the past decade as reflected by the growth in enrolment, staff and the number of institutions.


Dr. Yashwant Singh
Parmar University of Horticulture and Forestry, Solan.
4. Karnataka
5. Tamil Nadu

Gulbarga University Mangalore

Mangalore University Mangalore.

Algappa University Karaikudi

In addition, the Goa University, Panaji was declared fit to receive central assistance for all approved schemes except for Institutional Development in terms of the rules framed under Section $12(B)$ of the UGC Act. The general development grant will be given after the University gives a report on the action taken by it in implementing the recommendations of the Committee on various academic and other matters and after the position regarding filling up of the teaching positions is made known.

The Cochin University, Cochin (Kerala) was converted into a full-fledged Science and Technological University of a unitary type for the promotion of postgraduate studies and advanced research in applied science, technology, industry and management by an Act of the State Legislature.
1.03 New Institutions Deemed to be Universities under Section 3 ot the UGC Act.

The Government of India, on the recommendation of the UGC, declared the following institutions as institutions deemed to be universities under Section 3 of the UGC Act.
l. Birla Institute of Technology, Mesra, Ranchi (Bihar)
2. Rajasthan Vidyapeeth, Udaipur, (Rajasthan)

With these the number of institutions deemed to be universities rose to 19 as on $31 s t$ March, 1987.

During the period under report, the Commission also recommended to the Government of India, Ministry of Human Resource Development, the conferment of 'deemed to be university' status on the following institutions on the basis of the recommendations of the committees which visited these institutions:-

1. Shri Avinashlingam Home Science College for Women, Coimbatore (Tamil Nadu)
2. National Institute of Mental Health \& Neuro-Sciences, Bangalore (Karnataka)

The Commission at its meeting held in July, 1986 considered the report of the Committee appointed by it for examining the report of the Committee appointed by the Chancellor, Jamia Millia Islamia to determine the Jamia's present status vis-a-vis its future requirements and desired that the Government of India be informed that the Commission has no objection from the academic angle to Jamia Millia Islamia becoming a statutory University. However, the regulations for the establishment of the University should be in accordance with well established norms reflecting the points made in the central Universities Review Committee Report, specially regarding (i) the objectives which are to be pursued by the University and (ii) its governance. The above decision of the Commission was communicated to the Government of India for further necessary action.

A chronological list of Universities and Institutions deemed to be universities during 1986-87 is given in Appendix-I.

At the end of 1986-87, 3815 Colleges including 1268 postgraduate colleges had been included in the list maintained under Section 2 (f) of the UGC Act.

### 1.05 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 l.l below. It will be seen that in 1977-78, the number of students enrolled was 25.64 lakhs spread over 105 universities, 10 institutions deemed to be Universities and 4,375 Colleges whereas in 1986-87 there were as many as 36.81 lakh students enrolled in 136 Universities, 19 institutions deemed to be Universities, and 6040 Colleges.

TABLE 1.1

| Year | Number of universities | Number of Colleges | Number of Students |
| :---: | :---: | :---: | :---: |
| 1977-78 | $105+10$ institutions deemed to be universities | 4,375 | 25,64,972 |
| 1978-79 | $108+10$ institutions deemed to be universities | 4,460 | 26,18,228 |
| 1979-80 | $108+11$ institutions deemed to be universities | 4,558 | 26,48,579 |
| 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 <br> to be universities | 5,246 | $33,22,939$ |
| :--- | :--- | :--- | :--- | :--- |
| $1984-85$ | $125+15$ institutions deemed <br> to be universities | 5,590 | $34,04,096$ |
| $1985-86$ | $132+17$ institutions deemed <br> to be universities | 5,813 | $35,70,897^{*}$ |
| $1986-87$ | $136+19$ institutions deemed <br> to be universities | $6,040 * *$ | $36,81,870^{*}$ |

Note: 1. The number of colleges given above excludes junior colleges and those offering diploma/certificate courses.

* Estimated
** Provisional


## Growth Rate of Enrolment:

The growth of student enrolment in the University System over a 20-year period from 1967-68 to 1986-87 is given in Appendix-II. The average decadal growth rate of enrolment during 1977-78 to 1986-87 was about 4.2 percent as compared to the average decadal growth rate of 7.5 percent recorded in the earlier period viz. 1967-68 to 1976-77. A look at the year-wise growth rates of enrolment during the ten-year period 1977-78 to 1986-87 also brings out the fact that there was no definite trend in the growth rate which rose in one year and fell in the other. While the lowest growth rate recorded during this period was 1.2 per cent in 1979-80, the highest was 7.3 per cent in 1981-82. In 1986-87, the growth rate was 3.1 per cent.

The all-India average annual compound rate of growth of enrolment during the five year period 1982-83 to 1986-87 was 4.1 per cent as indicated in Apendix-III. It will
also be seen from the Appendix thut there were wiae deviations from this average growth rate between different States. Jammu \& Kashmir, for instance, recorded the highest average annual compound rate of growth of enrolment of 9.9 per cent during the period while, on the other extreme, Gujarat recorded average compound growth rate of a mere 1.8 per cent. As many as 11 States (including Gujarat) and the union territory of Delhi had average growth rates lower than the all-India average of 4.1 per cent. On the otherhand, eight States had average growth rates higher than the all-India average, with Jammu \& Kashmir recording the highest growth rate of 9.9 per cent followed by Bihar ( 7.6 per cent) and Manipur ( 6.6 per cent).

Stage-wise Enrolment:

Stage-wise enrolment at the graduate, post-graduate, research and diploma/certificate levels during 1982-83 to 1986-87 given in Appendix-IV shows that percentage enrolment at these different levels in 1986-87 was almost the same as it was in 1985-86.

Over the five-year period also, percentage of enrolment at the graduate, postgraduate/research and diploma/ certificates levels has remained the same in each year viz. 88 per cent, 10.6 per cent and 1.4 per cent respectively in each of the five years from 1982-83 to 1986-87.

Appendix-V gives stage-wise enrolment separately in the university departments/university colleges and affiliated colleges during the four year period 1983-84 to 1986-87. It will be seen that encolment in the affiliated colleges as percentage of total encolment for all the stages taken together remained in the vicinity of 83 per cent in all these years. Stage-wise, however, affiliated colleges accounted for 87.7 per cent of the total enrolment at the graduate level, 56.5 per cent at the post-graduate level, 14.9 per cent at the research level and
43.2 per cent at the diploma/certificate level during 1986-87. 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.

Faculty-wise Enrolment:

Faculty-wise distribution of student enrolment for the five-year period 1982-83 to 1986-87 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 varied between 40.2 to 40.4 per cent over the five year period. In 1986-87, it was 40.3 per cent - the same as it was in 1985-86 and 1984-85. Similarly, in the faculty of Commerce, the enrolment fercentage has remained between 21.3 and 21.7 , with the year $1986-87$ recording 21.5 . Percentage share of the faculty of science remained 19.7 during 1983-84 to 1986-87 while it was 19.9 in 1982-83. 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.

Establishment of New Colleges:

The number of new colleges set up during 1986-87 was 224, thus raising the total number of affiliated colleges to 6,040 in 1986-87 as compared to 5,815 colleges in 1985-86 (Appendix-VII). Of the 224 newly established colleges, 169 were arts/science/commerce colleges while the
remaining were professional colleges belonging to different faculties as follows:

Physical Education/Education (26), Medicine/Pharmacy/ Ayurveda/Nursing/ Dentistry/Homoeopathic (12), Engineering/ Technology (6), Music/Fine Arts (5), Agriculture(2) Veterinary Science (2), and Law (2)

State-wise Growth of Colleges:

State-wise distribution of the newly established colleges during the period 1982-83 to 1986-87 is given in Appendix-VIII. The total number of colleges in the country increased by 1001 during this five year period. Of this, Maharashtra alone accounted for an increase of 246. Other States which recorded substantial additions to the number of colleges during the period were as follows:

| Bihar | 188 |
| :--- | ---: |
| Karnataka | 112 |
| Madhya Pradesh | 101 |
| Andhra Pradesh | 86 |
| Orissa | 78 |

These six States taken together accounted for over 80 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 significant. It will also be seen (Appendix IX) that out of a total increase of 1001 in the number of colleges during 1982-83 to 1986-87, increase in the number of arts/science/commerce colleges was 672 accounting for nearly 67 per cent of the total increase.

### 1.11 Staff Strength:

Appendix-X shows the strength and distribution of teaching staff in the university departments/university colleges during the period 1982-83 to 1986-87. In 1986-87, there
were 51,150 teachers in the university departments/ university colleges. Out of these, 5933 were Professors, 12,481 Readers, 30,588 Lecturers and 2,148 Tutors and Demonstrators. The proportion of senior teachers viz. Professors and Readers to the total teaching staff has gone up from 33.0 per cent in $1982-83$ to 36.0 per cent in 1986-87. The teaching staff in the university departments/ university colleges increased by 2062 in the year 198687 as compared to an increase of 1706 in 1985-86 over the preceding year. Teaching staff in the affiliated colleges (Appendix-XI) totalled $1,83,238$ in 1986-87 which included 24,371 senior teachers, 1,50,621 lecturers and 8,246 tutors and demonstrators. There was an increase of 5,337 in the total staff strength in the affiliated colleges in 1986-87 over the year 1985-86 as compared to an increase of 5,182 in 1985-86 over 1984-85.

### 1.12 Doctorate Degrees Awarded:

The faculty-wise position of doctorate degrees awarded during 1981-82 to 1985-86 is given in Appendix-XII. During the year 1985-86, 7,507 doctorate degrees were awarded. A significant development during 1985-86 was that, among various faculties, the faculty of Arts for the first time recorded the highest number of doctorate degrees awarded - a position which was held by the faculty of science for many years. The faculty of science was thus relegated to the second position. Similiarly, ranking among the professional faclilties also underwent a change during 1985-86. While the faculty of agriculture continued to occupy the top place in terms of the number of doctorate degrees awarded, this was followed by the faculty of commerce (as against Education in the earlier years).

A look at the total number of doctorate degrees awarded during 1982-83 to $1985-86$ shows that while there has been an increase in this number, this increase has been at a diminishing rate viz, 337 in $1983-34$ over $1982-83,315$ in 1984-85 over 1983-84 and 258 in 1935-86 over 1984-85.

## NEW NATIONAL POLICY ON EDUCATION

### 1.13 The New National Policy on Education:

A very important development during 1986-87 was the adoption by the Parliament of a new national policy on education and the Programme of Action (POA) for the implementation of the policy.

The Commission has given a high priority to the implementation of the New Education Policy (NEP) and the Programme of Action and in line with these it has identified some major thrust areas for implementation on a priority basis. These are:
a. Autonomous Colleges
b. Redesigning of courses
c. State Councils of Higher Education
d. Accreditation of Assessment Councils
e. Alternative Models of Management in Universities.
f. National Qualifying Test for recruitment of teachers
g. Making research and development broad-based
h. Training/Orientation of teachers
i. Improvement of Efficiency
j. Youth and Sports
k. Education for the Minorities, Scheduled Castes/ Scheduled Tribes, Handicapped and Women.

Expert groups/task forces and in-house working groups were constituted for formulating appropriate implementation strategies and guidelines, financial pattern, action plan upto 1990 as also monitoring mechanisms etc. with a view to ensuring speedy implementation and achievement of the
envisaged objectives/targets within a given time-trame. During the year, guidelines/modalities were finalised for implementation of some of the provisions of NEP-POA such as normal development of Universities and colleges, institutions of autonomous colleges, State Councils of Higher Education, National Qualifying Test for Recruitment of teachers, Training/Orientation of teachers, Youth and Sports and Education for minorities and women's equality.

For expeditious implementation of the NEP-POA, the Commission made a significant departure in its policy during 1986-87 from that adopted in earlier years. Instead of sending visiting committees to universities, it invited Vice-Chancellors and faculty members for discussing Seventh Plan Development Proposals in the Commission's Office. It approved their seventh plan normal development proposals to ensure implementation of some of the provisions of NEP-POA such as those relating to Consolidation of teaching and research, Redesigning of courses, Mobility of students/teachers, Linkages between university/other institutions Industry etc., and Institution of Autonomous Colleges.

The Commission has agreed to the organisation of workshops, seminars, orientation of teachers, joint meetings with academics, personal discussions at appropriate levels, intensive follow up with universities and dialogue with the Ministries at the State and Central levels etc., with the sole objective of creation of awareness ana generation of a climate conducive for expeditious implementation of $N E P-P D A$ in the university system.
1.14 Progress made in implementation of the National Policy on Education

The progress made in the implementation of the NPE by the U.G.C. is briefly indicated below:

### 1.15 Consolidation and Expansion of Institutions

(a) Normal development of universities:

Guidelines for normal development of universities during the Seventh Plan period were formulated and circulated widely. Special attention of the universities was, inter-alia, invited towards:
i) making higher education as dynamic as never before;
ii) paying special emphasis on consolidation and expansion of existing institutions;
iii) increasing the number of Autonomous Colleges.
iv) redesigning Courses and programmes.
v) regulating admission according to capacity;

The Commission's concern to implement the provisions of NPE is reflected in the fact that it was able to accord approval to proposals from Universities by March, 1987 i.e. within a month of concluding the discussions with university officials.
(b) Development of Colleges:

The guidelines for development of colleges during Seventh Plan period emphasising the provision of NPE-POA were also framed and circulated to colleges. The emphasis in the guidelines is, inter-alia, on Improvement of standards and quality of education, restructuring and diversification of courses and removal of disparities and regional imbalances in higher educational facilities.
(c) New Management Structure:

A committee to review the Management Patterns including the structure, role and responsibilities of various university bodies in the light of the new demands on the university systems has been constituted.
(d) Guidelines for granting affiliation to new colleges:

The Commission appointed a committee to formulte guidelines for granting affiliation to new colleges by Universities.
1.16 Autonomous Colleges:
(a) The guidelines on Autonomous Colleges were finalised and circulated to universities and State Governemnts for recommending colleges to pe given Autonomous Status. A work-plan in this regard has also been drawn. Universities have been requested to expedite proposals. Strategies for their expeditious processing have been evolved. Continuous dialogue and interaction with stuberts, teachers, university administrators and Stace Governments was held to
ensure that autonomy is accepted as an aid to development of higher education. The State Governments were requested to make amendments in the Acts and Statutes of the Universities for including a provision in this regard.
(b) Autonomous Departments/Centres within Universities:

A Committee has been constituted to frame guidelines with a view to resolve various issues in developing autonomous departments/centres within the university framework.

### 1.17 Restructuring of Courses

The scheme of restructuring of courses has been introduced by the UGC with a view to making the first degree courses more relevant and to link education with work/field/ practical experience and productivity. The key concept is to remodel the existing conventional three-subject course of the first degree level by courses comprising two ofthe existing subjects together with a third subject being oriented towards field/practical work or having a bearing and direct relevance to the local/regional needs and requirements. Arising out of the emphasis laid on the scheme by the New Education Policy, the Commission has impressed upon the universities to follow the guidelines on restructuring of courses circulated by it. At present 7 Universities and 117 Colleges have introduced such courses.

24 Curriculum Development Centres in different disciplines have also been set up in different universities for a continued revision and modernisation of the curricula.
(a) Teacher's Training:

A committee has been constitued to consider the directives given in NPE/POA for teacher's training. The Committee has prepared a blue print giving the details of the teacher's training programme.
(b) Recruitment of Teachers:

A committee has been constituted to work out the details for conducting qualifying test for recruitment of lecturers as laid down in the Programme of Action.
1.19 Strengthening Research

The following measures have been taken to strengthen research in the university system:
(a) It has been agreed to bring more departments within the fold of Special Assistance Programmes and to enhance funding in the areas of emerging technologies and methematics.
(b) It has been decided to set up common research facilities in the university sector:
(c) Modern computer based information centres have been set up at the Indian Institute of Science, Bangalore, SNDT Women's University, Bombay ancl the M.S. University of Baroda.
(d) Nuclear Science Centre has been set up at the Jawaharlal Nehru University.

Installation of computers has been envisaged as an important step for improving efficiency and with this in view 93 universities have been sanctioned computer facilities as also the necessary staff. The computers would also be used for maintenance of students records, accounts and other data required for administration and management.

It has also been agreed to provide assistance for the installation of computers in about 200 colleges. Of this, 50 colleges were sanctioned computer facilities by March, 1987.
1.2l Creation of a structure for co-ordination at the State and National Levels:
(a) State Councils of Higher Education

In order to create effective machinery for planning and coordination of higher education at the State level as also coordination with the UGC, the Commission appointed a committee to formulate guidelines for the setting up of the State Councils of Higher Education as statutory bodies.
(b) Accreditation and Assessment Council

It is proposed to develop a mechanism for accredization and assessment for maintaining and raising the quality of institutions of higher education'. A committee has been appointed to work out the details.

With a view to admitting students on an all-India basis, the Central Universities constituted a committee to workout details to hold common entrance examination for all the Central Universities and such of the State Universities which may like to join the co-operative efforts.

Recruitment of Lecturers would be made on the basis of qualifying tests.

Additional funds, over and above the Plan allocation of the universities, have been sanctioned for housing facilities for teachers. Universities have been requested to provide 40 per cent of such accommodation for new appointees and for persons from out-side the State.

## . 23 Making the System Work

The Commission took the following steps towards 'making the system work':
(a) Norms of Performance:

The Commission had already laid down the regulations for the minimum standards of instruction for the grant of the first degree in which certain norms of performance for teachers, students and institutions were precribed. A Committee was constituted to set out the criteria for assessing the performance of educational institutions as envisaged in NPE/POA.
(b) Teachers' evaluation, professional ethics etc.:

The Commission appointed a committee under the Chairmanship of Professor R.C. Mehrotra to review and
revise the scales of pay of teachers in the universities and colleges. The Mehrotra committee, inter-alia, made recommendations regarding evaluation of teachers, leave of absence for the teacher elected as M.Ps. or M.L.As., etc. The Committee has given a code of professional ethics as proposed by the All India Federation of University and College Teachers Organisation (AIFUCTO).
(c) Facilities for students and teachers:

The question of providing facilities for students and teachers was emphasised in the Seventh Plan guidelies as also in the plan discussions by the Chairman with Vice-Chancellors.
(d) Participation of teachers:

Universities were requested to involve teachers in the preparation of Plan proposals by constituting Planning Boards.

The teachers were also involved during Plan discussions held by the Commission with the University officials.
1.24 Education for Women, Scheduled Castes/Scheduled Tribes, backward sections, Minorities and the Handicapped
(a) Education for Women

It has been agreed to extend financial support to the universities for undertaking well defined projects for research in Women's Studies as also for the development of curriculum relevant to Women's Studies. Guidelines in this regard have been formulated and circulated to universities.

The following decisions were also taken in this regard:-

- A Centre for Women's studies and Research at the SNDT Women's University, Bombay be set up.
- Curriculum for Women's Studies at the undergraduate level be undertaken by universities of Kerala, Ranchi, Delhi, Panjab, South Gujarat, Banaras Hindu, and North Eastern Hill.
(b) Education of Scheduled Castes/Scheduled Tribes:

The Commission continued to promote, strengthen and monitor effective implementation of programmes as also policies of Government of India for furthering educational levels/opportunities for Scheduled Castes and Scheduled tribes through multiple approaches consisting of:

1. Special programmes of Adult \& Continuing Education
ii.Award of teacher fellowships, jurior research fellowships, research associateships exclusively for Scheduled Castes/Scheduled Tribes - centrally by the UGC.
iii. Continuance and strengthening of monitoring units/ special cells in universities for effective implementtion and monitoring of schemes/policies for Scheduled Castes/Scheduled Iribes.
(c) Education of Minorities:
The Commission has been encouraging th
organisation of coaching classes for minorities. I
has appointed a high-power committee unde
the Chairmanship of Justice M. H. Beg, Former Chie
Justice of India and presently Chairman, Minoritie
Commission to review the Scheme.
(d) Education of the Handicapped:

The Commission has selected universities/institutions to provide facilities for short-term courses, regular B.Ed. degree/diploma courses \& research in special education for the training of teachers for the handicapped children.

The proposals of S.N.D.T. Women's University, (Bombay) Banaras Hindu University, Jamia Millia Islamia, S.P. Tilak College of Education, (Poona), R.K. Mission Vidyalaya, (Coimbatore) and M.S. University of Baroda, have been approved.

### 1.25 Evaluation Process and Examination Reforms

In order to implement the Examination Reform Programme as spelt out in POA, it was decided that a meeting of the coordinators of Examination Reform Units in different universities may be convened so as to ident'fy the bottlenecks involved and share their experience and based on the deliberations of the above meeting, a Plan of Action to implement the Examination Reform Programmes be worked out.

The Commission has taken the following action in the area of youth and sports:
a. A Committee was appointed by the Commission which prepared a Model curriculum for Physical Education.
b. A questionnaire was circulated to all the universities/ colleges so as to survey (i) the existing physical Infrastructure available for Sports and games and (ii) the trained teachers available.
C. A Committee was appointed to work out the modalities for Compulsory participation in sports and physical education for promotion to higher classes.
d. A Sub-committee of the UGC Advisory Committee on Physical Education \& Sports recommended the minimum infrastructure to be developed in every college/ university. The same have been circulated to the universities and State Governments.
e. The Directors of Lakshmibai National College of Physical Education, Gwalior and Netaji Subhas National Institute of Sports, Patiala were requested to indicate the programmes of refresher courses that could be offered by them for the Directors of Physical Education.
f. The curriculum prepared by the working group for the proposed three year degree course in Physical Education, Health Education and Sports was circulated to the universities with a request to identify the colleges - one in each district, to run the course.
a. Language development:

Medium of Instruction at the university level:

The Commission has already impressed upon the universities the need for the use of regional languages as medium of teaching/examinations. Under the programme of preparation of university level books, the gaps in different areas will be identified and experts will be invited to write the necessary text books.
b. Cultural Perspectives:

The NPE-POA emphasises the opening of the Fine Arts Departments in universities and also on aspects such as broad-basing and diversifying cultural courses like music, fine arts, performing arts etc.

In order to achieve the objective mentioned above, the Commission has decided to strengthen 10 university departments under the programme.

### 1.28 Media and Educational Technology:

The Commission took the initiative to utilise the time slot given for higher education and televising the TV programmes on higher education entitled "Country-wide class room".

The programmes are telecast via satellite and the Doordarshan net work daily for two hours (except sundays and holidays). The TV programmes are in the nature of
enrichment programmes and meant for undergraduate students and teachers. They are in English for the present.

The Commission has taken steps for supply of Colour T.V. sets to about 2000 selected colleges in phases during the Seventh Plan period.

The question of providing direct reception sets is also being examined for Colleges which are located outside the range of Doordarshan Kendras. The Commission is supporting at present four Educational Media Reserch Centres (EMRCs) and 7 Audio Visual Research Centres (AVRCs) for training and production of software.

A perspective plan for the UGC INSAT Project is being formulated in which projections will be made for the future INSAT time requirement for higher education. This projection of INSAT time for higher education alongwith the requirements of the NCERT and Indira Gandhi National Open University would help in making out a case for a dedicated education T.V. Channel by 1991-92 and for the creation of a dedicated satellite system for the educational needs in the long run.

To expand 1 n-house programme production facilities, some more media centres were to be established.

The Audio Visual Research Centres at Madurai Kamraj University and the Kashmir University were approved during the year 1986-87.

Proposals are under way from UGC for the establishment of a National Centre for Communicarion Research which will also provide, among other things, training facilities for manpower development in educational medial.

With regard to the development of model course material in the form of audio/video cassettes with the help of best available teachers, the Commission appointed an Expert committee to advise on matters relating to the development of such model course material and to suggest modalities for publishing material in the form of audio/video cassettes; dissemination through broadcasts or as Radio/TV multi-media packages to be used by students and teachers. A Coordination Committee to organise production of audio/ visual course material was also constituted.

## maintenance and coordination of standards

2.01 Section 12 of the UGC Act lays down that "It shall be the general duty of the Commission to take, in consultation with the universities or other bodies concerned, all such steps as it may think fit for the promotion and coordination : of University education and for the determination and malntenance of standards of teaching, examination and research in universities." Accordingly, all efforts of the Commission have been directed towards the maintenance and coordination of standards in regard to development as well as special programmes. Academics have also been appointed in the Commission from the university system to advise the Commission on various academic matters and to operate schemes.
2.02 The National Policy on Education (1986) has brought in its wake a much greater responsibility on the Commission to ensure coordination between the need for maintaining quality through a proper consolidation of the existing facilities and the need for expansion in order to meet the developmental requirements of the country, especially the need for the trained personnel produced by the university system.

### 2.03 National Education Testing:

During the year 1986-87, a junior research fellowship (JRF) examination was held in various disciplines falling under the faculties of sciences, social sciences and humanities (including languages). A list of these subjects is given at Appendices-XIII(a) and ( t ). A total number of 34,315 candidates were registered for this examination out of which 18,501 appeared and 1945 were declared successful.

Subject-wise break-up of the number of successful candidates is given at Appendix-XIV.

With a view to economising expenditure at the national level and to avoid duplication of efforts by a candidate, it was decided during the year that from 1987 onwards, JRF examination in all the science subjects would be held jointly with the Council of Scientific and Industrial Research (CSIR), New Delhi. A list of the science subjects which shall be covered under the UGC-CSIR JRF examination is given at Appendix-XV.
2.04 Common Qualifying Test for Recruitment of Teachers

The National Policy of Education (1986) states that "the methods of recruitment of teachers will be reorganised to ensure merit, objectivity and conformity with spatial and functional requirements". Accordingly, the 'Programme of Action' of the National Education Policy suggests that "The teachers 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 University Grants Commission constituted a committee to work out the modalities for the conduct of such a common qualifying test. The report of the committee is being finalised.

## Restructuring of Courses

The New Education Policy, 1986 has envisaged that higher education programmes have to be redesigned to meet the growing demands of specialisation, to provide flexibility in the combination of courses, programmes and institutions to up-date and modernise curricula, to integrate workpractical experience and participation in creative activities with the learning processes, and to facilitate
reforms in the evaluation procedure. For this it is necessary:
a) to secure full involvement of the universities and faculties in redesigning and reorienting the courses in higher education and
b) that the foundation courses be encouraged in general undergraduate programmes and specialemphasis should be laid on the study of India's composite culture so as to foster unity and integrity of the country among students.

The scheme of Restructuring of Courses was initiated by the UGC during the $V$ Plan period with a view to making the first degree courses more relevant to the environment and to the developmental needs of the community and link education with work/field/practical experience and productivity.

The key concept underlying the Restructuring of Courses is to remodel the existing conventional three- subject courses at the first degree level by courses comprising two of the existing subjects together with a third subject being oriented towards field/practical work or having a bearing and direct relevance to the regjon and requirements so as to bring the necessary measures of relevance, application, orientation, flexibility and diversification and efforts to provide linkages between education and emerging employment opportunities, including self employment. Courses at the first degree level in Arts, Social Sciences and Science have been made relevant to the local environment and to the developmental needs of the country and are linked with work/field/practical experience and productivity.

As on 31.3.1987, 9 Universities and 114 colleges had introduced restructured courses in Arts, Science and Commerce disciplines.
2.06 College Humanities and Social Science Improvement Programme (COHSSIP):

College Humanities and Social Science Improvement Programme was introduced in 1974-75. The objectives of this programme are given in the UGC Annual Report for 1984-85. The Programme is aimed at improving the qualiy of humanities \& social sciences learning at two levels viz., in selected colleges and in university departments by way of University Leadership project (ULP). Assistance under this programme was provided to 57 Arts and Commerce Colleges and 4 Teacher's Training Colleges during the period under report. The total number of colleges assisted under the programme upto 31 st March, 1987 was 470 in the first phase and 74 in the second phase.

The number of University departments participating under the programme of ULP remained the same viz., 10 during 1986-87 as it was during 1985-86. However, during the year, the Panels identified some more departments which could be selected for participation under this programme, based on the recommendations of the subject Panels.

Panels in Humanities and Social Sciences:

The Commission set up Panels of experts in various disciplines in the Humanities \& Social Sciences in the year 1974. These were set up with a view to advise the Commission on various academic matters. The Panel are
reconstituted once in two years. During the year 1986-87 panels in the following 16 subjects were functioning:

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(i) English and Foreign Languages
(ii) Classical Languages
(iii) Modern Indian Langauges
(iv) Linguistics
(v) Law
(vi) Art History
(vii) Philosophy
(viii)History
(ix) Economics
(x) Political Science
(xi) Sociology
(xii) Anthropology
(xiii)Commerce
(xiv) Psychology
    (xv) Social Work Education
(xvi) Education.
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Important recommnedations made by some of the Panles during 1986-87 are summarized kelcw:-

Panel on English \& Foreign Languages:

The Panel had recommended during 1985-86 that regional workshops on research methodology may be organised at the Meerut, Osmania, Poona and Manipur Universities so as to orient the teachers of English language with the methodology of formulating proposals and promoting research of a high standard in English. Accordingly, during 1986-87, workshops wece organised at the universities of Manipur and Osmania. The Panel also recommended that a workshop on research methodology related to foreign lanauges be organised $a=$ the Jawaharlal Nehru University.

The Panel considered a reference received from the Department of Sarskrit, Andhra University regarding the study of Sanskrit at various levels. The Panel expressed its concern regarding fall in the number of students offering Sanskrit especially in the Southern States. In this Connection, it was recommended that a brief note be prepared regarding the status of Sanskrit in different parts of the country for the consideration of the Panel. The Panel also recommended some departments for consideration under the Special Assistance Programme in Sanskrit, Arabic, Persian and Pali.
2.10 Modern Indian Languages:

The Panel recommended that a workshop may be organised at Visva Bharati (Santiniketan) for preparing a blue print for the study of "l9th Century in Modern Indian Languages, literature, history and culture". The Panel also recommended financial support for the publication of research journals. It was desired that the convenor of the Panel may prepare a status report and the departmental profiles in MOdern Indian Languages.'
2.ll Linguistics:

The Panel desired that the recommendations made in the workshop held at Poona University regarding the curriculum in Linguistics at the Postgraduate level may be edited and the report prepared by the Convenor of the Panel.

The Panel discussed the matter regarding the amendments suggested by the Bar Council of India with regard to the 5-year law course and expressed the view that the Government of India and the Bar Council of India may be apprised of the difficulty in the implementation of the said course which could be removed by appropriate amendment in the Advocate's Act. A view was also expressed that it will not be possible to compel the universities to offer the 5-year law course w.e.f. 1987-88. In order to sort out this and other related issues, it was suggested that a meeting of the Convenor of the Panel and the Chairman, Bar Council of India may be held. It has since been decided by the Bar Council of India that the universities may continue to offer 3 years degree course in Law in addition to the 5 years one.

### 2.13 Art History and Museology:

The Panel emphasised the need for restructuring the departments of Arts in the University syustem so that each department could be complementary and the discipline of Art History could take its rightful place in the totality of the academic institutions. It was also observed that it would be too late if the studies in Art Education were not restructured immediately. Accordingly, it was suggested that the researchers for M.Phil and Ph.D. will have to be conversant with the language or the languages in which the primary sources are available.

It was felt by the Panel that acquiring proficiency in language through modern methods of teaching in the university system was also important. Such research would call for an integrated study of the cognate subjects allied with the primary theme $\partial \cong$ research (cognate
subjects being history and philosophy). At the graduate level it was emphasised that there should be a proper balance between theory and practice as a strong base to the total study which would enable the students to participate either in the theory or in the practice of the art at the postgraduate level. At the postgraduate level there should be a judicious balance of philosophy. alongwith concerned languages of a single art which are taken up for study. The panel further suggested that the Commission may support some selected departments of performing Arts with sound and sight facilities and also provide support for starting and maintaining repertory groups of graduate artists. The need for a greater interaction with disciplines like Philosophy, Science and Technology was also emphasised. The Panel also felt that there was an urgent need for restructuring courses in Music and as such a sub committee was appointed for the purpose.

Philosophy:

The Panel recommended the two departments of Philosophy at the universities of Delhi and Panjab respectively for participation under the Special Assistance Programme; three departments (Hyderabad, Utkal, and NEHU respectively) under Departmental Research Support and two departments (Burdwan and Magadh) under the University Leadership Project. Visiting Committees have been appointed to examine the proposals.

### 2.15 History:

The Panel recommended two departments (Delhi and Hyderabad) for particiption under the Special Assistance Programme, three (Garhwal, Poona and Bombay ) under Departmental Research Support and three (NEHU, Utkal and

Calicut) under the University Leadership project. The Panel also recommended the institution of a diploma course in archieval studies at the Jaaavpur University, Calcutta.

The Panel considered the recommendations of the Mirdha Committee regarding augmenting the facilities in universities for excavation, eploration and research. The report has been circulated to the universities having departments of archaeology for their guidance.

The panel also recommended financial assistance for the establishment of an archival cell at the University of Hyderabad. A grant of Rs. 5 lakhs has been recommended for the purpose.

## Economics:

The Panel recommended that Project Formulation, Appraisal and Management may be introduced as one of the course as part of the scheme of restrucruting of courses. The Panel identified the following priority areas of research viz.:
a. Economic Theory
b. Money and Macro Economics
c. International Economics (Trade LIquidity)
d. Public Economics
e. Planning and Development
f. Economic History
g. Economic Systems
h. Demography
i. Regional and Urban Economics

j. Agriculture and Irrigation
k. Labour Economics

1. Econometrics
m. Infrastructure - Irrigation, Industry and Transport.

In the light of the recommendations made by the earlier panels and also in the light of the review of the different departments of sociology in the country, the panel recommended two departments of Sociology (JNU and Poona) for participation under Special Assistance` Programme and three (Bangalore, Osmania and Banaras) under Departmental Research Support.

Keeping in view the Infrastructural facilities available in the department, the Panel recommended three departments of Anthropology (Delhi, Panjab and Utkal) for participation under Special Assistance Programme and two (Calcutta and Lucknow) under Departmental Research Support. The preparation of a status report on Anthropology has also been entrusted to a member of the Panel.

Commerce

The Panel recommended that a status report emphasising commerce education in Indian Universities may be prepared at an early date. The Panel also recommended essential qualifications for the appointment of teachers in the faculty of Tourism and Hotel Management in Universities and Colleges. The Panel reviewed the existing priority areas of research and identified the following:
a. Public Enterprises Operations and Management
b. Public Distribution System
c. Industrial Policy (Including Licensing and Control)
d. Technology Transfer and collaboration
e. Project Planning and Appraisal
f. Management Information and Control system
g. Accounting Theory and Practice.
h. Financial Management and Control
i. International Business (including International Finance,
j. International Economic Relations
k. Agro Industry

1. Human Resource Accounting
m. Problems of Small Business
n. Problems of Corporate Sector
o. Public utilities
p. Industrial Relations and Personnel Management
q. Consumerism and Marketing
r. Fiscal Policy
$s$ New Technology in Business.

### 2.20 Psychology:

Based on the departmental profiles prepared by the Panel, two departments (Delhi and Gorakhpur) were recommended for participation under Special Assistance Programme. It was also recommended by the Panel that a seminar on 'Psychology and Peace' may be organised at the Ranchi University.

Education:

The Panel expressed its concern regarding the types of correspondence courses offered in some universities and recommended that visiting committees may be sent to reviewthe course contents, practice teaching programmes and other related matters. It was felt that this was necessary in view of the fact that the norms were not being followed and as a result standards were getting diluted. The Panel also identified five departitent in education for participation under the Programe of Special Assistance (Kerala, Himachal, Kurukshetra, South Gujarat and S.N.D.T. Women's University).

The Panel identified the departments of Political Science in Delhi, Poona, Osmania, Calcuta and Jadavpur universities under Special Assistance Programme and those at Bombay, Vikram and Karnataka universities for University Leadership Projects.

### 2.23 College Science Improvement Programme (COSIP):

The programme, initiated by the Commission in the year 1970-71, aims at bringing about qualitative improvement in the teaching of science subjects at the undergraduate level. The purpose of the programme is to accelerate the capabilities of undergraduate science students and initiate a process of continuous self renewal. This is brought about through an integrated approach comprising of simultaneous improvements in subject matter, methods of instructions, syllabi, curriculum, laboratory exercise, workshop, library and teaching aids.

The programme has been taken up at two levels viz., a) in Selected Colleges including the entire science faculty and b) by way of University Leadership project (ULP) in one science subject in all colleges affiliated to a university.

As on 3lst March, 1987, COSIP was implemented in 265 colleges and 40 university departments (by way of ULPs). The programme is under review.

### 2.24 Geography:

The Panel has recommended that M.Sc. course in Cartography may be started at the Osmania University on an experimental basis. The Commission has agreed to provide support for preparation of a monograph on "Dimensions of regional disparities in development in India in 2001 A.D."

Statistics:

The Panel recommended that Statistics may be included in all science and social science combinations at the undergraduate level. Instructional Seminars in important areas in statistics are also proposed to be held in selected universities for university and college teachers.

Mathematics:

On the recommendations of the Panel, a number of Instructional Conferences in important areas in Mathematics have been organised at selected universities for university and college teachers. Bench - mark survey studies in Mathematics teaching in colleges at the under-graduate and post-graduate levels and preparation of status report has been undertaken by the Panel. The Panel is in the process of identifying authors alongwith subject themes for producing good text books in mathematics for undergraduate and postgraduate students. A summar school for talented students to be held in the year 1987-88 was also recommended by the Panel.

A project document for the estagblishment of a 'National Institute in Applications of Mathematics' for promoting
cooperative research and training programmes is being prepared by a sub-group of the Panel.
2.27 Physics:

The Panel examined and recommended suitable research projects for support by the Commission. Inter-disciplinary programmes involving biologists, Chemists, and Material Scientists were suggested by the Panel to be conducted by the Nuclear Science Centre, New Delhi. Training programmes for the nuclear scientists were also proposed to be undertaken at the Nuclear Science Centre. Four Regional Instructional Conferences on "Experimental Nuclear Physics" as recommended by the Panel were held during 1986-87.

### 2.28 Chemistry:

The Panel examined and recommended suitable research projects for support by the Commission. The Panel is preparing a status report on Chemistry and has also decided to explore the possiblity of providing facilities for duplicating the indigenously developed equipment by some selected universities, so that these could be made available to other university departments.

The Panel recommended that collaboration between he university departments and industry may be further encouraged.

The Panel also considered the departmental profiles received from the university departments for special assistance by the Commission and reviewed the scheme of Career Award.

The Panel examined and recommended suitable research projects for support by the Commission. The Panel suggested that there was an urgent need for further strengthening the programmes relating to the 'Exchange of Scientists/Technologists' between the university departments and other academic institutions, The implementation of the scheme of Career Awards was also reviewed by the Panel. It also considered the departmental profiles and recommended Aligarh Muslim University and Karnataka University for Special Assistance Programme.

## Bio-Sciences:

The Panel examined and recommended major research projects for financial support from the commission in various areas of bio-sciences. Bench-mark sueveys of teaching facilities in Biological Sciences in colleges and universities are being undertaken and a status report in Bio-Sciences is being brought out by the Pane:. Instructional conferences in important areas of BioSciences have also been recommended by the Panel.

### 2.31 Home Science:

The Panel has finalised the guidelines for undergraduate and postgraduate courses and the same have been circulated to the universities/colleges. A comprehensive report of the regional workshops organised in selected universities on thrust areas of research in home Science is under preparation. The Panel has recommended that "Home Science Update Courses" for college teachers in different regions may be organised in view of the revised guidelines prepared by the Panel.

The Panel recommended that teacher orientation courses in Electronics/Instrumantation be organised at selected universities with a view to strengthening teaching and research in Electronics and Instrumentation. A seminar was organised on 'Relevance of Electronics Science in Indian Universities' with a view to develop modalities for interaction between the universities and the industry.
M.Sc. Electronics science course has been started on the recommendations of the Panel in the Universities of calcutta, Delhi and Poona. It is contemplated that by the year 1990, ten university departments would be able to start the course. The programme is being jointly supported by the Department of Electronics and the University Grants Commission. The Department of Electronics, Govt. of India is contributing towards equipment and books while the Commission is providing assistance to these universities for building and staff.

### 2.33 Nuclear Science Centre:

The Nuclear Science Centre has been set up as a national facility in the campus of Jawaharlal Nehru University with a view to generating research in the frontier areas of Nuclear Physics, Atomic Physics, Condensed Matter, Material Sciences, etc. The Centre is being operated by a Project Steering Committee. Rules and Bylaws of the Centre have been approved by the Commission while the approval of the Ministry of Human Resource Development is awaited. The Centre is to be registered as a society to enable it to function as an autonomous institution under the UGC.

The Commission has constituted a National Co-ordinating Committee to promote teaching and research in the areas of Relativity and Cosmology in the universities. Eleven summer/winter institutes have so far been organised in selected universities during the years 1984-85 to 1986-87. An International Conference on Gravitation and Cosmology is scheduled to be held in 1987.

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 SubContinent. 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 also proceessed by the IMAP Co-ordinating Committee.

The progress of this programme was evaluated at an InterAgency meeting and it was decided that the participation of university scientists in the researches of Indian Middle Atmosphere Programme be continued upto March, 1989.

## Environmental Sciences:

Considering the importance of environmental education and the role of the University System in developing an adequate level of environmental awareness and training manpower in the newly emerging areas of importance, the Commission constituted an expert committee in 1982 to advise on matters relating to development, teaching, research and extension work in Environmental Sciences, including

Forestry and Ecology education in the universities and colleges. Specialized programmes such as undergraduate/ postgraduate diploma courses in Environmental Sciences were contemplated to be started with a view to obtaining trained manpower. With the help of a sub-committee, necessary details with regard to specific programmes in Environmental Engineering and Pollution Control have also been worked out.

Modalities for operation of specific programmes in Environmental Engineering and Pollution Control have been worked out in consultation with Central Board for the Prevention and Control of Water Pollution.

## Laser and Fibre Optics:

Considering the growing importance of Laser and Fibre Optics, the Commission has constituted an expert committee to suggest steps to be taken by the Commision for promotion of teaching and research in Laser and Fibre Optics. The committee has recommended that training programmes and workshops be organised in the area of Laser and Fibre Optics in the Universities.
2.38 Astrophysics and Astronomy:

The Commission has constituted an expert committee for the promotion of education and research in the fields of Astronomy and Astrophysics. The Committee has formulated a plan of action and identified institutions to be supported for the programme. Model Syllabi for undergraduate and postgraduate courses in Astronomy have been prepared.

The Commission has agreed to the setting up of a National Centre in Astronomy at the Rangapur Observatory, Osmania Unversity, Hyderabad. This observatory will be developed as a National Centre and used by astronomors from universities and other institutions. Collaborative research projects between universities and institutions like TIFR, BARC, National Physical Laboratory etc. would be undertaken and training to the students and researchers would be provided at the Centre.

### 2.40 University Centre for Science Information:

The Commission has approved the establishemnt of the University Centre for Science Information at the Indian Insitute of Science, Bangalore. The Centre would offer a current awareness service through computerised monthly abstracts in Science and technology. It would also provide authentic and uptodate abstracting services to the users of papers and educate the users in generating queries for their need for optimal utilisation of the Information Services. The centre is tunctioning as a national facility in order to serve the needs of scientists in the University system.
2.41 University Science Instrumentation Centre (USIC) and Regional Instrumentation Centre (RIC):

The scheme of University Science Instrumentation Centres (USICs) was introduced with the objective of assisting the universities to create essential facilities where all major instruments in the universities could be centralised for their maximum utilisation sepported by well qualified
personnel for fabrication, repairs and maintenance of all types of instruments. The USICs are also expected to:
i. repair and service instruments
ii. design and fabricate attachments or modification to the existing equipment and
iii.train instrument scientists and technicians to develop instrument $R \& D$ and to provide analytical services by pooling together major equipment in the different departments under the common instrumentation centre.

The Commission has approved proposals of 58 universities as on 3lst March, 1987 for setting up of the USICs. The Commission has also agreed to provide assistance to the Regional Instrumentation Centre at the Indian Institute of Science, Bangalore and the Western Regional Instrumentation Centre, Bombay University, to monitor the functioning of USICs and train resource personnel, provide service and maintenance facilities, and to design and develop new teaching aids etc. Special level USIC for eastern region at the Kalyani University has been approved during the year.
2.42 Science Eduation Journals:

The Commission continued to support publication of quarterly journals in Physics Education, Mathematics Education, Biology Education and Chemistry Education. The journals provide a forum for exchange of ideas on innovation in teaching, new curricula and productsboth software and hardware. The journals are being brought out regularly. Colleges have been requested to
subscribe to the journals out of the UGC assistance provided for books and journals.

### 2.43

## Centre for Theoretical Studies:

The Centre for Theoretical Studies at the Indian Institute of Science, Bangalore, has been conducting research in the areas of (a) Theoretical and Mathematical Physics, (b) Evolutionary and Developmental Biology and (c) Fluid Mechanics, Physics of the Atmosphere and Oceans. The Centre thus provides a forum for inter-action among physicists, mathematicians, biologists and others interested in theoretical studies and conceptual matters in inter-disciplinary and frontier areas. The Commission has since agreed to provide financial assistance to the Centre from the year 1987-88.

Development of multi-disciplinary teaching and training in Bio-technology (Department of Bio-technology- U.G.C. Collaborative Programme

It was jointly agreed by the Department of Bio-Technology (Govt. of India) and the University Grants Commission that the universities having active research groups in the area of Biotechnology may be strengthened on a selective basis for teaching and training in Biotechnology.

The following universities were identified during 1985-86 for the implementation of M.Sc./M.Tech. courses in Biotechnology:
S.No. University

1. Banaras Hindu University
2. Jawaharlal Nehru University
3. Poona University

Courses offered
M.Sc.
M.Sc.

Courses offered
M.Sc.
4. M.S. University of Baroda
5. Madurai Kamraj University
M.Sc.
6. Jadavpur University, Calcutta. M.Sc. M.Tech.

A National Board of Studies in Bio-technology has been constituted jointly by the UGC-DBT for a continuous monitoring of the programme and for suggesting measures for effective implementation of the programme. It is proposed to organise national level workshops at the M.S. University of Baroda, Madurai Kamraj University and Jawaharlal Nehru University to formulate a need-based plan of action for the programme and to work out the needs of industry in Bio-technology. It is also planned to develop appropriate programme of teaching, training and research in Bio-technology.

Major funding of the programme is being done by the Department of Biotechnology.
2.45 Development of Ocean Science and Technology

The Commission is collaborating with the Department of Ocean Developement (DOD) for the development and augmentation of Ocean Science and Technology in the university sector. It is proposed to identify priority areas in Marine Sciences and formulate a perspective plan for teaching, training, research and linkages with other universities and institutions. Assessment of manpower requirement in Marine Sciences, modalities for funding and effective collaboration between U.G.C. and D.O.D. are being worked out.

A Committee has been constituted to consider steps to be taken for strengthening the Materials research in the universities. It is also envisaged to establish a few national centres in selected universities for promotion of Materials research. Training programmes/workshops are proposed to be organised to enable the university scientists from the departments of Physics, Chemistry and Biology to interact with a view to developing materials which are of vital importance to industry.

### 2.47 National Accelerator User's Committee:

The Commission agreed to the utilisation of the following facilities at Variable Energy Cyclotron, Bhabha Atomic Research Centre (BARC), Calcutta by University scientists: (i) Target Lab. (ii) Detector Lab. (iii) Scattering Chambers (iv) Electronics Facility (v) On-line data acquisitions and processory system and (vi) Magnetic Neutron facilities.

An expert committee constituted by the Commission has been co-ordinating the utilisation of facilities at the Variable Electron Centre (VEC) by the university scientists. The research projects which require experiments to be done with the assistance of the Cyclotron are considered by the Committee. On the recommendations of the Committee, the Commission provides assistance to the university scientists for research staff, contingencies, T.A./D.A. to visit VEC (Calcutta) and for procurement of targets.

At present 17 research project undertaken by the university scientists are under implementation.
(a) There is an increasing awareness in India that Communication can catalyse social change which in turn can promote national development. Over the years a massive expansion has taken place in the communication infrastructure in the country. Radio has extended its reach to the farthest corners of the country. The expansion of $T . V$. net work has been phenomenal with the launching of INSAT-1B. A large number of low power/high power transmitters have been installed all over the country to relay television programmes from the Satellite to urban areas, while direct reception sets which would receive signals directly from the Satellite are being installed in clusters of villages. The Commission has taken advantage to spread higher education through Electronics Media like the Radio and T.V. as it has an unlimited potential to carry the teaching-learning process.
(b) In principle everyone desirous of receiving some kind of education can do so through community viewing. With this facility the whole country can be unified by some common educational thrusts and at the sametime each region can be served according to its needs.
(c) The TV programmes are of enrichment type meant for undergraduate students and these are in English for the present. Topics on different disclplines are chosen so that a large number of students and indeed any educated person may benefit from them. Some topics relate to national integration, scientific temper etc. There are special programmes for teachers in higher education to enable them to handle
their job more effectively. The Commission is arranging to provide colour TV sets in 1402 colleges through placing bulk purchase orders with public sector undertakings, in the first phase during the 7 th Plan period. Part assistance was provided by UGC to the colleges to procure colour $T V$ sets during the 6 th plan period.
(d) The Commission has set up 4 Educational Media Research Centres (EMRCs) and 7 Audio Visual Research Centres (AVRCs) in universities and colleges. The EMRCs are at Jamia Millia Islamia, University of Poona and Gujarat and the Central Institute of English and Foreign Languages (CIEFL), Hyderabad and they are fully operational. THe AVRCs are at the universities of Anna, Madurai Kamraj, Osmania, Roorkee, Jodhpur, Kashmir and St. Xavier's College, Calcutta and the facilities are in various stages of being set up. proposals are also invited from universities and colleges to participate in the programme by producing TV programmes with the help of private production agencies on contractual basis.
(e) The programme production has to be supplemented by the use of first-rate educational material available within the country and abroad. Some foreign educational video programmes hate been purchased under agreed terms and conditions for telecast. Programmes in English offered by some foreign embassies in India are also used. In addition, suitable programmes available with the Films division of India and some private agencies are being used for telecast.
(f) Manpower development and training is an important component in the use of educational media. The

Educational Media Research Centres have organised 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 periodical training programmes, one International workshop on T.V. Production techniques with the participation of British Experts was held at EMRC, Gujarat Universty, from April 7 to May 6, 1986. 20 persons from various Media Centres participated in workshops. Another Technical Personnel Training Workshop was held at EMRC, Gujarat University from loth June to 27 th June, 1986. 10 persons participated in this workshop.

### 2.49 UGC Film Study Centres:

The Commission has set up Film Study Centres in selected universities and colleges with the following objectives:
(a) to increase awareness of film as a modern art form and of the Cinema as a 20th Century medium of social communication and education by exposting students to international and Indian film classics of various genres in a systematic manner.
(b) to organise discussions, symposia, lectures and courses and publication on any aspect of film in support of the promotion of film culture on the campus.
(c) to attempt to relate film as a subject with other subjects which are being studied on the campus and with the Fine Arts and;
(d) to expand the understanding of the relationship of the Cinema with the needs of individual's growth and with social developments.

Twentytwo universities/colleges were selected for the establishment of Film Study Centres during the first phase. A UGC Central Cell is set up at the National Film Archive of India, Pune which will ensure constant supply of suitable film classics and ancilary support material and also undertake training and retraining programmes for the teacher Coordinators.

### 2.50 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. On the recommendations made by the Philosophy Panel, the Commission accepted during the year the proposal of Nagarjuna University for the establishemtn of a Centre of Buddhist Studies. The Gujarat Vidyapith is already being assisted by the Commission for the introduction of Buddhist Studies as an optional subject at the M.A./M.Phil levels as part of courses in Gandhian Studies and Peace Research.

### 2.51 Gandhian Studies:

The Commission continued to support the universities for the introduction of courses in Gandiian Thought and Values, strengthening of Gandhi Bhavans and starting of programmes by way of peace research and other related activities.

As on 3lst March, 1987 there were nine universities which were having facilities for postgraduate diploma or M.A. degree in Gandhian Studis. In addition, two universities have introduced Gandhian Studies as a subject at the Bachelor's level. Five positions of research associateships are also earmarked every year for studies in Gandhian Thought.

### 2.52 Value-Oriented Education:

The University Grants Commission has given high priority to value-oriented education. Value orientation, as a major concern of education, has been a subject of discussion from time to time. A conference of Educationists in May, 1981 discussed the theme of valueoriented education at some length. The conference felt that value orientation should be a central focus of education and that teachers should be given necessary training in the effective methods of development of values among students. The conference also felt that the major problems involved in value oriented education at the higher levels are the content, methodology and integration of value oriented education in the total scheme of higher education.

Value orientation has often been considered in the narrow context of imparting moral education. Values, in fact, cover the entire domain of the human personality and its integrated development. Specific values 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; it cannot be something which is added on to a given curriculum for a specified course.

In fact, the entire curriculum of the course lends itself to value-orientation; it is not necessary that imparting of values has to be an additional curriculum load.

Value oriented education also figured in the discussions on the formulation of National Policy on Education. The NPE-1986 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 readjutments in the curiculum 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. Besides, in our context, education has to foster universal and eternal values oriented towards the unity and integration of the people to eliminate obscurantism, religious fanaticism, violence, superstition and fatalism. The policy also visualises a positive role for education in the development of new values through redesigning curriculum, textbooks, training and orientation of teachers, etc., in the empowerment of women and bringing about changes in their status.

The UGC has sanctioned a project for undertaking studies relating to value oriented education to be implemented at the Gujarat Vidyapeeth, Ahmedabad.

A programme for production of books, films, video-tapes etc. on themes relating to value oriented education is under consideration. Efforts are under way to identify themes as well as authors and prodicexs to undertake this programme.

The scheme relating to the Publication of journals was initiated by the Commission in the year 1985-86. On the recommendations made by an expert Committee with regard to the several programmes to be taken up in humanities and social sciences for purposes of improvement of standards, the Commission, inter-alia, agreed to provide financial assistance for the publication of journals in humanities and social sciences on a selective basis so as to strengthen some of the existing journals and for starting new ones of a high standard in regional languages. Assistance is to be provided by the Commission to meet the annual deficit subject to a maximum of Rs.5,000/- per annum for a period of five years. Keeping in view the recommendations made by Experts, the Commission has agreed to provide assistance for publication of 12 journals during the year 1986-87.

### 2.54 <br> Information Centresin Humanities and Social Sciences:

The Commission accepted the recommendations made by an expert committee with regard to the setting up of two information centres in the field of Humanities and Social Sciences. The objective of these Centres is to make available to research scholars and teachers the latest documentation available in their fields of specialization. Accordingly, two Information Centres, one at the SNDT Women's University, Bombay and the other at the M.S. University of Baroda have been set up. The SNDT Centre covers disciplines like Sociology, Gujarati, Women's Studies, Home Science, Library Science and Special Education, while the Centre at the M.S. University of Baroda covers Economics, Political Science, Education
and Psychology. These Information Centres have set up computers in order to start the work at an early date.
2.55 Centres of Advanced Study (CAS), Departments of Special Assistance (DSA) and Departmental Research Support Projects (DRS) in Humanities \& Social Sciences

During the period under report, the Department of Archaeology, Deccan College, Pune was upgraded as a Centre of Advanced Study. This upgradation was done on the recommendations made by the Visiting committee. The Commission also agreed to continue its assistance to the departments of Sociology and Economics at the unlversities of Panjab and Punjabi under the programme of DSA keeping in view the work done by the departments. During the year 1986-87, the department of Art History and Aesthetics, M.S. University of Baroda was lnvited to participate under the Programme of Special Assistance. The total number of Centres of Advanced Study in Humanities and Social Sciences at the end of $1986-87$ stood at 15 as against 14 in 1985-86. During the year under report, the number of departments under the programme of Departmental Research Support remained four. However, a number of departments of various universities were identified by the panels for participation under the programme of DSA/DRS. Proposals of these universities were under active consideration of the Commission. A list of the departments participating in the scheme of CAS/DSA/DRS in Humanities and Social Sciences as on 31.3.1987 is given at Appendices-XVI, XVII and XVIII. As on 3lst March, 1987 there were 15 CAS, 26 DSA and four DRS in Humanities and Social Sciences.

The Commission also provides assistance to selected university departments for undertaking research. Under this programme, during the year 1986-87, the department of Sanskrit, Rabindra Bharati Jriversity, Calcutta was
selected for carrying out research on Vedic Studies. Similarly, the department of Bengali of this university was identified for the escablishment of a Tagore cell.
2.56 Centres of Advanced Study, Departments of Special Assistanceand Departmental Research Support Projects in Science Subjects:

As on 31 st March, 1987 there were as many as 25 centres of Advanced Study, 72 Departments of Special Assistance and 51 Departmental Research Support Projects in Science subjects. A list of these in given at Appendices XIX, XX and $X X I$ respectively. During the year, four Departments of Special Assitance viz., the department of Zoology (Banars Hindu University), department of Chemistry (Panjab University), department of Physics (Poona University) and the department of Physics (Indian Institute of Science, Bangalore) were upgraded as Centres of Advanced Study and nine departments were approved for Departmental Research Support.

Strengthening of Infrastructure of Science and Technology:

On the recommendations of the Science Advisory Committee to the Cabinet (SACC), theCommission in 1983-84 launched the COSIST (Standing Committee for strengthening of infrastructure of Science \& Technology) programme in the universities and institutions of higher learning on a highly selective basis with a view to achieve high quality performance in research and post graduate teaching as well as to raise these institutions to a level of excellence comparable to other developed countries.

The special importance of this scheme lies in
i) identification of departments on highly selective
basis, based on the excellent performance of the department/group/individual, coupled with the ideas to strengthen both post-graduate education and innovative research in the country.
ii) raising standards of the identified departments to a level comparable to their counterparts elsewhere in developed countries by providing them all the necessary financial assistance/inputs in a big way to strengthen complete infrastructure in the postgraduate teaching specific thrust areas of research of national and international importance.
iii) yearwise monitoring and evaluation of the supported departments as an inbuilt component of the programme.
iv) utilisation of the infrastructure as a national facility for teaching and research throughout the country.

High selectivity of this programme can be judged from the fact that so far only 62 departments have been identified and supported under COSIST programme throughout the country. Out of these COSIST supported departments, 10 are in Chemistry, 7 in Physics, 18 in Bio-Sciences \& LIfe Science, 8 in Earth Sciences, 2 in Marhematics and 17 in Engineering \& Technology.

Several committees consisting of subject experts have so far monitored 38 departments of phase-I and II supported under COSIST Programme.

Studies of the impact of the COSIST support to specifically identified thrust areas in Science \&


#### Abstract

Technology departments/universities have been made by respective specialists.


After exhastive exercises, 26 new departments in Science alongwith their thrust areas have been identified and these are expected to be funded after discussions with the sub-committee experts and representatives from the department followed by final approval of the Commission. In engineering and technology, 7 departments (provisionally identified) are still under process with the Ministry-UGC for their final approval. A list of departments supported under COSIST upto 1986-87 is given at Appendix-XXI(a).
2.58 Major Research Projects (Humanities and Social Sciences):

The Commission provides assistance to teachers, both in Service as well as superannuated, in the 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 or by a department as a whole. Priority is accorded to such topics of research which have an inter-disciplinary bias, specially in fields which have hitherto remained neglected but which are of immense value from a socio-economic point of view. Commission's assistance is available for appointment of junior research fellows, research associates, visits for the field work, apparatus, equipment, postage, stationery, computation work, books \& journals, printing of questionnaires, contingencies and such other items needed for the project.

During the period under report, the Commission approved 132 major research projects in different disciplines
of Humanities and Social Sciences at a cost of Rs. 72.91 lakhs.

Minor Research Projects (Humanities and Social Sciences):

Under this programme, a university or college teacher intending to undertake, alongwith teaching work, 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. The assistance is available for purchase of books and journals, field work, preparation of questionnaires, computation work, equipment and contingencies which are specifically needed for the proposed project but are not normally available in the institution where the teacher is employed.

During the year under report, the Commission approved 551 minor research projects in Humanities and Social Sciences at an estimated cost of Rs. 48.40 lakhs.

### 2.60 Major Research Projects (Science):

The Commission is providing financial support/assistance to the 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 pure and applied sciences related to natıonal $R \& D$ effort or in new fields and interdisciplinary areas of importance. During the year, the Commission approved 191 projects at a cost of Rs, 231.91 lakhs.

On the recommendations of the Engineering and Technology Panel, 7 major and 40 minor research projects were also
approved in Engineering/Technology during 1986-87 at a cost of Rs.l2.17 and Rs.2.13 lakhs respectively.
2.61 Preparation of University level books by Indian Authors:

The Commission initiated in 1970-7l a scheme of providing financial assistance to outstanding academics in the universities, colleges and other institutions of higher learning and research in the country for preparation of high quality books, monographs and reference material for use in the universities and colleges.

The progress of the scheme upto 31 st March, 1987 was as under:
(a) Projects initially accepted : 995
(b) Projects cancelled due to non-
: 92 implementation
(c) Projects where the manuscripts : 282 have been completed
(d) Projects in different stages of : 621 1 mplementation

The operation of the scheme in its present form has been suspended since July 18, 1986 and the scheme is under review.
2.62 Examınation Reform:

The Commission has been emphasising the implementation of various measures of examination reform with a view to improving the reliability, validity and objectivity of
evaluation and with a view to bringing about a closer integration of teaching, learning and evaluation.

Since the close of the Fourth Five Year Plan, the Commission has been laying special emphasis on the implementation of various measures of examination reform. The main emphasis is on the following aspects of examination reforms:
a) Continuous internal evaluation as a supplement to the present final examination.
b) Development of question banks in order to eliminate some of the shortcomings of setting up examination papers and as a means for revision and modernisation of courses of study.
c) Introduction of grade system instead of present marking system in order to increase reliability and bring about better comparability among different subjects.
d) Introduction of the semester system in order to have greater flexibility.

In addition to the implementation of above measures, the Commission has desired that all universities and institutions deemed to be universities should implement the following reforms relating to syllabus/question papers and conduct of examinations:

1) The syllabus in each paper should be demarcated into well-defined units/areas of contat alongwith a topicwise break-down. The units may be numbered.
2) Examiners should be free to repeat questions set in previsous examinations. This is necessary in order to ensure that students do not leave out important portions of the syllabus. Instructions to paper= setter should be amended accordingly.
3) There is often a very vide choice given to students for answering question, say 5 out of lo. Such overall choice restricts the area of knowledge with which a student can pass an examination and is, therefore, undesirable. If there is choice, it may be provided by alternate questions in each unit of the syllabus.
4) No examination should be held without fulfilling the requirement of a minimum number of lectures/tutorials/ laboratory sessions etc. which should be clearly laid down by the university.

The Commission is providing support to a few selected universities/institutions deemed to be universities towards core staff and other facilities such as workshops, seminars, printing of question banks, purchase of books and equipment, contingencies etc. on 100 per cent basis for establishment of Examination Reform Units within an overall ceiling of Rs.75,000/- per annum besides actual expenditure on core staff. The grants paid to these universities/institutions have enabled them to introduce specific measures of examination reforms and to monitor the programme. At present, the following lo universities and 3 institutions deemed to be universities are receiving assistance from the Commission towards establishment of Examination Reform Units:

1. SNDT Women's University, Bombay.
2. Poona University, Poona.
3. South Gujarat University, Surat
4. Sardar Patel University, Vallabh Vidyanagar.
5. Mysore University, Mysore.
6. Jammu University, Jammu.
7. Kanpur University, Kanpur.
8. Gorakhpur University, Gorakhpur.
9. Anna University, Madras.
10. Jawaharlal Nehru Technological University, Hyderabad.
11. Indian School of Mines, Dhanbad.
12. Gandhigram Rural Institute, Gandhigram (Madurai).
13. Shri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam (Andhra Pradesh).

## 2. 63 Curriculum Development Centres in different disciplines

It was a long felt need to prepare a model curriculum in different subjects to maintain uniform standards of education in the country. Keeping this objective in view the Commission has established 24 Curriculum Development Centres in the first instance (17 in Humanities \& Social Sciences and 7 in Sciences) in different parts of the country. The major task of such centres is to undertake thorough review of the existing syllabi and courses of different universities at various levels of university education and to suggest measures for modernising the same and restructuring them to unit courses, besides developing alternative models emphasising the different aspects of study of the subject concerried. These centres are also expected to prepare textual and other supporting materials to fortify these courses. It is also expected that they will develop necessary teaching aids and impart necessary training to teachers in tre universities and colleges. The suggestions made by various panels will be kept in view in developing such conse content.

With increasing awareness of the importance of learning process and keeping in view the emphasis laid on it in the New Education Policy 1986 and the Programme of Action prepared by the Government of India, more learners' oriented or enquiry-oriented teaching methodology should be introduced in the instructional system. This will enable the learner to engage himself in creative and diversive thinking, problem-solving, self-learning and to explore new avenues of communication, productivity, work as well as innovative activities by way of computer simulation work, project work, seminars, symposia, field work etc. Accordingly, the main thrust of the proposed curriculum is aimed at shifting emphasis from teaching to learning which is an important element in the new approach to education. This has necessitated the reorganistion of the curriculum packages possibly in a modular form and greater emphasis to be given to the student's motivation to learning than to teacher's ability to lecture. Further, the curriculum is to be so designed that it would make education more meaningful to the needs and aspects of its beneficiaries as well as socially relevant. Students are to be given home assignments, tutorial work, etc. so that they may use library and laboratory work.

Lectures have to be supplemented by tutorials and problemsolving sessions (which is about $20 \%$ of the lecture workload), term papers etc. so that student derives maximum benefit from his scheme of study. Therefore, tutorials, seminars, problem-solving exercises, project work, field
work etc. will form constituent part of the proposed curriculum.

To coordinate, modernise and improve the standards of education at tertiary level, it is imperative to have a model curriculum in each of the major disciplines offered
at the under-graduate level (main \& subsidiary), one-year post-graduate diploma courses; two-year master's degr : courses, etc. This endeavour will enable the institutions of higher learning to offer a uniform pattern of education in the colleges and universities in the country which is turn will enable the mobility of students from one region to another. The curriculum is being developed by a group of experts in the concerned subjects. These experts have been selected from different parts of the country belonging to universities, laboratories and other concerned bodies. In case of under-graduate committees, the experts have been chosen from colleges also.

A list of different centres established by the Commission is given at Appendix-XXI(b).

## SECTION 3

## DEVEYORAENT OF UNIVERSITIES

3.01 Development grants are provided by the Commission to the Unaversities 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, staff quarters, students hostels, equipments, books \& Journals and such other facilities designed to promote the quality and level of teaching and research as well as to foster corporate life on the campus.
3.02 During earlier plan periods, the normal practice of the Commission was to send teams consisting of academics to the universities to assess the requirements on the basis of their proposals with a view to deciding the areas of priority for financial aid by the Commission. These Committees helped in apportioning the quantum ofgrants to be given for individual items during the plan period within the approved ceiling. Such exercises normally stretched over one to two years, and some time even more. This was because finalisation of dates for visit by the Committees took long time which resulted in inordinate delay in finalising the plan proposals of various universities. Such a situation caused a lot of backlog as well as imbalance in the development process.
3.03 In the Seventh Plan, therefore, the Commission decided as an experımental measure to invite Vice-Chancellors alongwith senior faculty members and State Government representatives to discuss the plan proposals of the unlversities. The Commission also decided to appoint subject experts to assist in the deliberations which were
held in the UGC office. However, the Commission also took a view that, where necessary, Visiting Comittees would be sent to universities to assist in finalising the seventh Plan Proposals.

### 3.04 Seventh Plan Guidelines:

The Commission formulated guidelines for the development proposals of the universities for the Seventh plan some time in early February, 1986. However, these guidelines were revised by incorporating the drectives of the New Education Policy - 1986. These revised guidelines were sent to the universities in October, 1986.

These guidelines, interalita, lay down that the universities keep the following approach in view while formulating Seventh Plan proposals.

## A. General

(i) Universities should develop a new perspective so as to contribute more effectively towards intellectual pursuits and solution of societal issues.
(ii) Universities should interact meangingfully and effectively with all aspects of social life where knowledge, analysis and creativity are called for.
(iii) Universities should develop Close linkages with other agencies like industries and institutions outside the University system and particularly with those which are interested in using the findings of science, technology and social sciences in the areas relevant to social needs. This shoilc de a continuous and reciprocal endeavour.
(iv) Universities may develop activities like colloquim,
which should not confine to specific discipline but
should cut across related disciplines in order to cope
with real issues of life.
(v) The Seventh Plan proposals of the universities may be
formulated keeping the National Policy on Education
(1986) in view and universities should give highest
priority to translate the ideas spelt therein to
action.

(vi) Proposals already furnished to the Commission by the
Universities may be recast keeping the above in view.


#### Abstract

(vii) Universities should clearly spell out the main thrusts of their Seventh Plan proposals and those should be in conformity with the overall spirit of the National Education Policy (1986).


(viil)Universities should set up a planning board in which teachers and other functionaries of the university should be involved at various stages of planning. It would be desirable to evolve an appropriate system to continuously monitor the progress and impact of their departmental plans.
E. Regulating enrolment commensurate with facilities

Universities should exercise considerable care in curbing unwanted expansion of enrolment in formal and fulltime instructional programmes at the under-graduate and post-graduate stages. In order to meet growing demands for higher education, advantage should be taken of the facilities provided by non-formal channel of education like open university
system, correspondence courses, extended/evening classes etc.
C. Strengthening and coordination of teaching and research
(i) Each university is required to prepare a comprehensive plan for its teaching and research programmes for each of lts departments of study.
(ii) It may be necessary to develop appropriate pre-Ph.D. and M.Phil programmes in various faculties to train students and teachers in research methodologies. Inter- disciplinary research for obtaining a Ph.D. degree may be encouraged and the M. Phil courses may be broad-based. M.A. and M.Sc. courses should be tailored keeping the future manpower requirements and the regional/national needs in view.
D. Consolidation and expansiou
(i) This implies improvement of facilities in the existing departments which are conducive for imparting good quality education and undertaking research work of high standard.
(ii) The universities may give priority to strengthening of the infrastructure of existing postgraduate departments. This would involve provision of adequate academic as well as technical and other supporting staff, removal of obsolescence, modernisation of laboratories, provision/strengthening of workshop and enrichment of library as well as reprographic facillties. Universities snould not attempt to diversify their teaching programmes in new areas of specialisation in existing departments or starting of new departments. This would mean thin distribution of
available resources which will result in setting up of either non-viable or sub-viable departments. This should be attempted only when the existing departments are highly developed in all aspects.
(1ii) Effort should be made to inculcate the culture of sharing of the available facilities among the desirous. users and expensive equipment may be pooled together as central facilities. There should be provision for maintenance and repair of such equipment so that one can get the best out of these.
(iv) In the case of developed universities, new specialisations/courses/departments could be opened with an inter-disciplinary approach as it is in the boundaries of traditional disciplines, where usually development takes place. However, teaching and research in such emerging areas should be undertaken which could be sustained by existing facilities within the university with a minimal support. In the case of other universities, opening of new departments should be conditioned by overall needs for such departments within the state or region as a whole. Any effort to open new departments of study with sub-viable level inputs and inadequate preparations should be avoided. Any courses which have no relevance or are outdated may be dispensed with.
(v) Teaching in the class rooms should not be confined to lectures alone. More and more emphasis should be given to make use of modern teaching aids such as models, audio-visual aids, computers and various other electronic gadgets. The excitement of learning through computer simulation has opened up a new horizon in teaching process. Learning should not be passive but positively participative.

Extension should be made an integral part of the university culture and may assume a variety of programmes and activities as it is related to university situation. Extension should permiate in all the disciplines of studies at all levels.

Extension may also involve closer inter-action with the society and could be dovetailed with the programmes of rural development. This should aim at inculcation of scientific temper and awareness of impact of science in day to day life, proper utilisation of the fruits of scrence and technology, environmental education, legal literacy, national integration etc. among the community around the university.
F. Facilities for teachers and students

Such of the measures which are crucial to improve the corporate life of the unlversities have to be taken up on priority basis. This should need a look at the living conditions and other amenities which are essential for the students, teachers and other staff of the universities. Eacilities like staff quarters, hostels, guest houses, supply of drinking water, cycle sheds, canteens, recreation centres, health centres, sports facilities etc. may be part of the development proposals of the universities.

On the basis of modalities worked out by the Commission in May, 1986 for finanlising the 7 th Plan development schemes, the universities were requested to formulate their development proposals in consultation with the academicsand the conerned university bodies and provide profiles of past, present and future activities and the thrust of of future development schemes.

The proposals so received from the Universities were scruitinised and in accordance with the practice adopted as mentioned in para 3.03, meetings of various universities were convened by the Commission between 6 th January and 23rd February, 1987 wherein proposals of as many as 88 universities/deemed to be universities were finalised.

Though the Commission took a decision that the expenditure incurred by the universities upto 3lst March, 1986 on approved items during the 6 th Plan period viz. books, journals, equipment, buildings, faculty improvement programme and other miscellaneous schemes will be in addition to the 7 th Plan allocations to the universities, the same could not be adhered to due to paucity of resources. Keeping the recource position at that time in view, it was decided that the expenditure incurred on approved 6 th Plan items, as stated above, after 31.3.85 would be a charge to the 7 th Plan allocations to the universities instead of Sixth Plan allocations. It was further decided that subject to availability of further plan funds from the Government of India, the above position would be reviewed.
3.06 Campus Development in Central Universities and Institutions deemed to be Universities:

The Commission continued to provide assistance for campus deevelopment of Central Universities and Institutions deemed to be universities in accordance wih the guidelines laid down in 1984-85. During the year 1986-87, grants amounting to Rs. 167.54 lakhs were paid by the Commission for campus development.
3.07 Grants under Plan Development Schemes to Medical Colleges and Hospitals of Central Universities:

The Commission continued to provide grant under Plan develoment schemes to Aligarh Muslim University, Banaras Hindu University and Delhi University for medical education. During the year 1986-87, the Commission allocated a total grant of Rs. 127.90 lakhs to these universities for development of medical education including hospitals attached to the Aligarh Muslim University and Banaras Hindu University.

On receipt of a reference from the Ministry of Human Resource Deevelopment, the Commission gave concurrence for the arrangements suggested by the Ministry for sharing of expenditure for the maintenance of University College of Medical Sciences, New Delhi which is one of the maintained colleges of Delhi University.

The Commission also appointed an Expert Committee to suggest allocation of funds to the Central Universities during the VII Plan period and also for the sub-plan 1986-87, for which a total provision of Rs. 60 crores was earmarked by the Commission for the VII Plan period. On the recommendations of the committee, the Commission has decided to allocate an amount of Rs. 210 lakhs to

Aligarh Muslim University, Rs. 270 lakhs to Banaras Hindu University and Rs. 120 lakhs to Delhi University (for University College of Medical Sciences) during the VII Plan period i.e. 1985-90 for Medical Education in these Universities.
3.08 Sub-plan for the Development Schemes of the Central Universities:

The Commission is making separate allocation under the SubPlan for the development of Central Universities, medical colleges of central Universities and hospitals attached to them and the Delhi Colleges buildings under the annual budget of the UGC. During the year 1986-87, grants released to the Central Universities for various schemes under the Sub-Plan amounted to Rs. 1287.75 lakhs as per details given below:-

## Table 3.1

| Scheme | Grants <br> during <br> (Rupees |
| :--- | ---: |
| General Development in |  |
| Humanities and Social Sciences | 237.05 |
| General Development in Sciences | 185.43 |
| Medical Colleges | 59.41 |
| Hospitals | 68.49 |
| Campus Development | 156.44 |

Delhi College Buildings 85.53

| New Central Universities | 45.00 |
| :--- | :---: |
| Faculty Housing Guest House | 176.47 |
| Students Hostels | 180.43 |
| Physical Education including |  |
| sports | 1.10 |
| Miscellaneous | 92.40 |

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 College of Medical Sciences, Delhi Uniersity, the maintenance grant was paid directly to the institution.
3.09 Grants for the Development of Science:

Grants given to the universities for science education and research during 1982-83 to 1986-87 are shown in Table 3.2 .
3.10 Grants for the Development of Humanities and Social Sciences.

Grants paid to the universities during 1982-83 to 1986-87 for the development of humanities and social sciences are indicated in Table 3.3.

Table 3.2
GRANTS FOR THE DEVELOPMENT OF SCIENCE

| $\begin{aligned} & \text { S1. } \\ & \text { No. } \end{aligned}$ | Item of Expenditure | 1982-83 |  | 1983-84 | \% | 1984-85 | \% | 1985-86 | \% | 1986-87 | \% | Total | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Staff | 64.09 | 11 | 35.99 | 2 | 88.62 | 6 | 76.24 | 4 | 148.58 | 8 | 413.52 | 5 |
| 2. | Equipment | 232.21 | 39 | 894.36 | 46 | 357.29 | 25 | 330.57 | 17 | 312.90 | 16 | 2127.33 | 27 |
| 3. | Books \& Journals | 75.38 | 13 | 354.74 | 18 | 145.12 | 10 | 141.84 | 7 | 109.50 | 6 | 826.58 | 10 |
| 4. | Buildings | 58.18 | 10 | 51.98 | 3 | 88.68 | 6 | 105.40 | 5 | 233.04 | 12 | 537.28 | 7 |
| 5. | Centres of Advanced Study* | 63.29 | 10 | 24.96 | 1 | 176.03 | 12 | 271.85 | 14 | 106.99 | 5 | 643.12 | 8 |
| 6. | Special Assistance <br> to selected <br> Departments | $\text { e } 93.30$ | 16 | 590.34 | 30 | 224.22 | 15 | 442.02 | 22 | 193.90 | 10 | 1543.78 | 19 |
| 7. | Nuclear Science Centres | - | - | - | - | - | - | 393.00 | 20 | 456.00 | 23 | 849.00 | 11 |
| 8. | Other Schemes** | 8.82 | 1 | 11.76 | - | 378.00 | 26 | 221.99 | 11 | 398.61 | 20 | 1019.18 | 13 |
|  | Tota1*** | 595.27 | 100 | 1964.13 | 100 | 1457.96 | 100 | 1982.91 | 100 | 1959.52 | 100 | 7959.79 | 100 |

* Including staff, buildings, books, equipment etc.
** Includes from 1984-85 projects support, departmental/Institutional Support, Career awards, research scientists, meritorious scholarships for B.Sc. students and other miscellaneous schemes.
*** Includes payment made by adjustment.

Note: A statement showing, grants paid to universities during 1986-87 (major Head-wise) under Plan and Section III is given in Appendix XXII.

Table 3.3
GRants For the development of humanities and social sciences

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Item of Expenditure | 1982-83 | \% | 1983-84 | \% | 1984-85 | \% | 1985-86 | \% | 1986-87 | \% | Total | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Staff | 89.25 | 22 | 45.31 | 6 | 103.05 | 15 | 120.80 | 14 | 207.20 | 19 | 565.61 | 15 |
| 2. | Equipment | 13.69 | 4 | 200.44 | 25 | 83.16 | 12 | 129.33 | 15 | 240.19 | 22 | 666.81 | 17 |
| 3. | Buildings | 42.93 | 11 | 35.03 | 4 | 209.29 | 30 | 187.48 | 22 | 199.17 | 18 | 673.90 | 18 |
| 4. | Books \& Journals | 129.06 | 32 | 404.01 | 51 | 138.78 | 19 | 242.00 | 29 | 227.39 | 21 | 1141.24 | 30 |
| 5. | Centres of | 22.89 | 6 | 29.46 | 4 | 24.71 | 4 | 13.05 | 2 | 35.87 | 3 | 125.98 | 3 |
| 6. | Advanced Study* Special Assistance to selected Departments | 54.95 | 14 | 47.25 | 6 | 51.07 | 7 | 63.42 | 8 | 57.65 | 5 | 274.34 | 7 |
| 7. | Area Studies | 24.12 | 6 | 5.16 | 1 | 11.38 | 1 | 12.32 | 1 | 20.06 | 2 | 73.04 | 2 |
| 8. | Other Schemes** | 21.06 | 5 | 20.45 | 3 | 82.91 | 12 | 74.69 | 9 | 113.91 | 10 | 313.02 | 8 |
|  | Total $* * *$ | 397.95 | 100 | 787.11 | 100 | 704.35 | 100 | 843.09 | 100 | 1101.44 | 100 | 3833.94 | 100 |

* Includes staff, buildings, books, equipment etc.
* Includes from $1984-85$ project support, research scientists, departments/institutional support, career awards \& other miscellaneous schemes.
*** Includes payment made by adjustment.

The Commission provids assistance for strengthening museums in the various universities/institutions on a selective basis. The quantum of assistance is decided by an expert committee. The Commission provides assistance outside the Plan allocation. During the year 1986-87, 11 universities/ınstitutions, namely Indira Kala Sangit Vishwavidyalaya, Sardar Patel University, Poona Unıversity, Marathawada University, Aligarh Muslim University, Kurukshetra University, Kashmir University, Gauhati University, Calcutta University, Rabindra Bharati University and the Deccan College have been provided assistance under the scheme. The pattern of assistance is identical to that of the VI Plan Development Schemes.

### 3.12 Development of Performing Arts:

Based on the recommendations of an Expert Committee the Commission has been providing assistance to tenselected University departments of Performing and Visual Arts for appointment of additional staff, strengthening of studios, purchase of material/ equipment. During the year 1986-87, the following four departments, namely the Department of performing and Visual Arts (Rajasthan University), Department of Music (Delhi University), Department of Performing Arts (Visva Bharati University) and the Department of Drama (Calicut University) were assisted under the scheme, thus raising the total number of departments assisted under the scheme to 11 by the end of March, 1987. Some additional proposals recelved under the scheme are under consideration.

In 1963 the Commission initiated a programme of providing assistance to selected universities for undertaking indepth studies relating to History, Economy, Culture, Geography and language of different countries and regions of the world particularly those with which India has had close links. The objectives of this programme are :
a. to train a body of scholars for specialised study of problems and culture of a given area.
b. to develop interdisciplinary research
c. to develop teaching/research in Social Sciences, introducing a comparative and inter-disciplinary dimension.

The Commission's assistance to the Centres of Area Studies covers additional academic staff, fellowships/scholarships, strengthening of library facilities, field grant for research scholars to enable them to visit areas of their interest and for collecting source materials, assistance for inviting scholars to the centres, etc. The working of the centres is reviewed periodically. The Commission has approved as many as 16 centres in 14 universities upto the end of March, 1987. A list of these universities/centres is given below:-
S.No. University Country/Region for study

1. Aligarh Muslim University, Aligarh

Egypt, Saudi Arabia,
Iraq, Yemen, Oman, Iran ard other gulf countries
2. Delhi University, Delhi
3. Banaras Hindu University, Varanasi.

Bre venkateswara University, Tirupati.

Bombay University, Bombay.
6. Gokhale Institute of Politics and Economics, Poona.
7. Rajasthan University, Jaipur.
8. Madras University, Madras.
9. North Bengal University, Darjeeling.

China and Japan with main emphasis on China Nepal

Vetnam, Laos, Kampuchea.
i) East Africa,
ii) Soviet Union

Economics of East European countries

South Asia with main focus on the study of Government and Politics Malaysia, Sri Lanka, Singapore, and Indonesia in a periphery manner.

Himalayan Studies
i) Gulf Studies. ii) Soviet Studies.

Bangladesh, Burma and Thailand.
12. Osmania University, Hyderabad.

Urban and Regional Planning in developing countries around the Indian Ocean.

Central Asia, Mongolia.

Centre for studies on co-operative possibilities in South Asia.

14. Andhra Unıversity

Development of Engineering \& Technology:

The Commission has been providing financial assistance to university maintained institutions in engineering and technology for the development of higher education and research. As many as 35 university maintained institutions were getting assistance from the Commission during 1986-87. Some of these institutions are of national importance such as the Indian Institute of Science (Bangalore) and the Indian school of Mines (Dhanbad).

The Commission is also providing financial assistance for the award of PG Scholarships/Senior Research Fellowships in enginering \& technology.

During the year 1986-87, the Commission released grants amounting to Rs.568.27 lakhs to various University maintained institutions.

Management Courses:

The Commission also provided financial assistance to 25 universities/institutions for conductiing M.B.A.
programme during 1986-87. An amount of Rs.l2.00 lakhs was paid for the purpose during 1986-87. This amount is included in the total amount of Rs.568.27 lakhs released for the Development of engineering/technology as mentioned in para 3.15 above.
3.16 Development of Computer Facilities and Computer Education for Manpower Training:

The Commission has been providing financial assistance to universities for creating computer facilities and for establishing computer centres. As many as 94 Universities have been approved for installation of computer systems. Out of these 76 universities have already selected the computer systems to be installed.

Assistance is also being provided by the Commission to a number of colleges for installation of small computers under the scheme of Restructuring of Courses. The Commission has also decided to provide PC/XT computers to 200 selected colleges during the 7 th Plan period. To begin with, 50 colleges have been selected for the purpose and $P C / X T$ computers with stabilised and $A C$ Unit have been provided to these colleges. In order to meet the challange of the shortage of trained manpower in this field, the Commission, under the UGC-DOE Joint programme, has also been assisting universities for running different manpower training courses viz.. (a) one-year diploma course in computer application and (b) 3-year Master of Computer Applilcation (MCA) course either at the graduate level or at the Master's level.

### 3.17 Jubilee Grants:

The Commission continued to provide assistance during the Seventh Plan to Universities and institutions deemed to be
universities on the occasion of their Golden/Diamond Jubilee celebrations on the same terms and conditions as in the Sixth Plan. During 1986-87, grants to the tune of Rs.ll. 65 lakhs were provided for the purpose.

### 3.18 Unassigned Grants:

The Commission places 'Unassigned Grants' at the disposal of the universities to enable them to meet the cost of approved travel by university teachers as well as for exchange of teachers. Teachers working in the university teaching departments including those appointed for correspondence courses / distance education as on l5th August, 1985 were taken into account for determining the quantum of assistance under 'Unassigned grant' during 1986-87 (teachers working in colleges and institutions affiliated to universities are not taken into account). The guidelines for 'unassigned grant' were revised and the amount of 'unassigned grant' for 1986-87 was determined on the following basis:
(a) Rs. 35,000 for a university having upto 100 teachers.
(b) Rs.55,000 for a university having between 101 and 200 teachers.
(c) Allocation to aniversity having 201 teachers and above would be determined on the basis of Rs. 275 per teacher and Rs. 90 per full time research scholar in the university departments subject to a maximum of Rs.2.50 lakhs.

A copy of the revised guidelines of 'Unassigned Grants' is enclosed (Annexure V).

As per the revised guidelines, assistance to a teacher for participation in international conferences abroad will not be prodived for more than once in three years instead of once in two years as was provided for in the year 1985-86.
3.19` Publication of Learned/Research Work including Doctoral Theses:

The Commission had been providing assistance to universities under the scheme of Publication of learned/ research work including doctoral theses on a two-year basis. It was decided that instead of making allocations for a two-year block period, funds may be allocated for the entire plan period. Accordingly, allocation to universities/deemed to be universities for the remaining period of the 7 th Plan ending $31 s t$ March, 1990 for the publication of research/learned work including doctoral theses has been made as per statement enclosed at Appendix-XXII(A).

Grants will be released to universities/deemed to be universities on receipt of progress report and statement of accounts against the grants already paid for the above purpose for the block years 1984-86.
3. 20 Special Education to Teachers for Teaching Handicapped Children:

The Commission in the year 1983 accepted the recommendations made by the Panel on Teacher Education with regard to the assistance to be provided to the universities/institutions for offering courses in Special Education for teachers teaching handicapped children and desired that the proposals received from the universities/institutions may be considered at an early date. Accordingly, special grants are being provided by

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the Commission to the following institutions which are offering courses related to Special Education.
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S.No. Name of University/
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    Institution
                                    Courses offered
    1. S.N.D.T. Women's University
1.Teachers training courses in Education of Visually handicapped and hearingimpaired children.
2.Programme for B.Ed. and B.Ed. special education for teachers in service.
3.Master's degree in Special Education.
2. Banaras Hindu University
3. Jamia Millia Islamia

Post B.Ed. diploma in Special Education.

| 4. S.P. College of Education, Fune | One year diploma course in Special Education. |
| :---: | :---: |
| 5. Shri Ramakrishan Mission Vidyalaya, Coimbatore | 1. Courses in Integrated <br> Education for visu- <br> ally handicapped <br> cn:ildern. |

# 2.Setting up <br> Material Production Centre. 

6. M.S. University of Baroda.

Setting up of a Cell for Special Education.

### 3.21 Setting up of Library Committee in Universities:

The question of laying down certain procedure for selecting the titles of books which are to be purchased out of the UGC grants by the universities had been under the consideration of the Commission and it was decided that a Library Comittee consisting of faculty members of different departments in the Universities may be set up by them to select the titles of books. It was also decided that every university should provide some space in the university premises so that leading book publishers of the region may display books which may motivate students to read books of their choice as well as to facilitate the purchase of books.

The above decision of the Commission was communicated to the universities in December, 1986.

Financial assistance to Vice-chancellors of
universities to attend international academıc conrerences held abroad:

The Commission at its meeting held in September, 1986, while considering the question of providing financial assistance to Vice-Chancellors of eligible universities in the country to attend international academic conferences abroad, agreed to continue the provision already existing in the guidelines for providing assistance to the universities under 'Unassigned Grant'. It was also
decided that in the case of Vice-Chancellors who are invited to present research papers at an international academic conference, the Commission may consider such proposals and provide assistance on $100 \%$ basis outside the unassigned grant and such assistance may be available to a Vice-Chancellor only once in three years.
3.23 Thesis written in Indian Languages

The Commission at its meeting held in September, 1986 considered $a$ reference received from the Government of India, Ministry of Human Resource Development (Department of Education) seeking the comments of the Commission on the proposal that research thesis submitted in Indian Languages should be accepted by all the universities and desired that universities should take steps to encourage the use of Indian languages without compromising on the qualilty of research work and may accordingly set up an appropriate machinery for promoting this objective.

## DEVELOPMENT OF COLLEGES

4.01 Guidelines for Arts, Science, Commerce \& Multi-Faculty
colleges:

During the year under report, the Commission finalised the guidelines for providing assistance to Arts, Science, Commerce and Multi-Faculty College for Development during the 7 th plan period i.e. 1985-90. These guidelines were circulated to the Colleges and the Universities to enable them to formulate their development proposals for undergraduate and postgraduate education for commission's consideration. It was also brought to the notice of the colleges that assistance by the Commission will be provided only for those schemes which have been approved by it and not for those undertaken unilaterly by the college in anticipation of ex-post-facto approval. The guidelines also include the pattern of assistance to colleges for development during the 7 th Plan. While finalising the guidelines, the National policy on Education - 1986 had been kept inview. The guidelines interalia lay down that the Commission's policy for development of undergraduate and post-graduate education in colleges during the Seventh Plan period would have three main aims, viz., (a) Improvement of standards and quality of education (b) Restructuring and diversificaton of courses and (c) Removal of disparities and regional imbalances in higher educational facilities. To achieve these objectives the Commission would provide assistance to all Arts, Science and Commerce colleges which fulfil minimum eligibility conditions to enable them to meet their basic needs like improvement of competence of teachers through faculty improvement programme, purchase of books and journals including strengthening of
book banks and basic scientific equipment needed for proper instructions Further, provided only to those colleges which have the necessary viability and potential and are striving for better standards. With a view to removing disparities and regional imbalances, colleges catering to the needs of Scheduled Caste and Scheduled Tribe students and one or two colleges in a district specially in educationally backward areas would also be considered for assistance for development of undergraduate education.

Assistance for restructuring of courses will be provided under a separate scheme.

The various types of assistance to be provided by the Commission as per guidelines for the Seventh Plan will be as follows:

## (1) Basic Assistance

The Commission would provide some basic assistance to colleges for the develupment of basic facilities during the Seventh Plan period, for which guidelines have already been circulated and proposals invited from eligible colleges.
(11) Assistance for Development of Undergraduate Education

1. The Commission would provide further assistance for development of undergraduate education only to such colleges which fulfil the conditions as indicated below:-
(a) The college has at least four teaching departments with at least ten fermanent teachers excluding the

Principal and the Physical Training Instructor/Director of Physical Education.
(b) The college has at least 250 students in degree classes and above (beyond +2 stage) relaxable to 150 in the case of Women's colleges and colleges situated in backward/rural areas.
2. The ceiling of assistance for such colleges will be as follows:-
a) Arts, Science, Commerce/Multi-faculty Colleges.

Student enrolment Ceiling of Assistance
250 to 500
501 to 1000
Rs. 4 lakhs
Rs. 5 lakhs
1001 to 2000
Rs. 7 lakhs
2001 and above
Rs. 8 lakhs
b) Arts, Science, Commerce/Multi-faculty Colleges in the Backward and Rural Areas which include:
(a) Women's Colleges (b) Colleges located in backward areas as identified by the University Grants Commission in the VI Plan and (c) Colleges located in rural areas covered by a Community Development Block and outside the limits of Municipality, Corporation, Town or Notified Area, Cantonment and similar other urban bodies.

Student enrolment Ceiling of Assistance

150 to 500
501 to 1000
1001 to 2000
2001 and above

Rs. 4 lakhs
Rs. 5 lakhs
Rs. 7 lakhs
Rs. 8 lakhs
(iii) Assistance for Development of Postgraduate Education in Colleges.

1. The Colleges which have postgraduate departments in arts/science/commerce and which fulfil the following norms would be considered for assistance for development of postgraduate education in the department concerned:
(a) (1) An Arts department having atleast 4 teachers of whom atleast 2 teachers have M.Phil/Ph.D. degree or equivalent research work, (ii) a Science department having at least 6 teachers of whom 3 hold M.Phil/Ph.D. degree or equivalent research work.
(b) The department subscribes to at least 5 standard academic journals in the subject.
(c) The department has at least one research project undertaken by faculty nembers/research fellows registered for Ph.D. degree under a teacher recognised for the purpose by the University.
(d) The minimum strength of full-time students in the two-year postgraduate course 1 s twenty.
2. The ceiling of financial assistance for various departments for all purposes would be as under:-
(a) Humanities and Social Science departments
(b) Geography, Mathematics, Statıstics and Psychology departments.
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Rs.2.00 lakhs for each department.
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Rs.2.50 lakhs for each department.
(c) Physics, Chemistry, Botany, Rs.3.00 lakhs for each Zoology, Geology, department.

Bio-Chemistry, Home Science and Micro-biology departments.
3. Proposals for the creation of senior academic posts (professors/readers) in a postgraduate department in a college will be considered on merits within the ceiling indicated above. The qualifications and mode of recruitment to these posts, wherever approved by the Commission, will be the same as for similar posts in a university department and Commission's assistance for these posts will be available upto 3lst March, 1990, provided these posts are created on a permanent basis and the State Government/College agrees to meet the expenditure on these posts as committed expenditure with effect from l.4.1990.
4. The Commission may assess the requirements of post-graduate departments with the help of expert committees, wherever necessary.
(1v) Special Assistance to colleges which may not fulfil the eligibility conditions under (ii) above.

1. With a view to removing regional imbalances, achieving the objective of equalisation of educational opportunities and providing the benefit of higher education to economically and educationally backward communities, particularly to Scheduled Caste and Scheduled Tribe students, the Commission would provide special assistance to such colleges which fulfil some minimum norms of enrolment and staff strength so that these colleges are able to come up to the norms of $a$ viable college in due course of time. The schemes
under which such proposals could be considered for development of undergraduate education are indicated below:-
(a) Assistance for Intensive Development of
colleges situated in Educationally Backward
Areas (AID Colleges).
Under this Scheme, the Commission would consider
providing assistance to not more than one or
two colleges in a district which do not have
even one or two well developed colleges
eligible for assistance for development of
undergraduate education under (1i) above. Such
colleges having atleast ly students and 5
permanent teachers would be considered for
assistance upto maximum of Rs.4 lakhs.

The selection of such colleges would be made by the Commission in consultation with the University concerned, which would in the first instance undertake the survey of the district concerned and assess the need for higher education in the district.
(b) Colleges catering to the needs of Scheduled Caste and Scheduled Tribe Students.

Under this Scheme, colleges having at least five permanent teachers excluding the Principal and Physical Training Instructor/Director of Physical Education and a minimum of 100 students in degree and post-degree courses of whom at least 35 belong to scheduled Castes
and Scheduled Tribes would be considered for assistance upto a Ceiling of Rs.four lakhs. Colleges with larger enrolments would be considered for assistance only if the number of Scheduled Caste and Scheduled Tribe Students is not less than 20 \% of the total encolment in degree and post-degree courses or at least 35 in case of colleges with encolment upto 175 students.

The items of assistance for the above colleges would be the same as for an undergraduate college in a backward area. Preference would however, be given to specific programmes like remedial/compensatory courses for weaker sections of students, faculty improvement and providing hostel facilities of a dormitory type accommodation for students.

### 4.02 Preparation of development proposals by the Colleges.

1. The colleges will formulate composite proposals for development during the Seventh Plan period for lmproving the standards of teaching at various levels. For this purpose, a college may include proposals for (a) books and journals including setting up of book banks and/or augmenting facilities in the existing book banks with aview to augumenting the facilites and improving reading habits among the students, (b) equipment needed for improving the standards, (c) remedial courses for weaker students including those $S C / S T$ categories with the help of senior students and part-time staff, (d) extension activities in the neighbouring areas for the benefit of the weaker sections of society in the form of
specific programmes, (e) additional teaching and technical staff with a view to improving the standard of teaching, (f) faculty improvement programmes, (g) hostel facilities for students and residential facilities for teaching staff, (h) extension of academic buildings including library and laboratories etc., and (i) introducing diploma course in Pharmacy as per university rules and norms prescribed by the Pharmacy Council of India ana (j) construction of cubicles for teachers. The College may set up a Planning Board and associate its faculty with it to formulate development proposals after identifying the real needs. It is not necessary that a college should seek assistance for all the purposes indicated above. The pattern of assistance for various items is given in Annexure-XXIII.
4.03 College Development Councils:

On the basis of the revised gudelines issued to the Universities in 1985-86, the scheme of the college Development Councils was exteridea upto 3lst March, 1990 on the condition that the State Goverments would take over the responsibility thereafter.
4.04 Grants paid for General Development:

Grancs paid to collges for general development and other schemes during the period 1982-85 to 1986-87 are detailed in table 4.1 which also indicates the number of colleges asisted under these programmes duriag 1986-87.

Table 4.1
Grants paid to Colleges for General Development and other Schemes*

Sl. Name of the $\quad 1982-83 \quad 1983-84 \quad 1984-85 \quad 1985-86 \quad 1986-87$
No. Scheme

1. Development of 416.29 1,237.67 1,778.59 1,159.28 2670.39 affiliated colleges
2. College Science 26.87 26.03 22.52 50.15** 40.00**

Improvement
Programme
3. College Humanities \& 36.44 80.39
$87.87 \quad 76.91$
189.97**

Social Sciences
Improvement Programme.
4. Centenary Grants - $\quad$ - $\quad 0.50 \quad 1.75 \quad 20.57$
5. Development of Post- 2.54 17.83 73.27 15.00*** graduate studies in

Humanitles and
Social Sciences.
6. Development of Post- $24.21 \quad 39.80$ 138.57 144.59 48.88) incll graduate studies
) in l
) above
** includes ULP also

Includes assistance for strengthening of undergraduate teaching institutions.

Following the National Policy on Education (1986) and the Programmes of Action to implement it, the UGC guidelines titled 'Criteria, Guidelines and Pattern of assistance to autonomous colleges (1973)'; were revised to draw a comprehensive scheme covering.
a. the Concept of autonomy
b. procedure and criteria for identification of colleges for autonomous status.
c. Governance of an autonomous college and its relationship with the parent university and d. accountability of autonomous college and pattern of financial assistance.

The revised guidelines finalised during the year under report were circulated to all the colleges, universities and che State Governments with the request that:-

1. Colleges having capacity to function as autonomous institutions may send in their proposals to the Universities concerned and
ii. Universities may also invite proposals from colleges, constitute standing committees, and fix their meetings for examining proposals.

The State Education SEcretaries were also requested to :-
a. finalise amendment of the Jniversity Act/Statutes, wherever necessary, empowering them to allow autonomy to a college and
b. nominate State Government representatives in the Standing Committees of the Universities in terms of the guidelines.

The nominees of the University Grants Commission on the Standing Committees were communicated to the Universities. In many cases, nominations of the State Government representatives on the Standing Committee were obtained.

The revised guidelines for autonomous colleges laydown the criteria for identification of institutions for grant of autonomy, procedure for conferment of autonomy, pattern of financial assistance, procedure for monitoring/evaluation/accountability of autonomy and governance of autonomous colleges through participation by the management on committees/bodies like the Governing body, Appeal and Grievance Committee, Finance Committee, Planning and Evaluation Committee, Academic Council, Board of Studies, Examination Committee etc. The Autonomy will be conferred by the university with the consent of the state Government and concurrence of the UGC for a period of five years, to be reviewed after the third year. In case of declining standards, if revealed by the review, it shall be open to the university to revoke autonomy.

### 4.06 Plan assistance to Delhi Colleges:

Plan assistance provided to Delhi colleges during the year 1986-87 was as follows:
(a) An amount of Rs.l.18 lakhs was provided to six colleges for the implementation of the scheme of 'Restructuring of Undergrauate Courses'.
(b) An amount of Rs.40.4l lakhs was provided to 30 Delhi Colleges under the Scheme of 'Basic Assistance' as per details given below:

| Books and Journals | $: 13.21$ lakhs |
| :--- | :--- |
| Equipment | $: 27.20$ lakhs |

(c) An amount of Rs.6.4l lakhs was provided under the scheme of 'Development of Undergraduate Education' for books and journals, equipment and buildings as detailed below:

| Books and Journals | $: 0.24$ lakhs |
| :--- | :--- |
| Equipment | $: 1.75$ lakhs |
| Buildings | $: 4.50$ lakhs |

(d) An amount of Rs.80.53 lakhs was provided to 14 colleges for construction/extension of buildings and other specific purposes.
(e) An amount of Rs.2.26 lakhs was provided to eight colleges for meeting 50 per cent of the expenditure incurred $2 y 21$ teachers towards international air passage, TA/DA and other purposes for attending international Conferences/Seminars/ Symposia abroad.

## DEVELOPMENT OF INSTITUTIONS DEEMED TO BE UNIVERSITIES

5.01 Section 3 of the UGC Act provides for declaring such an institution of higher eduation, other than a university, as an 'insitution deemed to be university' which is having more specific and limited functions and scope and yet which 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 strengthening its activities in its field of specialisation rather than make efforts towards growing into multi-faculty university of the general type.
5.02 During the year 1986-87, two institutions viz. (a) Birla Institute of Technology, Mesra, Ranchi (Bihar) and (b) Rajasthan Vidyapith, Udaipur (Rajasthan) were granted the status of 'deemed universities', thus raising the total number of such institutions in the country to 19 as on 3l.3.1987. A list of these institutions giving their enrolment, year of establishment and the year of their recognition as 'institutions deemed to be universities' is given in Table 5.1 below:

Table 5.1

| Sl. Name of the Institution | Year of | Year during | Enrolment |
| :--- | :--- | :--- | :--- |
| No. |  |  |  |


| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |
| 1.Indian Institute of Science  <br>  (Bangalore) | 1909 | 1958 | 443 |  |


| 2. Indian Agricultural Research Institute (New Delhi) | 1905 | 1958 | 607 |
| :---: | :---: | :---: | :---: |
| 3. Gurukul Kangri Vishwavidyalaya (Hardwar) | 1900 | 1962 | 546 |
| 4. Jamia Millia Islamia (New Delhi) | 1920 | 1962 | 3259 |
| 5. Gujarat Vıdyapith (Ahmedabad) | 1920 | 1963 | 745 |
| 6. Tata Institute of Social Sciences (Bombay) | 1936 | 1964 | 176 |
| 7. Birla Institute of Technology and Science (Pllani) | 1964 | 1964 | 420 |
| 8. Central Institute of English and Foreign Languages (Hyderabad) | 1958 | 1973 | 1324 |
| 9. Indian School of Mines (Dhanbad) | $19 \% 6$ | 1967 | 194 |
| 10. Gandhigram Rural Institute (Ganahigram) | 1956 | 1976 | 733 |
| ll. School of Planning and Architecture (New Delhi) | 1959 | 1979 | 448* |
| 12. Dayalbagh Educational Institute (Agra) | 1973 | 1981 | 905 |


| 13. Sri Sathya Sal Institute of Higher Learning (Prasanthi Nilayam) | 1981 | 1981 | 612 |
| :---: | :---: | :---: | :---: |
| 14. Banasthalı Vidyapith (Banasthali) | 1935 | 1983 | 1047 |
| 15. Indian Veterinary Research Institute (Izatnagar) | 1913 | 1983 | 145** |
| 16. International Institute for Population Science (Bombay) | 1956 | 1985 | 66 |
| 17. Thapar Institute of Engg. and Technology (Patiala) | 1956 | 1985 | 751 |
| 18. Birla Institute of Technology, Mesra(Ranchi) | NA | 1986 | NA |
| 19. Rajasthan Vidyapith (Udalpur) | 1937 | 1987 | 1492 |
| * Pertains to 1985-86 |  |  |  |
| ** Pertains to 1984-85 |  |  |  |
| 5.03 MAINTENANCE GRANTS: |  |  |  |

The quantum of grants paid to institutions deemed to be universities during 1982-83 to 1986-87 is given in Table 5.2 below:

Table 5.2

1982-83 1983-84 1984-85 1985-86 1986-87
(Grants paid in lakhs of Rupees)
$\begin{array}{lllllll}\text { Institutions deemed } & 839.58 & 1037.98 & 1290.50 & 1614.25 & 1954.03\end{array}$ to be Universities 26.12* 97.89*

[^1]Major acnievements and programmes of the deemed universities as reported by them during the year under report are given below:
a. Central Institute of English and Foreign Languages (CIEFL):
i) In addition to its regular courses, the Institute introduced a variety of innovative, need-based programmes during the year 1986-87 to bring about a qualitative improvement in the teaching and learning of English, French, German, Russian and Arabic. Steps were also taken to start Department of Spanish from the academic year 1987-88.
ii) The district centres already set up by the Institute to provide saturation level training to the teachers of English at the secondary level, to serve as resource centres for library and audio-visual facilities and to provide non? $\begin{gathered}\text { formal instruction to }\end{gathered}$ adult learners, school dropouts and children from the weaker sections of the society have been doing excellent job. Upto the end of 1986-87, as many as 290 persons were trained by these centres. The total number of district centres working up to the end of 1986-87 was 17 including the two centres set up at Goa and Sikkim durinc the year 1986-87.
ill) The Institute reinforced lts five-year course in 'English by Radio' by producing a set of printed materials to accompany the broadcasts. The Institute also produced a variety of text-books, supplementary reading materials; research monographs and research journals and also assseted NCEPT, CBSE, SCERT and
various State Governments in producing new types of teaching and testing materials.
iv) The Institute is selected by the UGC for setting up an Educational Media Research Centre. The centre has been assigned the task of producing a variety of programmes in the field of higher education for transmission through the satellite. The total number of programmes produced was 79 till the end of 198687.
v) An Orientation Courses in ELT for Sainik School Headmasters was held at the Institute from 8 th to 12th December, 1986. The main focus of the course was on the problems of ELT at the Sainik Schools with special reference to principles, methods and techniques, instructional materials, classroom strategies and teacher training. The Institute also conducted the seventh l2-week course for 'Training Resource Persons' in December, 1986 and February, 1987, which was attended by participants from 12 States and 2 Union Territories. The Institute organized various other workshops/seminars during he year under report.
vi) For the benefit of school teachers from Assam and college lecturers from Eastern and North-Eastern India, the Regional Centre of the Institute at Shillong organised various refresher courses, intensive courses and special courses in English during the period under report, Many teachers participated in these courses.
vii) The Regional Centre of the Institute situated at Lucknow also conducted a ten-day refresher course in Advanced English Grammer for college and university
teachers from llth to 2lst November, 1986. The course was attended by participants from Punjab, Uttar Pradesh and Bihar.
viil) The Institute assisted eight universities in organising Summer Institutes in English during the period under report.
ix) Research at the Institute was geared chiefly to the inputs for developing suitable methodlogies for the teaching of English and Foreign Languages, improved curricula, instructional materials and evaluation procedures. In addition to such need-based research, research in areas such as Linguistics (Phonetics, Phonology, Syntax and Morphology), Applied Linguistics, Socio-Linguistics, Stylistics, Literature, Language acquisition, methodology and Materials Production (Print, Audio, and Video) was carried out at the Institute, leading on to M.Litt and Ph.D. degrees.

Another important area in which research was carried out was the development of modern techniques of testing. The Institute developed various diagnostic, aptitude and achievement tests and organised a number of workshops/seminars/refresher courses in this area during the period under report.
(b) Gujarat Vidyapith:
i) During the period under report the Vidyapith introduced the following new c:ourses (i) 'Master of Library \& Information Science: Course for Library staff who hold a degree of B.L.ib. (ii) M.A./M.Phil course in Buddhist thought under the programme of Buddhist studies; (iii) two-y'ear M.Phil course in

Adult Education and (iv) one-year diploma course on Book Publication.
ii) Having already restructured the undergraduate courses, the vidyapith started an exercise to restructure posi-graduate and M.Phil courses during the year.
iii) As a measure for 1 mproving standards, a project has been undertaken by the Vidyapith for re-organisation of all the syllabi into units alongwith reading materials, reference books and practical work.
iv) The department of Adult/Continuing Education has developed extensive programmes of Adult Education and Population Education in 75 villages of Gandhinagar district and prepared an area plan, based on intensive bench-mark survey, to eradicate illiteracy from this district and reduce the population growth rate by 50\%. TO achieve this object, the Vidyapith is running 240 Adult Education Centres and Population Education Clubs.

As an innovative programme, the Vidyapith has started a centre for Science Education for Rural Development. The centre is spreading knowledge on Science and Technology in about 20 villages chosen for intensive dissemination of scientific knowledge of practical use like solar energy, bio-gas, improved sanitation and social forestry etc.
vi) During the period under report a special Home Science course for Women at the bachelor's level has been developed for providing qualified women for teaching home science in +2 Higher Secondary School as well as
for extension work for woren under the Integrated Rural Development Programme.
(c) Gurukul Kangri Vishwavidyalaya:

1) A Certificate course in Proficiency in English of three months duration was introduced during the period under report.
ii) The Vishwavidyalaya also restructured the three year degree course to be introduced from 1987-88 session.
iii) As a measure of examination reform, the central evaluation system of answer scripts was partly introduced. The Semester system was also introduced in a few courses.
iv) The Vishwavidyalaya has been laying great emphasis on interaction with the society and neighbourhood. To achieve this end, rural development programmes were undertaken by the studerts and staff in Kangri Village with the participation of villagers. Programme of Adult and Continting Education has also been introduced successtully and implemented in the nearby rural areas.
v) As part of communicy services and extension programmes, two projects viz. (i) Integrated study of Ganga and (ii) Integrated otudy towards improvement of existing Eco-syster: in timalaya valley near Hardwa, were undertaken by the Vishwavidyalaya during the perod under report with financial assistance from the Ministry of Environment, Govt. of India.
vi) The faculty members participatied in various academic conferences, seminars znd workshops etc.
vii) The teachers published papers/articles in learned jourrals and also published monographs/books.
(d) Indian Institute of Science:
i) Master of Technology Programme in Physical Engineering, Management Studies and Instrument Technology were introduced during the period under report.
ii) Restructuring of courses was taken up and completed in the division of Chemical Sciences and Biological Sciences. The Department of Management Studies and Instrumentation and Services Unit restructured the courses to suit the M.Tech degree programme started during the year under report, replacing the one year Post-Graduate Diploma Programme.
iii) The Centres for Application of Science \& Technology to Rural Areas (ASTRA), Continuing Education and Scientific $\hat{\alpha}$ Industrial Consultncy have contributed significantly in taking up real life problems and closely interacting with the society and the neighbourhood.
iv) High efficiency ASTRA ole wood stove developed at the Institute has found widespread acceptance in Karnataka and nearly 1.5 lakh stoves have been installed in the villages. Significant progress has also been made in the development of wood gasifiers.
v) The Consultancy Centre of the Institute has taken up many challenging problems in design and development of processes and advisory services for setting up R\&D and Quality Control laboratories in industries.

Nearly $85^{\circ}$ projects were taken up during the year. Through one such interactive programme, technical guidance was provided for setting up the first Silicon industry of the country in Mettur.
vi) A Post-doctoral programme in "Biotechnology and Life Sciences" was started in the Division of Biological Sclences. This encompasses a wide spectrum of emerging technologies of Recombinant DNA and Immunochemistry.
vii) Important emerging topics have been introduced. These are switching theory and VLSi design, MIC's, Introduction to parallel computation and Robotics and Expert Systems. Also new scheme on knowledge-based computer system on Net-working of computers has been started.
viii)The faculty members and students of the Institute have won many awards and distinctions during the period under report including its Director Prof. C.N.R. Rao who was awareded honorary degree of Doctor of Science by Osmania and Managaiore Universities.
ix) Over 250 members of the faculty participated in symposia, conferences, seminars and workshops held at national and international level.
x) About 800 papers/articles on scientific and technical subjects were published by the faculty members in learned journals. Some faculty members also published monographs/books.
i) During the year under report, the School introduced the following new courses in various departments. (i) Advanced diploma programme in the modern longwall mine mechanisation systems (ii) elective courses in the B.Tech Mining Engineering Programme at the VII and VIII semesters level (iii) subjects on Computer Programming, Systems and Applications at different semesters at the B.Tech level.
ii) An 'Interdisciplinary Centre of Advanced Studies ano Research for Environment Studies in Mining Areas', sponsored by the Department of Environment, Ministry of Environment and Forests, was set up at the School. Further, interdisciplinary research on software development and computer applications in the mines and minerals sector has been initiated.

1ii) The core programmes for Bachelors of Engineerinc Degree in the first four semesters have also beer introduced. The new B.Tech. Mineral Engineerinç Programme has been re-structured to meet the contemporary needs of the mineral sectors while the postgraduate programme on Petroleum Engineering, Mineral Exploration and Engineering Geology have also been revised to bring them in tune with the modern developments.
iv) The School has set up an Examination Reform Cel: which is being guided by the Advisory Committee known as Examination Reforms Implementation Committee (ERIC). The grading pattern and continuous evaluation system are regularly monitored through a suitable organisational mechanism.
v) In order to upgrade the academic standard of Scheduled Caste \& Tribe students who are admitted in the various programmes, the school has introduced additional Preparatory Semester Course.
vi) In order to give due consideration to the women candidates, one seat each in B.Tech Petroleum Engineering, Opencast Mining and Mineral Engineering, M.Sc. Tech. Programme in Applied Geology and Applied Geophysics is reserved for girl students.
vii) The faculty members participated actively in various academic conferences, seminars/workshops, published many papers/articles in learned journals and also published some monographs/books.
(f) Sri Sathya Sai Institute of Higher Learning:
i) The MBA Course in the faculty of Business Management and B.Ed. Course in the faculty of Education were introduced during the year 1986-87.
11) The courses under the 'Awareness Course Programme' were revised. The courses which were originally taught during the first two years of the undergraduate programme have been so restructured that these will be taught during the third year of the undergraduate programme from the academic year 1987-88.
iii) B.Ed. course was organised for women students for the first time during the academic session 1986-87.
iv) The Bio-Science department of the Institute continued the detailed analysis of water samples to study
adverse effects of excess fluorine content on human beings and animals.
v) From the year 1986-87, the Institute decided to make education free in all its campuses. All tuition fee as also special fees for Library, Laboratory, Games etc. were waived for all students irrespective of class, caste or income group.
vi) The faculty members participated in various academic conferences, seminars and workshops etc. The Institute also held workshops for preparing Question Banks as was done during the previous year.
(g) Tata Institute of Social Sciences:

1) The Institute introduced the following new courses during the year: (i) Social Work Methods in the Field of Corrections; (ii) The Family in India; (iil) Communications: Theories and Applications in the Fields of Health and (iv) Health and Development.
ii) Three courses such as 'Social Work Intervention with the Disabled and their Families', 'Seminar on Advanced Psychiatry' and 'Social Work in the field of Mental Health' have been restructured.
iii) The field work and extension lectures constitute an integral part of training at the Institute. Interaction with the various strata of society and different neighbourhoods has been built as a key element at the Institute.
iv) The Institute is maintaining a Child Guidance Clinic at Wadia Hospital where guidance is given to parents and children having various problems. The Institute
has appoined a Social Worker to attend to the problem of staff, especially class IV staff, having problems such as indebtedness, alcholism, children dropping out of school etc. The Institute is starting a preschool and creche for taking care of the children of working mothers which will also be used as a field work centre.
v) Special attention is paid by the Institute for the welfare of women. To achieve this a Unit for Women's study has been started where special courses such as Women and Work, Women and Law, Status and Health of Women were organised.
vi) The Institute has set up a Student Service Cell to promote the special interests of the students from the Scheduled Castes/Tribes and others whose educational experience places them at a disadvantage with respect to the medium of instruction and other academic requirements. Based on the felt needs and problems of the Scheduled Caste/Tribe students identified through a series of group meetings and individual interviews, the cell has initiated various action projects such as educational guidance, assistance in personal and social adjustment, concurrent/part-time/paid work assignments and vacation job placements in organısarions etc.
vii) The Institute provides free hostel accommodation, meals and travel expenses to enable Scheduled Caste/ Tribe students to appear for the entrance tests. Students belonging to these categories are also paid travelling expenses from their piace of residence to Bombay at the time of their joining the Institute.

Vili) During the period under report, the faculty members participated actively in academic conferences/ seminars/workshops. They also published a number of artlcles/papers in learned journals and also published some monographs/books.
(h) Thapar Institute of Engineering \& Technology
i) As a measure for improving standards, the Institute further strengthened its efforts to update the existing infrastructure by (i) augmenting the cmputer system (ii) modernising laboratory facilities on a continuing basis (iii) setting up of an instrumentation unit and (iv) providing video instruction facilities.
ii) Keeping $1 n$ view the ultimate objectives of engineering education and the philosophy underlining the growth of the Institute, the framework of professional courses has been revised so as to lay emphasis on design, manufacturing, professional practice and technology.
iii) In the course of its development, the Institute is seeking a sense of partnership with Industry in teaching and research and has taken several initiatives to reach out to meet the needs of the industry. With this object in view, an Industrial Advisory Committee consisting of the representatives of the industry, government and other educational institutions has been constituted to advise the Institute in the operation of the Cooperative Programme.
iv) The Institute provides facilities for Scheduled Castes and Scheduled Tribes as $25 \%$ seats are reserved
for the candidates belonging to these categories. Loans and scholarships are also provided to Scheduled Caste and Scheduled Tr ibe candidates.
v) The faculty members have attended various national and international conferences, seminars and workshops during the period under report.
vi) Faculty members published 10 research papers in journals and presented 25 research papers in national and international conferences. One book has also been published during the year under report by the faculty.
(i) Dayalbagh Educational Institute:
i) The Institute introduced the following new courses from the year 1986-87 viz., (a) M.Sc. in Physics (Electronic Science) and Chemistry (Environmental) (b) M.A. in Sanskrit and Culture (c) Diploma in Autonombile, Electrical and Mechanical Engineering and (d) Ph.D. programme in all Post-graduate departments.
ii) The courses in the Institute are designed to impart inter-faculty and multi-disciplinary approach with a view to inculcate basic values of humanism and secularism for a balanced growth of the individual. The comprehensive programme of education is aimed at achieving academic excellence, encouraging initiative and creative work and dignity of labour.
iii) During the period under report, the Centre of Continuing Education of the Institute organized two courses at Mathura and Hathras for the benefit of School teachers working in and around these areas.
iv) During the period under report, seven students of the Non-Formal Education Centre passed the examination of Basic Shiksha Parishad. Various short term courses in useful trades were organised for the benefit of the villagers such as book-binding, candle-making and toymaking etc.
v) The Institute organized a national level seminar on 'English Language Teaching' besides a few regional level seminars/workshops during the year.
vi) Many staff members of the Institute participated in various national/international conferences/seminars in India and abroad during the period under report. The faculty members also published several papers in Indian and foreign journals.
(j) The Gandhigram Rural Institute:
i) The Institute introduced a new Certificate Course in Computer Programming during the year under report and restructured the following courses viz., M.A. in Rural Development, M.Sc. in Applied Chemistry, M.A. in Cooperative Management, Bachelor of Development Administration and Diploma in Agriculture.
ii) The Institute carried out extension activities in three different blocks in Anna District of Tamil Nadu, where nine major programmes were carried out during the year.
iii) A training programme on social forestry for the 120 Adult Education Animators of the Centre for Adult Education and Extension was organised in December, 1986 on behalf of the Social Forestry Department of the Government of Tamilnadu.
iv) A Foundation course on Research methods in Social Sciences sponsored by the Southern Regional Centre of ICSSR, Delhi was organised at the Institute during the year.
v) Special programmes for women were arranged in the Institute and regular training in tailoring, matweaving and knitting was imparted to women in the villages of Gandhigram Rural Institute through the extension/adult education channels with a view to providng them self-employment opportunities.
vi) The Faculty Members participated actively in various academic conferences, seminars, workshops etc. They also published a number of articles/papers in learned journals and monographs/books.

## (k) Banasthali Vidyapıth

The Vidyapith imparts education for women only. A significant feature of the Vidyapith is that it does not charge tuition fee from any student. Rather it provides some scholarships for students belonging to the Scheduled Caste/Scheduled Tribe Communitres. The various activities undertaken by the Vidyapith are reported below:
i) It introduced the Adult Education Programme during the year under report. During the year, it also introduced Electronics and Physical Education as optional subjects at the B.Sc. and B.A. Examinations respectively. Apart from this, it also started a Certificate Course in Electronics. (Consumer Electronics and TV Technology).
ii) It restructured various courses at the undergraduate level during theyear such as (a) Selected Writings of Great Authors (b) Values in Changing society (c) Craft (d) Parent-hood and family reations and (e) Introduction of Fine Arts (Music/Painting/Dance).
iii) As a measure of examination reforms, the Vidyapith divided the syllabi of different examinations into units. The Vidyapith also introduced $10 \%$ continuous assessment in all the examinations. Semester system was also introduced in Post B.Sc. Diploma in Computer Applications.

1v) The faculty members participated in various academic conferences, seminars, workshops etc. and also published papers/articles in learned journals and monographs/books.
.05 Grants paid to Institutions deemed to be Universities: A statement indicating the grants paid to institutions deemed to be universities during 1986-87 under Non-Plan and Plan is given in Table 5.3 below:

Table 5.3

|  |  | Non-Plan | Plan | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | (Rupees in lakhs) |  |  |
| 1. | Banasthali Vidyapith | - | 13.23 | 13.23 |
|  | Birla Institute of Technology and Science | - | 19.47 | 19.47 |
|  | Central Institute of English and Foreign Languages | 138.91 | 24.52 | 163.43 |
|  |  |  | 0.01* | $0.01 *$ |

4. Dayal Bagh Educational
12.02

Institute

|  |  | 0.24* | 0. $24^{\text {* }}$ |
| :---: | :---: | :---: | :---: |
| 5. Gandhigram Rural Institute | 82.54 | $\begin{aligned} & 17.23 \\ & 0.09 * \end{aligned}$ | $\begin{aligned} & 99.77 \\ & 0.09^{*} \end{aligned}$ |
| 6. Gujarat Vidyapith | 93.06 | $\begin{array}{r} 33.83 \\ 0.22 \text { * } \end{array}$ | $\begin{array}{r} 126.89 \\ 0.22^{\star} \end{array}$ |
| 7. Gurukul Kangri Vishwavidylayi | 52.79 | $\begin{aligned} & 13.39 \\ & 0.60^{*} \end{aligned}$ | $\begin{gathered} 66.18 \\ 0.60^{*} \end{gathered}$ |
| 8. Indian Agricultural Research Institute | 0.18 | 0.33 | 0.51 |
| 9. Indian Institute of Science | 997.53 | 623.74 | 1621.27 |
| 10. Indian School of Mines | 301.30 | 58.56 | 359.36 |
| 11. Indian Veterinary Research Institute | - | 0.25 | 0.25 |
| 12. Jamia Millia Islamia | 217.33 | 125.68 | 343.)1 |
| 13. School of Planning and Architecture | - | 0.42 | 0.12 |
| 14. Sri Sathya Sai Institute of Higher Learning | - | 20.13 | 20.13 |
| 15. Tata Institute of Social Sciences | 89.21 | 26.02 | 115.:3 |
| 16. Thapar Institute of Engineering and Technology | 1. 20 | 2.07 | 3.7 |
| 17. Birla Institute of Technology, Mesra, Ranchi. | - | 2.00 | 2. ${ }^{1}$ |


| Total: | 1986.07 | 1015.26 | 3001.3 |
| :---: | :---: | :---: | :---: |
|  |  | 1.16* | 1. 6 * |

[^2]
## SECTION-6

NON-PLAN GRANTS TO UNIVERSITIES
6.01 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 associateship. Grants are reimbursed to non-university institutions. These include institutions like the Indian Institutes of Technology, Post graduate Institute of Medical Education and Research (chandigarh), the NCERT etc., for fellowships and awards. Non-plan grants are
also paid as decided by the Government of India to non-plan grants paid during $1986-87$ is given below:

## Table 6.1

Statement of non-plan grants paid under various schemes
during $1986-87$
S.No. Purpose Amount
(Rs. in lakhs)

1. Maintenance grants to Universities 8414.60
2. Maintenance grants to Institutions deemed
1954.03 to be Universities
3. Maintenance grants to Anna and Roorkee 39.58 Universities for specific purposes
4. Maintenance grants to Constituent/ 2865.31 Affiliated Colleges of Delhi University
5. Maintenance grants to Constituent/

Affiliated Colleges of B.H.U.
6. House Building Advance to Institutions 272.50 deemed to be universities and central Universities.
7. Special grants to Delhi University 88.00 and Visva Bharati University for the import of equipment from Japan.
8. Teacher Awards for schemes like ..... 33.30
Teacher Fellowship,
National Fellowship/Associateship,
National Lectures, Retired Teachers,
Emeritus Fellowship etc.
9. Research Fellowships/Associateships
304.41
10. Scholarships/Fellowships under Engg. \& Tech.
131.29
11. Grants to non-university Institutions
4.32

[^3]6.02 Grants to Central Universities:

Grants paid by the Commission towards the maintenance of central universities for the years 1982-83 to 1986-87 are indicated in Table 6.2. It will be seen that there has been an increase in the quantum of grants paid year after year. During 1986-87, grants amounting to Rs. 8414.60 lakhs were released towards maintenance of the central universities.

Table 6.2

| S.No. University | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Aliçarh Muslim University | 1162.83 | 1322.25 | 1496.85 | 1621.37 | 1888.62 |
| 2. Banaras Hindu University | 1602.75 | 1790.58 | 2188.93 | 2479.45 | 2811.65 |
| 3. Delhi University | 785.71 | 983.33 | 1060.49 | 1166.31 | 1427.02 |
| 4. Hyderabad University | 137.51 | 173.42 | 206.87 | 297.36 | 361.08 |
| 5. Jawahar Lal Nehru University | 407.82 | 495.83 | 523.32 | 621.43 | 735.27 |
| 6. North Eastern Hill University | 118.00 | 176.75 | 188.82 | 549.20 | 669.85 |
| 7. Visva Bharati | 278.96 | 387.58 | 409.09 | 485.59 | 521.11 |
| Total: | 4493.58 | 5329.74 | 5074.37 | 7220.71 | 8414.60 |

[^4]The Commission continued its efforts during the year to promote rationalisation in pay-scales, designations etc. amongst non-Teaching and Technical staff in Central

Universities and develop norms for staff in different sectors of the Central Universities.

A draft hand book, giving pay-scales and service conditions for different categories of staff in Central Universities, was finalised and a draft programme for orientation of technical and scientific staff in Central Universities was also drawn up during the year under report.

The Commission was also able to identify the tasks, which still need to be done in the Central Universities.
6.04 Monitoring Committee to Review the Performance of Central Universities:

It was mentioned in the last year's report that the Commission had appointed a Committee to review the performance of the Central Universities. During the year 1986-87 this Committee conducted in-depth evaluation of the performance of Hyderabad University and the North Eastern Hill University. The report of this Committee is awaited.
6.05 Maintenance Grants to Central Universities, Institutions Deemed to be Universities and State Universities:

In compliance with the observations made by the public Accounts Commitiee in its 73 rd 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 years 1984-85 and 1985-86 is given $1 n$ Appendices-XXV(a) and (b).

## SECTION-7

## FACULTY IMPROVEMENT PROGRAMME

7.01 The Commission attaches great importance to faculty improvement by providing opportunities to teachers to keep in touch with the modern developments in their fields of study and research and to exchange ideas with experts in their subject areas and related fields. The focus of the programme centres around improving the professional competence of teachers to make them better equipped so that they can offer high quality instructional programmes and thus maintain high standards. With these objectives in view the Commission has been providing financial assistance to universities and colleges to enable them to $1 m p r o v e$ their faculty through various programmes/ schemes. A resume of these programmes supported by the Commission during $1986-87$ is given below:

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7.02 Seminars, Symposia, Refresher Courses, Workshops etc.
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The Commission continued to provide financial assistance to universities and colleges for organising seminars, symposia, refresher courses, workshops etc. in accordance with approved norms. The number of proposals accepted during 1986-87 under these programmes was 223. The details of the proposals accepted in 1986-87 are given in table 7.1 below:

Proposals for Seminars, Symposia, Workshops, Refresher Courses accepted during 1986-87

| Sl. Programme |  <br> No. | Sciences | Total |
| :--- | :---: | :---: | :---: |
| 1. Seminars |  | 80 | 44 |
| 2. Symposia | 3 | 36 | 124 |
| 3. Workshops | 11 | 21 | 39 |
| 4. Refresher Courses | 1 | 2 | 32 |
| 5. Short-term Institutes | 10 | 15 | 3 |
|  |  | 105 | 118 |

In addition to the programmes organised by universities and colleges, the Commission also provided TA/DA to university \& college teachers to participate in similar activities organised by non-university institutions during the year.

### 7.03 <br> 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 contibution during 1986-87 was as follows:-

State level 19
Regional level 13
All-India level 128
International level 16

Total 176
7.04

Strengthening the Teaching of English Language:

The steps initated by the Commission for strengthening the teaching of English have been spelt out in the Annual Report for 1984-85. With financial support from the Commission, universities organise specialised Summer Institutes for English Teaching in collaboration with the British Council and the Central Institute of English \& Foreign Languages, Hyderabad. The following eight universities which had organised the English Language Teaching Summer Institutes earlier were requested to organise similar Institutes during 1986-87:

Coverage
B.Ed. college teachers

For Agricultural Science, 7ngg. \& Technological
Institutions

| For teachers of affiliated | Lucknow University |
| :--- | :--- |
| colleges | Gauhati University |
|  | Sardar Patel University |
|  | Madras University |
|  | Meerut University |
|  | Kashmir University |

The British Council provided Experts for these Seminars while the Central Institute of English and Foreign Languages, Hyderabad organised pre-institute workshops for the resource persons in connection with these Seminars.

An evaluation of the programmes of the specialised Summer Institutes for English Language reaching was undertaken in a meeting of the UGC-ELT Advisory Committee to which Directors of the seven specialised Summer Institutes organised during the year were also invited. The Committee endorsed the utility of the programmes and recommended their continuation. It has been decided that the universities which organised Summer Institutes for English Language Teaching in $1986-87$ may organise similar institutes in 1987-88 also so as to cover particular area/ region intensively.

Orientation Programmes:

The question of providing financial assistance to universities for organising orientation programmes for teachers (both fresh recruits as well as those who have already been teacning) in universities and colleges has been under the active consideration of the Commission. A Committee constituted by the Commission for working out the details and modalities of these programmes has since
submitted its report which is under consideration of the Commission.
7.06 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-lapseable grant of Rs.5,000/- per year for secretarial assistance, travel and contingent expenditure. During 1986-87, the Commission awarded national fellowship to seven teachers.

### 7.07 National Associateships:

The scheme, initiated by the Commssion in 197l-72, aims at assisting outstanding university/college teachers, generally below 35 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 respective fields of work. The National Associateships are available for one year, threeyears, and five years. The number of awards available for each category during 1986-87 is given below:
l. One year award 100

$$
\begin{array}{lll}
\text { 2. } \quad 3 \text { - year award } & 150 \\
\text { 3. } \quad 5 \text { - year award } & 150
\end{array}
$$

The utilistion of these awards has not been vey encouraging over the last few years. The Commission has costituted a committee to review this scheme, examine the causes for the low utilisation of these awards and make recommendations for their optimal utilisation. The Committee has inter-alia recommended that:
i. The nomenclature of the award may be changed to Visiting Associateship.
ii. The amount of the award may be enhanced to Rs.l200/ per month in cases where accommodation is provided by the host institution and Rs. 2000/- per month in cases where accommodation is not provided by the host institution.
iii. The award may be made available to teachers below 40 years of age.

The above recommendations of the Committee were accepted by the Commission at its meeting held in December, 1986 to become effective from 1.4.198\%.
7.08 National Lectures:

This programme 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 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. During 1986-87 the Commission identified 84 scholars under the Programme.
7.09 Emeritus Fellowships:

The scheme of Emeritus Fellowships was initiated by the Commission in 1983 with the object of utilising the services of highly qualified and experienced superannuated Professors in universities upto the age of 65 years for special purposes by the universities where such expertise is required. The total number of such fellowships at any given time is limited to 25. The amount of Eellowship under the scheme is Rs. $2000 /$ - per month. The awardee gets this amount in addition to his usual superannuation benefits. The awardee is also provided a non-lapseable contingent grant of Rs, 6,000/- p.a. for secretarial assistance, travel, stationicy, postage, telephone rent, consumables etc. Additional Einancial support to a limited extent is also provided in deserving cases to enable the scholar to pursue his/her academic activities, research or innovation in teaching. During 1986-87, three scholars were working under the scheme.
7.10 Visiting Professors/Visiting Eellows:

The Commission continued ia provide assistance to Unıversities for appointment Visiting Professors; Visiting Fellows. An allocar:an of Rs. 2 lakhs has been made to each university/decmed to be university for
implementation of the scheme of Visiting Professor/ Visiting Fellow in the 7th Plan period upto 3lst March, 1390 in accordance with the guidelines laid down by the Commission for the purpose. Fifty per cent of the allocated amount will be released to the Universities as first instalment on receipt of a specific request from them.

### 7.11 Research Scientists:

The scheme of Research Scientists was initiated by the Commission in 1983-84 with the object of providing research as a Career to bright scholars whereby high quality research would be expected in Science, Social Sciences and Humanities in the universities. Under the scheme, the Commission has created 100 positions of Research Scientists in Scrence and 100 positions in the Humanities and Social Sciences in the grades of lecturers, readers and professors (Categories $A, B$ and $C$ respectively) in the ratio of 60:30:10. In addition to the scales of pay a contingency grant of Rs.5,000/per annum is also provided to each awardee. Persons of outstanding merit are selected centrally through a rigorous process for these appointments which are for a period of five years in the first instance. The peformance of an awardee is reviewed before the five-year period ends, and if it is found to be in accordance with the initial promise and of very high quality, the awardee is either allowed to continue for another period of five years or promoted to the next higher grade. These Scientists are provided all facilities to devote full time for research and, if they wish, may take up limited assignments of teaching .

A novel feature of this scheme is that a Scientist need not be competing for promotion with existing lecturers or readers since he draws his salary directly from the Commission. He will be competing with himself and it is believed that this will promote excellence and prevent many potential researchers from going abroad.

### 7.12 Career Awards:

The commission initiated the scheme of Career Awards to young scientists in the year 1979-80. The purpose of the scheme is to identify young talented teachers in science/ engineering subjects and in humanities and social sciences having proven ability of research in their areas of specialization with a view to promote their research career by enabling them to devote their efforts and energies early in their career for research and study with minimum teaching responsibilities. These awards are generally given to lecturers/readers who are not more than 40 years of age. The number of annual awards given under the scheme is 35 (20 in Scrence/Engineering and 15 in Humanities/Social Sciences).

The Commission pays the awardees their full salary and allowances. In addition, the Commission provides each awardee a research grant upto rupees one lakh and two or three research fellows during the tenure of the award which is of three years duration. The awardees are also expected to take part in teaching work of the department. During the year 1986-87, 5 awards have been made in Science/Engineering subjects and 15 in humanities and social sciences.

The Commission has been providing financial assistance to the extent of 50 per cent to the college teachers for attending international academic conferences abroad for presenting papers on the findings of their research work. Grants to the tune of Rs.7.10 lakhs were paid by tho Commission for the purpose during 1986-87.

### 7.14 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 amountinc to Rs.l01.55 lakhs were released for the purpose during 1986-87.

### 7.15 (a) Committee on Revision of Pay Scales of Teachers in Universities and Colleges

The Commission had appointed a Committee in December, 1983 under the chairmanship of Professor R.C. Mehrotra, Emeritus Professor, Rajasthan University, Jaipur, with the following terms of reference:
i) To examine the present structure of emoluments and conditions of service of university and college teachers, taking into account the total packet of benefits (such as superannuation/medical/housing etc.).
ii) To make recommendations on the above having regard to the necessity of attracting and retaining providing professional advancement opportunities to teachers of universities and colleges.

Subsequently, in October, 1985 the Commission informed the Committee that the revision of pay scales of Librarians and Directors of Physical Education in universities and colleges be also considered along with the pay scales of teachers.

The Committee submitted the first part of its report on the original terms of reference in May, 1986. The report was considered by the Commission at its meeting held in June, 1986. The Commission broadly agreed with the recommendations made by the Committee. The report was sent to the Govt. of India in June, 1986 for further consideration and implementation.
7.15 (b) Revision of pay scales of Librarians and Directors of Physical Education in Universities and Colleges: The Committee submitted its report on revision of pay scales of Librarians and Directors of Physical Education in universities and colleges in August, 1986. The same was considered by the Commission at its meeting held in October, 1986. The Commission generally agreed with the recommendations of the Committee relating to (a) scales of pay, (b) avenues of promotion and (c) conditions of service. The Commission desired that the recort may be sent to the Government of India for its consideration and implementation, and an expert committee may be appointed to consider (i) manimum qualifications for (a) open all-India recrutmert at different levels
(b) promotion to higher grades within the same cadre and (c) completion of satisfactory period of probation; (ii) specific items co be included in the selfappraisal and evaluation forms; (iii) facilities for professional training and development and (1v) workload to be defined.

The report was sent to the Government of India in October, 1986 for its consideration and implementation and expert Committee was accordingly constituted. The deliberations of the Expert Committee are in the final stages.

### 7.16 Revision of pay scales of Demonstrators/Tutors working in universities and colleges

The representatives of All India Federation of University and College Teachers Organisation met the Chairman, UGC in August, 1986 and, interalia, requested that the question of revision of pay. scales of Demonstrators/Tutors working in universities and colleges may also be looked into.

Accordingly, the Commission considered the question of revision of pay scales of Demonstrators/Tutors working in the universaities and colleges. It reiterated the decision of the Government of India not to recruit Demonstrators/ Tutors in future and decided that the Government of India may be requested to:
i) advise the State Governments to promote those demonstrators/tutors as lecturers who fulfil the qualifications as prescribed for lecturership at the time of their joining the profession.
ii) suitably revise the pay scales of demonstrators/tutors (existing incumbents)

The above decision of the Commission was conveyed to the Government of India for their consideration.

### 7.17 Teacher Fellowships

The Commission has initiated the programme of teacher fellowships in order to improve the competence of teachers and the methodology of teaching. The scheme enables the teachers to acquire M.Phil/Ph.D. degree. The teacher fellowships are mainly meant for teachers working in affiliated colleges offering instructions in subjects pertaining to humanities, soclal sciences and sciences. Professional colleges offering courses of medicine and agricultural engineering are not covered under the scheme. However, teacher fellowship may be awarded to teachers in subjects of basic sciences and humanities working in professional colleges. The Commission is awarding two types of teacher fellowships - shoti-term and long-term. The duration of the short-term fellowship is one year which can be utilized for pursuing the M.Phil courses. The normal duration of the long-term fellowship is three years and $1 s$ 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 can be extended by one year beyond the normal period of three years in special cases. The total tenure of the long term fellowship for Ph. D. (including M.Phil wherevel nesessary) cannot exceed four years in any case.

## STUDENTS

8.01 Over the years the Commission has been giving increasing atttention to the well-being of the student community and to the creation of an environment conducive to their study, learning and research activities. Efforts of the Commission in this regard have a direct bearing on the maintenance and improvement of standards of higher education $1 n$ the country. All development programmes of the Commission including appointment of staff, construction of academic buildings, libraries and laboratories, purchase of equipment and books and journals etc. have a direct or indirect bearing on the well-being of the students and/or the promotion of congenial environment and conditions for pursuing academic programmes. Besides, the Commission has also initiated a number of programmes for needy and economically weaker students on the one hand and meritorious students on the other. These include the provision of scholarships and fellowships, hostel facilities etc. Various programmes run by the Commission for the student community are reviewed below:

### 8.02 Lump-Sum Grant to the Universities for Meeting Contingent needs of Research Scholars:

The Commission continued to provide lump-sum grant to the universities for meeting contingent needs of research scholars who are not in receipt of any fellowship/ scholarship. Assistance for this purpose is provided at
 average 100 full-time research scholars during the last three years and Rs. 50,000/- for universities having more
than 100 such scholars. During 1986-87, a grant of Rs. 8.76 lakhs was paid to universities for this purposee.

## 8.(3 Junior Research Fellowships:

The Commission continued to provide assistance to the universities for the implementation of the scheme relating to allocation of Junior Research Fellowships at 'anyone given time basis'.

Starting from June, 1984 all awards of JRFs such $?$ fellowships on 'any one given time basis' in the subi $c$ concerned as also those avalable in any project e Centre of Advanced Study, Department of Sp ial Assistance, Departmental Research Support Project*, Major Research Project* etc. are being awarded only to those who qualify in the national level test for the selection of Junior Research Fellows conducted by the Commission.

In order to provide fellowship to all those candidates who had qualified in the National Test, the Commission allocated 3558 fellowships (inclusive of 725 additional fellowships already allocated ) to the universities under 'at any one given time basis' scheme. While the universities were requested to make the award on the basis of results announced keeping in view the number of

* The condition of awarding JRE to the NET qualified candidates in the schemes relating to DRS and Major Research Projects was relaxed in Febraury, 1986. The University or the Principal Investigstor could award JRFs under the schemes from outside the tael of NET qualified candidates @ Rs.800/-p.m. if the net qualified candidates were not available.

Junior Research Fellowships allocated by the Commission, the Commission also agreed to provide supernumerary/ personal fellowships over and above the allocated quota,

### 8.04 Research Associateships:

These are post-doctoral awards meant to provide an opportunity to research scholars and teachers to undertake advanced study and research in their areas of specialisation. During the year $1986-87,76$ research associateships in science and engineering subjects and 54 in humanities and social science subjects and five each in Gandhian Studies, Nehru Studies and National Integration were awarded on the basis of the recommendations made by the Selection Committees.
8.05 Research Fellowships for Scheduled Caste/Trıbe Students:

Ten per cent of the total number of Junior Research Fellowships available with the universities on 'any one given time' basis are reserved for students belonging to Scheduled Caste/ Tribe communities. Besides, the Commission is also awarding annually 50 Junior Research Fellowships exclusively to Scheduled Caste/Tribe candidates.

As stated earlier the Commission is conducting National Level Test for the award of Junior Research Fellowships to candidates for undertaking Ph. D. work. The same procedure is followed in the case of Scheduled Caste/Tribe candidates. During the year, against the annual allocation of 50 Junior Research Fellowships for the scheduled Caste/Tribe students, hardly any candidate could qualify the National Level Test. Hence, realising the poor performance of the Scheduled Caste/Tribe candidates in the national level test the Commission has sinno decided that
from the year 1986-87 applications may be invited for the award of fellowships to the Scheduled Caste/Tribe candidates as was being done prior to the introduction of the national level test. The Commission also relaxed the eligibility conditions for the award of these fellowships in the case of Scheduled Caste/Tribe categories. Accordingly, the Commission invited applications for the award of Junior Research Fellowships to the scheduled caste/tribe candidates for the year 1984-85, 1985-86 and 1986-87. Against 150 seats (on the basis of 50 each year) for these three years, the Commission selected 170 candidates for the award. The value of fellowship in the case of these awards to Scheduled Caste/Tribe candidates is Rs.800/- p.m. with a contingency grant os Rs.3000/p.a. in the case of humanities and social sciences and Rs.5,000/- in the case of Science subjects. The Commission also continued its efforts at improving the level of competence of the Scheduled Caste/tribe candidates by arranging special coaching classes for them.

Research Associateships for Scheduled Caste/Tribe Students:

In addition to the research Associateships awarded to general candidates, the Commission is also awarding 40 research associateships to the Scheduled Caste/Scheduled Tribe scholars. During the year 1986-87, only 17 applications were received out of which the Commission selected 14 candidates for the award.
8.07 Research Associateships for Disabled Students:

The Commission is awarding 30 research associateships to the physically handicapped students including the blind, deaf and the mute. During the year under review, the Commission awarded 17 research associateships under this scheme.

The Commission is awarding 60 research fellowships evey year in engineering and technology to enable the students to undertake advanced study and research in their fields of specialization.

### 8.09 Border Hill Areas Scholarships:

The Commission has instituted 25 scholarships for meritorios postgraduate students belonging to scheduled castes/ tribes and backward communities of border hill areas in order to promote channels of academic communication between students of these regions and the rest of the country.
8.10 Award of Junior Research Fellowships/Research Associateships to the scholars of Developing Countries:

The Commission is providing assistance to the talented scholars of developing countries for doing research in Indian universities in science, engineering, humanites and social science subjects. For this purpose, the Commission is awarding 20 junior research fellowships and seven research associateships every year to the scholars of developing countries. During the year 1986-87, the Commission awarded 22 junior research fellowships and five research associateships under this scheme.

### 8.11 Construction of Hostels:

The Commission has been giving high priority to the construction of hostels for students in universities and colleges. Provision of hostel facilities is one of the
important items included in the general programmes of development of universities and colleges.

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. The Commission has also laid down that its assistance for construction of hostels in backward areas would be at the rate of 75 per cent of the total expenditure as against 50 per cent available for other areas. 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 cost of construction low.

During 1986-87 a grant of Rs.109.46 lakhs was paid to universities and colleges towards the construction of hostels.

# CULTURAL EXCHANGE PROGRAMMES AND INTERNATIONAL COLLABORATION 

### 9.01 Cul.tural 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 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 12 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 1986-87, such programmes were being implemented by the Commission with 46 countries. During the year, the Commission hosted the visits of as many as 61 foreign scholars from various countries and arranged their programmes at various institutions in India. The correspondig number of Indian scholars who were deputed abroad under these programmes during the year was 60.
9.C2 An important activity on which the Commission laid greater stress during the year was the development of bilazera: institutional linkages in specific areas between identified departments of universities and institutions 0 higher education in the two countries. The Commissiot has not been in favour of comprehensive institution.. linkages as these are not considered viable on account $\quad$ : different levels of development of teaching and research of the corresponding departments of the universities. such, areas of bilateral collaboration have been icierc. fied under the Cultural Exchange Programmes with countrias like the USSR, FRG, GDR, Bulgaria, Czechoslovekis. Hungary, Poland, France, Yugoslavia, Italy, etc. That programme of bilateral collaboration is reviewed from 6 m to time and additional areas are identified so: collaboration. An important development in this respec: during the year was the agreement between the universic Grants Commission and Yugoslav authorities for the identification of areas of mutual cooperation. Gha Commission is gradually shifting emphasis in the culturaj exchange programmes from the general exchange of scholate to the programmes of developing institutional linkages in specified areas. It is felt that such linkages wout strengthen collaboration between India and foreign countries in specified areas. Efforts are also being made to identify areas of possible mutual collaboration with other countries covered under the Cultural Exchance Programmes.

A resume of the various activities included under the Cultural Exchange Programmes for $1986-87$ is given in the paragraphs which follow.
i) The Commission hosted the visit of a seven-member delegation from Yogoslavia in February-March, 1987. The purpose of the visit was to identify areas of cooperation for development of collaborative links between the universities in India and Yugoslavia. The delegation held discussions with the UGC officials and with the heads of the faculty members and research scholars of the institutions visited by the delegation. Both sides showed keen interest in developing programmes of collaboration between universities/ institutions of hagher education in the two countries in the specified fields and also agreed to the form of cooperation for the initial period of two years. It was also agreed that the specific areas of cooperation and the institutions from the two sides to be involved in the collaborative programme would be finalised during the visit of the UGC delegation to Yugoslavia sometime in 1987-88.
ii) The Commission also hosted the visit of Dr. H.C. Heidron, Deputy Minister for Higher and Technical Education, German Democratic Republic, in Auaust, 1986. The Minister submitted a draft proposal. The proposal is required to be covered under the general provisions of the INDO-GDR Cultural Exchange Programme.
iii)The Commission hosted the visit of a one-member delegation Dr. Moncef Ben Salma, Dean, faculty of Law and Political and Economic Science from Tunisia in March-April, 1986 to explore the possibility of establishing links in the fields of higher education.

The Commission continued to provide foreign language teachers in Russian, German, Polish, Serbo-Croation, Rumanian, Bulgarian, Mongolian, korean, Vietnamese, Hungarian, Portugese, Chinese and French lanaugage to the universities having a proper infrastructure for teaching the foreign lanauges 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. During the year 1986-87, 35 teachers in Russian, 11 in German, 10 in French and one each in Polish, Serbo-Croation, Rumanian, Bulgarian, Monogolian, Korean, Vietnamese, Hungarian and Chinese were assigned to universities in india. The Commission has also forwarded a proposal from the German Academic Exchange Service for providing German language teachers for scientific and technical subjects to universities in India.

Joint Seminars:

The Commission with the help of an expert Committee has decided the theme for the organisation of Joint Seminars with the USSR in terms of the provisions of the Indo-Soviet Cultural Exchange Programme. The themes decided by the Commission have already been notified to the USSR side for their approval.

The folloiwng fellowships/scholarships were offered during 1985-87:
i) The Soviet Government offered 35 scholarships for Russian language and literature. Nominations made by the Commission against these scholarships have been accepted by the Soviet Government.
i) The Commission nominated scholars against the 12 fellowships offered by the German Academic Exchange Service for advanced research in Natural Sciences, Mathematics, Geology, German Lanaguage and literature and some areas in Humanities and Social Sciences. Two of these fellowships are reserved for German Lanaguage and Literature. Eight nominations were accepted by the FRG side.
iii) The German Academic Exchange Service offered six short term fellowships for teachers of German Language and Literature for a period of three months each. The Commission has utilised five of these fellowships.
iv) Against three short term fellowships of three months' duration for teachers of German Language, offered by the German Academic Exchange Service, the Commission nominated one scholar.
v) Against five short term fellowships of the total duration of 20 man-months, offered by German Academic Exchange Service in German culture and related fields for Ph.D. scholars, one scholar visited the Federal Republic of Germany.
vi) The Commission nominated teachers and students against the six fellowships and 13 scholarships offered by the French Government for French Language, Literature and Civilisation for 1986-87.

### 9.07 Academic Link Interchange Scheme:

This programme, which is being implemented in collaboration with the British Council, provides for the development of linkages in specified areas between institutions of higher education in India and the U.K. It involves the exchange of faculty from identified participating institutions for a period not exceeding 20 weeks each. The visits have the following objectives:
(a) Joint Research
(b) Joint Publications
(c) Curriculum and Course Development
(d) Academic/Professional/Administrative staff exchange development.

Of the 25 areas identified for collaboration, frogrammes have been mutually agreed to in 12 areas for implementation. During the year, 25 Indian scholars visited the UK under the programme while the number of British scholars who visited universities in India was 13. The question of taking up collaborative programmes in additional areas identified $1 s$ under consideration.
9.08 Collection of Source Material for Research Work in UK and other Countries:

Under the scheme, the Commission provides travel and maintenance expenses to sentor Indian scholars in Humanities and Social Sciences for their visit to UK for a period of $6-8$ weeks to enabie them $=0$ collect material for
their research work whichis ordinarly not available in India. The period of 12 man-months available under this programme was almost fully utilised and eight scholars were assisted under this programme during the year.

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. Seven teachers were provided assistance under this scheme during the year.
9.09 Development of Canadian Studies:

Under the scheme the Commission has identified some universities for the development of Canadian Studies in specific disciplines. Names of these universities are given in the Annual Report for 1984-85. Although these universities have been identified for a single discipline to start programmes in Canadian Studies, the intentionis that in course of time they would be developed into multi-disciplinary centres of Canadian Studies. During the year, 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 has been 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 two scholars for a period of two weeks each for visit to Canada to study problems relating to administration of universities. A

Canadian Political Scientist also visited India under this programme during the year and had discussions with senior scholars in some universities.

### 9.10 <br> INDO-US Fellowship Programme:

The Commission continued to award fellowships under this programme. Against 15 fellowships of 10 months each to American Scholars for their post-doctoral research work in India, the Commission received nominations for 13 long-term fellowships of 10 months duration and 6 short term fellowships of 2-3 months duration. The Commission has already cleared most of the nominations received from the US side for the year 1987-88.

The Govt. of India had allocated 12 fellowships to UGC for the visit of Indian teachers from universities/ colleges and Institutes of Technology for post-doctoral work in USA. Against 12 fellowships which have been allocated to the UGC, the Commission converted six fellowships into 17 short-term visitorships of 13 weeks each and made nominations against the residual six long term fellowships of 10 months each and 15 short-term visitorships of 13 weeks each.

### 9.11 CSIR-CNRS (France) Exchange of Scientists Programme:

Under this programme CSIR allocated 200 man-days for the visit of Indian scientists to France and similarly the UGC allocated 200 man-days to the CNRS for the visit of French scientists to India in connection with their research work during the year, Seven Indian scholars visited France while no Erench scholar visited India under this programme during the year.

Under this programme initiated in 1969-70, the Commission coordinates with the Commonwealth Scholarship Commission in UK and makes nominations for the Commonwealth Staff awards (fellowships and scholarships) to enable promising faculty members in universities and colleges in India to work at universities or other institutions in the UK. These awards are not available in the fields of Medicine and Surgery as Commonwealth Medical awards are available separately. During 1986-87, the Commission recommended 21 scholars for fellowships and 13 for scholarships. Out of these, the Commonwealth Scholarship Commission have finally selected 16 for fellowships and seven for scholarships.
9.13 Specialised Programmes Organised by International Centres/ Agencies:

The Commission provides one-way air fare to teachers in universities and colleges for participation in summer/ winter schools on specialised courses organised by centres run by international agencies or professional bodies like the British Council. The remaining air fare and living expenses for the duration of the course are to be provided by the organisers of the programme or the institution where the teacher is working or the State Government or any other agency. During the year, the Commission agreed to provide financial assistance by way of one-way air fare to 12 teachers from universities/colleges.
In pursuance of the decision taken on recommendation 3.8
contained in the 73 rd 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 $1986-87$ is given in
Appendix-XXVI.

# ADULT, CONTINUING AND EXTENSION EDUCATION and distance learning 

### 10.01 Adult Education:

The current involvement of universities in the adult and continuing education activities is the outcome of the recognition of the importance of extension education programme by the University Grants Commission as reflected in the 'Policy Frame' of the Commission (1978).

The policy statement underlined the need for extension activity as an important dimension of higher education equal in importance with teaching and research.

The Government of India launched the National Adult Education Programme (NAEP) on October 2, 1978. It was intended to impart functional literacy with assured follow up and continuing education within a target-oriented and time-bound frame. Universities and Colleges also participated in this national task under the UGC scheme of Adult Education and Extension.

The programme of adult literacy through the students and teachers of universities and colleges, inter-alia, envisaged their involvement in a planned manner, acclerating their inter-action with the community by way of extension work with special emphasis on literacy programmes for women, scheduled castes and scheduled tribes, handicapped and people from the rural, backward and slum areas. The Adult literacy programme was conceived to be implemented in the first phase upto March 1985 covering all affiliated universities and at least 15000-20000 centres and thereafter raising the adult
eduçation centres upto 50,000 in the second phase till March, 1990 by involving all the universities. During the year 1986-87, the Commission continued assistance to 92 universities involving 2121 colleges and 25,824 adult education centres in the country.

Besides, financial assistance was continued to the three Resource Centres located at Srinagar, Chandigarh and Hyderabad for producing literacy material for use by different agencies. In addition, the North Eastern Hill University was requested to establish a resource centre for the North Eastern Council areas. 18 Universities received assistance for purchase of audio-visual equipment while 9 universities received 50 per cent assistance for vehicles purchased by them for adult and continuing education programme during the year.

### 10.02 Mass Programme for Functional Literacy (MPFL)

As part of the Adult Education Programme, a Mass Programme for Functional Literacy (MPFL) was launched from lst May, 1986. Under the programme, the universities were advised to involve students in the Mass Programme for Functional Literacy on a voluntary basis with the hope of involving two lakh N.S.S. volunteers and one lakh Non-NSS students during vacation in an attempt to eradicate illiteracy. The University could consider giving suitable recognition to the contribution made by the students for participation in the programme. This programme had the following components:
i) Literacy kits were to be made available free of cost to the learners through the Resource Centres.
ii) Orientation of programme Incharges was to be done in collaboration with the Resource Centres;
iii) The area plan was to be prepared with sub-area allocation for colleges to eradicate illiteracy;
iv) Involvement of local organisations, and co-ordination with them as well as the development department was envisaged;
v) Financial assistance was provided to the universities and colleges participating in the MPFL with the purpose of promoting maximum utilisation of resources in universities and colleges in terms of students and teachers;
vi) Students, with a view to make a learner literate, could (a) conduct an adult education centre as "Instructors" (b) involve in 'each one teach one programme' or (c) organize and conduct supporting programmes at adult education centres, as explained below:
a) Role of Students as Instructors:

As Instructors, students could initiate a process of awareness among adult learners, introduce developmental activities in the community and help the learners to acquire certain functional skills for tackling their problems. Also, students could enlist learners, decide timing of the teaching in consultation with them, procure learning material, maintain necessary record of learners, send monthly reports and help in evaluation of the programme.
b) Role of students under 'Each one teach one' or 'Each one teach family':

Under this programme, students are expected to identify adult learners or a family and teach them by fixing mutually convenient time, and submit required information about learners.
c) Role of Students in supporting programmes:

Under this, students are involved to help in (i) survey of selected area and identification of learners, (ii) shramdan activities in consultation with the community and (iii) motivating illiterates for learning and organising simple audio-visual units and mobile libraries.

According to the reports received from 73 universities, as many as $1,47,055$ students (both NSS and Non-NSS) were involved in the campaign durıng the year under report. Sanction for holding a seminar on the concept of M.P.F.L. was also accorded to the Delni University during the year.

It has been impressed upon the Universities participating in the adult education, continuing education and extension programme to give new impetus to the programme and also provide for a project report in lieu of one of the optional papers in degree courses which should be evaluated on the lines of the project report in the faculties of social work etc., and whose marks/grades added alongwith other subjects of examination. Arising out of this, the Bharathidasan 0nersity (Tiruchirapalli) has included Adult Education, Extension Education, Population Education \& Community Levelopment as an extra disciplinary subject in the university curriculum for

Under-graduate courses. Similarly, the Punjab University has decided to grant incentives to students who are participating in adult education programmes by way of weightage for purposes of admission to other courses of the University.

Keeping in view the importance and the large scale expansion of the above programmes and the fact that extension work has been declared as an important function of the institutions of higher learning, the UGC Standing Committee suggested that allocation of adult education centres be rationalised. It was also suggested that universities and colleges participating in the programmes should adopt specific areas to provide awareness and education on community programmes for purposes of development in an integrated manner covering eradication of illiteracy as well. In order to bring home the processes involved in the change over, the committee suggested integrating other departmental activities in literacy programme, poplation education programme and in holding of regional workshops for functionaries in the University Department/Centres of Adult, Continuing Education and Extension.
10.03 Continuing Education and Extension:

The programme of Continuing Education was initiated in 21 selected universities and subsequently spread over to 68 universities and 705 colleges. The objectives of the programme are reported in the annual report for the year 1984-85. The programme is aimed at disseminating knowledge by giving priority to the less privileged and under-privileged sections of the society. During the year under report 20 Universities and 17 colleges were supported by the Commission for organising different
types of programmes under the continuing Education Scheme.

The scheme of setting up of Population Education Clubs in universities and colleges aims at involving students in the task of educating the community about consequences of population growth at the family and national levels. About 1400 Population Education Clubs were operative till 3lst March, 1987 with assistance from the Commission. These clubs organise different types of activities viz. debates, dramas, essay competitions, group discussions, experts' lectures, extension activities and developing simple audio-visual material etc. In addition, the twelve Population Education Resource Centres created during 1985-86 also started functioning effectively during the year under report. These Centres, set up in order to facilitate the implementation of the UNFPA*-UGC project, would provide support service in population education programme to universities/colleges in a specified area, in terms of training, production and distribution of learning materials in print and audiovisual forms as part of well-formulated curriculum, evaluation, documentation and integration of population education at the undergraduate level. The UNFPA-UGC project formulated in $1985-86$ seeks to secure the involvement of the entire system of higher education in the country in institutionalising and spreading awareness of population education and link it with the developmental process of India.

[^5]During the year 1986-87, Joint meetings of the Convenors of the Task Forces and the Directors of the Resource Centres were held with the objective of:
(a) assessing the progress made and activities undertaken under the Population Education projects; and
(b) considering measures necessary to speed up implementation of the project.

Some of the significant achievements of the various TaskForces were as under:
i) the Task Force on Training finalized and circulated to all the Resource Centres a resource book on training to facilitate training programmes for the functionaries of the project and the population Educaion teachers etc.
ii) the Task Force on Curriculum Development finalized an approach paper on formulation of curriculum under non-formal approach, and circulated the paper to all resource centres and universities. The Task Force is likely to complete curriculum for under-graduate and Post-graduate courses shortly. The Task Force also published a monograph titled, 'Population in the context of Indian Development with special reference to Population Education'.
iii) the Task Force on Learning Material (Print) prepared a hand book for teachers and students. It also completed the identification of the reading material for circulation to the universities.
iv) the Task Force on Research prepared a bibliography of the select research publications and also completed base line survey format.
v) Some of the resource centres organized training programmes for personnel of different universities and college Principals in their service area.
vi) The resource centres used the audio-visual aid for quick transmission of the messages under the extension programme of Population Education. The resource centres also produced video films, slides, charts and posters on subjects like women education, breast-feeding etc., depicting different themes of population education etc. Some of the video films produced by the resource centres were found to be very useful in communicating the message on population education.
vii) Two News letters reporting various developments under the Population Education Programmes were issued during the year under report.

The list of equipment (prepared by the Commission in consultation with the Resource Centres) to be bought under UNFPA assistance for the resource centres was approved by the Government of India during the year and funds were released from the UNFPA for making purchases. The format for reporting progress in the implementation of the project and its evaluation was also analysed. Most of the PERCs prepard their own project documents indicating the yearly programme of activities upto 1990.

Besides, the following activities were assigned to the Resource Centres for completion during 1987-88.

Activity Name of the Organising Resource Centre

1. Workshop on Planning
sample materials for
teachers and students. $\quad$ Gujarat Vidyapith
2. Seminar on Research Ranchi University
3. Summer Institute Kerala University
4. Seminar on Monitoring Delhi University and Evaluation Design
5. Workshop on curriculum Gujarat Vidyapith for Population Education and Extension activity.

### 10.05 Planning Forums:

With a view to create an awareness of the need for planned development of the country among the student community and involve them in national development efforts right from the planning stage, the Commission continued to provide assistance to the universities and colleges for instituting planning forums. The scheme aims
to develop plan consciousness among the educated youths in particular and through them among the general public.

During the year under report 19 universities and 24 colleges participated in the scheme and organised various activities. With a view to ensure that Planning Forums work effectively, the universities and colleges have been asked to report the type of activities undertaken by them and send their suggestions to the Commission.

### 10.06 <br> Coaching Classes for Competitive Examinations for Weaker Sections amongst Minority Communities

The Commission continued to provide assistance to universities and colleges for organising special coaching classes for students belonging to socially and economically weaker sections of the minority communities. The coaching programmes are meant to prepare such students to compete in various competitive examinations for recruitment to services under the Central and State Governments, public undertakings etco at various levels.

While the main coaching centres are located at the Universities, the sub-centres are located in colleges. The Universities are largely responsible for organising coaching classes for the all-India Services as well as State level services while the colleges are responsible for organising coaching classes for lower categories of examinations.

Suitable guidelines formulated in this regard have been circulated to the universities. A standing Committee advises the Commission from time to time on the functioning of the scheme. The Standing Committee has constituted a Sub-Committee whion studies the working of the coaching centres at the spot and makes suggestions to
overcome deficiencies, if any. During the year, 20 universities and 15 colleges were assisted to organise coaching programmes.

### 10.07 National Integration:

With a view to involving the university system in the promotion of the process of national integration through its teaching, research and extension activities, a Committee under the Chairmanship of Hon'ble Justice Mr. M.H. Beg had been constituted in 1985-86 for suggesting measures in this regard. The Committee submitted its report during 1986-87 which was considered by the Commission. The Commission desired to send the report of the Committee to the universities for comments and to deliberate on it after receiving responses through Seminars at different levels. Some of the salient recommendations of the Committee are:
i) Well organised teaching programmes on languages, literature, philosophy, comparative religion, history of the Indian aesthetics of architecture, sculpture, painting, music, dance and drama play a vital role. It would be desirable to promote greater knowledge, understanding and appreciation of the wide spectrum of our cultural heritage in different parts of India by incorporating suitable topics in the teaching curricula.
ii) In their recruitment policies, Universities will be well advised to give fair shares to all regions and communities in such a way as to promote national integration. The persons so recruited should be given housing facilities and travel concessions.
iii) Every university should have certain number of scholarships ermarked for students coming from distant States and different communities. Students who come from other regions with different mother tongues should be given the facilities of appropriate 'remedial courses', irrespective of their number, without which student mobility will be impeded.
iv) Travelling has been a great source of learning through the ages and has stimulated the enquiring spirit of man. It has also been instrumental in engendering a broader understanding of India by people from different parts of the world. It should help development of objective scientific approaches for solution of our problems of national integration.
v) Trvel should be given its legitimate place in the syllabi of university courses. A number of credits should be assigned in the university courses for travel by students individually or in small groups and a report thereon covering different aspects of life in the areas visited should be invariably given. This report should reveal what aspect of national integration in the country or parts visited impressed the maker of it.
vi) While inter-regional mobility of students at the university level should be encouraged in general, it would be desirable to introduce a system whereby students in any university in the country can spend some time in any other university. A suitable provision in the University Statutes and Ordinances should be made so that a university student can join any other university depending on his
interests and areas of specialisation in that university for pursuing a few courses for a brief period extending upto a semester. He or she should be able to earn special credits which should be added to overall credits in the university where the student is pursuing his studies substantively.
vii) A certain percentage of seats in all the educational institutions should bereserved for students from distant regions and different cultural or religious backgrounds. All students who come from outside the State should be given hostel and free travel facilities from their residence to the institutions concerned.
viii) National integration be introduced in the curricula at the undergraduate level.
ix) Study tours and educational excursions should be organised to different part of the country. In these tours, the students should be taken not only to cultural and historical places but also introduced to modern projects and industries.
$x)$ Sports and games will help greatly to bring about integration of people. Hence, they should be encouraged. Greater emphasis should be given to organise such activities on Inter-State basis.
xi) Students may be encouraged to visit different places of worship of all religions. These should be accompanied by due explanations of special features.
xii) Activity programmes, such as sports and games, group discussions, debates, and group singing bring the students closer, physically and emotionally, and thus help to understand each other better. Such programmes should be encouraged in universities and colleges.
xiii) Simple, inexpensive, and healthy dishes, which people from all parts of the country may like, be evolved out of the regional diets. This may foster sentiments of appreciation and unity. Hostels and institutes of Home Science can play a leading role in this.
xiv) Above all, the Vice-Chancellor of every university should be a person passionately interested in promoting national integration and strengthening secular traditions by every conceivable means in his or her power. This functionary should be capable of inspiring all members of the university comprising teachers, taught, officers, as well as its employees to become fine soldiers in the cause of better integration of the nation.

Comments on the report are being received from the universities.

During the year, the Commission financed the construction of a building for Indira Ganchi Centre for National Integration at Visva Bharati. Besides, the Commission has also been encouraging universities/ colleges to conduct seminars on themes of national integration.

Programme of distance education/correspondence courses have been instituted by various universities in India to enable a large number of persons with necessary aptitude to acquire further knowledge and improve their professional competence. Distance education/correspondence course is essentially based on the supply of instructional material for home study, but has to be suppored 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 system of delivery and (b) to bring about equalization of opportunity by providing facilities in backward regions, as also to the weaker sections of the community who have to take up jobs owing to their pecuniary circumstances and for women, many of whom still find it difficult to go to a college as they belong to tradition-ridden families and communities.

During the year, the Commission continued to provide assistance towards staff, personal contact programmes, study centres, preparation of lessons and library facilities etc. to universities for distance/correspondence education. As many as 35 universities in India conduct distance education/ correspondence course programmes with Commission's assistance. A list of these universities, indicating the courses run by them and enrolment in each course is given at Appendix-XXVII.

The Commission has requested the universities that Institutes of distance eduction be given more autonomy both in their functioning and in academic programmes. They may be given the status of university department oz
an Institute with an open approach to admission of students, selection of courses etc. Moreover, the functioning of the Centres of Distance Education should be regularly monitored at the national and state level with a view to ensuring the quality and relevance of courses of study.

The Standing Committee appointed by the Commission on Distance Education has been reconstituted with a view to have larger representation of the Experts from the system of distance education. During the year, the Commission received a Status report on distance education, prepared with Commission's assistance. The report is under consideration.

FACILITIES POR SCHEDULED CASTES AND SCHEDULED TRIBES
11.01 During the period under report, the Commission continued to make intensive efforts to ensure the implementation of the orders of the Government of India regarding the reservation of seats for Scheduled Caste/Tribe students for admission to various courses of study and hostels, appointment of persons belonging to Scheduled Caste/Tribe communities in non-teaching posts and for the post of lecturers in the Universities. The Commission has made provision of reservation in a number of programmes initiated by it from time to time. It has also initiated a number of schemes specially for the advancement of persons belonging to these communities.
ll.02 Reservations in admission to various courses in universities and colleges: As per the guidelines issued by the Ministry of Education, 15 per cent of the total seats for admission to various courses are reserved for scheduled caste candidates and 7.5 per cent for scheduled tribe candidates. In addition, universities/colleges have also to make provision to give concession of 5 per cent marks in the minimum percentage of marks required for admission to any course of study. It has been lmpressed upon the universities from time to time to ensure that the reserved seats for scheduled caste/tribe candidates are filled up by candidates belonging to these categories only.
11.03 Reservation of Fellowships/Scholarships :

Universities are awarding junior research fellowships out of the fellowships allocated to them by the Commission. The Commission has allocated 3558 such fellowships 'at any one given time basis' and $10 \%$ of these fellowshifs are reserved for the students belonging to Scheduled Caste and Scheduled Tribe communities. Besides this, 50
junior research fellowships are exclusively reserved for Scheduled Caste and Scheduled Tribe candidates.

Similarly, out of 60 research fellowships awarded.by the Commission every year in engineering and technology on an all-India basis, $10 \%$ have been reserved for Scheduled Caste and Scheduled Tribe candidates.

## Reservation of Research Associateships:

The Commission awards 150 research associateships every year in science, engineering and technology, humanities and social sciences. Out of these $10 \%$ have been reserved for Scheduled Caste and Scheduled Tribe candidates. In addition to this, the commission has instituted 40 research associateships annually for exclusive award to Scheduled Caste and Scheduled Tribe candidates.
11.05. Postgraduate Scholarships in Science, humanities including social sciences to candidates belonging to Scheduled Castes and Scheduled Tribes and backward Classes of the Border Hill Areas.

The Commission has instituted 25 scholarships to be awarded every year exclusively to the students belonging to Scheduled Caste/Scheduled Tribe and Backward Classes of Border Hill Areas for undertaking postgraduate studies in science and humanities including social sciences.

Reservation of Teacher Fellowships:

The Commission has instituted 50 teacher fellowships (20 for Ph.D. and 30 for M.Phil) with a view to providing opportunities to teachers belonging to Scheduled Caste and Scheduled Tribe communities working in affiliated colleges. The duration of short term fellowship for pursuing the M.Phil course in one year. The normal duration of the long-term fellowship for conducting research for Ph.D. degree is three years (including M.Phil, wherever provided. . In special cases extension
by one year can be granted. The total duration of the long-term teacher fellowship cannot exceed four years in any case.
11.07 Remedial coaching classes:

With a view to removing the deficiency of students belonging to Scheduled Caste and Scheduled Tribe communities at the early stages of their university education, the Commission has initiated a scheme of remedial teaching and special coaching. Such coaching classes may generally have not more than 20 students.

Special Cells in the Universities

In view of the importance of the programmes for scheduled castes and scheduled tribes and the need to improve their participation in higher education, the Commission has been providing assistance to the universities for the establishment of special cell for strengthening the implementation of the programmes for Scheduled Caste and Scheduled Tribe communites in the universities.

Reservations in the UGC Office:

Efforts were continued 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/promoted during the year under report:

Sl. Cadre Appointment made by Post filled by Promotion
No. direct recruitment Scheduled Scheduled Scheduled Scheduled Caste Tribe Caste Tribe


## HIGHER EDUCATION AND WOMEN


#### Abstract

12.01 It is a matter of gratification that educational opportunities for women in the sphere of general and professional education at the University level have expanded appreciably in recent years. It is equally satisfying to note that women have responded with alacrity and availed of various opportunities which has accounted for increasing enrolment of women in all faculties and at all levels of education. In response to the needs of the society and the demands of the public and private sectors, there has been re-orientation in the education of women at the University and College levels. The highly specialised and professional courses offered by Universities have no longer remained a prerogative of men as more and more women year after year are found competing for entry to these courses. The ensuing paragraphs give an account of the numerical expansion of women participation in higher education as also efforts made by the Comission for promoting women studies in the universities and colleges.


### 12.02 Growth of Enrolment:

There has been a spectacular growth in the number of women enrolled in institutions of higher education as shown in Table l2.l.

|  | 1950-51 1955-5 |  | 1960-6 | 1965-66 | 1975-7 | 1981-8 | 1982-8 | 1983-84 | 1984-85 | 1985-86* | 1986-87* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total women enrolment (in thousands) | 40 | 84 | 150 | 271 | 595 | 817 | 880 | 940 | 992 | 1059 | 1125 |
| Number of women per hundred men | 14 | 17 | 23 | 24 | 33 | 38 | 39 | 40 | 41 | 42 | 44 |

*Estimated

It will be seen from the table that since 1950-51, enrolment of women has gone up twenty eight times while the number of women per hundred men has increased more than threefold.

Table 12.2. shows the enrolment of women as a proportion of total enrolment during the period 1975-76 to 1986-87. It will be seen that enrolment of women as percentage of total enrolment increased progressively from 24.5 per cent in 1975-76 to 27.2 per cent in 1980-81, 29.6 per cent in 1985-86 and 30.6 percent in 1986-87. In absolute terms, the number of women enrolled almost doubled during the period.

## Table 12.2

Total enrolment and enrolment of Women

| Year | Total <br> Enrolment | Women <br> Enrolment | Percentage <br> of women |
| :--- | :---: | ---: | :--- |
| $1975-76$ | $24,26,109$ | $5,95,162$ | 24.5 |
| $1976-77$ | $24,31,563$ | $6,27,346$ | 25.8 |
| $1979-80$ | $26,48,579$ | $7,89,042$ | 26.0 |
| $1980-81$ | $27,52,437$ | $7,48,525$ | 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 |
| $1985-86^{*}$ | $35,70,897$ | $10,58,612$ | 29.6 |
| $1986-87^{*}$ | $36,81,870$ | $11,25,304$ | 30.6 |
|  |  |  |  |

[^6]Table 12.3 shows the number of colleges meant exclusively for women. This number has gone up by about 52 per cent over the period 1975-76 to 1986-87. In absolute terms the number increased from 528 in $1975-76$ to 771 in 1986-87.

Table 12.3

## Women's Colleges

| Year | Number of colleges <br> for women only |
| :---: | :---: |
| $1975-76$ | 528 |
| $1976-77$ | 543 |
| $1979-80$ | 577 |
| $1980-81$ | 609 |
| $1982-83$ | 624 |
| $1983-84$ | 647 |
| $1984-85$ | 676 |
| $1985-86$ | 712 |
| $1986-87$ | $741^{\star}$ |

* Provisional
12.04 State-wise distribution:

Statewise distribution of enrolment of women for the years 1982-83 to 1986-87 is given in Appendix-XXVIII. It will be seen that enrolment of women as a percentage of total enrolment has gone up in 1986-87 as compared to 1985-86 in all the States except Jammu and Kashmir,

Manipur ana Meghalaya/Nagaland. As in earlier years, Kerala ( 50.4 per cent) continued to lead in terms of women encolment as percentage of its total enrolment in 1986-87 followed by Panjab (45.5\%), Delhi (43.5\%) and Haryana (40.7\%). On the other hand, as before, Bihar remained at the bottom with women enrolment only 15.1 per cent of its total enrolment in 1986-87.

The All-India average of women enrolment as a percentage of total enrolment was $30.6 \%$ in 1986-87. As many as 14 States and the Union territory of Delhi had women enrolment as percentage of total enrolment higher than the all-india average. These were Gujarat, Haryana, Jammu \& Kashmir, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya/Nagaland, Panjab, Tamil Nadu and West Bengal/Tripura/Sikkim.

Stage-wise Distribution:

Women enrolment at different stages of study is given in Appendix-XXIX. It will be seen that during the period 1975-76 to 1986-87, enrolment of women as a percentage of total enrolment has been consistently going up at all levels viz., graduate, post-graduate and research levels. For example, at the graduate level, enrolment of women as a percentage of total enrolment at this level increased from 24.5\% in 1975-76 to $30.5 \%$ in 1986-87. Similarly, at the post-graduate level, the corresponding increase was from $24.9 \%$ to $31.5 \%$ and at the research level from $24.4 \%$ to $33.3 \%$. It also highlights an important trend viz., of increasingly higher enrolment of women particularly at the research level where it accounts for nearly one third of the total enrolment at that level. Even at the post-graduate level the trend is almost similar though the rate of increase is comparatively slower. Women enrolment at the diploma/certificate
level as a proportion of total enrolment at that level showed a mixed trend, rising in one year and falling in the other, during the period under reference.

Faculty-wise Distribution:

Faculty-wise distribution of women enrolment given in Apgendix-XXX shows that women enrolment in each faculty as a percentage of total enrolment in that faculty registered a gradual increase from 1975-76 to 1986-87 except that in some faculties it declined in a stray year so as to rise again the following year. In the faculty of 'others' consisting of Fine Arts / Music etc., however, the trend observed over the period was a mixed one with rising and falling women enrolment as percentage of iotal enrolment in the faculty. The most noticeable increase in the percentage of women enrolment was in the taculty of Commerce where women enrolment as percentage of total enrolment in the faculty went up from 6.6 in 1975-76 to 19.7 in 1986-87 thus recording more than a three-told increase. However, the highest percentage of women entolment in any faculty is recorded by the faculty of foucation with 50.5 per cent of its total enrolment consisting of women, followed by the faculty of Arts (4).6 peccent), 'others' (40.7\%), Sclence (31.4\%), Medicine (30.4\%) and Commerce (19.7\%). It is interesting to note trat even in the faculty of Engineering/Technology, women enxolment as a percentage of total enrolment has consistently gone up from 2.1 percent in 1975-76 to 6.0 per cent in 1986-87 thereby indicating a healthy trend of more and more women opting for professional courses.

Wich a view to developing programmes relating to Women's Studies in Indian universities so as to bring greater awareness about problems relating to women and to strengthen the data base for better analysis, the Commission has agreed to extend financial support to the universities for undertaking well-defined projects for research in Women's Studies as also for development of curriculum and relevant extension activities.

A Centre for Women's Studies and research has been set up at the SNDT Women's University, Bombay. Also, arising out of the recommendations of the Standing Committee of the UGC on Women's Studies, the Commission has entrusted the task of preparation of curriculum for Women's Studies at the undergraduate level to the following Seven Universities viz., Kerala, Ranchi, Delhi, Panjab, South Gujarat, Banaras Hindu and North Eastern Hill.

## UGC FINANCES AND ORGANISATIONAL SET UP

### 13.01 Non-Plan Funds:

The University Grants Commission received a grant - in aid of Rs.14,202.00 lakhs from the Government of India during the year under report. In addition to the above, a further amount of Rs.206.15 lakhs was also obtained under various miscelleneous items including refunds of Rs.144.99 lakhs as unspent balances out of the grants paid in the previous years. Thus the total non-plan receipt in hand during $1986-87$ was Rs.14,408.15 Jakhs and as against this the grants paid amounted to Rs.14,361.74 lakhs. A statement of non-plan grants paid during $1986-87$ is given in table 13.1 below:

Table-13.1
Statement of non-plan grants paid under various schemes during 1986-87

| S.No. | Purpose | Amount |
| :---: | :---: | :---: |
|  |  | Rs. in lakhs) |
| 1. | UGC Administration Charges |  |
| a. | Pay of Officers | 25.33 |
| b. | Pay of Establishment | 56.25 |
| c. | Allowances, Honoraria (including DA, Interiem Reirei: Bonus, CCA, LTC, TA etc.) | 82.66 |
| d. | TA/DA of Commission/Committee members | 1.77 |
| e. | 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 tawes, departmental charges, conveyance allowance etc. | 60.95 * |


| f. | Contributions for CGHS, Pension \& leave salary, CP Fund, GP fund, and gratuity etc. | 20.94 * |
| :---: | :---: | :---: |
|  |  | 247.90 * |
| 2. | Maintenance grants to Central Universities | 8414.60 |
| 3. | Maintenance grants to Institutions deemed to be Universities | 1954.03 |
| 4. | Maintenance grants to Anna and Roorkee Universities for specific purposes | 39.58 |
| 5. | Maintenance grants to Constituent/ Affiliated Colleges of Delhi University | 2865.31 |
| 6. | Maintenance grants to Constituent/ Affiliated College of B.H.U. | 6.50 |
| 7. | House Building Advance to Institutions deemed to be universities and central Universities. | 272.50 |
| 8. | Special grants to Delhi University and and Visva Bharati University for the import of equipment from Japan. | 88.00 |
| 9. | Teachers award for schemes like <br> Teacher Fellowship (both general \& SC/ST <br> Candidates), National Fellowship/ <br> Associateship, National Lectures, <br> Retired Teachers, Emeritus Fellowship etc.) | 33.30 |
| 10. | Research Fellowships/Associateships (Both General and SC/ST candidates) | 304.41 |
| 11. | Scholarships/Fellowships under Engineering and Technology. | 131.29 |
| 12. | Grants to non-university Institutions | 4.32 |
|  |  | 14361.74 |
|  | * Actual expe | nditure |

From the above table it would be observed that the Administrative charges of the Commission amount to about 1.72 per cent of the total non-plan grant which was disbursed by the Commission. The major component of the non-plan funds was earmarked for meeting the maintenance of Central Universities, Deemed Universities and colleges affiliated to the Central Universities. It would be seen that out of the total non-plan grant, about 58.60 per cent is paid as block grant to central universities, 13.60 per cent to deemed to be universities, 0.27 per cent to Anna \& Roorkee Universities for certain specific purpose and about 20 per cent for maintenance of colleges affiliated to central universities. The house building advance forms about 1.90 per cent of the total non-plan allocation and as a special case a grant of Rs.88 lakhs (0.61 per cent) was paid to Delhi University and visva Bharati University for purchase of equipment from Japan. A grant of Rs. 33.30 lakhs ( 3.30 per cent) was given to provide various incentives to teachers and for various categories of Research Fellowships.

### 13.02 Plan Funds

During the year under report the commission received grant-in-aid of Rs.9876.00 lakhs from the Government of India for general development of the Universities and Institutions including SACC programme. In addition to this, a separate allocation of Fs. 550.00 lakhs was also made available from the same source for development of engineering and technical education in the Universities/Institutions whoti were eligible to receive grant under the Un nos. The miscellaneuous ceceppt under Plan head was a marginal amount of Rs.l29.40 lakhs which was manly ootained by way of interest on the bank accounts, refund of unspent balances out of grants paid a 0 gous years etc. A plan grant of Rs. $10,576.52$ lakhs was paid to the various institutions as indicated in table 13.2 below.

Statement of Plan Grants Paid under Six Major Schemes of UGC during 1986-87

| S.No. Scheme | Universities | Colleges | Misc | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | (Rs. in lakhs) |  |  |  |
| 1. Restructuring of courses, Adult, Continuing and Extension Education |  |  |  |  |
| Programmes | 442.08 | 52.60 | 0.02 | 494. |
| 2. Programmes for Quality Improvement of Education | 3,547.50 | 2,942.96 | 53.04 | 6,543.51 |
| 3. Programmes for Quality Improvement of Research and SACC | 2,384.03 | 150.55 | 113.45 | 2,648.0.1 |
| 4. Mass Communication <br> and Improvement of Weaker <br> Sections of the Society | 225.37 | 21.01 | - | 246.3 |
| 5. Establishment of Autonomous Colleges and Improvement of Management System of Universities and the UGC. | 2.45 | 18.48 | 54.70 | 75.64 |
| 6. Development of Engineering and Technology | 559.78 | 8.50 | - | 568.2 |
| Total: | 7,161.21 | 3,194.10 | 221.21 | 10,576.5 |

### 13.03 Organisational Set-up

The secretariat of the Commission is headed by a Secretary. He is assisted by four officers of the level of Additional Secretary.

The Secretariat of the Commission is organised on the pattern of Sections and Divisions. The basic unit is a Section which is headed by a Section Officer and is
supported with adequate staff comprising of Assistant(s), UDC(s), LDC/Typist(s), normally numbering between five and eight depending on the work-laod of each Section. Usually, for two Sections there is a Branch Officer who is either an Under Secretary or an Education Officer or an Officer of equivalent rank. Normally, four or five Sections constitute a Division. In some cases a Division is headed by a Joint Secretary. But, normally, a Division is headed by a Deputy Secretary or an Officer of equivalent rank like Co-ordinator, Principal Scientific Officer, etc. The work of a group of Joint Secretaries/Deputy Secretaries/other officers of equivalent rank is assigned to one of the Officers of the rank of Additional Secretary.

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 made by the Central Government.

The manner of appointment includes direct recruitment, promotion, deputation and contractual appointments.

Professor S.K. Khanna Secretary

## Professor Yash Pal

## Chairman

Professor K. Satchidananda Murty Vice-Chairman

## Members

## Shri Anil Bordia

Professor V.C. Kulandaiswamy
Shri R.R. Gupta
Professor Suresh Dalal
Professor (Mrs.) Archana Sharma
Professor G. Padmanaban
Dr. M. Aram
Shri Kireet Joshi

## ILLUSTRATIONS AND APPENDICES



## (Section 1) <br> GROWTH OF INSTITUTIONS AND <br> ENROLMENT 1982-83 TO 1986-87 <br> (UNIVERSITY LEVEL)



* Estimated
(Section 1)
TEACHING STAFF IN UNIVERSITY DEPARTMENTS/UNIVERSITY COLLEGES AND AFFILIATED COLLEGES 1982-83 TO 1986-87

$\dot{x}$. Includes Professors Readers Lecturers and Tutors/Demonstrators
** Includes Principals/Senior Lecturers/Readers/Assistant

(Section 12)
PERCENTAGE OF WOMEN ENROLLED 1975-76 TO 1986-87



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## APPENDIX-I

## List of Universities and Institutions Deemed to be Universities in India 1986-87

| 31. vo. | Name of the University/ Institution | Year of Establishment |
| :---: | :---: | :---: |
| 1. | Calcutta | 1857 |
| 2. | Bombay | 1857 |
| 3. | Madras | 1857 |
| 4. | Allahabad | 1887 |
| 5. | Banaras | 1916 |
| 6. | Myspre | 1916 |
| 7. | Patna | 1917 |
| 8. | Osmania | 1918 |
| 9. | Aligarh | 1921 |
| 0. | Lucknow | 1921 |
| I | Delhi | 1922 |
| 2. | Nagpur | 1923 |
| 3. | Andhra | 1926 |
| 4. | Agra | 1927 |
| 5. | Annamalai | 1929 |
| 6. | Kerala | 1937 |
| 7. | Utkal | 1943 |
| $\chi$. | Dr. Hari Singh Gaur | 1946 |
| 9. | Rajasthan | 1947 |
| '0. | Panjab | 1947 |
| 'l | Gauhati | 1948 |
| 2. | Kashmir | 1949 |
| 3. | Roorkee | 1949 |
| 4. | Poona | 1949 |
| 5. | M.S. University of Baroda | 1949 |
| 6. | Karnataka | 1949 |
| 7. | Gujarat | 1950 |
| 8. | S.N.D.T. Women's | 1951 |
| 9. | Visva-Bharati | 1951 |
| (1). | Bihar | 1952 |
| 1. | Sri Venkateswara | 1954 |
| is | Sardar Patel | 1955 |
| 3. | Jadavpur | 1955 |
| 4. | Kurukshetra | 1956 |
| 5. | Indira Kala Sangeet | 1956 |
| 6. | Vikram | 1957 |
| 7. | Gorakhpur | 1957 |
| 3. | Rani Durgavati | 1957 |
| $\dagger$. | Sampurnanad Sanskrit | 1958 |
| 1. | Marathwada | 1958 |
| i. | G.B. Pant University of Agriculture \& Technology | 1960 |

G.B. Pant University of Agriculture \& Technology ..... 1960
SI. Name of the University/ Year of Establishment
No. Institution
42. Burdwan ..... 1960
43. Kalyani ..... 1960
4. Bhagalpur ..... 1960
45. Ranchi ..... 1960
t6. K.S. Darbhanga Sanskrit ..... 1961
47. Punjab Agricultural ..... 1962
$48 . \quad$ Punjabi ..... 1962
49. Orissa Univerisity 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
59. University of Agricultural Sciences ..... 1964
60. Andhra Pradesh Agricultural ..... 1964
61. Bangalore ..... 1964
62. Jawaharlal Nehru Krishi ..... 1964
63. Dibrugarh ..... 1965
64. Kanpur ..... 1965
65. Meerut ..... 1965
66. Madurai Kamraj ..... 1965
67. Saurashtra ..... 1965
$68 . \quad$ South Gujarat ..... 1965
69 Berhampur ..... 1967
70. Sambalpur ..... 1967
71. Gujarat Ayurveda ..... 1968
72. Jawaharlal Nehru ..... 1968
73. Mahatma Phule Krishi Vidyapith ..... 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. Bhopal ..... 1970
83. Rajendra Agricultural ..... 1970
84. Tamil Nadu Agricultural ..... 1971

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Name of the University/ Institution | Year of Establishment |
| :---: | :---: | :---: |
| 85. | Cochin | 1971 |
| 86. | Kerala Agricultural | 1972 |
| 87. | Gujarat Agricultural | 1972 |
| 88. | Konkan Krishi Vidyapith | 1972 |
| 89. | L.N. Mithila | 1972 |
| 90. | Marathwada Krishi Vidyapith | 1972 |
| 91. | Jawaharlal Nehru Technological | 1972 |
| 92. | North Eastern Hill | 1973 |
| 93. | Kumaon | 1973 |
| 94. | Garhwal | 1973 |
| 95. | Kashi Vidyapith | 1974 |
| 96. | Bidhan Chandra Krishi | 1974 |
| 97. | Hyderabad | 1974 |
| 98. | Narendra Deo University of Agriculture \& Technology | 1974 |
| 99. | Chandrashekhar Azad University of Agriculture and 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 Krishnadevarya | 1981 |
| , 116. | Tamil | 1981 |
| 117. | Bharathiar | 1982 |
| 118. | Bharathidasan | 1982 |
| 119. | Sher-e-Kashmir University of Agricultural Science \& Technology | 1982 |
| 120. | Andhra Pradesh Open University | 1982 |
| 121. | Sri Padmavathy Mahila | 1983 |
| 122. | Amravati | 1983 |
| 123. | Guru Ghasidas | 1983 |
| 124. | Gandhi ji | 1983 |
| 125. | Mother Teresa Women's | 1984 |
| 126. | Algappa | 1985 |
| 127. | Arunachal | 1985 |


| Si. | Name of the University/ | Year of Establishment |
| :--- | :--- | :--- |
| No. | Institution |  |
| 128. | Pondicherry | 1985 |
| 129. | Goa | 1985 |
| 130. | Indira Gandhi National Open | 1985 |
| 131. | Dr. Yashwant Singh Parmar University of Horticulture \& Forestry | 1986 |
| 132. | Telugu | 1986 |
| 133. | University of Health Sciences | 1987 |
| 134. | University of Agricultural Sciences, Dharwad | 1987 |
| 135. | Indira Gandhi Krishi | 1987 |
| 136. | North Gujarat | 1987 |
|  | Institutions deemed to be Universities | 1958 |
| 1. | Indian Institute of Science, Bangalore | 1958 |
| 2. | Indian Agricultural Research Institute | 1962 |
| 3. | Gurukul Kangri Vishvavidyalaya, Hardwar | 1962 |
| 4. | Jamia Millia Islamia, New Delhi | 1963 |
| 5. | Gujarat Vidyapith, Ahmedabad | 1964 |
| 6. | Tata Institute oí Social Science, Bombay | 1964 |
| 7. | Birla Institute of Technology \& Science, Pillani | 1967 |
| 8. | Indian School of Mines, Dhanbad | 1973 |
| 10. | Central Institute of English \& Foreign Languages, Hyderabad | 1976 |
| 11. | Gandhigram Rural Institute, Gandhigram | 1979 |
| 12. | School of Planning \& Architecture, New Delhi | 1981 |
| 13. | Dayalbagh Education Institute, Agra | 1981 |
| 15. | SriSathya Sai Institute of Higher Learning, Prasanthi Nilayam | 1983 |
| 16. | Indian Veterinary Research Institute, Izatnagar | 1983 |
| 17. | International Institute for Population Sciences, Bombay | 1985 |

APPENDIX - II
Growth of Student Enrolment (1967-68 to 1986-87)

| Year | Total <br> Enrolment | Increase over the <br> preceding year | Percentage <br> increase |
| :--- | ---: | ---: | ---: |
| $1967-68$ | $13,70,261$ | $1,79,548$ | 15.1 |
| $1968-69$ | $15,66,103$ | $1,95,842$ | 14.3 |
| $1969-70$ | $17,92,780$ | $2,26,677$ | 14.5 |
| $1970-71$ | $19,53,700$ | $1,60,920$ | 9.0 |
| $1971-72$ | $20,65,041$ | $1,11,341$ | 5.7 |
| $1972-73$ | $21,68,107$ | $1,03,066$ | 5.0 |
| $1973-74$ | $22,34,385$ | 66,278 | 3.1 |
| $1974-75$ | $23,66,541$ | $1,32,156$ | 5.9 |
| $1975-76$ | $24,26,109$ | 59,568 | 2.5 |
| $1976-77$ | $24,31,563$ | 5,454 | 0.2 |
| $1977-78$ | $25,64,972$ | $1,33,409$ | 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 |
| $1983-84$ | $33,07,649$ | $1,74,556$ | 96,447 |
| $1984-85$ | $34,04,096$ | $1,66,801$ | $1,10,973$ |
| $1985-86^{*}$ | $35,70,897$ | 5.6 |  |
| $1986-87^{*}$ | $36,81,870$ | 2.9 |  |
|  |  |  | 4.9 |

Estimated

## APPENDIX - III

Growth of Enrolment (Excluding PUC/Inter/Pre-prof.) During the Period from 1982-83 to 1986-87

| S. No. | State/Union Territory | 1982-1983 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Enrolment | Increase over the Preceding Year | Percentage increase |
| 1. | Andhra Pradesh | 2,44,332 | 29,891 | 11.9 |
| 2. | Assam | 65,930 | 7,149 | 12.2 |
| 3. | Bihar | 1,98,018 | 31,545 | 18.9 |
| 4. | Gujarat | 1,98,438 | 3,259 | 1.7 |
| 5. | Haryana | 65,022 | 5,488 | 9.2 |
| 6. | Himachal Pradesh | 16,305 | 1,534 | 10.4 |
| 7. | Jammu \& Kashmir | 20,190 | -96 | -0.5 |
| 8. | Karnataka | 2,32,090 | 16,229 | 7.5 |
| 9. | Kerala | 1,25,111 | 5,560 | 4.7 |
| 10. | Madhya Pradesh | 2,25,580 | 6,649 | 3.0 |
| 11. | Maharashtra | 3,73,385 | 24,571 | 7.0 |
| 12. | Manipur | 8,555 | 457 | 5.6 |
| 13. | Meghalaya/Nagaland | 8,207 | -421 | -4.9 |
| 14. | Orissa | 64,853 | 3,187 | 5.2 |
| 15. | Punjab | 1,17,580 | 4,792 | 4.2 |
| 16. | Rajasthan | 1,54,863 | 1,551 | 1.0 |
| 17. | Tamil Nadu | 2,29,075 | 9,789 | 4.5 |
| 18. | Uttar Pradesh | 4,55,305 | -644 | -0.1 |
| 19. | West Bengal/Tripura/Sikkim | 2,38,498 | 29,004 | 13.8 |
| 20. | Delhi | 91,756 | 5,553 | 6.4 |
|  | All India | 31,33,093 | 1,81,027 | 6.1 |

## APPENDIX-III (Contd.)

1983-1984
S. No. State/Union Territory

| Enrolment | Increase <br> over the <br> Preceding | Percentage <br> increase |
| :--- | :--- | :--- |
|  | Year |  |
|  |  |  |


| 1. | Andhra Pradesh | 2,51,930 | 7,598 | 3.1 |
| :---: | :---: | :---: | :---: | :---: |
| 2. | Assam | 71,396 | 5,466 | 8.3 |
| 3. | Bihar | 2,41,478 | 43,460 | 22.0 |
| 4. | Gujarat | 1,96,110 | -2,328 | -1.2 |
| 5. | Haryana | 70,329 | 5,307 | 8.2 |
| 6. | Himachal Pradesh | 15,954 | -351 | -2.2 |
| 7. | Jammu \& Kashmir | 24,247 | 4,057 | 20.1 |
| 8. | Karnataka | 2,38,874 | 6,784 | 2.9 |
| 9. | Kerala | 1,29,375 | 4,264 | 3.4 |
| 10. | Madhya Pradesh | 2,44,765 | 19,185 | 8.5 |
| 11. | Maharashtra | 4,02,487 | 29,102 | 7.8 |
| 12. | Manipur | 9,590 | 1,035 | 12.1 |
| 13. | Meghalaya/Nagaland | 7,534 | -6\% | -8.2 |
| 14. | Orissa | 66,790 | 1,937 | 3.0 |
| 15. | Punjab | 1,20,691 | 3,111 | 2.6 |
| 16. | Rajasthan | 1,63,273 | 8,410 | 5.4 |
| 17. | Tamil Nadu | 2,39,711 | 10,636 | 4.6 |
| 18. | Uttar Pradesh | 4,70,135 | 14,830 | 3.3 |
| 19. | West Bengal/Tripura/Sikkim | 2,51,765 | 13,267 | 5.6 |
| 20. | Delhi | 91,215 | -541 | -0.6 |
|  | Total | 33,07,649 | 1,74,556 | 5.6 |


| S. No. | State/Union Territory | 1984-1985 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Enrolment | Increase over the Preceding Year | Percentage increase |
| 1. | Andhra Pradesh | 2,57,651 | 5,721 | 2.3 |
| 2. | Assam | 73,961 | 2,565 | 3.6 |
| 3. | Bihar | 2,36,956 | -4.522 | -1.9 |
| 4. | Gujarat | 2,00,297 | 4,187 | 2.1 |
| 5. | Haryana | 69,622 | -707 | -1.0 |
| 6. | Himachal Pradesh | 17,880 | 1,926 | 12.1 |
| 7. | Jammu \& Kashmir | 25,004 | 757 | 3.1 |
| 8. | Karnataka | 2,39,137 | 263 | 0.1 |
| 9. | Kerala | 1,33,302 | 3,927 | 3.0 |
| 10. | Madhya Pradesh | 2,51,382 | 6,617 | 2.7 |
| 11. | Maharashtra | 4,35,307 | 32,820 | 8.2 |
| 12. | Manipur | 9,291 | -299 | -3.1 |
| 13. | Meghalaya/Nagaland | 8,466 | 932 | 12.4 |
| 14. | Orissa | 70,105 | 3,315 | 5.0 |
| 15. | Punjab | 1,26,348 | 5,657 | 4.7 |
| 16. | Rajasthan | 1,69,587 | 6,314. | 3.9 |
| 17. | Tamil Nadu | 2,42,609 | 2,898 | 1.2 |
| 18. | Uttar Pradesh | 4,75,069 | 4,934 | 1.0 |
| 19. | West Bengal/Tripura/Sikkim | 2,66,033 | 14,268 | 5.7 |
| 20. | Delhi | 96,089 | 4,874 | 5.3 |
|  | Total | 34,04,096 | 96,447 | 2.9 |

## APPENDIX - III (Contd.)

| State /Union Territory | 1985-1986* |  |  |
| :---: | :---: | :---: | :---: |
|  | Enrolment | Increase over the Preceding Year | Percentage increase |
| Andhra Pradesh | 2,72,595 | 14,944 | 5.8 |
| Assam | 79.878 | 5.917 | 8.0 |
| Bihar | 2.59.869 | 22,913 | 9.7 |
| Gujarat | 2,06.306 | 6,009 | 3.0 |
| Haryana | 73.451 | 3,829 | 5.5 |
| Himachal Pradesh | 19.096 | 1,216 | 6.8 |
| Jammu \& Kashmir | 26,904 | 1,900 | 7.6 |
| Karnataka | 2,47,507 | 8.370 | 3.5 |
| Kerala | 1,38,234 | 4,932 | 3.7 |
| Madhya Pradesh | 2,63,196 | 11,814 | 4.7 |
| Maharashtra | 4.68.826 | 33,519 | 7.7 |
| Manipur | 9.746 | 455 | 4.9 |
| Meghalaya/Nagaland | 8.643 | 177 | 2.1 |
| Orissa | 73.190 | 3.085 | 4.4 |
| Punjab | 1,31.149 | 4,801 | 3.8 |
| Rajasthan | 1,75,353 | 5.766 | 3.4 |
| Tamil Nadu | 2,50,858 | 8.249 | 3.4 |
| Uttar Pradesh | 4,85,521 | 10.452 | 2.2 |
| West Bengal/Tripura/Sikkim | 2. 810,931 | $14.898$ | 5.6 |
| Delhi | 99.644 | 3.555 | 3.7 |
| Total | 35.70 .897 | 1.66 .801 | 4.9 |

Estimated

| SI. No. | State/ Union Territory | 1986-1987 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Enrolment (Estimated) | İncrease over the Preceding Year | Percemage increase | Av́crage annual compound rate of growth during the period from 1982-83 to 1986-87 |
| 1. | Andhra Pradesh | 2.79,822 | 7.227 | 2.7 | 3.4 |
| 2. | Assam | 81.001 | 1.123 | 1.4 | 5.3 |
| 3. | Bihar | 2.65.095 | 5.226 | 2.0 | 7.6 |
| 4. | Gujarat | 2.13 .549 | 7.243 | 3.5 | 1.8 |
| 5. | Haryana | 73,637 | 186 | 0.3 | 3.2 |
| 6. | Himachal Pradesh | 20,250 | 1.154 | 6.0 | 5.6 |
| 7. | Jammu \& Kashmir | 29.455 | 2.551 | 9.5 | 4.9 |
| 8. | Karnataka | 2.54,049 | 6.542 | 2.6 | 2.3 |
| 9. | Kerala | 1,43.593 | 5.359 | 3.9 | 3.5 |
| 10. | Madhya Pradesh | 2.72.458 | 9.262 | 3.5 | 4.8 |
| 11. | Maharashtra | 4.78.643 | 9.817 | 2.1 | 6.4 |
| 12. | Manipur | 11.046 | 1,300 | 13.3 | 6.6 |
| 13. | Meghalaya/Nagaland | 9.205 | 562 | 6.5 | 2.9 |
| 14. | Orissa | 73.637 | 447 | 0.6 | 3.2 |
| 15. | Punjab | 1,36.229 | 5,080 | 3.9 | 3.7 |
| 16. | Rajasthan | 1,80.412 | 5.059 | 2.9 | 3.9 |
| 17. | Tamil Nadu | 2,61,413 | 10.555 | 4.2 | 3.4 |
| 18. | Uttar Pradesh | 5.08,098 | 22,577 | 4.7 | 2.8 |
| 19. | West Bengal/Tripura/Sikkim | 2,87,186 | 6.255 | 2.2 | 4.8 |
| 20. | Delhi | 1,03,092 | 3,448 | 3.5 | 3.0 |
|  | Total | 36,81,870 | 1,10,973 | 3.1 | 4.1 |

Note: As the estimates are based on back-date, the enrolments relating to the new states, some of them having universities, have not been shown separately. The enrolments relating to Assam, Maharashtra : Meghalaya include the enrolments of the new states viz. Arunachal Pradesh, Goa and Mizoram respectively.

The enrolments relating to the Union Territories of $\mathbf{A} \& \mathrm{~N}$ Islands, Pondicherry and Daman \& Diu clubbed with the enrolments of Panjab, Tamil Nadu and Gujarat respectively. The enrolment relating the Union Territory of Chandigarh is merged with that of Panjab.

## APPENDIX - IV <br> Student Enrolment in the Universities: Stage-wise (1982-83 to 1986-87)

| Sc | 1982-83 |  | 1983-84 |  | 1984.85 |  | 1985-86 |  | 1986-87 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Enrolment | Percentage of total | Enrol. ment | Percemake of total | Enralment | Percentage <br> of total | Enrolment | Percentage of total | Enrolment | Percemage of total |
| aduate | 27.57 .893 | 88.0 | 29.12 .487 | 88.0 | 29.49 .621 | Sis.0 | 31.42 .389 | 88.0 | 32.40 .046 | S8.0 |
| itgraduate | 2.96 .103 | 9.4 | 3.13 .110 | 9.5 | $\therefore 22.541$ | 4.5 | 3.34 .235 | 9.5 | 3.49 .778 | 9.5 |
| search | 36.731 | 1.2 | 36.249 | 1.1 | 38.1611 | 1.1 | 39.280 | 1.1 | 40.500 | 1.1 |
| sloma/ itificate | 42.366 | 1.4 | 45.803 | 1.4 | +3.774 | 1.4 | 49.993 | 1.4 | 51.546 | 1.4 |
| al | 31,33,093 | 100.00 | 33,07,649 | 100.0 | 34.04.096 | 100.0 | 35.70 .897 | 100.0 | 36.81 .870 | 100.0 |

## APPENDIX - V

Stage-wise Enrolment: Universities and Affiliated Colleges 1986-87 (Estimated)

| Stage | University Depariments/ University Colleges | Affiliated <br> Colleges | Total | Percentage in Affiliated Colleges |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1986-87 | 1985-86 | 1984-1985 | 1983-1984 |
| Graduate | 3,98.975 | 28.41.071 | 32,40,046 | 87.7 | 87.7 | 87.9 | 87.4 |
| Postgraduate | 1,52,154 | 1,97.624 | 3,49.778 | 56.5 | 56.5 | 56.9 | 56.6 |
| Research | 34,466 | 6.034 | 40.50) | 14.9 | 14.9 | 15.2 | 15.0 |
| Diploma/ |  |  |  |  |  |  |  |
| Certificate | 29,278 | 22,268 | 51,546 | 43.2 | 43.2 | 43.4 | 44.9 |
| Total | 6,14,873 | 30,66,997 | 36,81,870 | 83.3 | 83.3 | 83.6 | 83.1 |

## APPENDIX - VI

## Student Enrolment in the Universities : Facultywise 1982-83 to 1986-87

| Course of Study | 1982-83 |  | 1983-84 |  | 1984-85 |  | 1985-86 |  | 1986-87 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Enrolment | Percentage of total | Enrolment | Percentage of total | Enrolment | Percentage of total | Enrolment (Estimated) | Percentage of total | Enrolment (Estimated) | Percentage of total |
| Arts (Including |  |  |  |  |  |  |  |  |  |  |
| Oriental Learning) | 12,59,587 | 40.2 | 13,38,106 | 40.4 | 13,72.277 | 40.3 | 14.39,071 | 40.3 | 14,83.794 | 40 |
| icience | 6,23,545 | 19.9 | 6,53,092 | 19.7 | 6,69,563 | 19.7 | 7,03,467 | 19.7 | 7.25.328 | 19.7 |
| Commerce | 6,69,813 | 21.4 | 7,03,638 | 21.3 | 7.38.506 | 21.7 | 7,67,743 | 21.5 | 7.91.602 | 21.5 |
| Education | 74,167 | 2.4 | 74, 679 | 2.3 | 76,522 | 2.2 | 82,131 | 2.3 | 84,683 | 2.3 |
| Engineering/ |  |  |  |  |  |  |  |  |  |  |
| 「echnology | 1,42,440 | 4.5 | 1,53,131 | 4.6 | 1,59,046 | 4.7 | 1,64,261 | 4.6 | 1,69.366 | 4.6 |
| Medicine | 1,13,902 | 3.6 | 1,18,989 | 3.6 | 1,18,890 | 3.5 | 1,28,552 | 3.6 | 1,32.547 | 3.6 |
| Agriculture | 39,425 | 1.3 | 41,588 | 1.3 | 41,741 | 1.2 | 46,422 | 1.3 | 47,864 | 1.3 |
| Veterinary Science | 8,797 | 0.3 | 9,268 | 0.3 | 9.413 | 0.3 | 10,713 | 0.3 | 11.046 | 0.3 |
| Law | 1,83,153 | 5.8 | 1,94,555 | 5.9 | 1,95,708 | 5.7 | 2,07,112 | 5.8 | 2,13,549 | 5.8 |
| Others | 18,264 | 0.6 | 20,603 | 0.6 | 22,430 | 0.7 | 21,425 | 0.6 | 22,091 | 0.6 |
| Total | 31,33,093 | 100.0 | 33,07.649 | 100.0 | 34,04.196 | 100.0 | 35.70 .897 | 100.0 | 36,81,870 | 100.0 |

## APPENIDIX－VII

Distribution of Colleges According to Courses of Study ：1982－83 to 1986－87 （Number of Colleges）

| Courses of Study | Numberof（ollest |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1982-83$ | 198．3－8． | 148．8．85 | 19バィス\％ | 1980－87 |
| Arts．Science \＆Commerce | 3.617 | 3.758 | ＋．1014 | 4．132 | ＋．314 |
| Technical／Professional Break up | 52 | 56.3 | O18 | 65 | 677 |
| a）Engineering／Technology | 158 | 191 | 223 | $2+2$ | $\therefore+i$ |
| b）Medicine／Pharmacy／Ayurveda／ |  |  |  |  |  |
| Nursing／Dentistry／Homocopathy | 274 | 286 | 3103 | 321 | $33 ?$ |
| c）Agriculture | 57 | 58 | 0 | 6.3 | 05 |
| d）Veterinary Science | 28 | 28 | 31 | 30 | 3 |
| Law | 179 | 186 | $10+$ | 199 | 211 |
| Physical Education \＆Education | 377 | 391 | 4.31 | ＋41 | 467 |
| Oriental Learning | 28.3 | 283 | 277 | 321 | 321 |
| Music／Fine Arts | 61 | 6.5 | 67 | 68 | ？ |
| TOTAL | 5.039 | 5.246 | 5.390 | 5.816 | 6，（1．41） |

[^7]＊＊Provisional

## APPENDIX - VIII

Increase in Number of Colleges during the period from 1982-83 to 1986-87
(Statewise)

|  | $1982-83$ | 1983-84 |  | 1984-85 |  | 1985-86 |  | 1986-87* |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { apc/l/nion } \\ & \text { nenary. } \end{aligned}$ | No. of colleges $I C C+A$ | No. of colleges $1 U C+A$ | Increase over the preceding year | No. of colleges $1 U C+$ | Increase ower the preceding sear | No. of Colleges $l^{\prime} C^{\prime}+.$ | Increase over the preceding vear | No. of colleges $1 U C+$ | Increase over the preceding year | increase <br> during the <br> period from <br> 1982-83 to <br> 1986-87 |
| Andhra Pradesh | 110 | +2i) | 10 | 470 | 50 | 492 | 22 | 496 | 4 | 86 |
| - Arunachal Pradesh | - - | - | - | $\cdots$ | - |  | - | 2 | 2 | 2 |
| - Assam | 1.54 | 154 | - | 162 | $x$ | 171 | 9 | 180 | 9 | 26 |
| Bihar | +42 | 473 | 31 | 504 | 31 | 568 | 6.4 | 630 | 62 | 188 |
| (ioa | - | -- | --- | --- | - |  | -- | 19 | 19 | 19 |
| Cuparat | 283 | $2 \times 5$ | 2 | 295 | 10 | 310 | 7 | 306 | $+$ | 23 |
| Haryama | 139 | 14.3 | 4 | 14.3 | - | 143 | - | 142 | -1 | 3 |
| Himaclarl Pradesh | 27 | 27 | -- | 27 | -- | 33 | 6 | 35 | 2 | 8 |
| Jammu and Kashmir | ir 40) | 41 | 1 | 39 | -2 | 39 | - | 41 | 2 | 1 |
| Karnataka | 466 | 498 | 32 | 535 | 37 | 556 | 21 | 578 | 22 | 112 |
| Kerala | $1 \times 3$ | 18.4 | 1 | 184 |  | 188 | 4 | 191 | 3 | 8 |
| Madhya Pradesh | 379 | 396 | 17 | 4.5 | 44 | 472 | 27 | 480 | 8 | 101 |
| Maharashtra | 625 | 64.3 | 68 | 801 | 108 | 8.34 | 33 | 871 | 37 | 246 |
| Manipur | 22 | 22 | -- | 23 | 1 | $\therefore 3$ | $\cdots$ | 23 | - | 1 |
| Meghalaya/Nagaland | nd 33 | 33 | - | 34 | 1 | 4 | -- | 34 | - | 1 |
| G:assa | 150 | 170 | 29 | 215 | 30 | $\cdots$ | 10 | 228 | 3 | 78 |
| Punjab | 228 | 228 | --- | 228 |  | 236 | -2 | 231 | 5 | 3 |
| Rajasthan | 211 | 221 | 10 | 222 | 1 | ? | -1 | 241 | 20 | 30 |
| Tamilnadu | $2 \times 5$ | 28.5 | - | 297 | 12 | 311 | 14 | 307 | -4 | 22 |
| Utar Pradenh | 559 | 561 | 2 | 561 | - | 563 | 1 | 565 | 3 | 6 |
| - West Bengal |  |  |  |  |  |  |  |  |  |  |
| Tripura/Sikkim | 349 | 348 | 1 | 348 | - | 377 | 9 | 372 | 15 | 23 |
| [)elhi | 54 | 55 | 1 | 57 | 2 | 57 | - | 57 | - | 3 |
| Pondichery | - | -- | - | - | -- | 2 | 2 | 11 | 9 | 11 |
| TOTAL | 5.039 | 5.246 | 207 | 5.590 | 3.44 | 5.816 | 226 | 6,040 | . 224 | 1,001 |

## APPENDIX - IX

Increase in Number of Affiliated Colleges (Arts, Science and Commerce only) during the period 1982-83 to 1986-87 (Statewise)

| Stage/Union <br> Territory | 1982-83 | 1983.84 |  | 1984-85 |  | 1985-86 |  | 1986-87** |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of Colleges | 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 | Increase <br> during the <br> period fro <br> 1982-83 to <br> 1986-87 |
| 1. Andhra Pradesh | 281 | 287 | 6 | 319 | 32 | 319 | - | 323 | 4 | 42 |
| 2. Arunachal Pradesh | h | - | - | - | - | - | - | 2 | 2 | 2 |
| 3. Assam | 125 | 125 | - | 132 | 7 | 141 | 9 | 150 | 9 | 25 |
| 4. Bihar* | 300 | 331 | 31 | 359 | 28 | 400 | 41 | 465 | 65 | 165 |
| 5. Goa | - | - | - | - | - | - | - | 10 | 10 | 10 |
| 6. Gujarat | 190 | 191 | 1 | 196 | 5 | 200 | 4 | 202 | 2 | 12 |
| 7. Haryana | 102 | 106 | 4 | 107 | 1 | 107 | - | 107 | - | 5 |
| 8. Himachal Pradesh | 22 | 22 | - | 22 | - | 28 | 6 | 30 | 2 | 8 |
| 9. Jammu and Kashmi | mir 23 | 23 | - | 23 | - | 23 | - | 25 | 2 | 2 |
| 10. Karnataka | 291 | 314 | 23 | 342 | 28 | 354 | 12 | 365 | 11 | 74 |
| 11. Kerala | 129 | 128 | 1 | 129 | 1 | 130 | 1 | 130 | - | 1 |
| 12. Madhya Pradesh | 270 | 283 | 13 | 331 | 48 | 360 | 29 | 366 | 6 | 96 |
| 13. Maharashtra | 441 | 472 | 31 | 532 | 60 | 548 | 16 | 565 | 17 | 124 |
| 14. Manipur | 18 | 18 | -- | 19 | 1 | 19 | - | 19 | - | i |
| 15. Meghalaya/Nagalan | and 25 | 25 | - | 25 | - | 25 | - | 25 | - | - |
| 16. Orissa | 104 | 118 | 14 | 145 | 27 | 154 | 9 | 160 | 6 | 56 |
| 17. Punjab | 176 | 176 | - | 176 | - | 175 | 1 | 180 | 5 | 4 |
| 18. Rajasthan | 125 | 130 | 5 | 129 | -1 | 128 | -1 | 138 | 10 | 13 |
| 19. Tamilnadu | 206 | 204 | -2 | 205 | 1 | 208 | 3 | 205 | -3 | -1 |
| 20. Uttar Pradesh | 387 | 390 | 3 | 390 | - | 391 | 1 | 391 | - | 4 |
| 21. West Bengal |  |  |  |  |  |  |  |  |  |  |
| Tripura/Sikkim | 273 | 273 | - | 273 | - | 281 | 8 | 295 | 14 | 22 |
| 22. Delhi | 37 | 36 | -1 | 38 | 2 | 38 | - | 38 | - | 1 |
| 23. Pondichery | - |  | - | - | - | 2 | 2 | 6 | 4 | 6 |
| TOTAL | 3,525 | 3,652 | 127 | 3,892 | 240 | 4,031 | 139 | 4,197 | 166 | 672 |

[^8]** Provisional

APPENDIX - X
Vumber and Distribution of Teaching Staff in the University Depariments/University Colleges according to Designation
(1982-83 to 1986-87).

| Year | Professors | Readers | Lecturers* | Tutors/ Demonstrators | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1982-83 | $\begin{gathered} 4,624 \\ (10.3) \end{gathered}$ | $\begin{gathered} 10,205 \\ (22.7) \end{gathered}$ | $\begin{aligned} & 28,120 \\ & (62.5) \end{aligned}$ | $\begin{array}{r} 2,007 \\ (4.5) \end{array}$ | $\begin{aligned} & 44,956 \\ & (100.0) \end{aligned}$ |
| 1983-84 | $\begin{array}{r} 5,117 \\ (10.9) \end{array}$ | $\begin{gathered} 11,046 \\ (23.6) \end{gathered}$ | $\begin{gathered} 28.650 \\ (61.1) \end{gathered}$ | $\begin{gathered} 2,046 \\ (4.4) \end{gathered}$ | $\begin{array}{r} 46,859 \\ (100.0) \end{array}$ |
| 1984-85 | $\begin{array}{r} 5,683 \\ (12.0) \end{array}$ | $\begin{gathered} 11,841 \\ (25.0) \end{gathered}$ | $\begin{array}{r} 27,863 \\ (58.8) \end{array}$ | $\begin{aligned} & 1,995 \\ & (4.2) \end{aligned}$ | $\begin{gathered} 47,382 \\ (100.0) \end{gathered}$ |
| 1985-86** | $\begin{array}{r} 5,792 \\ (11.8) \end{array}$ | $\begin{aligned} & 12,026 \\ & (24.5) \end{aligned}$ | $\begin{gathered} 29,241 \\ (59.6) \end{gathered}$ | $\begin{array}{r} 2,029 \\ (4.1) \end{array}$ | $\begin{gathered} 49,088 \\ (100.0) \end{gathered}$ |
| 1986-87** | $\begin{array}{r} 5,933 \\ (11.6) \end{array}$ | $\begin{gathered} 12,481 \\ (24.4) \end{gathered}$ | $\begin{aligned} & 30,588 \\ & (59.8) \end{aligned}$ | $\begin{gathered} 2,148 \\ (4.2) \end{gathered}$ | $\begin{array}{r} 51,150 \\ (100.0) \end{array}$ |

Note: Figures in parentheses indicate the percentage of the cadre to the total staff in the corresponding year.

* including Assistant Professors and Assistant Lecturers
** Estimated.


## APPENDIX - XI

Number and Distribution of Teaching Staff in the Affiliated Colleges according to Designation (1982-83 to 1986-87)

| Year | Senior <br> Teachers* | Lecturers** | Tutors/ <br> Demonstrators | Total |
| :--- | :---: | :---: | ---: | ---: |
| $1982-83$ | 18,905 | $1,37,780$ | 7,736 | $1,64,421$ |
|  | $(11.5)$ | $(83.8)$ | $(4.7)$ | $(100.0)$ |
| $1983-84$ | 22,817 | $1,39,153$ | 7,671 | $1,69,641$ |
|  | $(13.5)$ | $(82.0)$ | $(4.5)$ | $(100.0)$ |
| $1984-85$ | 22,368 | $1,42,524$ | 7,827 | $1,72,719$ |
|  | $(13.0)$ | $(82.5)$ | $(4.5)$ | $(100.0)$ |
| $1985-86^{* * *}$ | 23,921 | $1,46,235$ | 7,745 | $1,77,901$ |
|  | $(13.4)$ | $(82.2)$ | $(4.4)$ | $(100.0)$ |
| $1986-87^{* * *}$ | 24,371 | $1,50,621$ | 8,246 | $1,83,238$ |
|  | $(13.3)$ | $(82.2)$ | $(4.5)$ | $(100.0)$ |

Note: Figures in parentheses indicate the percentage of the cadre to the total staff in the corresponding year.

* Including Principals/Senior Lectures/Readers.
** Including Assistant Professors and Assistant Lecturers.
*** Estimated.

APPENDIX - XII<br>Number of Doctorate Degrees Awarded: Facultywise (1981-82 to 1985-86)

| Faculty | 1981-82 | 1982-83 | 1983-84 | 1984-85 | 1985-86* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Arts | 2,347 | 2,422 | 2,678 | 2,798 | 2,991 |
| Science | 2,846 | 2,892 | 2,890 | 2,977 | 2,885 |
| Commerce | 173 | 175 | 177 | 196 | 257 |
| Education | 178 | 191 | 187 | 239 | 228 |
| Engineering/Technology | 190 | 160 | 192 | 210 | 192 |
| Medicine | 66 | 71 | 59 | 70 | 66 |
| Agriculture | 471 | 575 | 648 | 576 | 616 |
| Veterinary Science | 93 | 64 | 65 | 102 | 166 |
| Law | 14 | 20 | 8 | 25 | 39 |
| Others | 26 | 27 | 30 | 56 | 67 |
| TOTAL | 6,404 | 6,597 | 6,934 | 7,249 | 7,507 |

* Provisional

List of Subjects (Category 'A') for which Junior Research Fellowship Examination was held on 3rd August, 1986

| Code No. | Name of the Subject | Code <br> No. | Name of the Subject |
| :---: | :---: | :---: | :---: |
| 1. | Physics | 19. | Gujarati |
| 2. | Chemistry | 20. | Hindi |
| 3. | Mathematics | 21. | Kannada |
| 4. | Life Science | 22. | Malayalam |
|  | (Microbiology, Biochemistry, | 23. | Marathi |
|  | (Zoology and Botany) | 24. | Oriya |
| 5. | Geology | 25. | Punjabi |
| 6. | Geography | 26. | Sanskrit |
| 7. | Economics | 27. | Tamil |
| 8. | Political Science | 28. | Telugu |
| 9. | Philosophy | 29. | Urdu |
| 10. | Psychology | 30. | Arabic |
| 11. | Sociology | 31. | English |
| 12. | History | 32. | French |
| 13. | Anthropology | 33. | German |
| 14. | Commerce | 34. | Persian |
| 15. | Education | 35. | Spanish |
| 16. | Statistics | 36. | Russian |
| 17. | Assamese | 37. | Linguistics |
| 18. | Bengali |  |  |

## APPENDIX - XII (b)

List of Subjects (Category 'B') for which Junior Research Fellowship Examination was held on 3rd August, 1986

| Code No. | Subject | Code No. | Subject |
| :---: | :---: | :---: | :---: |
| 38.01 | Adult Education | 38.42 | Marine Sciences |
| 38.12 | Andragogy | 38.43 | Oceanography |
| 38.03 | Physical Education | 38.44 | Physical Oceanography |
| 38.04 | Speech and Hearing | 38.45 | Marine Geology |
| 38.05 | Business Admn./Management | 38.46 | Acquatic Biology |
| 38.106 | Industrial Relations and | 38.47 | Peace Making |
|  | Personnel Management | 38.48 | Gandhian Thought and |
| 38.07 | Management |  | Peace Making |
| 38.08 | Marketing | 38.49 | Gandhian Thought |
| 38.19 | Resource Development | 38.50 | Budhist Studies |
| 38.10 | Personnel Management | 38.51 | Pali |
| 38.11 | Home Economics | 38.52 | Pali and Prakrit |
| 38.12 | Home Management | 38.53 | Prakrit |
| 38.13 | Home Science | 38.54 | Religious Studies |
| 38.14 | Nutrition | 38.55 | Aagam |
| 38.15 | Child Development | 38.56 | Polymer Sciences |
| 38.16 | Food \& Nutrition | 38.57 | Material Science |
| 38.17 | Textiles \& Clothing | 38.58 | Mass Communication |
| 38.18 | Home Science (Ext. Education) | 38.59 | Communicative English |
| 38.19 | A rab Culture | 38.60 | Journalism and |
| 38.20 | Islamic Studies |  | Mass Communication |
| 38.21 | West Asian Studies | 30.61 | Journalism |
| . 38.22 | Social Work | 340.2 | Indian Music |
| 38.23 | Labour \& Social Welfare | 38.63 | Music |
| 38.24 | Rural Sociology | 38.64 | Dance |
| 38.25 | Industrial Relations and Labour Welfare | 34.65 | Applied Science |
| 38.26 | Rural Developnient | 38.66 | Applied Science in Rural Development |
| 38.27 | Rural Economics | 38.67 | Environmental Science |
| 38.28 | Rural Services | 38.6\% | Dramatic Arts |
| 38.29 | Cooperation | 38 61 | Fine Arts |
| - 38.30 | Cooperative Management | 38.7 | History of Arts |
| 38.31 | Public Administration | 3 71 | Drawing \& Painting |
| 38.32 | Population Studies | $3 \times 72$ | Indian Culture |
| 38.33 | Demography | 88.73 | Museology |
| 38.34 | Defence Studies | $3 \times .74$ | Archaeology |
| 38.35 | Military Science | 38.75 | Geophysics |
| 38.36 | Law | 38.76 | Astronomy |
| 38.37 38 | Labour Law \& Commercial Law | 38.7\% | Astronomy \& Space Science |
| 38.38 38.39 | Library Science | 3\% 7 \% | Biophysics |
| 38.39 38.40 | Marine Biology | 38.75 | Chinese |
| 38.40 | Marine Biology and Oceanography | 38.3\% | Dogri |
| 38.41 | Mariculture | 38.81 | Nepali |


| Code No. | Subject | Code No. | Subject |
| :--- | :--- | :--- | :--- |
| 38.82 | Manipuri | 38.91 | Development Planning and Management |
| 38.83 | Maithili | 38.92 | Development Studies |
| 38.84 | Ardhmagdi | 38.93 | Econometrics |
| 38.85 | Criminology | 38.94 | Operational Research |
| 38.86 | Forensic Science | 38.95 | Tamilradu and Indian Literature |
| 38.87 | Computer Science | 38.96 | Tribal and Regional Languages |
| 38.88 | Digital Electronics | 38.97 | Folk Literature |
| 38.89 | Electronic Science | 38.98 | Jyotish |
| 38.90 | Meterology | 38.99 | Navya Nayaya |

# Subject-wise break-up of Successful Candidates at the Examination held on 3rd August, 1986. 

SubjectNo. of Candidates

1. Physics ..... 64
2. Chemistry ..... 213
3. Mathematics ..... 74
4. Life Science ..... 385
5. Geology ..... 61
6. Geography ..... 72
7. Economics ..... 122
8. Political Science ..... 87
9. Philosophy ..... 41
10. Psychology ..... 57
11. Sociology ..... 75
12. History ..... 123
13. Anthropology ..... 15
14. Commerce ..... 46
15. Education ..... 21
16. Statistics ..... 22
17. Assamese ..... 19
18. Bengali ..... 09
19. Gujarati ..... 02
20. Hindi ..... 77
21. Kannada ..... 06
22. Malayalam ..... 04
23. Marathi ..... 04
24. Oriya ..... 07
25. Punjabi ..... 05
26. Sanshrit ..... 41
27. Tamil ..... 08
28. Telugu ..... 07
29. Urdu ..... 10
30. Arabic ..... 04
31. English ..... 68
32. French ..... 06
33. German ..... 06
34. Persian ..... 05
35. Spanish ..... 01
36. Russian ..... 02
37. Linguistics ..... 13
38. Other subjects ..... 174
Total ..... 1946

## APPENDIX - XV

List of Subjects for which Junior Research Fellowship Examination was held Jointly by the UGC and CSIR
Category ' $A$ '

1. Physics
2. Chemistry
3. Mathematics
4. Life Science (Botany, Zoology, Microbiology, Biochemistry)
5. Geology
6. Geography
7. Statistics

## Category ' $B$ '

1. Marine Biology
2. Marine Biology and Oceanography
3. Mari-culture
4. Marine Sciences
5. Oceanography
6. Physical Oceanography
7. Marine Geology
8. Acquatic Biology
9. Polymer Sciences
10. Material Sciences
11. Applied Science
12. Applied Science in rural development
13. Environmental Science
14. Geophysics
15. Astronomy
16. Astronomy \& Space Science
17. Forensic Science
18. Computer Science
19. Digital Electronics
20. Electronic Science
21. Metereology
22. Operational Research
23. All the remaining subjects in which the Universities offer Master's degree in the faculty of science.

## APPENDIX - XVI

List of Centres of Advanced Study in Humanities and Social Sciences as on 31-3-1987

| SI. No. | Subject | University/Instt. | Thrust Area(s) |
| :---: | :---: | :---: | :---: |
| 1. | Economics | Bombay University, Bombay | Public finance and Industrial Economics |
| 2. | Economics | Delhi University, Delhi. | Economics of Development and Economic History |
| 3. | Economics | Gokhale Instt. of Politics and Economics, <br> Pune, Poona University, Poona | Agricultural Economics. |
| 4. | Linguistics | Annamalai University. Annamalainagar. | Dravadian Linguistics. |
| 5. | History | Aligarh Muslim University, Aligarh. | Medieval Indian History. |
| 6. | Sanskrit | Poona University, Poona. | Sanskrit Literature. |
| 7. | Philosophy | Madras University, Madras. | Advaita and Allied System of Philosophy. |
| ¢ | Education | M S University of Baroda, Baroda. | Educational Research. |
| 9. | Psychology | Utkal University, Bhubaneshwar | Educational, Psychology, Social Psychology. |
| (1). | Sociology | Delhi University, Delhi. | Sociology. |
| 11. | Philosophy | Jadavpur University, Jadavpur. |  |
| 12. | Anthropology | Ranchi University, Ranchi |  |
| 13 | Psychology | Allanabad University |  |
| 14. | Linguistics | Osmania University. |  |
| 15. | Archaeology | Deccan college. |  |

List of Departments of Special Assistance in Humanities and Social Sciences as on 31.3.87

| S\% No. | Subject | University/Insth. | Thrust Areats |
| :---: | :---: | :---: | :---: |
| 1. | Economics | Andhra University | (i) Agricultural ficonomics and ${ }^{\circ} \mathrm{Co}-$ operation. <br> (ii) Regional and Uban Ewnomics. <br> (iii) Public Foonomics. |
| 2. | -do- | Calcuta University | (i) Urban Economics. |
| 3. | -do. | Punjahi University | (i) Regional Economics <br> (ii) Economics of Sociolism |
| 4. | -do- | Presidency College | (i) Indian Economics. |
| 5. | -do- | Osmania University |  |
| 6. | -do- | Sri Venkateswara University | (i) Labour Economics <br> (ii) Agricultural Economics. |
| 7. | -do- | Madras University | Economics of applied Welfare and applied development. |
| 8. | -do- | M S University of Baroda | (i) Economics of Education and Human Resources. |
| 9. | History | Pataa University | Socio-Economic History of Medieval India with special emphasis on urban problems |
| 10. | -do. | M S University of Baroda | (i) Medieval Archacology and Western India. <br> (ii) Medieval Art, Archaeology, Epigraphy and Numismatics. |
| 11. | -do- | Allahabad University | (i) Socio-Economic History of India <br> (ii) Archaeology. |
| 12 | -do- | Calcuta University | (i) Economic History of Modern India. <br> (ii) Modern Indian History with reference to Agrarian History. Social History and Intellectual History. |
| 13. | -do- | Mysore University | (i) Pre-modern and modern south Indian History with particular reference to socio-economics History of the region. |
| 14 | Philosophy | Rajasthan University | (i) Logic and Philosophy of Science. <br> (ii) Indian Philosophy. <br> (iii) Philosophy of Law. |
| 15. | Pol. Science | Rajasthan University | Indian Political Tradition and Contemporary political structure and processes in India. |


| Sl. No. | Suhiect | linuersity/Instu. | Thrust Areats) |
| :---: | :---: | :---: | :---: |
| 16 | -dor | M S University of Baroda. | (i) International relations theory/ International Political Economy* World-over Studies. <br> (ii) Comparative foreign policy studies with particular emphasis on Indian Foreign Policy analysis. <br> (iii) International organisations and Contemporary projected dimension of the international legal order. <br> (iv) Strategic studies/defence analysis. <br> (v) Conflect analysis and peace research studies. |
| 17. | Sociology | Punjab University |  |
| 18. | -do- | Ravi Shankar University | Continuty change in folklore and traditional culture in the following aspects:- <br> (i) Study of traditional folk culture. <br> (ii) Study of elite tradition. |
| 19. | Gujarati | SNDT Women's | (iii) Dynamics of Indian Society. <br> (i) Modern Gujarati Literature. |
| 211 | Hindi | SP Einiversity | (i) Linguistics and Linguistic approach to literature. <br> (ii) Comparative Literature. <br> (ii) Drama and Dramaturgy. |
| 21. | Bengali | Burdwan University | (i) Language and culture of Rarh. <br> (ii) Comparative study of the Literature of Eastern Indian Languages. <br> (ii) Modern Bengali Poetry Structural Stylistics study. <br> (iv) 19th centurary Bengali literature. |
| 22. | Kannada | Mysore University | i) Comparative literature <br> (ii) Classical studies. <br> (iii) Folklore. |
| 23. | Philosophy | BHU |  |
| 24. | -do- | Visva Bharati University |  |
| 25. | Art History and Aesthetics | MS University of Barodi. |  |

List of Departmental Research Support Projects in Humanities and Social Sciences as on 31.3.87

| SI. No. | Subject | University/Instl. |  | Thrust Area(s) |
| :---: | :---: | :---: | :---: | :---: |
| 1. | Marathi | Marathwada University | 1) | Ancient Literature |
|  |  |  | 2) | Modern Literature. |
|  |  |  | 3) | Folk Literature. |
| 2. | Oriya | Sambalpur University |  | Folk Literature. |
|  |  |  | 2) | Comparative Literature. |
|  |  |  | 3) | Modern Literature. |
| 3. | Assamese | Gauhati | 1) | Assamese Language, Culture and |
|  |  |  |  | Literature including study of dialects. folklores and manuscripts. |
| 4. | Music and Musicology | B.H.U. | 1) | Hindustan Music Vocal and |
|  |  |  |  | Instrumental |
|  |  |  |  | Melodic Analysis. |

## University-wise List of Centres of Advanced Study in Science, Engineering and Technology as on 31.3.87

| Sl. No. | University | Name of the CAS |
| :---: | :---: | :---: |
| 1. | Annamalai | 1. Marine Biology |
| 2. | Banaras Hindu University | 1. Zoology (2) Botany (3) Met Engg. |
| 3. | Bombay | 1. Applied Chemistry <br> 2. Mathematics |
| 4. | Calcutta | 1. Botany <br> 2. Chemistry, <br> 3. Radio Physics \& Electronics |
| 5. | Delhi | 1. Botany (2) Zoology (3) Physics (4) Chemistry. |
| 6. | I.I.Sc. Bangalore. | 1. Molecular Biophysics (2) Bio-Chemistry <br> (3) Inorganic \& Physical Chemistry (4) Solid State Chemistry (5) Physics. |
| 7. | Jadavpur | 1. Geology. |
| 8. | Madras | 1. Maths (2) Botany, New Science Block Guindy Campus, Madras-25. |
| 9. | Panjab | 1. Maths (2) Geology (3) Chemistry. |
| 10. | Poona | 1. Physics. |
|  |  | Total $=26$ CAS |

## APPENDIX - XX

University-wise List of Departments of Special Assistance in Science, Engineering and Technology as on 31.3.87

| Sl. No. | University | Deparments |
| :---: | :---: | :---: |
| 1. | Andhra | (1) Physics (2) Botany (3) Zoology (4) Geology. |
| 2. | Anna | (1) Chemical Engg. (2) Water Resources Engg <br> (3) Env Engg. |
| 3. | A.M.U. | (1) Geography (2) Physics (3) Maths. |
| 4. | Allahabad | (1) Chemistry. |
| 5. | B.H.U. | (1) Physics (2) Geography (3) Bio-Sc (IMS) <br> (4) Mining Engg. (5) Ceramic Engg. (6) Electrical Engg. |
| 6. | Bangalore | (1) Mathematics (2) Zoology. |
| 7. | Bombay | (1) Chemical Engg. |
| 8. | Calcutta | (1) Physics (2) Zoology |
| 9. | Gujarat | (1) Zoology. |
| 10. | Hyderabad | (1) Organic Chemistry (2) Inorg \& Physical Chemistry. |
| 11. | I.I.Sc. Bangalore | (1) Maths (2) Electrical Engg. (3) Metallurgical Engg. <br> (4) Civil Engg. (5) Organic Chemistry. |
| 12. | I.S.M. Dhanbad | (1) Mining Engg. |
| 13. | Jadavpur | (1) Maths (2) Chemistry (3) Production Engg <br> (4) Electrical Engg. |
| 14. | Jammu | (1) Physics. |
| 15. | Kalyani | (1) Botany. |
| 16. | Kerala | (1) Botany |
| 17. | Lucknow | (1) Biochemistry (2) Botany |
| 18. | Madras | (1) Chemistry (2) Physics. |
| 19. | M.K. University | (1) Bio-Science (2) Maths. |
| 20. | Marthwara | (1) Zoology |
| 21. | Mysore | (1) Geology (2) Zoology. |
| 22. | M.S. University of Baroda | (1) Bio-Chemistry (2) Microbiology (3) Geology. |
| 23. | Nagpur | (1) Pharmacy. |
| 24. | Osmania | (1) Geography (2) Chemistry (3) Genetics. |
| 25. | Patna | (1) Botany. |
| 26. | Panjab | (1) Pharmacy (2) Physics (3) Zoology. |
| 27. | Poona | (1) Chemistry (2) Maths (3) Statistics (4) Zoology. |
| 28. | Presidency College Calcutta-700073. | (1) Geology. |
| 29. | Rajasthan | (1) Zoology (2) Chemistry |
| 30. | Roorkee | (1) Physics (2) Earthquake Engg. (3) Civil Engg <br> (4) Mechanical Engg. (5) Earth Sciences. |
| 31. | Sardar Patel University | (1) Chemistry. |
| 32. | Saurashtra | (1) Bio-Sciences. |

University-wise List of Departmental Research Suppert Projects in Science, Engineering \& Technology as on 31.3.1987

| Sl. No. | University | Department |
| :---: | :---: | :---: |
| 1. | Aligarh Muslim University | Zoology |
| 2. | Allahabad | Botany |
| 3. | Andhra | (hemicallagincering (2) Mechanical Engineering |
| 4. | Ahmednagar College | Bio-Chemistry |
| 5. | B.H. University | (icology |
| 6. | Bangalore | Geology (2) Physics (3) Chemistry |
| 7. | Burdwan | Physics |
| 8. | Bombay | Chemistry |
| 9 | Calcutta | Geography |
| 10. | Cochin University of Sc. \& Tech. | Marine Stience (2) Physies |
| 11. | Devi Ahilya Vishwavidalaya, Indore | Life Science |
| 12. | Dr H.S. Gaur Vishwavidalaya, Sagar. | Botany. |
| 13. | Gorakhpur | Chemistry (2) Botany |
| 14. | Guru Nanak Dev University | Chemistry |
| 15. | 1.I.Sc. Bangatore | Bio-Sciences. |
| 16. | Indian School of Mines, Dhanbad. | Geology. |
| 17. | Jodhpur | Chemistry (2) Botany |
| 18. | Kalyani | Loology |
| 19. | Karnatak | Physics |
| 20. | Kumaon | Physics |
| 21. | lucknow | Geology |
| 22. | Lady Irwin College, New Delhi. | Home Science (Com. \& Extension) |
| 23. | Mysore | Botany |
| 24. | M.S. University of Baroda | (hemistry ( ${ }^{\text {( Botany (3) Home Sc. (Child Development) }}$ |
| 25 | Nagpur | (icology |
| 26. | Osmania | Geology (2) Cocophysics (3) Physics |
| 27. | Punjab | Geographo |
| 28. | Patna | ( jeologe |
| 29. | Punjabi | Physics |
| 30. | Rajasthan | Phycica (2) Butany |
| 31. | Roorkee | Biectrinic f hgg. (2) Electronics \& Communication Engg <br> (3) Metalluge (4) Mathematics. |
| 32. | Sardar Patel | Botany |
| 33. | Sri Venkateswara | Physio (2) bsotany |
| 34. | Sukhadia | Physics. |
| 35. | S.V.T. Home Science College, Bombay | Home Scinace (Food \& Nutrition) |
| 36. | Sri Avinashilingam College of Home Science. Coimbatore. | Hone Scinne (Home Management) |

# Appendix XXI (a) <br> DETAILS OF DEPARTMENTS SUPPORTED UNDER COSIST 

| S. <br> No. | Name of the Department/ University | Year of Support | PG Education and Research (Thrust Areas) | Major Equipment provided |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |
|  | PHYSICS |  |  |  |
| 1. | Department of Radio Physics \& Electronics, <br> Calcutta University. | 1983-84 | Solid State and Electronic devices, Micro-electronics techniques. Fabrication of Impattdiodes including establishment of a mm wave laboratory and photovoltaic devices. | Semiconductor Charactersation Unit for concentration. impunty profile. lifetime etc measurement. Plasma and dry etching equipment, Environmental control equipment, cryotemperature generator |
| 2. | Department of Physics, Panjab 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. | Deparment of Physics, University of Poona, Pune. | 1983-84 | PG Education only | Geir-Dunkle integrating sphere-spectrophotometer (Range $0.3-2.5 \mu$ ). Magnetic susceptibility measuring set up, Piotoaccustic spectrometer, 'Neuromatic' 2-Chanrel neuromyograph. |
| 4. | Department of Physics, Indian Institute of Sciece, 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 reference 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, $\mathrm{Nd} / \mathrm{YAG}$ 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, Mössbauer spectrometer with large velocity. |


| Name of the Department/ <br> University | Year of <br> Support | PG Education and Research <br> (Thrust Areas) | Major Equipment provided |
| :--- | :--- | :--- | :--- |


| $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :--- |
| Deparment of Physics, <br> Roorkee University. | $1985-86$ | Solid state physics (theoretical and <br> experimental), Physics of Molecular <br> Collision. | Computer perriferial devices, <br> Simultaneous thermal analysis |
| system for PG/DTA. |  |  |  |

Department of Chemistry
Panjab Univerșity

Solid State and Structural Chemistry, 1983-84 Indian Instt. of Science, Bangalore.

| Department of Chemistry. <br> University of Delhi. | $1984-85$ |
| :--- | ---: |
|  |  |
| Department of Chemistry, <br> University of Hyderabad | $1984-85$ |
| Department of Chemistry, <br> Jodhpur University. | $1984-85$ |
| School of Chemistry, <br> University of Madras, | $1984-85$ |

Department of Chemistry. 1984.85
University of Poona

Department of Chemistry, 1984-85
Rajasthan University
Department of Organic Chemistry.
Indian Instt. of Science. Bangalore.

Deptt of Bio-Chemistry,
Instt. of Med. Scs.,
Banaras Hindu University.

Department of Botany,
mental), Physics of Molecular

## CHEMISTRY

Organic and Physical Chemistry

Solid state and Structural chemistry

Synthesis \& structural organic chemistry with particular reference to biologically active compounds, peptides etc., Physical Chemistry with particular reference to studies of miceles and instrumentation.

Organic Synthesis

Phytochemistry of arid zone plants, soil chemistry and physical chemistry.

Inorganic Chemistry

Radiation and Nuclear Chemistry

Organometallic Chemistry and organofluonne Chemistry

Organic Chemistry
BIO-SCIENCES

Molecular Broiogy \&
Genetic Engineenng

G.L.C, Fischer spinning band columns.. Inverted chromatography. chromatotron molecular stills, Photocorrelation spectrometer, HPLC.
IR spectrometer, Raman spectrometer. Closed circuit helium cryostat

Computer system, high performance liquid chromatograph, Polarograph, Programmable Thermostat
$\qquad$
low spectrometer, C.H.N analyser, HPLC, Mini computer.

Nd-YAG laser, ESR spectrometer with photo-chem. accessories. Stopped flow acc Corrected spectra accessories for Spectroflourometer

Liquid scientillation counter, multichannel analyser. Ga-li and $\mathrm{Si}-\mathrm{Li}$ detector, Gamma source

X-ray Diffraction Unit

High Resolution Mass Spectrometer with GC.

Drive unit for ultracentnfuge. High pressure liquid chromatograph, Circular dichromic spectrophotometer, Gas liquid chromatograph. Large fermentor.

Liquid scintillation counter, HPLC. Gilson analyser. Lyophiliser. Co., incubator and specialised electrophoresis unit, Gas chromatograph equipped with flame ionisation and nitrogen detector unit

| S. No. | Name of the Department/ University | Year of Support | PG Education and Research (Thrust Areas) | Major Equipment provided |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |
| 19. | School of Life Sciences, Jawaharlal Nehru University | 1983-84 | Radiation Biology, Tissue Culture and Molecular biology including Genetic Engineering. | Gas-liquid Chromatograph, Refrigerated centrifuge, Electron spin resonance spectrophotometer, HPLC. |
| 20. | School of Bio-Sciences, Madurai Kamraj University | 1983-84 | Molecular Genetics, Immunology, Plant pathology and plant physiology. | Ultracentrifuge, Liquid scintillation counte |
| 21. | Department of Micro biology. M.S. University of Baroda. | 1083-84 | Industrial Microbiology \& Microbial Genetics. | HPLC, Electron microscope, Lyophilizer, Scintillation counter. |
| 22. | 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 attachment for study of DNA melting profi \& DNA reassociation. Radioimmunoassay Fraction plot accessones for the liquid scintillation counter. |
| 23 | Department of Biochemistry Osmania University. | 1984.85 | Chemistry \& Biochemistry of Amino peptides and proteins. Metal toxicity and Fungal metabolism. | UV-Vis recording spectrophotometer, Processor controlled liquid scintillation system. Atomic absorption spectrophotometer. Orion ion analyser \& electrodes for $\mathrm{F}^{2} \mathrm{NH}^{-2}, \mathrm{NO}_{3} \mathrm{CA}$ etc., HPL 3 Temary gradient model LC-4A |
| 24. | Entomology Research. Institute Loyola College. Madras University. Madras | 198485 | Host specificity in relation to insect-plant interaction | High performance liquid chromatograph, Refrigerated centrifuge, UV spectrometer. Minit tomb calorimeter. |
| 25. | Deptt at Microbiology \& Cell Brologe Indian Instt. of Science. Bangalore | 1984-85 | Gene structure. Organisation and functions in Micro-organism and Eukaryotes. Microbial metabolism \& Apphed Microbiology. Immunology of pathogenic organism. tyneruimmunology immunodiagonistic technology. | Electron Microscope Model EM-109 R wit ultra microtome. Fast protien liquid chromatography system, fermenter. UV-Spectrophotometer. UV transillumina with camera, high voltage electrophoresis system. |
| 26. | Deptt 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 roters. specl fluorimeter, HṔLC. |
| 27. | Department of Zoology. Calcutta University | 198588 | Genetics and Vertebrate Endocrinology | Image analyser. HPI.C |
| 28. | Department of Zoology. <br> Delhi Universitu | 1985-86 | Cell and Developmental Biology. <br> Reproductive Endorrinology. Physiology and Toxicology | Flow cytometer. HPLC. Tissue culture. Hybridoma facility. GLC, Liquid scintillati counter |
| 29. | Department of Zoology. <br> Bar.aras Hindu University. Vaianasi | 1985-86 | Reproductive Physiology \& Endocrinology. <br> Biochemistry and Cytogenetics | Liquid scintillation counter, Gamma coun Ultra centrifuge. Plasma-2000 spectromet UV spectrophotometer. X ray machine. H speed refrigerated centrifuge. |

Appendix XXI (a) (contd.)

| Name of the Department/ University | Year of Support | PG Education and Research (Thrust Areas) | Major Equipment provided |
| :---: | :---: | :---: | :---: |
| 2 | 3 | 4 | 5 |
| Department of Botany, Delhi University. | 1985-1986 | Biology of Reproduction Plant physiology, Molecular Biology | Growth chambers, Liquid scientillation counter, Densitometer, Polarizing microscope |
| Department of Botany, Banaras Hindu University | 1985-86 | Algology and Ecology | Amino-acid analyser, GLC. C, N, H Analyser, High-voltage Electrophoresis. |
| School of Marine Sciences, Cochin University. | 1985-86 | Coastal and Estarine. Oceanography and Coastal water and mud banks. | Electron microscope, Liquid scintillation Counter Scentillation balance, Differential thermal analyser, X -ray diffraction analyser, $\mathrm{C}, \mathrm{N}, \mathrm{H}$ analyser, Proton precision magnetometer. |
| Molecular Bio- physics Unit. Indian Instr. of Science, Banglore. | 1985-86 | Bio-Molecular structure and interaction. | Rotating Anode. X-ray generator. Micro processor controlled light resolution CD spectrometer, Protein sequenator, Liquid scintillation counter. |
|  |  | EARTH-SCIENCES |  |
| Department of Geology, <br> Presidency College, Calcutta. | 1984-85 | Study of Crustal evolution and metalnụenesis in sump precambnan sheild | ICPL. Thermal ionisation mass spectrometer. |
| Department of Geology, Gauhati University. | 198485 | Petrology (Sedimentary, metamprphic. Igenous and coal) | Atomic absorption spectrometer with tubes, Flame photometer. Image analyser with photomicroscope projection attachment. |
| Department of Geology, Kumaon University. | 1984-85 | Geophydrological. geo-mophological and environmental investigation of the Gaula river in the outer lesser Himalaya. Natural resources and envirummental degradation. Assessment through remote sensing of the outer range of lesser Himalava | - |
| Department of Geology, MS University of Baroda. | 1984-85 | Ouaternary Geology | Atomic absorption Spectrometer, EDX qualitative and quantitative analyser (attachement to the SEM), LKB liquid scintillation counters (for $\mathrm{C}_{54} \& \mathrm{H}_{3}$ ), Digital type resistivity meter, Portable drilling unit for sample collection. |
| Department of Earth Scs. University of Roorkee. | 1984-85 | Engg. Geophysics. Engg Geophydrology, Engg Geology | Mobile laboratory, ICPL, Spectral data analyser: |
| Department of Geophysics, Osmania University. | 1984-85 | Exploration Geophysics. | Pulse EM system, Multi Censor well logging unit (Truck mounted with censor). |
| Department of Geology, Jadavpur University. | 1984-85 | Economic Geology, petrology, Minerology and Geo-Chemistry | Inductively coupled plasma unit, DTA/TGA |
|  |  | MATHEMATICS |  |
| Department of Maths, Panjab University. | 1984-85 | Number theory. Algebra, Analysis (Pure Maths deptt), Magneto hydrodynamics (Applied Maths Deptt.) | - |


| S. No. | Name of the Department/ University | Year of Support | PG Education and Research (Thrust Areas) | Major Equipment provided |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |
| 42. | Department of Mathematics, Ramanujan Instt., Madras University. | 1985-86 | Analysis, Algebra. Geometry, Topology. |  |
|  | ENGINEERING/TECHNOLOGY |  |  |  |
| 43 | Department of Civil Engg University of Roorkee | 1984-85 | Transportation Engg., Environmental Engg. Remote Sensing and Photogrammetric Engg, General facilities. | Temperature and humidity zontrol syst transportation laboratory, Multipurpose mobile laboratory, Terrestrial plotter wi digital read-out, Zoom transferoscope. |
| 44 | Department of Civil Engg.. Indian Instt. of Science, Bangalore. | 1985-86 | Hydromechanics and water resources. | Tn-axial and consolidation testing facili differential thermal analyser and surfac, measuring device, Laser Doppler anemometer, dynometer turbine. Calce plotter. |
| 45 | Department of Chemical Engineering. Anna University. | 1984-85 | Process Development Transport processes, Crystal Growth | Gas chromatograph, Atomic absorptior spectrophotometer, High pressure liqui chromatograph, Modular crystal growtt unit, Rotary drier complete with drive, $t$ arrangement, electrically heated and wi blower. |
| 46. | Deptt. of Chemical Tech. Division of Chemical Engg. University of Bombay. | 1984.85 | Multiphase reactions. Multiphase reactors, Separation processes | Fourier transform infrared, Liquid nitros plant, Core facilities for membrane processes, Laser-Doppler anemometer |
| 47. | Department of Electrical Engineering, Indian Instt. of Science, Bangalore. | 1984-85 | Power Electronics \& Drives, Remote Sensing Signal \& Image processing, General facilities for PG education and research. | Minicomputer system, Logic Analyser, Current tranducers, Torque and Speec transducers, High resolution VCR with s camera and colour monitor, Onboard p supply tor the VCR and camera, $R G B$ v digitizer, Expansion of the image proce: system. |
| 48. | Department of Electrical Engneering, Roorkee Univ. | 1985-86 | Measurement and instrumentation with an emphasis on Industrial instrumentation and power systems, process instrumentation. | Multiuser microprocessor developrnent system, General purpose data acquisitic system, computer with perriferial attach power system stimulator with relays. |
| 49 | Department of Electronics Eingineering. Instt. of Technology, Banaras Hindu University | 1984-85 | Microwave Engineering, Communication system Engineering. | Signal generator built-in doubler, Auto scalar network analyser. Ultra high vact system, sucction Pump and turbomolec pump having a Mass Analyser and over facility. Hydrogen plant with molecular purifier, contactless resistivity measurer equipment. |
| 50. | Deptt. of Electrical Communication Engineering. <br> Indian Instt. of Science, Bangalore | 1984-85 | Computer-software, hardware and optical communication, digital circuits. | 32-bit minicomputer. Lasers and acces Fiber-optic test-set-up, Programmable digital test and measuring instruments. |


| 3. <br> Vo. | Name of the Department/ University | Year of Support | PG Education and Research (Thrust Areas) | Major Equipment provided |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |
| 51. | 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) | Spectrurm analyser, digital picture storage system with camera and monitor, 16-bit microprocessor development system, digital network analyser. |
| 52. | Deptt. of Mech. \& Ind. Frisg 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 |
| 33 | Department of Production Engineering, Jadavpur University. | 1985-86 | Manufacturing systerns. Automation and robotics. | CNC-II, Vision system. Auto-Inspect System, Censors and Actuators |
| 34. | Department of Mettalurgy, 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-temrerature Impedance spectrometer. Gas analysis chromatograph, Analytical Scanning Electron Microscope |
| ; | Department of Mettalurgical Engineering, Banaras Hindu University | 1985-86 | Rapid solidification and metallic glasses. Defromation and Fracture. phase stability and phase transformation process. metallurgy | Surface area analyser. Instron testing machine, dilatometer, Quantitative image analyser. High-speed movie camera, Lathe and milling machine. |
| י | Department of Earchquake Engineering. Rorkee University | 1984-85 | Structural Dynamics. Soil and Rock Dynamics Engineering. Sersmology \& Seinotectonics. | 15 T 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, and platforms for model fabircation ,Motor set up for controlled power supply for vibration testing/ processing of data. |
| \% | Department of Mining Engg., <br> Indian School of Mines, Dhanbad. | 1986-87 | Rock mechanics and ground cortrol, Mining systems and techniques. Mine environmmt | Ventilation with word leonard set for speed control. Remote monitor for slacks and fire aross, acoustics emission equipment for rock noise and failure. Modern rock blasting facility with high speed camera, portable coring rig. |
| ;8. | Department of Mining Engg., Instt. of Technology, <br> Banaras Hindu University | 1986-87 | Mine planning and design. Exploration and Exploitation. | Inductively coupled plasma emission spectrometer, Particle size analyser and sinslin-Il Airborne Dust Measuring Unit. |

99. Department of Bio-chemistry, 1986-87 M.S. University, Baroda
100. Dept. of Zoology, Panjab University 1986-87 Chandigarh'
101. Department of Electrical Engineering, 1986-87 Jadavpur University, Calcutta
102. Department of Chemistry, Gorakhpur 1986-87 University, Gorakhpur

Communication systems and control and gudance (with an emphasis on pictures and speech processing and digital control)
$\mathrm{CAD} / \mathrm{CAM}$, welding engineering, Refrigeration and air-conditioning.

Manufacturing systerns. Automation and robotics.

Mineral processing. Hydro-metallurgy pyro-metallurgy. computer modelling. metallic glasses.

Rapid solidification and metallic glasses. Defromation and Fracture. phase stability and phase transformation process. metallurgy

Structural Dynamics. Soil and Rock Dynamics Engineering. Sesmology \& Seinotectonics.

Rock mechanics and ground cortrol, Mining systems and techniques. Mine environmmt

Mine planning and Jesign. Exploration and Exploitation.

Spectrurm analyser, digital picture storage system with camera and monitor, 16 -bit microprocessor development system, digital network analyser.

CNC/Milling Machine. CAD/CAM facility, 2-D/3-D drafting system. solid \& surface modelling \& manufacturing, 6-axis Robot, Drafting plotter.

CNC-11, Vision system. Auto-Inspect System, Censors and Actuators

Impact tester, X-ray diffractometer, Lathe \& shaping machine, Electro-Chemical easurement Console. UV-visible Spectometer. High tem, rature lmpedance spectrometer, Gas analysis chromatograph, Analytical Scanning Electron Microscope

Surface area analyser. Instron testing machine, dilatometer, Quantitative image analyser. High-speed movie camera, Lathe and milling machine.
$15 T$ 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 ith foundations and platforms for model tabication, and plations for model power supply for vibration testing power supply for vibation testing of data

Ventilation with word leonard set for speed control. Remote monitor for slacks and fire noise and failure. Modern rock blasting facility with high speed camera, portable coring rig.

Inductively coupled plasma emission spectrometer, Particle size analyser and sinslin-Il Airborne Dust Measuring Unit.

## List of UGC Curriculum Development Centres <br> (Science Subjects)

1) Department of Chemistry, University of Rajasthan, Jaipur.
2) Department of Earth Sciences. University of Roorkee, Roorkee.
3) The Ramanujan Instt. for Advaned Study in Mathematics, University of Madras, Madras.
4) Department of Geography Panjab University Chandigarh.
5) Department of Statistics, Gujarat University, Ahmedabad.
6) Molecular Biophysics Unit, Indian Institute of Science, Bangalore.
7) Department of Biochemistry, M.S. University of Baroda, Baroda.
(Humanities \& Social Sciences Subjects)
8) Department of Economics, University of Bombay, Bombay.
9) Department of History, Patna University, Patna.
10) Department of Philosophy, Jadavpur University, Calcutta.
11) Department of Extension Services, Central Institute of English \& Foreign Languages, Hyderabad.
12) Department of Psychology, Utkal University, Vani Vihar, Bhubaneswar (Orissa).
,) Department of Anthropology.Ranchi University,
Ranchi.
Department of Political Science,M.S. University of Baroda,Baroda.
13) Department of Education,
Kerala University.
Trivandrum.
Department of Commerce.
Allahabad University,
Allahabad.
J) Performing Arts (Music \& Dance),
Sageet Bhavan.
Visva Bharati, Shantiniketan.
14) Department of Plastic Arts.Banaras Hindu University,Varanasi.
15) Department of Family \& Child Welfare,Tata Institute of Social Sciences,
Deonar, Bombay
16) Department of Hindi,
Banaras Hindu University,
Varanasi.
17) School of Languages, Jawaharlal Nehru University, New Mehrauli Road, New Delhi.
18) Department of Sanskrit, University of Poona, Pune.
19) The Indian Law Institute, (University of Delhi), Bhagwandas Road, New Delhi.
20) Department of Urdu, Aligarh Muslim University, Aligarh.

## APPENDIX XXII

## Statement Showing Grants Paid to Universities During 1986-87 (Major Head-wise) Under Plan, Engineering and Technology and Section-III


*By adjustment

## APPENDIX XXII (Contd.)

| Institution deemed to be Universities | $\begin{gathered} \text { Sector } \\ \quad A \end{gathered}$ | Sector B | Sector <br> C | $\begin{gathered} \text { Sector } \\ D \end{gathered}$ | Sector <br> $E$ | Total | $\begin{gathered} \text { Sector } \\ \text { F } \end{gathered}$ | Total | Section III | Grand <br> Totai |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 i | 12 |
| B ITTS., Pilani | - | 4.13 | 0.04 | - | - | 4.17 | 15.30 | 19.47 | - | 14.47 |
| Banasthali Vidyapith | 0.03 | 11.04 | 1.14 | - | - | 12.40 | - | 12.48 | 0.75 | 13.23 |
| C.IEEF.L. Hyde- | - | 12.60 | 1.74 | 10.18 | - | 24.52 | - | 24.52 | - | 24.5 |
| rabad |  | -0.01 |  |  |  | *0.01 |  | *0.01 |  | *0.01 |
| Dayalbagh Educa- | 5.05 | 23.82 | 0.70 | - | - | 29.57 | 4.07 | 33.64 | 0.75 | 34.39 |
| tional Instt. |  | *0.05 | *0.19 | - | - | *0.24 |  | *0.24 |  | *0.24 |
| Gandhigram Rural | 4.03 | 13.17 | 0.03 | - | - | 17.23 | - | 17.23 | - | 17.23 |
| Instt. |  | *0.09 |  |  |  | *0.09 |  | *0.09 |  | *0.0) |
| Gujarat Vidyapith | 1.25 | 20.77 | 3.81 | - | - | 33.83 | - | 33.83 | - | 33.83 |
|  |  |  | *0.22 |  |  | *0.22 |  | *0.22 |  | *0.22 |
| Gurukul Kangri | 3.00 | 6.46 | 3.93 | - | - | 13.39 | - | 13.39 | - | 13.39 |
| Vishwavidyalaya |  | *0.60 |  |  |  | *0.60 |  | *0.66) |  | \% 0.6 .9 |
| I.AR.1., New Delhi | - | 0.33 | - | - | -- | 0.33 | - | 0.33 | - | 0.33 |
| I.S.M., Dhanbad | - | 0.90 | 41.66 | --- | - | 42.56 | 16.00 | 58.56 | - | 58.56 |
| I.I.Sc., Bangalore | - | 310.93 | 235.40 | - | - | 546.33 | 77.41 | 623.74 | - | 523.74 |
| Indian Veterinary | - | 0.20 | 0.05 | - | - | 0.25 | - | 0.25 | - | 0.25 |
| Research Instt. |  |  |  |  |  |  |  |  |  |  |
| J.M.I, New Delhi | 4.24 | 30.61 | 7.39 | 62.69 | -- | 104.93 | 19.00 | 723.93 | 1.75 | 125.6\% |
| School of Planning | - | 0.02 | - | 1.40 | - | 0.42 | - | 0.42 | - | 11.42 |
| \& Architecture Shri Satya Sai Instt. of Hr.Learning | - | 19.92 | 0.21 | - | - | 20.13 | - | 20.13 | - | 2915 |
| T.I.S.Sc., Bombay | - | 22.08 | 3.9 |  | - | 26.02 | - | 26.02 | - | 26.12 |
| Thapar Instt. of | - | 0.10 | - | - |  | 0.10 | 1.97 | 2.07 | - | 207 |
| Engg. \& Tech. Patiala <br> Birla Instt. of <br> Tech. . Ranch: | - | - | - | - | $\therefore(4)$ | 2.00 | - | 2.01 | -- | $3: 10$ |
| Total: | 17.87 | 485.08 | 300.04 | 73.27 | 2(*) | 878.26 | 133.75 | 1012.01 | 3.25 | 1015.36 |
|  |  |  | *0.4 |  |  | *1.16 |  | *1.16 |  | *1.16 |

By adjustment

## APPENDIX XXII (Contd.) <br> State Universities 1986-87 (Plan Exp.)

| $S l$. <br> No. | Name of State and State Universities | A | B | C | D | $E$ | Total | F | Total | Section III | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| ANDHRA PRADESH |  |  |  |  |  |  |  |  |  |  |  |
| 1. | Andhra | 2.67 | 22.14 | 44.53 | 3.00 | - | 72.34 | 20.76 | 93.10 | 0.75 | 93.85 |
| 2. | Jawaharlal Nehru Tech. | 3.04 | 2.75 | - | 2.00 | - | 7.79 | 3.22 | 11.01 | - | 11.01 |
| 3. | Kakatiya | 0.75 | 21.06 | 10.71 | - | - | 32.52 | 8.85 | 41.37 | 0.80 | 42.17 |
|  |  |  |  | *0.23 |  |  | *0.23 |  | *0.23 |  | ${ }^{*} 0.23$ |
| 4 | Nagarjuna | 0.12 | 4.12 | 6.26 | 2.00 | - | 12.50 | - | 12.50 | 0.75 | 13.25 |
|  |  |  |  | *0.25 |  |  | *0.25 |  | *0.25 |  | *0.25 |
| 5. | Osmania | 20.02 | 21.22 | 78.07 | 11.26 | - | 130.57 | 22.71 | 153.28 | - | 153.28 |
| 6. | Sri Krishna Devaraya | 0.75 | 35.54 | 2.68 | - | - | 38.97 | - | 38.97 | 0.75 | 39.72 |
| 7. | Sri Padmavati | - | - | 1.00 | - | - | 1.00 | - | 1.00 | - | 1.00 |
|  | Mahila Viswavidhalaya |  |  |  |  |  |  |  |  |  |  |
| 8. | Sri Venkateswara | 16.46 | 21.93 | 16.97 | - | - | 55.36 | 10.21 | 65.57 | .- | 65.57 |
|  |  |  |  | *0.01 |  |  | *0.01 |  | *0.01 |  | *0.01 |
| 9. | A.P. Open Univ. | 10.00 | - | - | - | - | 10.00 | - | 10.00 | - | 10.00 |
|  | Total: | 53.81 | 128.76 | 160.22 | 18.26 | - | 361.05 | 65.75 | 426.80 | 3.05 | 429.85 |
|  |  |  |  | *0.49 |  |  | *0.49 |  | *0.49 |  | *0.49 |
| ASSAM |  |  |  |  |  |  |  |  |  |  |  |
| 1. | Dibrugarh | 2.00 | 9.22 | 0.79 | - | - | 12.01 | - | 12.01 | 0.75 | 12.76 |
| 2. | Gauhati | 6.00 | 27.54 | 11.98 | - | - | 45.52 | - | 45.52 | - | 45.52 |
| 3. | Assam Agril. | - | - | 0.04 | - | - | 0.04 | - | 0.04 | - | 0.04 |
|  | Total: | 8.00 | 36.76 | 12.81 | - | - | 57.57 | - | 57.57 | 0.75 | 58.32 |
| BIHAR |  |  |  |  |  |  |  |  |  |  |  |
| 1. | Bhagalpur | - | 6.18 | 3.36 | - | - | 9.54 | - | 9.54 | - | 9.54 |
| 2. | Bihar | 3.17 | 15.15 | 0.72 | - | - | 19.04 | - | 19.04 | - | 19.04 |
| 3. | R.S. Dharbanga Sanskrit | - | 5.35 | - | - | - | 5.35 | - | 5.35 | - | 5.35 |
| 4. | Magadh | - | 16.48 | 1.39 | - | - | 17.87 | - | 17.87 | - | 17.87 |
| 5. | L.N. Mithila | - | 1.08 | 0.06 | - | - | 1.14 | - | 1.14 | - | 1.14 |
| 6. | Patna | 16.95 | 13.49 | 1.31 | - | - | 31.75 | 7.00 | 38.75 | 0.75 | 39.50 |
| 7. | Rajendra Agril. | - | - | 0.05 | - | - | 0.05 | - | 0.05 | - | 0.05 |
| 8. | Ranchi | 2.10 | 29.58 | 4.98 | - | - | 36.66 | - | 36.66 | - | 36.66 |
|  | Total: | 22.22 | 87.31 | 11.87 | - | - | 121.40 | 7.00 | 128.40 | 0.75 | 129,15 |

[^9]APPENDIX - XXII (Contd.)

| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ;UJARAT |  |  |  |  |  |  |  |  |  |  |
| 1. Bhavnagar | 4.05 | 0.05 | 0.45 | - | - | 4.55 | - | 4.55 | - | 4.55 |
| 2. Gujarat | 3.40 | 48.92 | 2.96 | 12.68 | -- | 67.96 | - | 67.96 | 1.25 | 69.21 |
| 3. Gujarat Ayurveda | - | - | - | - | - | - | - | - | - | - |
| 4. M.S. Univ. of Baroda | 0.50 | 37.05 | 78.66 | - | - | 116.21 | 45.16 | 161.37 | 0.75 | 162.12 |
| 5. Sardar Patal | 8.77 | 24.94 | 10.29 | 1.45 | - | 45.45 | - | 45.45 | - | 45.45 |
|  |  |  | *0.48 |  |  | *0.48 |  | *0.48 |  | *0.48 |
| 5. Saurashtra | 2.20 | 12.25 | 2.70 | 0.75 | - | 17.90 | - | 17.90 | 0.75 | 18.65 |
| 7. South Gujarat | 0.81 | 17.64 | 6.48 | - | - | 24.93 | 0.05 | 24.98 | - | 24.90 |
| Total: | 19.73 | 140.85 | 101.54 | 14.88 | - | 277.00 | 45.21 | 322.21 | 2.75 | 324.96 |
|  |  |  | *0.48 |  |  | *0.48 |  | ${ }^{*} 0.48$ |  | *0.48 |
| AKYaNA |  |  |  |  |  |  |  |  |  |  |
| 1. Haryana Agril. | - | 0.20 | - | - | - | 0.20 | - | 0.20 | - | 0.20 |
| ?. Kurukshetra | 4.04 | 15.76 | 4.64 | - | - | 24.44 | - | 24.44 | 1.00 | 25.44 |
| 3. Maharishi Dayanand | 2.00 | 5.62 | 1.29 | - | - | 8.91 | - | 8.91 | - | 8.91 |
| Total: | 6.04 | 21.58 | 5.93 | - | -- | 33.55 | - | 33.55 | 1.00 | 34.55 |
| IMACHAL PRADESH |  |  |  |  |  |  |  |  |  |  |
| Himachal Pradesh | 3.50 | 26.25 | 1.41 | - | - | 31.16 | - | 31.16 | 0.75 | 31.91 |
|  |  | *0.01 |  |  |  | *0.01 |  | *0.01 |  | *0.01 |
| Total: | 3.50 | 26.25 | 1.41 | - | - | 31.16 | - | 31.16 | 0.75 | 31.91 |
|  |  | ${ }^{*} 0.01$ |  |  |  | *0.01 |  | *0.01 |  | ${ }^{*} 0.01$ |
| IMMU \& KASHMIR |  |  |  |  |  |  |  |  |  |  |
| Jammu | 2.25 | 36.48 | 5.30 | 3.25 | -- | 47.28 | 1.65 | 48.93 | 0.75 | 49.68 |
|  |  | *2.36 | *0.61 |  |  | *2.97 |  | *2.97 |  | *2.97 |
| Kashmir | 0.50 | 15013 | 2.29 | 210 |  | 3882 | - | 38.82 | - | 38.82 |
| Total: | 2.75 | 51.51 | 7.59 | 24.25 | -- | 86.10 | 1.65 | 87.75 | 0.75 | 88.50 |
|  |  | *2.36 | *0.61 |  |  | *2.97 |  | *2.97 |  | *2.97 |
| ARNATAKA |  |  |  |  |  |  |  |  |  |  |
| Bangalore | 12.35 | 0.99 | 24.59 | - | - | 37.93 | 19.22 | 57.15 | - | 57.15 |
| Karnataka | - | 17.10 | 10.70 | - | -- | 27.80 | - | 27.80 | - | 27.80 |
| 1. Mangalore | - | 0.43 | 1.10 | - | - | 1.53 | - | 1.53 | 0.75 | 2.28 |
| Mysore | 0.50 | 16.76 | 26.90 | - | -- | 44.16 | - | 44.16 | 0.75 | 44.91 |
| i. Alagappa | - | 0.05 | - | - | - | 0.05 | - | 0.05 | - | 0.05 |
| - Univ. of Agril. \& | - | 0.30 | - | - | - | 0.30 | - | 0.30 | - | 0.30 |
| Sciences |  |  |  |  |  |  |  |  |  |  |
| '. Gulbarga | - | 21.37 | 1.02 | - | - | 22.39 | - | 22.39 | - | 22.39 |
| Total: | 12.85 | 57.00 | 64.31 | - | -- | 134.16 | 19.22 | 153.38 | 1.50 | 154.88 |

## APPENDIX - XXII (Contd.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KERALA |  |  |  |  |  |  |  |  |  |  |
| $i$. | Calicut | - | 5.66 | 3.86 | - | - | 9.52 | - | 9.52 | - |
| $\therefore$ | Cochin Univ. of | 1.78 | 12.13 | 1.45 | - | - | 15.36 | 13.16 | 28.52 | - |
|  | Science \& Tech. |  | *0.01 |  |  |  | *0.01 |  | *0.01 |  |
| 3. | Kerala | 12.65 | 15.16 | 9.03 | 4.90 | - | 41.74 | - | 41.74 | 0.75 |
| Total: |  | 14.43 | 32.95 | 14.34 | 4.90 | $\square$ | 66.62 | 13.16 | 79.78 | 0.75 |
|  |  | *0.01 | *0.01 |  |  |  | *0.01 |  |  |


| MADHYA PRADESH |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Awadesh Pratap Singh | 0.12 | 13.04 | 1.85 | - | - | 15.01 | - | 15.01 | - | 15 |
| 2 | Bhopal | 8.00 | 22.92 | 1.36 | 0.64 | - | 32.92 | - | 32.92 - |  | 32 $*$ |
|  |  |  |  | *0.03 |  |  | *0.03 |  | *0.03 |  | * 0 |
| 3. | Indira Kala Sangeet | - | 5.20 | 0.23 | 1.00 | - | 6.43 | - | 6.43 | - | 6 |
| 4. | Devi Ahilya | 2.76 | 2.25 | 5.38 | 1.00 | - | - 11.39 | - | 11.39 | 0.09 | 11 |
| 5 | Rani Durgavati | 4.70 | 40.70 | 1.72 | - | - | 47.12 | - | 47.12 | 0.50 | 47 |
| 6. | Jiwaji | 11.00 | 35.82 | 8.05 | - | - | 54.87 | - | 54.87 | -- | 54 |
| 7. | Ravi Shankar | - | 24.20 | 3.57 | - | - | 27.77 | - | 27.77 | - | 27 |
| 8 | Dr.H.S. Gaur Vish. | 3.24 | 14.00 | 4.58 | - | - | 21.82 | 3.85 | 25.67 | 0.37 | 26 |
| 9. | Vikram | 8.00 | 34.49 | 3.70 | - | - | 46.19 | - | 46.19 | 0.75 | 46 |
| Total: |  | 37.82 | 192.62 | 30.44 | 2.64 | - | 263.52 | 3.85 | 267.37 | 1.71 | 269 |
|  |  | *0.03 |  | *0.03 |  |  | *0.03 |  | * 0 |  |
| MAHARASHTRA |  |  |  |  |  |  |  |  |  |  |  |
| 1. | Bombay. |  | 10.00 | 81.00 | 69.61 | - | - | 160.61 | 20.27 | 180.88 | 0.15 | 181 |
|  |  | *0.61 |  |  | *0.61 |  |  | *0.61 |  |  |  |  |
| 2. | Marathwada | 15.50 | 40.21 | 16.67 | 1.00 | -- | 73.38 | - | 73.38 | 0.75 | 74$* 0$ |  |
|  |  |  | *0.16 |  |  |  | *0.16 |  | *0.16 |  |  |  |
| 3. | Nagpur | 12.70 | 27.92 | 12.72 | 1.80 | - | 55.14 | 7.49 | 62.63 | - | 62$* 0$ |  |
|  |  |  |  | *0.02 |  |  | *0.02 |  | *0.02 |  |  |  |
| 4. | Poona | 13.00 | 32.29 | 16.70 | 18.45 | - | 80.44 | - | 80.44 | 1.02 | 81$* 0$ |  |
|  |  |  |  | *0.06 |  |  | *0.06 |  | ${ }^{*} 0.06$ |  |  |  |
| 5. | S.N.D.T. Women's | 18.54 | 69.14 | 17.12 | 0.70 | - | 105.50 | 30.05 | 135.55 | 1.50 | 137$*$0 |  |
|  |  |  | *.0.11 |  | ${ }^{*} 0.11$ |  | *0.22 |  | *0.22 |  |  |  |
| 6. | Shivaji | 2.34 | 9.60 | 8.35 | - | - | 20.29 | - | 20.29 | 1.00 | 21 |  |
|  | Total: | 72.08 | 260.16 | 141.17 | 21.95 | - | 495.36 | 57.81 | 553.17 | 4.42 | 557 |  |
|  |  |  | *0.27 | *0.69 | *0.11 |  | * 1.07 |  | * 1.07 |  | * 1 |  |


| MANIPUR |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Manipur | 2.50 | 39.73 | 7.72 | - | - | 49.95 | - | 49.95 | 0.75 | 50 |
| Total: | 2.50 | 39.73 | 7.72 | - | - | 49.95 | - | 49.95 | 0.75 | 50 |

*By adjustment

## APPENDIX - XXII (Contd.)

| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RISSA |  |  |  |  |  |  |  |  |  |  |
| . Berhampur | 1.50 | 32.06 | 7.16 | - | - | 40.72 | - | 40.72 | - | 40.72 |
| - Orissa Univ. of | - | - | 0.03 | - | - | 0.03 | - | 0.03 | - | 0.03 |
| Agril. \& Tech. |  |  |  |  |  |  |  |  |  |  |
| i. Sambalpur | 0.85 | 31.35 | 8.12 | - | - | 40.32 | 12.69 | 53.01 | 0.75 | 53.76 |
| 1. Utkal | 13.62 | 26.11 | 7.20 | - | - | 46.93 | - | 46.93 | - | 46.93 |
| Total: | 15.97 | 89.52 | 22.51 | - | -- | 128.00 | 12.69 | 140.69 | 0.75 | 141.44 |
| JNJAB |  |  |  |  |  |  |  |  |  |  |
| Guru Nanak Dev | 1.08 | 21.81 | 10.20 | - | - | 33.09 | - | 33.09 | 0.75 | 33.84 |
| Panjab | 9.41 | 37.60 | 33.49 | 9.30 | - | 89.80 | 0.28 | 90.08 | 1.00 | 91.08 |
| Punjab Agril. | - | - | 1.13 | - | -- | 1.13 | 0.12 | 1.25 | - | 1.25 |
| Punjabi | - | 1.53 | 7.40 | 0.20 | - | 9.13 | -- | 9.13 | 0.25 | 9.38 |
| Total: | 10.49 | 60.94 | 52.22 | 950 | $\cdots$ | 133.15 | 0.40 | 133.55 | 2.00 | 135.55 |
| AJASTHAN |  |  |  |  |  |  |  |  |  |  |
| Jodhpur | 1.80 | 20.56 | 20.65 | 12.(0) | - | 55.01 | 5.80 | 60.81 | 1.00 | 61.81 |
|  |  |  | ${ }^{*} 0.09$ |  |  | *0.09 |  | *0.09 |  | *0.09 |
| Rajasthan | 3.23 | 33.08 | 30.07 | 7.28 | - | 73.66 | - | 73.66 | 0.75 | 74.41 |
| Sukhadia | - | 34.88 | 1.69 | - | - | 36.57 | -- | 36.57 | - | 36.57 |
| Total: | 5.03 | 88.52 | 52.41 | 19.28 | - | 165.24 | 5.80 | 171.04 | 1.75 | 172.79 |
|  |  |  | ${ }^{*} 0.09$ |  |  | ${ }^{*} 0.09$ |  | *0.09 |  | *0.09 |
| 4MIL NADU |  |  |  |  |  |  |  |  |  |  |
| Annamalai | 0.90 | 12.60 | 8.63 | - | - | 22.13 | 25.36 | 47.49 | 1.00 | 48.49 |
| :. Madras | 1.80 | 18.63 | 34.11 | - | -- | 54.54 | - | 54.54 | 0.83 | 55.37 |
| i. Madurai Kamaraj | 20.75 | 8.95 | 12.34 | 17.03 | 0.45 | 59.52 | - | 59.52 | 0.20 | 59.72 |
|  |  | *0.08 |  |  |  | *0.08 |  | *0.08 |  | *0.08 |
| Anna | 6.16 | 1.73 | 31.20 | 3.10 | -- | 42.09 | 37.74 | 79.83 | 0.75 | 80.58 |
| ¢. Tamil University | - | 9.66 | 0.45 | - | - | 10.11 | - | 10.11 | - | 10.11 |
| ). Bharathiar | - | 2.31 | 0.23 | --- | - | 2.54 | - | 2.54 | - | 2.54 |
| 7. Bharathidasan | 1.03 | 9.91 | 0.05 | - | - | 10.99 | - | 10.99 | - | 10.99 |
| 3. Tamil Nadu Agril. | - | 1.15 | - | - | -- | - 1.15 | - | 1.15 | - | 1.15 |
| Total: | 30.64 | 64.94 | 87.01 | 20.03 | 0.45 | 203.07 | 63.10 | 266.17 | 2.78 | 260.95 |
|  |  | *0.08 |  |  |  | *0.08 |  | *0.08 |  | 0.08 |

[^10]
## APPENDIX - XXII (Contd.)


*By adjustment

## APPENDIX - XXII (Contd.)

| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| : Bengal |  |  |  |  |  |  |  |  |  |  |
| Bidhan Chandra Krishi | - | 0.03 | - | - | - | 0.30 | - | 0.03 | - | 0.30 |
| Burdwan | 2.03 | 27.49 | 15.72 | - | - | 45.24 | 3.57 | 48.81 | - | 48.81 |
| Calcutta | 0.68 | 23.13 | 82.17 | - | - | 105.98 | 4.14 | 110.12 | - | 110.12 |
| Jadavpur | 2.50 | 58.04 | 156.36 | - | - | 216.90 | 62.56 | 279.46 | 0.75 | 280.21 |
| Kalyani | 0.69 | 40.23 | 6.02 | - | - | 46.94 | - | 46.94 | - | 46.94 |
| North Bangal | 1.81 | 27.22 | 4.16 | - | - | 33.19 | - | 33.19 | 0.50 | 33.69 |
| Rabindra Bharati | 3.70 | 14.03 | 1.67 | 0.75 | - | 20.15 | -- | 20.15 | 0.81 | 20.96 |
| TOTAL | 11.41 | 190.44 | 266.10 | 0.75 | - | 468.70 | 70.27 | 538.97 | 2.06 | 541.03 |
| GRAND TOTAL | 442.08 | 3541.67 | 2381.24 | 225.26 | 2.45 | 6592. 10 | 559.78 | 7152.48 | 40.82 | 7193.30 |
|  |  | *5.83 | *2.80 | *0.11 |  | ${ }^{2} 8.74$ |  | *8.74 |  | *8.74 |

iy adjustment

Allocation to the Universities in the VII Plan for publication of research work including Doctoral Theses

## I STATE UNIVERSITIES

| STATE <br> (1) | Rs. 2.50 lakhs <br> (2) | Rs. 2.00 lakhs <br> (3) | Rs. 1.50 lakhs <br> (4) | Rs. 1.00 lakhs <br> (5) |
| :---: | :---: | :---: | :---: | :---: |
| 1. ANDHRA | 1. Andhra <br> 2. Osmania | 3. Sri Venkateswara <br> 4. Kakatiya <br> 5. Nagarjuna <br> 6. Sri Krishnadevaraya | 7. A.P. Open Univ. <br> 8. Sri Padmavathy Mahila Vishwavidyalayam |  |
| 2. ASSAM | 1. Gauhati | 2. Dibrugarh |  |  |
| 3. BIHAR | 1. Patna <br> 2. Ranchi | 3. Bihar <br> 4. Bhagalpur <br> 5. Magadh | 6. L.N. Mithila | 7. K.S. Darbhang |
| 4. GUJARAT | 1. Baroda <br> 2. Gujarat | 3. Sardar Patel <br> 4. Saurashtra <br> 5. South Gujarat | 6. Bhavnagar |  |
| 5. HARYANA | 1. Kurukshetra <br> 2. M.D. Univ. |  |  |  |
| 6. HIMACHAL PRADESH | 1. Himachal Pradesh |  |  |  |
| 7. JAMMU \& KASHMIR |  | 1. Jammu <br> 2. Kashmir |  |  |
| 8. KARNATAKA | 1. Bangalore <br> 2. Mysore <br> 3. Karnataka | 4. Gulbarga <br> 5. Mangalore |  |  |
| 9.KERALA | 1. Kerala | 2. Calicut <br> 3. Cochin Univ. of Science \& Technology. |  |  |
| 10. MADHYA PRADESH | 1. Dr Hari Singh Vishwavidyalaya, Sagar. <br> 2. Rani Durgavati Vishwavidyalaya, Jabalpur. | 3. Vikram <br> 4. Bhopal | 5. Devi Ahilya Indore. <br> 6. Jiwaji <br> 7. Ravi Shankar <br> 8. A.P. Singh, Rewa | 9. Indira Kala Sangeet |
| 11. MAHARASHTRA | 1. Bombay <br> 2. Poona <br> 3. Marathwada <br> 4. SNDT Women's | 5. Shivaji <br> 6. Nagpur |  |  |
| 12. MANIPUR |  | 1. Manipur |  |  |



[^11]Pattern of assistance to colleges for development during the Seventh Plan (1985-90)
S.No. Item ..... Share of UGC assistance
1 2 ..... 3
(A) Basic Assistance to colleges

1. Faculty Improvement Programmes including short term teacher Fellowships ..... $100 \%$
2. Books and Journals including book banks ..... $100 \%$
3. Essential laboratory equipement ..... $100 \%$
(B) Development of Undergraduate Education
4. Teaching and Technical Staff including professional staff for library ..... 100\%
5. Books and Journals including book banks ..... $100 \%$
6. Equipment including laboratory and audio-visual equipment ..... 100\%
7. Academic building including extension of library and laboratories ..... 50\%
8. Workshop shed/Animal House/Museums/Green House ..... $100 \%$
9. Men's Hostel ..... 50\%
10. Women's Hostel ..... 75\%
11. Staff Quarters/Teachers Hostel ..... 50\%
12. Extension Programmes ..... 100\%
13. Faculty Improvement programmes including short and long term fellowship ..... $100 \%$
14. Canteen Building/Non-resident student Centre-Building and Equipment ..... 50\%
15. Improvement of facilities in the existing hostels ..... 50\%
16. Remedial Courses for weak students ..... 100\%
17. Health Centre-Building and equipment ..... 50\%
(C) A.I.D. Colleges in Backward and Rural area and colleges catering to the needs of SC/ST Students.The share of assistance for all items will be the same as for undergraduate colleges except that UGCshare of assistance will be $75 \%$ for construction of Men's Hostel including dormitory type accommodation.
(D) Developing of Post-graduate Education
18. Teaching and Technical Staff ..... 100\%
19. Books and Journals including book banks ..... $100 \%$
20. Equipment including Audio-Visual and reprographic facilities ..... 100\%
21. Faculty Improvement Programme including teacher fellowships, data collection, field work for preparing research papers. ..... $100 \%$
22. Academic and other buildings ..... 50\%
23. Extension Programmes ..... 100\%

# APPENDIX XXIV <br> Statement Showing Grants Paid to Colleges During 1986-87 (Major Head-wise) <br> Under Plan, Engineering and Technology and Section-III 


'By adjustment
(1.I)

## APPENDIX XXIV (Contd.)

|  | $A$ | $B$ | $C$ | $D$ | Total | $F$ | III (;and Tot |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |


| 1. | GOA <br> Goa L'niv. | - | 1.10 | - | - | -- | 1.10 | - | - | 1.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | - | 1.16 | - | - | - | 1.10 | - | - | 1.1 |
|  | gldarat |  |  |  |  |  |  |  |  |  |
| 1. | Bhavnagar | - | 3.23 | 0.08 | - | - | 3.31 | - | -- | 3.7 |
| $\sim$ | Gujarat | 0.01 | 95.74 | 0.30 | - | - | 96.05 | - | 1.05 | 97.1 |
|  |  |  |  | *0.11 |  |  | *0.11 |  |  | *) 1 |
| 3. | Sardar Patel | - | 15.24 | 0.13 | - | - | 15.37 | - | - | 15.7 |
| 4. | Saurashtra | - | 32.31 | 0.28 | 0.63 | - | 33.22 | - | 0.20 | 33.4 |
| 5 | South Gujarat | - | 22.58 | 0.07 | -- | - | 22.65 | - | 0.40 | 231 |
|  | Total | 0.01 | 169.10 | 0.86 | 0.63 | - |  | - | 1.65 | $172.2$ |
|  |  |  |  | *0.11 |  |  | $\text { * } 0.11$ |  |  | ${ }^{*}(0) \text { I }$ |
|  | haryana |  |  |  |  |  |  |  |  |  |
|  | Kurukshetra | 8.21 | 57.32 | 0.62 | - | - | 66.15 | 0.05 | 0.12 |  |
| 2. | Maharishi Dayanand | - | 14.57 | 0.99 | - | - | 15.56 | - | - | 15.6 |
|  | Total | 8.21 | 71.89 | 1.61 | - | - | 81.71 | 0.05 | 0.12 | 818 |
| 1. | HMACHAL PRADESH <br> Himachal Pradesh | - | 17.57 | 0.43 | - | - | 18.00 | - | - | 18.6 |
|  | Total |  | 17.57 | 0.43 | - | - | 18.00 | - | - | 18.0 |
|  | JAMMU \& KASHMIR |  |  |  |  |  |  |  |  |  |
|  | Jammu | - | 6.28 | 0.02 | - | - | 6.30 | - | -- | $6 .:$ |
| 2. | Kashmir | 002 | 11.53 | 0.25 | - | - | 11.80 | - | - | 11.8 |
|  | Total | 0.02 | 17.81 | 0.27 | - | - | 18.10 | - | - | 18. |

[^12]| 1 | 2 | $A$ | B | c | $D$ | $E$ | Total | F | III | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | KARNATAKA |  |  |  |  |  |  |  |  |  |
| 1. | Bangalore | 0.90 | 33.26 | 1.09 | - | - | 35.25 | - | - | 35.25 |
| 2. | Gulbarga | 0.54 | 17.56 | 0.02 | - | - | 18.12 | - | - | 18.12 |
| 3. | Karnatak | - | 41.43 | 1.59 | - | - | 43.12 | - | 0.15 | 43.17 |
| 4. | Mangalore | 0.50 | 23.17 | 1.48 | -- | - | 25.15 | 0.05 | - | 25.20 |
| 5. | Mysore | 1.(\%) | 38.04 | 0.08 | 0.15 | - | 39.27 | - | - | 39.27 |
|  | Total | 2.94 | i53.46 | 4.26 | 0.15 | - | 160.81 | 0.05 | 0.15 | 161.01 |
|  | KERALA |  |  |  |  |  |  |  |  |  |
| 1. | Calicut | - | 54.08 | 0.95 | 11.48 | - | 55.51 | 0.05 | 0.21 | 55.77 |
| 2. | Cochin | - | 1). 46 | - | - |  | 0.46 | - | - | 0.46 |
| 3. | Kerala | 0.02 | 45.50 | 0.40 | - | - | 45.92 | - | 0.80 | 46.72 |
|  |  |  | ${ }^{+0.01}$ |  |  |  | *0.01 |  |  | *0.01 |
| 4. | Gandhiji Univ. | - | 49.37 | 0.71 | - | - | 50.08 | - | - | 50.08 |
|  | Total | 0.02 | 149.41 | 2.06 | (1).48 | - | 151.97 | 0.05 | 1.01 | 153.03 |
|  |  |  | * 0.01 |  |  |  | *0.01 |  |  | *0.01 |
|  | MANIPUR |  |  |  |  |  |  |  |  |  |
| 1. | Manipur Univ. | - | 5.38 | 0.09 | - | - | 5.47 | - | 0.05 | 5.52 |
|  | Total | - | 538 | 0.09 | -- | - | 5.47 | - | 0.05 | 5.52 |

## APPENDIX XXIV (Contd.)



## APPENDIX XXIV (Contd.)

| 1 | 2 | $A$ | B | $C$ | $D$ | $E$ | Total | F | $I I I$ | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | RAJASTHAN |  |  |  |  |  |  |  |  |  |
| 1 | Jodhpur | - | 2.69 | 0.04 | - | - | 2.73 | - | - | 2.73 |
| 2 | Rajasthan | 2.34 | 131.54 | 4.19 | - | - | 138.07 | 0.14 | 0.41 | 138.62 |
|  | Total | 2.34 | 134.23 | 4.23 | - | - | 140.80 | 0.14 | 0.41 | 141.35 |
|  | TAMILNADU |  |  |  |  |  |  |  |  |  |
| 1. | Bharathidasan | - | 31.26 | 1.85 | - | 11.00 | 44.11 | - | - | 44.11 |
| 2. | Bharathiar | - | 31.23 | 2.04 | -- | - | 33.27 | - | - | 33.27 |
| 3. | Madras | 1.50 | 40.55 | 17.55 | - | 3.00 | 62.60 | - | - | 62.60 |
| + | Madurai Kamraj | 0.03 | 101.37 | 3.60 | - | 4.48 | $\begin{array}{r} 109.48 \\ * 0.02 \end{array}$ | - | 2.07 | $\begin{array}{r} 111.55 \\ * 0.02 \\ \hline \end{array}$ |
|  | Total | 1.53 | 204.41 | 25.04 | - | 18.48 | 249.46 | - | 2.07 | 251.53 |
|  |  |  | *0.02 |  |  |  | *0.02 |  |  | ${ }^{*} 0.02$ |
|  | UTTAR PRADESH |  |  |  |  |  |  |  |  |  |
| 1 | Agra | 0.50 | 38.17 | 5.42 | 0.04 | - | 44.13 | - | - | 44.13 |
| 2 | Allahabad | - | 7.32 | 0.30 | 0.62 | - | 8.24 | 0.05 | 0.02 | 8.31 |
| 3 | Avadh | 7.63 | 23.54 | 2.86 | - | - | 34.03 | - | - | 34.03 |
| 4 | Bundelkhand | - | 8.84 | 0.52 | - | - | 9.36 | - | - | 9.36 |
| 5 | Garhwal | - | 9.24 | 2.52 | - | - | 11.76 | - | - | 11.76 |
| 6 | Gorakhpur | 0.02 | 75.66 | 4.28 | 0.02 | - | 79.98 | - | 5.62 | 85.60 |
| 7 | Kanpur | 0.20 | 41.83 | 3.64 | - | - | 45.67 | - | 1.68 | 47.35 |
| 8 | Kumaon | -- | 1.95 | 0.90 | - | - | 2.85 | - | - | 2.85 |
| 9 | Lucknow | 2.50 | 17.79 | 0.33 | 11.40 | - | 21.02 | - | 1.14 | 22.16 |
| 10. | Meerut | - | 51.38 | 10.84 | - | - | 62.22 | - | - | 62.22 |
| 11 | Rohilkhand | - | 16.79 | 4.81 | $\cdots$ | - | 21.60 | - | - | 21.60 |
| Total |  | 10.85 | 291.51 | 36.42 | 1.18 | - | 340.86 | 0.05 | 8.46 | 349.37 |
|  | WEST BENGAL |  |  |  |  |  |  |  |  |  |
| 1. | Burdwan | 2.63 | 49.03 | 1.14 | - | - | 52.80 | - | 0.05 | 52.85 |
| 4 | Calcuta | - | 144.93 | 20.60 | 17.20 | - | 182.73 | - | 0.17 | 182.90 |
|  |  |  | *0.02 |  |  |  | *0.02 |  |  | *0:02 |
|  | North Bengal | - | 27.91 | 0.59 | - | - | 28.50 | - | 0.81 | 29.31 |
|  | Vidya Sagar | - | 7,85 | 0.06 | - | - | 7.91 | - | - | 7.91 |
| 5 | Kalyani | - | 2.91 | 0.03 | - | - | 2.94 | - | - | 2.94 |
|  | Total | 2.63 | 232.63 | 22.42 | 17.20 | - | 274.88 | - | 1.03 | 275.91 |
|  |  |  | *0.02 |  |  |  | *0.02 |  |  | ${ }^{*} 0.02$ |
|  | Grand Total | 52.45 | 2941.76 | 150.36 | 2101 | 18.48 . | 3184.06 | 8.49. | 25.52 | 3218.07 |
|  |  | *0.14 | * 1.20 | *0.19 |  |  | *1.53 |  |  | *1.53 |

## APPENDIX - XXIV (Contd.) <br> Summary of Plan Expenditure 1986-87

(Rupees in Lakhs)

*By adjustment

## APPENDIX - XXV(a)

tatement showing Maintenance Grants (Non-Plan) and Recurring Expenditure (Non-Plan) in respect of Central Iniversites, Institutions deemed to be Universities and State Universities for the year 1984-85.
'ENTRAL UNIVERSITIES

| tate/ <br> Jniversity | Maintenance Grants from UGC | Non-Plan Recurring Expenditure |
| :---: | :---: | :---: |
| 1 | 2 | 3 |
|  |  | akhs) |
| NDHRA PRADESH Iyderabad | 206.87 | 195.05 |
| IEGHALAYA vorth Eastern* Iill | 188.82 | 228.46 |
| J.P. <br> iligarh Muslim | 1496.85 | 1503.56 |
| :anaras Hindu | 2188.93 | 2271.13 |
| VEST BENGAL 'isva Bharati | 409.09 | 514.43 |
| IELHI <br> ,elhi | 1060.49 | 1050.36 |
| awaharlal Nehru | 523.32 | 513.68 |

Subject to audit

INSTITUTIONS DEEMED TO BE UNIVERSITIES

| State/Institution deemed | Maintenance Grants | Non-Plan Recurring |
| :--- | :---: | :---: |
| to be University | from UGC | Expenditure |


|  | (Rs in lakhs) |  |
| :---: | :---: | :---: |
| ANDHRA PRADESH |  |  |
| 1. Central Instt. of Engg. and Foreign Languages. | 88.81 | 69.35 |
| 2. Sri Satya Sai Instt. of Higher Learning | - | 27.99 |
| BIHAR |  |  |
| Indian School of Mines | 189.35@ | 211.56 |
| GUJARAT |  |  |
| Gujarat Vidyapith | 63.46* | 61.53 |
| KARNATAKA |  |  |
| Indian Institute of Science | 637.51** | 812.86 |
| MAHARASHTRA |  |  |
| Tata Institute of Social |  |  |
| Sciences | 50.00 | 56.01 |
| RAJASTHAN |  |  |
| 1. Birla Institute of |  |  |
| 2. Banasthali Vidyapith <br> (established in 1983) |  |  |
| TAMIL NADU |  |  |
| Gandhigram Rural Instt. | 65.40 | 70.99 |
| U.P. |  |  |
| 1. Dayal Bagh Educational |  |  |
| 2. Gurukul Kangri | 32.73 | 34.59 |
| DELHI |  |  |
| Jamia Millia Islamia | 137.16 | 134.50 |
| School of Planning and |  |  |
| (C) Plus 4.50 lakhs by adjustmnent Plus 0.04 lakhs by adjustment. <br> ** Plus 21.58 lakhs by adjustment <br> P stands for Provisional |  |  |

## STATE UNIVERSITIES

| State/ <br> University | Non-Plan Maintenance Grants from State Govt | Total Non-Plan Recurring Expenditure |
| :---: | :---: | :---: |
| 1 | 2 | 3 |
|  | (Rs in lakhs) |  |
| J.L. Nehru Technology | 251.26(P) | 406.55(P) |
| Kakatiya | 6.34 | 7.51 |
| Sri Krishna Devraya | 88.13 | 77.30 |
| Shri Padmavaty Mahila | 25.00 | 24.38 |
| Sri Venkateswara | 317.28 | 492.72 |
| ASSAM <br> Dibrugarh | 113.16(P) | 161.20(P) |
| BIHAR <br> Bihar | 993.54 | 1285.19 |
| Magadh | 1033.52 | 1244.03 |
| GUJARAT <br> Bhavanagar | 48.50 | 52.54 |
| Gujarat | 156.93 | 377.33 |
| Sardar Patel | 119.44 | 157.29 |
| Saurashtra | 132.41 | 199.51 |
| 'South Gujarat | 139.10 | 183.29 |
| HARYANA Kurushetra | 280.24 | 494.58 |
| Maharishi Dayanand* | 188.89 | 245.47 |
| HIMACHAL PRADESH Himachal Pradesh | 212.25 | 301.15 |
| IAMMU \& KASHMIR Jammu | 162.75 | 202.98 |

STATE UNIVERSITIES

| State/ <br> University | Non-Plan Maintenance Grants from State Govt. | Total Non-Plan Recurring Expenditure |
| :---: | :---: | :---: |
| 1 | 2 | 3 |
|  |  | (Rs in lakhs) |
| KARNATAKA Gulbarga | 262.07 | 178.20 |
| Karnatak | 379.69 | 516.78 |
| Mangalore* | 125.00 | 114.75 |
| Mysore | 418.65 | 801.86 |
| KERALA <br> Cochin | 155.01 | 258.64 |
| Kerala | 240.08 | 684.03 |
| MADHYA PRADESH Awadesh Pratap Singh | 19.66 | 85.03 |
| Bhopal | 18.46 | 49.14 |
| Devi Ahilya | 44.53 | 129.19 |
| Guru Ghasidas | 5.00 | 44.26 |
| Indira Kala Sangeet | 17.95 | 23.40 |
| Vikram | 72.87 | 145.55 |
| Hari Singh Gaur | 160.69 | 361.27 |
| MAHARASHTRA |  |  |
| Amravati | 30.87 | 39.70 |
| Bombay* | 167.89 | 551.65 |
| Marathwada* | 180.29 | 319.25 |
| Poona ${ }^{+}$ | 237.92 | 478.33 |
| S.N.D.T Women's | 137.19 | 438.95 |
|  | (LX) |  |


| State/ University | Non-Plan Maintenance Grants from State Govt. | Total Plan Recurring Expenditure |
| :---: | :---: | :---: |
| MAHARASHTRA |  | Lakhs" |
| Shivaji | 135.46 | 280.62 |
| Nagpur | 217.67 | 372.12 |
| MANIPUR <br> Manipur ( P ) | 54.00 | 110.05 |
| ORISSA <br> Sambalpur* | 90.49 | 152.32 |
| PUNJAB Guru Nanak Dev | 357.23 | 407.93 |
| Panjab | 828.43 | 954.26 |
| Punjabi | 500.00 | 594.75 |
| TAMIL NADU Anna | 252.66 | 301.84 |
| Bharathiar* | 55.00 | 116.83 |
| Bharathidasan | 55.00 | 90.89 |
| Madras | $96.00(\mathrm{P})$ | 506.03(P) |
| Madurai Kamraj | 37.08 | 311.48 |
| Tamil ${ }^{*}$ | 75.00 | 68.40 |


| Statel <br> University | Non-Plan Maintenance <br> Grants from State Govt. | Total Non-Plan <br> Recurring Expenditure |
| :--- | :---: | :---: |
| 1 | 2 | 3 |
| UTTAT PRADESH <br> Allahabad | 277.16 | (Rs in lakhs) |
| Avadh | - | 357.70 |
| Bundelkhand | 140.14 | 55.02 |
| Gorakhpur | 69.25 | 52.98 |
| Garhwal | 57.11 | 297.61 |
| Kashi Vidyapith | 91.72 | 115.36 |
| Kumaon* | 444.95 | 83.99 |
| Roorkee | 241.38 | 183.74 |
| Lucknow | 29.73 | 454.56 |
| Meerut | 287.13 | 379.41 |
| WEST BENGAL | 207.89 | 161.87 |
| Burdwan | 171.09 | 322.77 |
| Kalyani | 140.70 | 241.15 |
| North Bengal | 200.94 |  |
| Rabindra Bharati | 166.61 |  |
| NOTE |  |  |

1. In the case of Central Universities and Institutions 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 Government 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 examinations, maintenance of buildings and other expenditure on day to day activities.

* Subject to audit

NA Stands for Not Available
P Stands for provisional

Statement Showing Maintenance Grant (Non-Plan) and Recurring Expenditure (Non-Plan) in respect of Central Universities, Institutions deemed to the Universities and State Universities for the year 1985-86.

CENTRAL UNIVERSITIES
"Rs.in Lakhs"

| Statel <br> University | Maintenance Grant <br> from UGC 1985-86 | Non-Plan Recurring <br> Expenditure 1985-86 |
| :--- | :---: | :---: |
| ANDHRA PRADESH | 297.33 |  |
| Hvderabad | $0.04^{*}$ | 293.15 |
| MEGHALAYA | 549.20 |  |
| North Eastern Hill |  | $486.2 \approx(P)$ |
| WEST BENGAL | 435.72 |  |
| Viswa Bharati | $49.87^{*}$ | 641.57 |
|  | 1151.27 |  |
| DELHI | $15.04^{*}$ | 1192.19 |
| Delhi | 618.92 | 623.19 |
| Jawarhar Lal Nehru | $2.50^{*}$ |  |

* By Adjustment.

P Stands for Provisional.

INSTITUTIONS DEEMED TO BE UNIVERSITIES
"Rs. in Lakhs"

| State/Institution deemed <br> to be Universities | Maintenance Grant from <br> U.G.C. $1985-86$ | Non-Plan Recurring <br> Expenditure 1985-86 |
| :--- | :---: | :---: |
| ANDHRA PRADESH <br> Sri Sathya Sai Instt. of Higher Learning | - |  |
| MAHARASHTRA <br> Tata Institute of Social Sciences. | 76.51 | 32.99 |
| PUNJAB <br> Thapar Institute of Engg. \& Technology | - | 82.26 |
| RAJASHTHAN | - | 57.99 |
| Banasthali Vidyapith <br> Birla Institute of Tech. \& Science | - | 41.51 |
| TAMIL NADU <br> Gandhigram Rural Institute. | 76.94 | 182.52 |
| UTTAR PRADESH <br> Dayalbagh Educational Institute <br> Gurukul Kangri | 11.12 | 79.98 |
| DELHI | 46.23 | 75.28 |
| School of Planning \& Architecture | - | 47.47 |

*By Adjustment

| i. State/ | Non-Plan Maintenance Grant | Total Non-Plan Recurring |
| :--- | ---: | ---: |
| Vo. University | from U.G.C. $1985-86$ | Expenditure 1985-86 |

## ANDHRA PRADESH

| 1. $A . P$. Open Univ. | 50.00 | 59.55 |
| :--- | ---: | ---: |
| 2. Sri Venkateswara. | 343.69 | 527.13 |

## GUJARAT

3. Sardar Patel
128.19
159.73
4. Saurashtra
136.18
209.19

## HARYANA

5. Kurukshetra
6. Maharshi Dayanand

HIMACHAL PRADESH
Himachal pradesh
275.77
555.66

JAMMU AND KASHMIR
8. Jammu
KARNATAKA
$\begin{array}{lll}\text { Gulbarga } & 105.00 & 213.64\end{array}$
0. Mangalore
95.00
126.99

KERALA
Calicut.
236.31
461.66

Gandhiji
Kerala
314.05
753.34

## MADHYA PRADESH

Devi Ahilya
137.32

16616
Guru Ghasidas
Jiwaji
Vikram
57.44
131.87

## MAHARASHTRA

Amravati
21.15
55.70

Marathwada
Poona
S.N.D.T. Women's
201.20
333.13
$3(0) .89(P)$
Shivaji
157.87
524.93(P)

## MANIPUR

$\begin{array}{lll}\text { Manipur } & 54.0 \% & 128.04\end{array}$
ORISSA
Sambalpur
144.35
170.82

Utkal
Not Available
431.93

## STATE UNIVERSITIES (Contd.)

| 1. | 2 | 3. |  | 4. |
| :---: | :---: | :---: | :---: | :---: |
|  | PUNJAB |  |  |  |
| 26. | Guru Nanak Dev | 330.61 | 460.61 |  |
| 27. | Panjab | 938.38 | 1033.01 |  |
| 28. | Punjabi | 535.87(P) | 640.71 (P) |  |
|  | TAMIL NADU |  |  |  |
| 29. | Alagappa | $75.00(\mathrm{P})$ | 38.46(P) |  |
| 30. | Anna | 262.89 | 377.05 |  |
| 31. | Madurai Kamrai | 114.88 | 304.36 |  |
| 32. | Tamil | 78.92 | 77.06 |  |
|  | UTTAR PKA |  |  |  |
| 33. | Garhwal | 72.42 | 155.23 |  |
| 34. | Lucknow | 374.65 | 415.20 |  |
|  | WEST BENGAL |  |  |  |
| 35. | Burdwan | 353.04 | 453.65 |  |
| 36. | Rabindra Bharati | 146.50 | 195.26 |  |
|  | ARUNACHAL PRADESH |  |  |  |
| 37. | Arunachal | - | -- |  |
|  | DELHI |  |  |  |
| 38. | Indira Gandhi National Open | - | - |  |

${ }^{\prime} P `$ stands for Provisional.

## NOTE:

1. In the case of Central Universities and Institutions 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 Government 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 examinations, maintenance of buildings and other expenditure on day to day activities.

# Details of foreign tours undertaken by the Chairman/Vice-Chairman and 

 Officers of the Commission during the year 1986-87| Name and Designation of the officers | Name of the country visited | From | To | Purpose | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 3 | 4 | 5 | 6 | 7 |
| Prof. Yash Pal Chairman$\qquad$ | U.S.A. | 14.4.86 | 20.4.86 | To participate in a symposium on Technological Education and the 21st Century | Expenditure met by the Georgia Instt. of Technology |
|  | U.S.A. | 19.9.86 | 9.10 .86 | To attend the Indo-USA Sub Commission on Science and Technological meeting of ST1 and also to take part in a symposium and a conference in Boston and discussion with U.N. Centre for Science \& Technology in New York | Cost of international air'travel met by the UGC and other expenditure met by the DST and UGC |
| Prof. K. Satchidanada Murty | U.S.S.R. | 12.2 .87 | 18.2.87 | To participate Forum International Group of Scientists (Soviet Academy of Science) | Expenditure met by the Moscow Forum International Group of Scientist (Soviet Academy of Science) |
| Prof. S.K. Khanna Secretary | Canada | 11.5.86 | 15.5.86- | To visit some Universities in Canada and also to participate in meetings held during the visit and also attend the Fourth World Conference on Transport Research held at Vancouver | Expenditure met by DST, <br> Shastri Indo-Canadian <br> Instt. and UGC |
| Prof. S.K. Khanna Secretary | Belgium | 6.10 .86 | 10.10 .86 | To allend as a member of the Indian delegation for negotiating and signing the Indo-Belgium Cultural Exchange Programme for the years 1987-89 | Expenditure met by the U.G.C. |
|  | Bangkok | 24.3 .87 | 28.3.87 | To attend the 2nd International Conference on Open Higher Education: Innovation and Technology at Raskhanhsang University to present a paper | -do- |
| Shri L.R. Mal Joint Secretary | Cuba | 18.2.87 | 27.2.87 | To attend as a member of the Indian delegation for negotiating and signing the Indo-Cuban Cultural Exchange Programme with Cuba | -do- |
| -do- | Greece and Bulgaria | 15.12 .86 | 23.12 .86 | To attend as a member of the Indian delegation for negotiating and signing the Cultural Exchange Programme | -do- |

## APPENDIX - XXVI (Contd.)

| $S$. <br> No. | Name and Designation of the officers | Name of the country visited | From | To | Purpose | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. | Shri B.R. Kwatra Joint Secretary | Australia | 14.8 .86 | 23.8 .86 | To attend as a member of the Indian delegation for attending official level talks for negotiating. finalising and signing a cultural exchange programme for the year 1986-88 | Expenditure met the U.G.C |
| 10. | Dr P.B. Tripathy P.S.O. | Dhaka | 21.9.86 | 30.9 .86 | To attend the Regional symposium on long term planning of Higher Education for development of Higher Education. | Expenditure met $b$ : Unesco. |

## APPENDIX - XXVII

Enrolment in Correspondence Courses offered by Universities during 1986-87.

| State/ University | Title of the Correspondence Course | Enrolment for the year 1986-87 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Men | Women | Total |
| ANDHRA PRADESH |  |  |  |  |
| Andhra | 1. B.Ed. | 587 | 198 | 785 |
|  | 2. B.A. | 8966 | 6927 | 15893 |
|  | 3. B.Com. | 2803 | 662 | 3465 |
|  | 4. M.A. | 2151 | 1154 | 3305 |
|  | 5. M.Com. | 920 | 300 | 1220 |
|  | 6. B.Sc. | 248 | 15 | 263 |
|  | 7. PG Diploma in Co-operation \& Rural Studies | 94 | 6 | 100 |
|  | 8. M.Ed. | 82 | 18 | 100 |
|  | 9. Introductory courses | 1198 | 307 | 1505 |
|  | $\omega^{\omega+}$ Introductory courses to prepare the candidates for entrance Examination for liberalised admission into B.A./B. Com. Courses without any formal academic qualification. |  |  |  |
| Andhra Pradesh Open | 1. B.A.) | 14192 | 5694 | 19886 |
|  | 2. BSc .) |  |  |  |
|  | 3. B.Com) |  |  |  |
|  | 4. Bachelor of Library \& Information Science | 266 | 121 | 387 |
|  | 5. PG Dipioma in Public Accounts** | 6,724 | 816 | 7,540 |
|  | 6. PG Diploma in Public Relations** |  | 92 | 932 |
| J.N. Technological | 1. B.Tech.** (No admission during 1986-87) | 682 | 34 | 716 |
| Kakatiya | 1. B.Ed. | 106 | 23 | 129 |
| Osmania |  |  |  | 634 |
|  | 2. B.Com | $653$ | 6012 | 1255 |
|  | 3. B.Ed. | 585 | 223 | 808 |
|  | 4. M.Ed. | 59 | 41 | 100 |
| Srı Venkateswara | 1. B.A. | 79 | 43 | 122 |
|  | 2. B.Com | 17 | 16 | 33 |
|  | 3. M.A. | 136 | 51 | 187 |
|  | 4. M.Sc. (Maths) | 195 | 30 | 225 |
|  | 5. M.Com. | 282 | 65 | 347 |
|  | 6. B.Ed. | 585 | 175 | 760 |
|  | 7. Junior \& Senior Diploma in Linguistics | 16 | 7 | 23 |
|  | 8. Diploma in Public Administration | 47 | 7 | 54 |
|  | 9. PG Diploma in Industrial Relations \& | 1,697 | 48 | 1,745 |
|  | Personnél Management.** |  |  |  |
|  | 10.Diploma in Library Science | 127 | 39 | 166 |
| Central Institute of | 1. M.A. | 12 | 13 | 25 |
| English \& Foreign | 2. PG Certificate in the Teaching of English | 369 | 262 | 631 |
| Languages $\dagger$ | 3. PG Diploma in the Teaching of English | 99 | 84 | 183 |
| BIHAR |  |  |  |  |
| Patna | 1. Inter Arts | 555 | 472 | 1027 |
|  | 2. Inter Com. | 333 | 12 | 345 |
|  | 3. B.A. | 435 | 234 | 669 |
|  | 4. B.Com. | 223 | 4 | 227 |
| Ranchi | 1. M.A. (Pol.Sc.) | 70 | 42 | 112 |

APPENDIX XXVII (Contd.)

|  | State/University Title of the Correspondence Course | Enrolment for the year 1986-87 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Men | Women | Total |
| GUJARAT |  |  |  |  |
| Gujarat Vidyapeeth | 1. M.A. in Gandhian Thought | 58 | 5 | 63 |
|  | 2. M.Ed. (primary Education) | 25 | 1 | 26 |
| HARYUANA |  |  |  |  |
| Kurukshetra | 1. B.A. | 3733 | 116 | 3849 |
|  | 2. M.Com. | 159 | 48 | 207 |
|  | 3. PG. Diploma in Tourism \& Hotel Management | 281 | 21 | 302 |
| HIMACHAL PRADESH |  |  |  |  |
| Himachal Pradesh* | 1. Pre-University | 1117 | 61 | 1,178 |
|  | 2. B.A. | 1345 | 77 | 1,422 |
|  | 3. M.A. | 1530 | 534 | 2,064 |
|  | 4. M.Com. | 744 | 110 | 854 |
|  | 5. M.Ed. | 1289 | 374 | 1,663 |
| JAMMU \& KASHMIR |  |  |  |  |
| Jammu | 1. B.A. | 54 | 17 | 71 |
|  | 2. B.Com. | 9 | 1 | 10 |
|  | 3. M.Com. | 91 | 27 | 118 |
|  | 4. LL.B. | 570 | 11 | 581 |
|  | 5. B.Ed. | 247 | 153 | 400 |
|  | 6. Certificate course in Urdu | N.A. | N.A. | 55 |
|  | 7. Certificate course in English Improvement | N.A. | N.A. | 60 |
| Kashmir | 1. B.A. | 73 | 14 | 87 |
|  | 2. B.Com. | 17 | 1 | 18 |
|  | 3. B.Ed. | 242 | 148 | 390 |
|  | 4. LL.B. | 188 | 19 | 207 |
|  | 5. Certificate courss in Hindi \& Urdu | 19 | 3 | 22 |
|  | 6. Certificate Course in Library \& Information Science | 9 | 15 | 24 |
| KARNATAKA 3976 |  |  |  |  |
| Mysore | 1. B.A. |  |  | 3976 |
|  | 2. B. Com . | 363 | 93 | 456 |
|  | 3. M.A. | 1709 | 680 | 2389 |
|  | 4. Certificate course in Kannada for Non-Kanada speakers through English, Urdu \& Hindi media | 22 | 25 | 47 |
|  | 5. Post Pre-University Diploma Course in Kannada | 93 | 56 | 149 |
|  | 6. PG Diploma course in English | 251 | 76 | 327 |
|  | 7. Diploma course in Journalism | 140 | 88 | 228 |
| KERALA 265 |  |  |  |  |
| Calicut | 1. Pre-degree |  | 52 | 250 |
|  | 2. B.A. 3. B.Com. | 180 65 | 70 26 | 250 91 |
| Cochin* | 1. B.G.L. | 109 | 15 | 124 |
|  | 2. Bachelor of Banking \& Commerce | 51 | 19 | 70 |
|  | 3. Diploma in Banking | 39 | 13 | - 52 |
|  | 4. M.Sc. (Maths.) | 101 | 45 | 146 |
| Kerala. | 1. Pre-degree | 640 | 154 | 794 |
|  | 2. B.A. | 884 | 560 | 1444 |
|  | 3. B.Com. | 378 | 147 | 525 |
|  | 4. M.A. | 625 | 227 | 852 |
|  | 5. M.Com. | 443 | 77 | 520 |
| MADHYA PRADESH |  |  |  | 927 |
| Bhopal | 1. B.A. | 745 407 | 182 13 | 420 |
|  | 2. B.Com. | 113 | 96 | 209 |

## APPENDIX XXVII (Contd.,

|  | State/University Title of the Correspondence Cour | Enrolment for the year 1986-87 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Men | Women | Total |
| MAHARASHTRA |  |  |  |  |
| Bombay | 1. B.A. | 1605 | 1369 | 2974 |
|  | 2. B.Com. | 1836 | 951 | 2787 |
|  | 3. M.A. | 402 | 762 | 1164 |
|  | 4. M.Sc. (Maths) | 153 | 34 | 187 |
|  | 5. M.Com. | 2186 | 1551 | 3737 |
|  | 6. Dip. in Higher Education | 187 | 238 | 425 |
|  | 7. Dip. in Financial Management | 370 | 60 | 430 |
|  | 8. Dip. in operation Research for Mangt. | 91 | 12 | 103 |
| Poona | 1. B.A. | 397 | 185 | 582 |
|  | 2. B.Com. | 452 | 111 | 563 |
| Shivaji | 1. Diploma in Higher Education | 213 | 47 | 260 |
|  | 2. B.Ed. | 413 | 199 | 612 |
| ;.N.D.T. Women's | 1. B.A. | - | 6308 | 6308 |
|  | 2. B.Com. | -- | 316 | 316 |
| TRISSA |  |  |  |  |
| Jtkal* | 1. Inter (Arts) | 43 | 49 | 92 |
|  | 2. Inter (Commerce) | 6 | - | 6 |
|  | 3. B.A. | 52 | 42 | 94 |
|  | 4. B.Com. | 20 | - | 20 |
|  |  |  |  |  |
| 'unjab* | 1. Pre-University | 625 | 153 | 778 |
|  | 2. B.A. | 2838 | 493 | 3331 |
|  | 3. B.Com. | 589 | 44 | 633 |
|  | 4. M.A. | 1638 | 1199 | 2837 |
|  | 5. Diploma in office organisation \& procedures | 164 | 24 | 188 |
| unjabi | 1. Punjabi Praveshika | 6 | 3 | 9 |
|  | 2. Gyani | 74 | 96 | 170 |
|  | 3. B.Com. | 45 | 6 | 51 |
|  | 4. B.A. | 922 | 373 | 1296 |
|  | 5. M.A. | 1165 | 981 | 2146 |
|  | 6. M.B.A. | 65 | - | 65 |
|  | 7. M. Phil. | 14 | 27 | 41 |
|  | 8. M.Ed. | 131 | 147 | 278 |
|  | 9. Dip Course in Library Science | 210 | 386 | 596 |
|  | 10. Dip. Course in Mngt. of Public Enterprises | 226 | 23 | 249 |
|  | 11. Dip. Course in Public Relations \& Advertising | 136 | 33 | 169 |
|  | 12. Dip. Course in Perssonnel Mnge. \& Industrial | 189 | 7 | 196 |
| * | 13. Dip. in International Marketing* | 35 | - | 35 |
|  | 14. Dip. in Marketing Management* | 137 | 3 | 140 |
|  | 15. Dip. in Materials Management* | 160 | 1 | 161 |
|  | 16. Dip. in Project Management* | 90 | - | 90 |
|  | 17. Dip. in Production Management* | 57 | 1 | 58 |
| AJASTHAN <br> ajasthan |  |  |  |  |
|  | 1. M.A. | 4168 | 2459 | 6627 |
|  | 2. M.Com. | 3012 | 1030 | 4042 |
|  | 3. B.Ed. | 87 | 274 | 361 |
|  | 4. Certificate course in Lib. Sc. | 277 | 49 | 326 |
|  | 5. PG Dip. in Joumalism, Tourism \& Hotel Mngt | 308 | 18 | 326 |
|  | 6. Diploma in Journalism** | 313 | 73 | 386 |



| State / University Tille of the Correspondence Course |  | Enrolment for the year 1986-87 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Men | Women | Total |
| Madurai Kamraj (Contd.) | 9. Open University Courses |  |  |  |
|  | (i) Introductory Cuurse | 809 | 216 | 1025 |
|  | (ii) Pre-Foundation | 2023 | 475 | 2498 |
|  | (iii) Foundation Course | 3924 | 1567 | 5491 |
|  | 10. Cert in Journalism \& Mass Communication | 707 | 180 | 887 |
|  | 11. Cert in Child Health \& Family Welfare | 101 | 157 | 258 |
|  | 12 Cert. in every day life | 18 | 6 | 24 |
| UITAR PRADESH |  |  |  |  |
| Allahatad | 1. B.A. | N.A. | N.A. | 1239 |
|  | 2. B. Com . | N.A. | N.A. | 342 |
| Meerut | 1. B.A. | 537 | 358 | 895 |
|  | 2. B.Com |  |  |  |
| DELHI | 3. M.A |  |  |  |
| Delhi | 1. B.A.(Pass) | 5964 | 7301 | 13265 |
|  | 2. B.Com. (Pass) | 5506 | 1678 | 7184 |
|  | 3. B.Com. (Hons) | 646 | 205 | 851 |
|  | 4 M.A. | 220 | 604 | 824 |
|  | 5. M.Com. | 277 | 303 | 580 |
|  | 6. Special courses in (Hindi, Pol. Science) | 24 | 15 | 39 |
| Indira Gandhi National | 1. Diploma in Distance Education | N.A. | N.A. | N.A. |
| Open University | 2. Diploma in Management | N.A. | N.A. | N.A. |

*Information pertains to 1984-85

*     * Information pertains to 1985-86
$\dagger$ Institution deemed to be university
N.A. Stands for No Available.


## APPENDIX - XXVIII

Percentage of Women Enrolment to Total Enrolment; Statewise 1982-83, 1983-84, 1984-85 1985-86 and $1986-87$.

|  |  | 1982-83 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Sl. No. | Statel <br> Union Territory | Total Enrolment | Women <br> Enrolment | Percentage of Women |
| 1 | 2 | 3 | 4 | 5 |
| 1. | Andhra Pradesh | 2,44,332 | 59,412 | 24.3 |
| 2. | Assam | 65,930 | 16,621 | 25.2 |
| 3. | Bihar | 1,98,018 | 29,189 | 14.7 |
| 4. | Gujarat | 1,98,438 | 62,367 | 31.4 |
| 5. | Haryana | 65,022 | 22,074 | 33.9 |
| 6. | Himachal Pradesh | 16,305 | 4,402 | 27.0 |
| 7. | Jammu \& Kashmir | 20,190 | 7,213 | 35.7 |
| 8. | Karnataka | 2,32,090 | 57,881 | 24.9 |
| 9. | Kerala | 1,25,111 | 61,287 | 49.0 |
| 10. | Madhya Pradesh | 2,25,580 | 62,505 | 27.7 |
| 11. | Maharashtra | 3,73,385 | 1,17,375 | 31.4 |
| 12. | Manipur | 8,555 | 2,977 | 34.8 |
| 13. | Meghalaya/Nagaland | 8,207 | 2,653 | 32.3 |
| 14. | Orissa | 64,853 | 12,988 | 20.0 |
| 15. | Punjab | 1,17,580 | 49,603 | 42.2 |
| 16. | Rajasthan | 1,54,863 | 30,959 | 20.0 |
| 17. | Tamil Nadu | 2,29,075 | 78,116 | 34.1 |
| 18. | Uttar Pradesh | 4,55,305 | 90,837 | 20.0 |
| 19. | West Bengal/Tripura/ Sikkim | 2,38,498 | 73,357 | 30.8 |
| 20. | Delhi | 91,756 | 38,340 | 41.8 |
|  | All India | 31,33,093 | 8,80,156 | 28.1 |


|  |  | 1983-84 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SI. <br> No. | State) <br> Union Territory | Total <br> Enrolment | Women Enrolment | Percentage of Women |
| 1. | Andhra Pradesh | 2,51,930 | 61,853 | 24.6 |
| 2. | Assam | 71,396 | 18,827 | 26.4 |
| 3. | Bihar | 2,41,478 | 32,972 | 13.6 |
| 4. | Gujarat | 1,96,110 | 63,638 | 32.4 |
| 5. | Haryana | 70,329 | 23,640 | 33.6 |
| 6. | Himachal Pradesh | 15.954 | 4.150 | 26.0 |
| 7. | Jammu \& Kashmir | 24,247 | 8,677 | 35.8 |
| 8. | Karnataka | 2,38,874 | 60,564 | 25.4 |
| 9. | Kerala | 1,29,375 | 62,463 | 48.3 |
| 10. | Madhya Pradesh | 2,44.765 | 67,837 | 27.7 |
| 11. | Maharashtra | 4,02,487 | 131,583 | 32.7 |
| 12. | Manipur | 9,590 | 3,398 | 35.4 |
| 13. | Meghalaya/Nagaland | 7,534 | 2,556 | 33.9 |
| 14. | Orissa | 66,790 | 13,662 | 20.5 |
| 15. | Punjab | 1,20.691 | 51.656 | 42.8 |
| 16. | Rajasthan | 1,63,273 | 33,597 | 20.6 |
| 17. | Tamil Nadu | 2,39.711 | 81,666 | 34.1 |
| 18. | Uttar Pradesh | 4.70 .135 | 96,487 | 20.5 |
| 19. | West Bengal/Tripura Sikkim | 2,51,765 | 82,014 | 32.6 |
| 20. | Delhi | 91,215 | 39,013 | 42.8 |
|  | All India | 33,07,649 | 9,40,253 | 28.4 |

## APPENDIX - XXVIII (Contd.)

|  |  | '1984-8.5 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $S l$. <br> No. | Statel <br> Union Territory | Total <br> Enrolment | Women Enrolment | Percentage of Women |
| 1. | Andhra Pradesh | 2,57,651 | 64,626 | 25.1 |
| 2. | Assam | 73,961 | 19,843 | 26.8 |
| 3. | Bihar | 2,36,956 | 34,047 | 14.4 |
| 4. | Gjarat | 2,00,297 | 66,633 | 33.3 |
| 5. | Haryana | 69,622 | 25,901 | 37.2 |
| 6. | Himachal Pradesh | 17,880 | 4,633 | 25.9 |
| 7. | Jammu \& Kashmir | 25,004 | 9,269 | 37.1 |
| 8. | Karnataka | 2,39,137 | 61,844 | 25.9 |
| 9. | Kerala | 1,33,302 | 64,948 | 48.7 |
| 10. | Madhya Pradesh | 2,51,382 | 73,406 | 29.2 |
| 11. | Maharashtra | 4,35,307 | 1,43,098 | 32.0 |
| 12. | Manipur | 9,291 | 3,249 | 35.0 |
| 13. | Meghalaya/Nagaland | 8,466 | 3,137 | 37.1 |
| 14. | Orissa | 70,105 | 14,531 | 20.7 |
| 15. | Punjab | 1,26,348 | 55,162 | 43.7 |
| 16. | Rajasthan | 1,69,587 | 36,241 | 21.4 |
| 17. | Tamil Nadu | 2,42,609 | 84,398 | 34.8 |
| 18. | Uttar Pradesh | 4,75,069 | 98,568 | 20.7 |
| 19. | West Bengal/Tripura/ Sikkim | 2,66,033 | 88,366 | 33.2 |
| 20. | Delhi | 96,089 | 40,239 | 41.9 |
|  | All India | 34,04,096 | 9,92,139 | 29.1 |

APPENDIX - XXVIII (Contd.)

|  |  | 1985-86* |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $S l$. <br> No. | Statel <br> Union Territory | Total <br> Enrolment | Women Enrolment | Percentage of Women |
| 1. | Andhra Pradesh | 2,72,595 | 68,806 | 25.2 |
| 2. | Assam | 79,878 | 21,966 | 27.5 |
| 3. | Bihar | 2,59,869 | 37,681 | 14.5 |
| 4. | Gujarat | 2,06,306 | 68,906 | 33.4 |
| 5. | Haryana | 73,451 | 28,205 | 38.4 |
| 6. | Himachal Pradesh | 19,096 | 4,869 | 25.5 |
| 7. | Jammu \& Kashmir | 26,904 | 9,954 | 37.0 |
| 8. | Karnataka | 2,47,507. | 65,346 | 26.4 |
| 9. | Kerala | 1,38,234 | 68,096 | 49.3 |
| 10. | Madhya Pradesh | 2,63,196 | 79,485 | 30.2 |
| 11. | Maharashtra | 4,68,826 | 1,56,150 | 33.3 |
| 12. | Manipur | 9.746 | 3,381 | 34.7 |
| 13. | Meghalaya/Nagaland | 8,643 | 3,344 | 38.7 |
| 14. | Orissa | 73,190 | 15,882 | 21.7 |
| 15. | Punjab | 1,31,149 | 58,361 | 44.5 |
| 16. | Rajasthan | 1,75,353 | 38,226 | 21.8 |
| 17. | Tamil Nadu | 2,50,858 | 89,807 | 35.8 |
| 18. | Uttar Pradesh | 4,85,521 | 1,02,444 | 21.1 |
| 19. | West Bengal/Tripura/Sikkim | 2,80,931 | 95.454 | 34.0 |
| 20. | Delhi | 96,644 | 42,249 | 42.4 |
|  | All India | 35,70,897 | 10,58,612 | 29.6 |

*Estimated

## APPENDIX - XXVIII (Contd.)

|  |  | 1986-87* |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline \text { SI. } \\ & \mathrm{No} . \end{aligned}$ | Statel <br> Union territory | Total <br> Enrolment | Women Enrolment | Percentage of women |
| 1. | Andhra Pradesh | 2,79,822 | 73,005 | 26.1 |
| 2. | Assam | 81,001 | 23,342 | 28.8 |
| 3. | Bihar | 2,65,095 | 40,040 | 15.1 |
| 4. | Gujarat | 2,13,549 | 73,219 | 34.3 |
| 5. | Haryana | 73.637 | 29,971 | 40.7 |
| 6. | Himachal Pradesh | 20.250 | 5,174 | 25.6 |
| 7. | Jammu \& Kashmir | 29,455 | 10,577 | 35.9 |
| 8. | Karnataka | 2,54,049 | 69,437 | 27.3 |
| 9. | Kerala | 1,43,593 | 72,359 | 50.4 |
| 10. | Madhya Pradesh | 2,72,458 | 84,461 | 31.0 |
| 11. | Maharashtra | 4,78,643 | 1,65,925 | 34.7 |
| 12. | Manipur | 11,046 | 3,593 | 32.5 |
| 13. | Meghalaya/Nagaland | 9,205 | 3.554 | 38.6 |
| 14. | Orissa | 73,637 | 16,876 | 22.9 |
| 15. | Punjab | 1,36,229 | 62,015 | 45.5 |
| 16. | Rajasthan | 1,80,412 | 40,619 | 22.5 |
| 17. | Tamil Nadu | 2,61,413 | 95.431 | 36.5 |
| 18. | Uttar Pradesh | 5.08,098 | 1,08,853 | 21.4 |
| 19. | West Bengal/Tripura/Sikkim | 2,87,186 | 1,01,962 | 35.5 |
| 20. | Delhi | 1,03,092 | 44,891 | 43.5 |
|  | Total | 36,81,870 | 11,25,304 | 30.6 |

[^13]| Year | Graduate |  |  | iostgraduate |  |  | Research |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | T | w | $\%$ | I | W | $\%$ | T | W | \% |
| 1975.76 | 21.46 .914 | 5.26 .2601 | 24.5 | 2.19 .827 | 54.824 | 24.9 | 18,381 | 4.477 | 24.4 |
| 1976.7 | 21.41 .542 | NA | NA | $2.18 .12 x$ | NA | NA | 21.910 | NA | NA |
| 1979.811 | 23.07 .924 | 5.95 .493 | 26.0 | 2.65 .251 | 71.963 | 27.1 | 29.570 | 7.331 | 24.8 |
| 1980-81 | $24.01 .+85$ | 6,52.808 | 27.2 | 2.73.3.37 | 77,001 | 28.2 | 32,171 | 8.780 | 27.3 |
| 1981-42 | 25.88 .754 | 7.16 .249 | 27.7 | 2.85 .892 | 81.645 | 28.6 | 34.588 | 9,581 | 27.7 |
| 19x?-83 | 27.57.893 | 7.73.342 | 28.0 | 2.96.103 | 36. 380 | 29.2 | 36.731 | 10,673 | 29.1 |
| 1983-8t | 29.12 .487 | 8.25 .419 | 28.3 | 3.13 .110 | 93.728 | 29.9 | 36.249 | 10.615 | 29.3 |
| 1984-55 | 29.94 .621 | 8.71 .571 | 29.1 | 3,22.541 | 48.415 | 30.5 | 38.160 | 11.332 | 29.7 |
| 1485-86. | 3i.42.389 | 9.99 .461 | 29.6 | 3.39 .235 | 104,803 | 30.9 | 39.280 | 12.703 | 32.3 |
| 1986-87* | 32.40.04n | 9.88 .117 | 30.5 | 3.44 .778 | 1,11.405 | 31.5 | 40.500) | 13.504 | 33.3 |

## APPENDIX XXIX (Cont.)

|  | Diploma/Certificate |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | 7 | W | \% | $T$ | w | , |
| 1975-76 | 40.983 | 9.601 | 23.4 | 24,26.109 | 5.95 .162 | 24 |
| 1976-77 | 49.983 | NA | NA | 24,31.563 | 6.27 .346 | 25. |
| 1979-80 | 45,834 | 10.255 | 22.4 | 26,48.579 | 6.89 .142 | 26. |
| 1980-81 | 45,444 | 9.936 | 21.9 | 27.52.437 | 7.48,525 | 27 |
| 1981-82 | 42,827 | 9.229 | 21.5 | 29.52,066 | 8.16 .704 | 27. |
| 1982-83 | 42,366 | 9,811 | 23.2 | 31.33,093 | 8.80 .156 | $2 x$. |
| 1983-84 | 45.803 | 10.501 | 22.9 | 33.07.649 | 9.41 .253 | $2 \times$. |
| 1984-85 | 43.774 | 10.821 | 24.7 | 34.04.096 | 9.92.139 | 29. |
| 1985-86* | 49.993 | 11,645 | 23.3 | 35,70,897 | 10.58 .612 | 29.6 |
| 1986-87* | 51,546 | 12.378 | 24.0 | 36,81,870 | 11,25,304 | 30.6 |

*Estimated $\quad T=$ Total Enrolment $\mathbf{W}=$ Women Enrolment $N$.A. Not Available

## APPENDIX XXX

Distribution of Student Enrolment: Sexwise and Facultywise 1975-76 to 1986-87

| $r$ | Arts |  |  | Science |  |  | Commerce |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 7 | W | $\%$ | $T$ | W | \% | $T$ | W | \% 10 |
| $5-76$ | 10.79 .990 | 3.92 .737 | 36.4 | 4.63 .841 | 1.11 .714 | $2+.1$ | 4.14.946 | 27.551 | 6.6 |
| 37 | 10.78 .967 | NA | NA | 4,43,013 | NA | NA | 4.30 .387 | $N \mathrm{~A}$ | NA |
| -80 | 10.76 .076 | 3.97 .914 | 37.0 | 5.08 .76 .3 | 1.40 .1988 | 27.5 | 5.16 .171 | 68.051 | 13.2 |
| 1.81 | 11.14.417 | 4,20,276 | 37.7 | $5.33,859$ | 1.53.868 | 28.8 | 5.54 .25 .3 | 88.1067 | 15.9 |
| 8.2 | 11.90 .177 | 4.54.990 | 38.2 | 5.78 .766 | 1.65 .666 | 28.6 | 6.28 .1131 | 1.04 .964 | 16.7 |
| 3.83 | 12,59,587 | 4,87.620 | 38.7 | 6,23,545 | 1.79,650 | 28.8 | 6.69 .813 | 1.16 .837 | 17.4 |
| $3-84$ | 13.38.106 | 5.17 .017 | 38.6 | 6.53 .092 | 1.89 .685 | 29.0 | 7.03 .638 | 1.31.379 | 18.7 |
| 4.85 | 13,72,277 | $5,40,686$ | 39.4 | 6,69,563 | 2.00 .632. | 30.0 | 7,38.506 | 1.42,222 | 19.3 |
| $5-86 *$ | 14,39.071 | 5.81 .813 | 40.4 | 7,03,467 | 2,14.581 | 30.5 | 7.67 .74 .3 | 1.46.724 | 19.1 |
| 7-87* | 14,83,794 | 6,18,467 | 41.6 | 7,25.328 | 2.28 .1099 | 31.4 | 7.91 .602 | 1.55 .967 | 19.7 |

## APPENDIX XXX (Cont.)

| Yedr |  | Educa |  |  | $g /$ Tech |  |  | Medicine |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $T$ | W | $\%$ | $T$ | W | $\%$ | $T$ | W |
| 1975-76 | $76.6+1$ | 30.110 | 39.3 | 96.067 | 2.061 | 2.1 | 1,05.140 | 19.208 |
| 1976-77 | 75.512 | NA | NA | 1,00,040 | NA | NA | 1.13.151 | NA |
| 1979-80 | 72.981 | 34.497 | 47.3 | 1.18 .6107 | 4.428 | 3.7 | 1.12,194 | 24,426 |
| $1980-81$ | 71.204 | 33.708 | 47.3 | 1,28,937 | 4,949 | 3.8 | 1,10,020 | 26,79 7 |
| 1981-82 | 71.168 | 34.383 | 48.3 | 1.30.189 | 5.866 | 4.5 | 1,13,794 | 29,792 |
| 1982-83 | 74,167 | 34,893 | 47.0 | 1,42,440 | 7,173 | 5.0 | 1,13,902 | 31,648 |
| 1983-84 | 74.679 | 35.337 | 47.3 | 1,53,131 | 8,469 | 5.5 | 1,18,989 | 33,676 |
| 1984-85 | 76,522 | 36,555 | 47.8 | 1,59,046 | 10,052 | 6.3 | 1,18,890 | 35,190 |
| 1985-86* | 82,131 | 40,227 | 49.0 | 1,64,261 | 9,634 | 5.9 | 1,28,552 | 37,898 |
| 1986-87* | 84,683 | 42,762 | 50.5 | 1,69,366 | 10,240 | 6.0 | 1,32,547 | 40,286 |

*Estimated

APPENDIX XXX (Cont.)

|  | Agriculture |  |  | Vet./Science |  |  | Law |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $T$ | W | \% | $T$ | $w$ | \% | $T$ | W | \% |
| 76 | 30.160 | 432 | 1.4 | 6.377 | 91 | 1.4 | 1,41.298 | 7.053 | 5.0 |
| $!$ | 31,860 | NA | NA | 6,700 | NA | NA | 1,40,680 | NA | NA |
| 31) | 39.962 | 1.101 | 2.8 | 7.435 | 202 | 2.7 | 1.77.448 | 10.975 | 6.2 |
| $\because 1$ | 39.231 | 1.311 | 3.3 | 7,648 | 249 | 3.3 | 1,74,374 | 11,948 | 6.9 |
| $\because$ | 39.318 | 1.390 | 3.5 | 8,173 | 352 | 4.3 | 1.74.445 | 12.309 | 7.1 |
| 3 | 39,425** | 1,595 | 4.0 | 8,797 | 424 | 4.8 | 1,83,153 | 13,576 | 7.4 |
| 4 | 41,588 | 1.719 | 4.1 | 9.268 | 470 | 5.1 | 1,94.555 | 15.156 | 7.8 |
| 45 | 41,741 | 2,045 | 4.9 | 9,413 | 506 | 5.4 | 1,95,708 | 15,745 | 8.0 |
| 湤 | 46,422 | 2,011 | 4.3 | 10.713 | 529 | 4.9 | 2,07.112 | 16.726 | 8.1 |
| * $7^{*}$ | 47.864 | 2,138 | 4.5 | 11,046 | 563 | 5.1 | 2,13,549 | 17,780 | 8.3 |

unated
vised

## APPENDIX XXX (Contd.)

FACULTY

*Estimated $\quad T=$ Total Enrolment $\quad W=$ Women Enrolment NA $=$ Not Available

. .
$\cdots 7 \frac{D}{7} 9265$
(IXXXIV)


[^0]:    * The University Grants Commission Act 1956 (Act No. 3 of 1956) as amended upto lst October, 1984.

[^1]:    * By adjustment

[^2]:    * By adjustment

[^3]:    * This does not include Rs.247.90 lakhs released towards UGC administration charges, pay of officers, establishment etc.

[^4]:    6.03 Cadre Review of Central Universities on Non-Teaching Staff:

[^5]:    * Stands for United Nations Pund for Population Actlvities.

[^6]:    * Estimated

[^7]:    ＊Excludes Junior Colleges and Colleges having only Diploma／Certificate Courses

[^8]:    * Also includes constituent colleges.

[^9]:    *By adjustment

[^10]:    3y adjustment

[^11]:    *This also includes Rs. $1,00000 /$ - allocated for the block year 1986-88.

[^12]:    *By adjustment

[^13]:    *Estimated

