# UNIVERSITY GRANTS COMMISSION 

REPORT FOR THE YEAR<br>1971-72



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

# D -10250 <br> $8 / 7.1 \%$ university grants commission 

1971-72

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# UNIVERSITY GRANTS COMMISSION 

ANNUAL REPORT<br>1st April 1971-31st March 1972

In compliance with Section 18 of the UGC Act, 1956, we present to the Government of India a report on the work of the Commission for the year 1971-72 to be laid before the Parliament.

Some clanges have occurred in the membership of the Commission. Shri P. Govindan Nair passed away in May 1971. Shri M.R. Yardi, Secretary, Department of Expenditure, Ministry of Finance, Government of India, was appointed member of the Commission in his place with effect from 14th June, 1971. On the retirement of Shri G.K. Chandiramani, Shri T.P. Singh*, Secretary, Ministry of Education and Social Welfare, Government of India, was appointed member of the Commission with effect from 30th June, 1971. Dr. P.B. Gajendragadkar resigned as ViceChancellor, Bombay University, and thus ceased to be a member of the Commission with effect from 1st October, 1971. Dr. George Jacob, ViceChancellor, Kerala University, was appointed member of the Commission in place of Dr. P.B. Gajendragadkar with effect from 29th December, 1971. Dr. S. Dhawan went abroad for one year in April 1971 and was, therefore, not able to attend the Commission's meetings. He ceased to be a member of the Commission from 6th October, 1971. (His term was due to expire in February, 1972). Dr. A.S. Adke and Professor A.B. Lal ceased to be members from 15th January and 1st February, 1972 respectively on the completion of their tenure as members. Dr. J.N. Bhan, Vice-Chancellor, Jammu University and Dr. Sarup Singh, Vice-Chancellor, Delhi University were appointed members of the Commission in the places of Dr. Adke and Professor Lai respectively.

The Commission expresses its profound sense of grief and loss at the demise of Shri P. Govindan Nair. The Commission is deeply grateful to Shri G.K. Chandiramani, Dr. P.B. Gajendragadkar, Dr. A.S. Adke, Professor A.B. Lal and Dr. S. Dhawan, for the valuable help and advice they gave to the Commission during their tenure as members.

[^0]
## INTRODUCTION

The growth and expansion in the ficld of higher education during the last 10 years are indicated by the facts and figures given below:

| Year | Number of <br> Universities* | Number of <br> Colleges** | Number of <br> Teachers** | Student <br> Enrolment*** |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 |
| $1961-62$ | 49 | 1,783 | 63,053 | $11,55,380$ |
| $1966-67$ | 77 | 2,749 | 93,251 | $19,49,012$ |
| $1971-72$ | 95 | 3,896 | $1,39,204$ | $32,62,314$ |

A chronological list of universities with their student enrolment and a statement showing the distribution of colleges according to courses of study during the period 1967-68 to 1971-72 are given in Appendices I and II. There were only 46 universities and three institutions deemed to be universities under Section 3 of the UGC Act in 1961-62. The number of universities rose to 68 and of institutions deemed to be universities to nine in 1966-67. In 1971-72, the number of universities was $86+$ and of institutions deemed to be universities nine.

The Commission has given its concurrence for the establishment of a university at Pondicherry. The Commission earlier considered a proposal for declaring the School of Planning and Architecture, New Delhi, as an institution deemed to be a university under section 3 of the UGC Act. It has been suggested to the Government of India that the possibility of declaring the School as an autonomous college of the Delhi University may be explored. As regards the proposal for dectaring the Institute of Science, Bombay, as an Institution deemed to be a university, the Commission was of the view that ordinarily the objective or need would be adequately, and in some ways more appropriately, met by giving the institute the status of an autonomous college.

The student enrolment in the field of higher education rose from 11.55 lakhs in 1961-62 to 32.62 lakhs in 1971-72. This shows that the enrolment has nearly trebled over a period of ten years. However, the average rate of increase in 1970-71 and 1971-72 declined perceptibly. This

[^1]was largely due to changes in the statutes of a number of universities permitting students to appear privately at various examinations. The enrolment for science and allied courses namely engineering and technology, medicine, agriculture, and veterinary science was 37.5 per cent of the total student enrolment in 1971-72. In pure science, the enrolment rose from 9.15 lakhs in 1969-70 to 9.88 lakhs in 1971-72. The statement in Appendices III to V indicate the annual increase in enrolment as well as the trends in student enrolment, faculty-wise and according to stages of instruction. There has been a significant increase in enrolment at the postgraduate and research levels. At the postgraduate stage, the number of students rose from 1.47 lakhs in 1969-70 to 1.80 lakhs in 1971.72. The percentage of students at this level increased from 5.3 to 5.5 during this period. At the research level, the overall percentage of students increased from 0.4 to 0.5 as the actual number of students rose from 12,474 in 1969-70 to 14,995 in 1971-72.

The total strength of the teaching staff* in the university departments and colleges rose from 63,053 in 1961-62 to 93,251 in 1966-67 and to 1,39,204 in 1971-72. The strength and distribution of the teaching staff, according to designation, in the universities and colleges are shown in Appendices VI and VII.

In recent years, the percentage increase in the output of graduates has been significant in the field of science and commerce. A statement showing the degrees awarded in the different faculties during the period 1966-67 to 1968-69 is given in Appendix VIII.

There has obviously been a notable increase in the volume and diversity of educational effort at various levels. The extraordinary tempo of growth and expansion has necessitated considerable extension of the existing facilities, alongside endeavours to maintain and improve the quality and standards of higher education. The Commission has made planned and concerted efforts to meet the challenge of expansion as well as the need for raising the level and quality of academic work.

## GRANTS TO UNIVERSITIES

The programmes of dcvelopment formulated by the universities were earlier assessed by committees appointed by the Commission. On the basis of the recommendations of these committees, the Commission allocated grants amounting to Rs. 56.30 crores to 66 universities and eight institutions deemed to be universities for the period 1966-67 to 1973-74. In

[^2]addition, an amount of Rs. 6.50 crores was allocated for the Jawaharlal Nehru University for the period ending 1973-74.

The programmes for which the Commission has provided assistance to the universities include diversification of the courses of study, expansion and development of facilities for teaching and research, and the provision of additional staff, building accommodation, library and laboratory facilities, books and equipments, student amenities, etc. The development grants provided to the universities (including institutions deemed to be universities) during the last three years were as follows :

|  | (Rupees in lakhs) |  |  |
| :--- | :---: | :---: | :---: |
| Purpose | Grants paid |  |  |
| 1 | 2 | $1970-71$ | $1971-72$ |
| Science subjects | 360.56 | 3 | 4 |
| Humanities and Social Sciences | 171.74 | 209.63 | 404.10 |
| Engineering and Technology | 268.14 | 186.36 | 190.10 |
| Miscellaneous schemes* | 334.68 | 422.63 | 646.46 |

Development expenditure on teaching and research in science rose from Rs. 3.61 crores in $1969-70$ to Rs. 4.04 crores in 1971-72. The break up of the expenditure on science under major heads during the last three years was as follows:
(Rupees in lakhs)

| Items of expenditure | Grants paid |  |  |
| :--- | :---: | :---: | ---: |
|  | $1969-70$ | $1970-71$ | $1971-72$ |
| Staff | 55.73 | 68.90 | 102.11 |
| Equipment | 99.65 | 78.09 | 83.83 |
| Books and journals | 74.25 | 59.53 | 40.17 |
| Laboratories and other buildings | 85.50 | 88.86 | 116.91 |
| Centres of advanced study | 44.85 | 48.44 | 56.18 |
| Miscellaneous | 0.58 | 1.60 | 4.90 |
| Total | 360.56 | 345.42 | 404.10 |

The expenditure on additional staff and equipment rose significantly in 1971-72. There has been a substantial increase in the number of senior academic positions in the universities. Provision has also been

[^3]made for workshop facilities needed for designing and fabrication as well as for maintenance and servicing of equipment.

The proposals of some universities for introducing new courses of study and increase in admissions to the postgraduate science departments were examined by expert committees. On the basis of the recommendations of these committees, financial assistance was made available to the universities concerned. The proposals for computer facilities were examined in consultation with the Department of Electronics. The Commission decided that grants for computers would be made available to the universities in addition to the fourth plan allocations for their development programmes. The proposal of the Indian Institute of Science, Bangalore, for the development of computer facilities was accepted, and additional grants were provided to the Institute in consultation with the Department of Electronics. Grants have also been provided to some universities for the installation and maintenance of sophisticated equipment. The recommendations of a symposium on environmental science and ecology held in New Delhi in February 1971 have been circulated to the universities and the proposals received are being scrutinised by an expert committee. It has been suggested on the advice of an expert committee that the high altitude laboratory at Gulmarg may be developed into an inter-disciplinary research centre.

The development expenditure on teaching and research in humanities and social sciences during the period 1969-70 to 1971-72 was as follows:

|  | (Rupees in lakhs) |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Items of expenditure | Grants paid |  |  |  |
|  | $1969-70$ | $1970-71$ | $1971-72$ |  |
| 1 | 2 | 3 | 4 |  |
| Staff | 44.70 | 77.29 | 113.71 |  |
| Equipment | 5.59 | 5.07 | 6.09 |  |
| Books and journals | 62.21 | 54.67 | 39.01 |  |
| Buildings | 30.47 | 36.19 | 60.33 |  |
| Centres of advanced study | 24.56 | 23.89 | 28.87 |  |
| Area studies programmes | 4.21 | 3.49 | 2.37 |  |
| Teachers training programme | - | 9.03 | 3.72 |  |
| Total | 171.74 | 209.63 | 254.10 |  |

The rise in expenditure on staff indicates that there has been a substantial increase in the academic positions.

On the recommendations of the committees which assessed the development programmes of the universities, grants amounting to Rs. 78.88 lakhs were earlier allocated for the construction or expansion of library buildings in the universities. The grants provided during 1969-70 to 1971-72 for the improvement of library facilities were as follows:

|  | (Rupees in lakhs) |  |
| :--- | :---: | :---: |
| Year | Grants paid |  |
|  | Library buildings | Books and journals |
| 1 | 2 | 3 |
| $1969-70$ | 19.08 | 167.93 |
| $1970-71$ | 13.87 | 140.66 |
| $1971-72$ | 19.43 | 96.96 |

The Commission continued to provide assistance to the universities for the consolidation and development of education and research in engineering and technology, including pharmacy and management studies. The expenditure incurred by the Commission on this account during the period 1969-70 to 1971-72 was as follows:

|  |  | (Rupees in lakhs) |  |
| :--- | :---: | :---: | :---: |
| Items of expenditure | $1969-70$ | $1970-71$ | 1971-72 |
| Staff and maintenance | 50.03 | 51.27 | 51.07 |
| Buildings | 80.08 | 38.20 | 30.22 |
| Books and journals | 31.46 | 26.47 | 17.78 |
| Equipment | 63.03 | 44.55 | 53.03 |
| Fellowships | 34.44 | 23.81 | 37.89 |
| Miscellaneous schemes | 9.09 | 2.06 | 0.78 |
| Total | 268.13 | 186.36 | 190.77 |

Financial assistance was provided, inter-alia, for the diversification of courses and new specialisations, research programmes, courses in chemical engineering, pharmacy and business administration, improvement of existing facilities, fellowships, etc. A non-recurring grant of Rs. 23.74 lakhs was made available to the Indian Institute of Science, Bangalore, for laboratory space and residential accommodation needed for the centre of research and training in radar communication. Grants were also made available for the development of courses in engineering and technology to the Universities of Andhra, Annamalai, Bangalore, Jodhpur, Osmania, Madras and Sri Venkateswara. For the development of management studies, assistance was given to the Universities of Allalabad, Kerala,

Madras and Madurai and the Punjabi University. The Commission also agreed to assist the Jadavpur University for the development of its course in pharmacy.

Information about assistance provided to the universities for a number of other programmes is given below:

## (i) Programme of Special Assistance to University Departments

The Commission had earlier agreed to provide special assistance to 27 selected university departments to improve the quality of their work in the field of postgraduate teaching and research, and for encouraging specialised studies and multi-disciplinary courses. On the basis of the recommendations of the expert committees which visited these departments, the Commission agreed to provide grants amounting to Rs. 1.75 crores for recurring and non-recurring expenditure for the improvement of facilities required for advanced studies and research in 26 departments. An additional staff of 14 Professors, 49 Readers, 43 Lecturers and Research Associates, 125 Senior and Junior Research Fellows was sanctioned for these departments. The departments concerned have been requested to appoint expert committees to advise them regarding their academic programmes. It has been agreed that the recurring assistance for staff etc., would, in the first instance, be provided for a period of five years. The position would thereafter be reviewed. It has also been decided to appoint a standing committee to advise the Commission regarding the implementation of this scheme and to suggest the extension of the Commission`s special assistance to more departments from time to time.

## (ii) Development of Teachers' Education and Research

The Commission has been providing financial assistance to university departments of education, outside the fourth plan allocations to the universities for their developmental programmes. This assistance is intended for the provision of essential facilities as well as the improvement of the quality in teaching and research in the field of teacher education. The proposals received from the universities are examined by visiting committees appointed by the Commission. During 1971-72, the Commission agreed to provide financial assistance amounting to Rs. 35.57 lakhs to ten universities for their programmes of teacher education. It was also agreed to provide assistance to the Bangalore and Poona Universities for the organisation of a summer institute and a seminar respectively.

So far, the proposals of 29 universities for the development of teacher education have been assessed by visiting committees appointed by the

Commission, and grants amounting to Rs. 109.58 lakhs have been approved for these universities on the recommendations of the committees as accepted by the Commission.

## (iii) University Centres of Postgraduate Studies

The Commission is of the view that the development of centres of postgraduate studies at suitable places, under the auspices of the universities concerned, and in collaboration with the colleges located in the neighbourhood, is generally helpful as regards the maintenance of proper standards. The centres of postgraduate studies and the subjects in which they are imparting insuruction are indicated below:

| Centre | Subjects |
| :---: | :---: |
| Anantapur (Sri Venkateswara University) | Physics, Mathematics, Chemistry, English and Telugu. |
| Coimbatore <br> (Madras University) | Physics, Chemistry, Mathematics, Botany, Zoology, Geography, Statistics, Economics, English, Social Work and Home Science (Biochemistry and Nutrition). |
| Guntur <br> (Andhra University) | Physics, Chemistry, Zoology, Mathematics, Economics, Commerce, Telugu and English. |
| Gulbarga <br> (Karnatak University) | Chemistry, Mathematics, Kannada and English. |
| Mangalore <br> (Mysore University) | Physics, Mathematics, Kannada, BioScience and Commerce. |
| Rohtak <br> (Panjab University) | Physics, Chemistry, Mathematics, English, Hindi, Economics and Political Science. |
| Tiruchirapalli (Madras University) | Physics, Chemistry, Mathematics, Botany, Zoology, Geology, English and Economics. |
| Warangal (Osmania University) | Physics, Chemistry, Botany, Zoology, Mathematics, Commerce, Public Administration, Telugu and English. |

The Commission had earlier agreed to give grants amounting to Rs. 20 lakhs for the development of each centre of postgraduate studies. Subsequently, it was agreed to extend the Commission's assistance for teaching
staff upto 1973-74. The matter has been further reviewed and it has been decided to raise the Commission's grant for each centre for postgraduate studies fromi Rs. 20 lakhs to Rs. 30 lakhs for the period ending 1973-74.

The Commission regretted its inability to accept the proposal of the University of Bihar for the establishment of centres of postgraduate studies at the C.M. College, Darbhanga and Rajendra College, Chapra. The Commission desired that the university may first develop its own departments of postgraduate studies.

A committee appointed by the UGC visited the centre for postgraduate studies at Goa under the auspices of the Bombay University to assess its developmental needs for the fourth plan. On the recommendations of this committee, the Commission decided to provide a grant not exceeding Rs. 20 lakhs to this centre for the fourth plan period ending 1973-74.

## (iv) Adult Education

The Commission had earlier agreed to provide assistance to the universities on a sharing basis of 75 (UGC): 25 (University) within the ceiling of Rs. 3 lakhs for each university, for the remaining period of the fourth plan, for programmes of adult or continuing education. A note on the role of the universities in adult education was also circulated. Proposals received from the following universitiesinstitutions deemed to be universities under the programme were accepted by the Commission :
(a) Bombay University
(b) Govind Vallabl Pant Agricultural University
(c) Gujarat University
(d) M.S. University of Baroda
(e) Sardar Patel University
(f) S.N.D.T. Women's University
(g) South Gujarat University
(h) Sri Venkateswara University
(i) Jamia Millia Islamia.
(v) Correspondence Courses

An expert committee on correspondence courses appointed by the Ministry of Education expressed the opinion that without such courses, in one form or the other, it would be difficult to meet the large-scale educational needs of the country. The correspondence system helps in extending educational opportunities and minimising educational costs. The Education Commission (1964-66) also recommended that the correspondence courses should be extended as widely as possible. The Commission's assistance for the introduction of correspondence courses in a university is limited to

Rs. five lakhs for a period of four years or the actual deficit, whichever is less. Information about universities which have introduced correspondence courses at various levels is given in the following statement:

| Name of the University | Corrrespondence courses offered |
| :--- | :--- |
| Delhi University | B.A. (Pass), B.Sc. (Gen.) Group A, |
|  | B.Com. (Pass). |
| Rajasthan University | B.Com. (Pass), M.A. |
| Punjabi University | Pre-University, B.A. |
| Mysore University | Pre-University, B.A. |
| Meerut University | B.A. |
| Madurai University | B.A. |
| Bombay University | I.A., I.Com. |
| Panjab University | P.U.C. |
| Andhra University | B.A., B.Com. |
| Himachal Pradesh University | P.U.C., B.A., M.A., B.Ed., M.Ed. |
| Sri Venkateswara University | B.A. |

(vi) Book Production

The Commission has been promoting the republication of low-priced editions of standard works originally published in the USA, UK and USSR. The books or titles to be published are evaluated by experts and suitable recommendations are then made by the Commission to the Ministry of Education and Social Welfare for this purpose. Upto 1970-71, about 1,500 titles were recommended to the Ministry for republication. In 1971-72, 90 books were evaluated by experts and the recommendations made were communicated to the Ministry. The Commission has also been helping the National Book Trust in the evaluation of books under the subsidised scheme of production of books.

In consultation with the Ministry of Education and Social Welfare, the Commission has undertaken a programme of providing support for the writing of quality books at the university level. For this purpose, fellows!ips are provided, each of the value of Rs. 500 per month, with a grant of Rs. 2,000 per annum for expenditure on contingencies. The scholars to whom fellowships are offered work in association with distinguished university teachers. In 1970-71, 73 projects were accepted under this scheme. In 1971-72, the number of projects accepted was 121.

## (vii) Maintenance Grants--Central Universities

The Commission provides grants to universities established or incorp. orated by a Central Act for maintenance in addition to funds for develop-
ment. The maintenance grants paid to the Central Universities for 1971-72 are indicated below:
(Rupees in lakhs)

| University | Grants paid |
| :--- | :---: |
| Aligarh Muslim University | 214.20 |
| Banaras Hindu University | 280.47 |
| Delhi | 132.30 |
| Visva-Bharati | 65.33 |
| Jawaharlal Nehru University |  |
| (a) School of International Studies | 13.00 |
| (b) School of Russian Studies | 6.50 |
| Total | 711.80 |

Funds amounting to Rs. 9 lakhs were separately provided for the maintenance of hospitals attached to the medical colleges of the Aligarh Muslim University and the Banaras Hindu University.

The maintenance expenditure of the Jawaharlal Nehru University is met from 'plan' funds and a sum of Rs. 19 lakhs was paid to the university for this purpose in 1971-72.

A sum of Rs. 7.60 lakhs was made available to the Central Universities in 1971-72 for projects relating to campus development.

Provision was made for payment of interim relief and additional interim relief to the employees of the Central Universities on the same basis as for corresponding employees of the Central Government.

## (viii) Unassigned Grants

Unassigned grants amounting to Rs. 22.59 lakhs were placed at the disposal of the universities in 1971-72 for meeting expenditure on a number of approved programmes. These grants could be utilised by them according to their needs, without reference to the Commission. Unassigned grants are available inter alia for the following purposes:
(a) Exchange of teachers.
(b) Extension work by the university teachers.
(c) Travel grants to teachers and research scholars for visiting centres of research in the country.
(d) Travel grants for attending seminars and conferences in India.
(e) Preparation and development of teaching materials and aids.
(f) Travel grants to teachers for attending international conferences.

For the maintenance of the UGC Unit in the offices of the universities, expenditure upto a fixed ceiling may be met from the unassigned grants. The Commission has also agreed to assist a number of universities for the appointment of development officers on a cent per cent basis outside the fourth plan allocations made to the universitics. The responsibility for maintaining the posts of development officers after the Commission's assistance ceases by the end of the fourth plan period will be taken over by the universities.

## (ix) Publication Grants

The Commission carlier agreed to allocate grants amounting to Rs. 29.55 lakhs to 77 universities (including institutions deemed to be universities) for the plan period ending 1972-73 for the publication of research works and doctoral theses. These grants are provided on a cent per cent basis and can be utilised by the universities according to their needs and requirements. The benefits of the scheme are also available to the colleges affiliated to various universities. During 1971-72, grants amounting to Rs. 1.57 lakhs were paid to the universities and institutions deemed to be universities under the scheme.

## (x) Area Studies

In view of India's close social, political and economic relations with several countries, there is a growing need for Indian scholars with specialised knowledge of the life, institutions, culture and languages of various regions. Under the programme of area studies, the Commission intends to develop a few centres in the universitues for undertaking specialised studies and research on specific areas. The programme envisages intensive courses in the languages of the areas concerned, and inter-disciplinary collaboration, specially in the field of social sciences.

The following centres have been selected for the Commission's assistance under the programme :

| University | Area of Specialization |
| :--- | :--- |
| Aligarh Muslim University | West Asian Studies. |
| Bombay University | Studies rclating to East Africa <br> and the Soviet Union. |
| Delhi University | (a) Studies relating to Pakistan |
|  | (b) Chinese \& Japanese Studies |
| Jadavpur University | (c) African Studies |
| Studies relating to South-East Asia |  |
| and Pakistan. |  | and Pakistan.


| University | Area of Specialization |
| :--- | :--- |
| Madras University | South Asian Studies |
| Poona University | Studies relating to Latin America |
| Rajasthan University | South Asian Studies |
| Sri Venkateswara University | Studies relating to Indo-China |

Financial assistance is being provided to the universities concerned, on a cent per cent basis, for the studies undertaken by them. During 1971-72, the proposal of the Poona University for the development of Latin American Studies was inter-alia accepted at an estimated cost of Rs. 3.95 lakhs. The proposal of the Rajasthan University for organising a seminar on political development in South Asia was also accepted.

## (xi) Archival Cells

The Commission has agreed to provide limited assistance to six universities for the requisite staff for their archival cells. The Commission's assistance will be on a cent per cent basis for the fourth plan period ending 1973-74.
(xii) Celebration of Annisersaries

The Commission agreed to make a contribution not exceeding Rs. 500 in each case for the celebration of the anniversaries of great personalitics.

In connection with the birth centenary of Deshbandu C.F. Andrews the Commission paid an amount of Rs. 10,000 to the Visva-Bharati and Rs. 5,000 to St. Stephen's College, Delhi, for developing the existing library facilities.

The Commission welcomed a proposal from the Goverament of India for the organisation of Sri Aurbindo Memorial Lectures. For this purpose, an endowment of three lakhs would be available to the Commission. On the recommendations of a committee, it was agreed to invite Sri Aurovinda Basu to deliver the memorial lectures in August 1972.

## CENTRES OF ADVANCED STUDY

A major programme, undertaken by the Commission, for encouraging the pursuit of excellence in specific fields, and raising the level and quality of academic achievement at the postgraduate and research levels, is the development of Centres of Advanced Study in the universities. The Commission has been providing special assistance to 30 university depart-
ments, selected to function as Centres of Advanced Study in various fields on the basis of their work, existing facilities, and potential for further development. A list of Centres of Advanced Study and their areas of specialisation is given in Appendix IX. The development programmes of these centres for the fourth plan period ending 1973-74 were earlier assessed by committees appointed by the UGC, and grants amounting to Rs. 4.71 crores were approved for these centres. Financial assistance is avaiiable to the centres on a cent per cent basis for library and laboratory facilities, academic and non-academic staff, scholarships and fellowship;, publication of dissertations and research papers, etc. The total grants made available to these centres in 1971-72 were Rs. 85.05 lakhs.

In addition to a nucleus of permanent staff. the centres have a substantial number of scholars on deputation from other universities and colleges in the country, and some from abroad. Visiting fellowships have been made available to the centres to enable them to invite scientists and scholars from within and outside the country. Other fellowships available at the centres cnable them to attract talented students and teachers from various parts of the country.

The centres of advanced study continued to organise seminars and symposia on specialised topics and a large number of publications were brought up by them. As in earlier years, the Centres of Advanced Study in Mathematics, in the Universities of Bombay, Panjab, Madras and Calcutta continued the programme of inviting selected teachers from affiliated colleges for spending an academic year at the centres to enable them to improve their competence and to initiate them into research. A similar programme has been undertaken by the Centre of Advanced Study in Education at the M.S. University of Baroda. An international symposium on Morphogenesis in Plant Cell, Tissue and Organ Cultures was held at the Centre of Advanced Study in Botany, Delhi University, in November 1971. The Fourth Cell Biology Conference was held at the Centre of Advanced Study in Zoology, Delhi University, in December 1971. An international symposium on Lipids was organised in December 1971 at the Indian Institute of Science, Bangalore, by the Centre of Advanced Study in Biochemistry. The 10 th all-India seminar on Advaita and Western Thought and the 11th all-India seminar on the Concept of God were held at the Centre of Advanced Study in Philosophy, Madras University, in August 1971 and March 1972, respectively. The three Centres of Advanced Study in Philosophy at the Banaras Hindu University, Madras University and the VisvaBharati also organised seminars in collaboration with each other.

Each Centre of Advanced Study has an advisory committee consisting of the vice-chancellor, professors of the centre, and experts from outside to
review the programme of work of the centre from time to time. The Commission has also decided to appoint assessment committees to evaluate the work of the centres and to consider the question of financial assistance to the centres beyond the fourth plan period.

As hitherto, the Unisco continued to give assistance to the Centres of Advanced Study for their programmes of teaching and research. This assistance came mainly from the USSR in the shape of cquipment, expert services and training of Indian scholars in the USSR. Proposals regarding Unesco assistance to the Centres of Advanced Study for the period 1972-78 were submitted to the Government of India. A provision of $\$ 1.85$ million was made by the Government for the purpose in the overall programme of Unesco assistance for the country. During 1971-72, four Unisco consultants visited six centres of advanced study and six fellows from these centres went abroad for specialised studies and training. Equipment worth $\$ 90,000$ was received during the year. The services of Professor N.P. Groushinsky, Professor and Vice-Pro-Rector of the Astronomy Institute, Moscow University, were made available as project coordinator in place of Professor I.S. Vashakidze who left India in July, 1971 at the end of his assignment.

As a result of the visit of Dr. V. Parail, Director, Division of International Cooperation in Scientific Research, Unisco, who came to India in 1971, proposals were formulated to organise a short term course in Physiological Plant Pathology at the Centre of Advanced Study in Botany, Madras University. Steps have also been taken for organising a short :erm course at the Centre of Advanced Study in Geology, Panjab University, and a training programme in Computer Sciences at the Indian Institute of Science, Bangalore. In the aide memoire signed during the visit of Dr. Parail, it was mentioned that a number of centres of education and research in science in India could be considered as suitable places for the development of regional activities in basic sciences in Asia. Such activities could include organisation of short and long term training courses periodically, exchange of fellows and scientific information, and organisation of joint research programmes. It was mentioned that the Unesco would give its support to these activities including some financial assistance.

A number of centres of advanced study were bencfitted under the programme of British assistance. Nineteen British scientists and scholars visited the centres of advanced study and 22 Indian scientists and scholars visited the United Kingdom for advanced study and research. A British delegation led by the Chairman of the Inter-University Council for Higher Education Overseas and comprising representatives of the British Council and the Overseas Development Organisation in the course of discussions
with the Commission agreed that academic collaboration would be most fruitful if more university departments and centres in India and in Britain with common academic interests in particular areas or fields could be identiffed.

Proposals have been invited under the Colombo Plan for the import of spares needed for British equipment available in the universities.

## ASSISTANCE TO COLLEGES

Colleges represent an important sector of higher education in the country. The number of colleges has risen rapidly in response to the growing demand for higher education. During the preceding period of five years i.e. 1967-68 to 1971-72, approximately 1,000 new colleges came into existence. The number of colleges rose from 2,899 in 1967-68 to 3,896 in 1971-72. In the field of arts, science and commerce, 744 new colleges came into existence during the period. The number of colleges of education increased by 67 and of medicine (including pharmacy, nursing and dentistry) by 45. A statement showing the increase in the number of colleges is given in Appendix II.

The student enrolment in the affiliated colleges was 25.09 lakhs as against 3.33 lakhs in the university departments (including university colleges). Thus 88.3 per cent of the student population was receiving instruction in the affiliated colleges in that ycar. Over 90 per cent of the students receiving instruction in science, commerce and medicine were in the affiliated colleges. Over 90 per cent of the students at the graduate level, and 49.3 per cent and 11.1 per cent at the postgraduate and research levels respectively were enrolled in the affiliated colleges. Statements showing the faculty-wise and stage-wise enrolment in the universities and colleges are given in Appendices X and XI .

The number of teachers in the affiliated colleges in 1971-72 was $1,16,362$ as against 22,842 in the university departments (including university colleges). This shows that about 85 per cent of the total academic staff was working in the affliated colleges in that year. The strength and distribution of academic staff in the university departments and the affiliated colleges are shown in statements given in Appendices VI and VII. The facts and figures given above indicate the overwhelming importance of colleges in the existing system of higher education in the country. The need for improving the quality and standards of education in the colleges is obvious and pressing. The quality of higher education in India will largely depend on the standards maintained by the colleges.

The Commission has been providing assistance to the colleges under various programmes of development. A total grant of Rs. 1.49 crores was made available to the colleges in 1966-67. In 1971-72, the grants to colleges amounted to Rs. 9 crores. The Commission's assistance to colleges has been diversified to meet varied needs of development and has been stepped up almost six-fold. A substantial portion of the outlay during 1971-72 was for provision of library and laboratory facilities including acquisition of science equipment, books and journals and for the improvement of science teaching in the colleges. A statement of the development grants paid to the colleges is given in Appendix XII.

Matters relating to the development of colleges are considered by a standing advisory committee constituted by the Commission for the purpose. On the advice and recommendations of this committee, the programme of assistance to colleges has been diversified and strengthened.

The non-professional colleges of the Universities of Rajasthan, Kerala, Calicut, Berhampur, Sambalpur and Utkal have been visited by committees appointed by the Commission*. These committees have made a study of the problems and dificulties faced in these colleges and suggested steps that might be taken for the improvement of quality and standards of education in the colleges. The reports of the committees have already been made available to the universities and the State Governments concerned.

## Postgraduate Studies

The Commission has been providing financial assistance to the colleges for the development of postgraduate studies. Grants are provided for additional staff, teaching accommodation, library and laboratory facilities etc. on a sharing basis, within the prescribed ceilings. The Commission's assistance under this programme was earlier raised substantially. For the development of postgraduate studies in the humanities and social sciences, the assistance from the Commission to a college during the fourth plan period (inclusive of payments made in respect of continuing projects from earlier plan periods) has been raised from Rs. $1,00,000$ to Rs $1,50,000$. For postgraduate departments in science subjects, the Commission's grant to a college was raised from Rs. $1,00,000$ to Rs. $1,50,000$ each for physics and chemistry; from Rs.75,000 to Rs. 1,00,000 each for botany, biochemistry, home science and geology; and from Rs. 50,000 to Rs. 75,000 each for anthropology, geography and mathematics (including statistics). The Commission shares 50 per cent of the approved cost of buildings and additional teaching

[^4]staff and $75 \%$ for equipment and books. An assurance is required that the additional posts created under the scheme will be continued and maintained by the colleges concerned when assistance from the Commission for this purpose ceases.

During 1971-72, proposals from 16 colleges were accepted by the Commission for the development of 22 postgraduate departments of science and grants amounting to Rs. 14.13 lakhs were approved for the purpose. The number of colleges assisted under the scheme for the development of postgraduate studies in science subjects during the Fourth plan period has now risen to 120 . The Commission's grants under this programme will help the development of 296 postgraduate science departments in the colleges.

During the year under review, proposals from 13 colleges were accepted for the development of postgraduate studies in humanities and social sciences. The number of colleges for which assistance has been approved for this scheme during the current plan period is now 107.

Payments are made in instalments to the colleges concerned keeping in view the progress of work and expenditure under the sanctions given by the Commission. In 1971-72, payments for the development of postgraduate studies in science subjects amounted to Rs. 15.99 lakhs and for the humanities and social sciences to Rs. 7.58 lakhs.

## General Facilities

Apart from grants for postgraduate studies, assistance is also given to colleges on the prescribed sharing basis for the provision of general facilities such as extension of libraries and laboratories, purchase of books and equipment, provision of additional accommodation for teaching, nonresident student centres and residential accommodation for teachers and students. The assistance to a college for the provision of general facilities is limited to Rs.3,00,000 for the period 1966-67 to 1973-74. This is inclusive of grants paid or payable in respect of projects continuing from the earlier plan periods. In special cases, as assessed on the basis of the needs of a college, the merits of its development proposals and the progress made by the college for the implementation of its development programmes. assistance may be given to the institution beyond the financial ceiling o: Rs. $3,00,000$ upto a limit of Rs. $1,00,000$ on the usual sharing basis for various projects.

The Commission's assistance under this programme has helped $\varepsilon$ large number of colleges to expand and improve the existing facilities.

Information regarding various projects approved by the Commission in 1970-71 and 1971-72 is given in the following table:

| Project | (Rupees in lakhs) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1970-71 |  | 1971-72 |  |
|  | Number of proposals accepted | Grants approved | Number of proposals accepted | Grants approved |
| 1. Teaching accommodation, library and laboratory facilities | 214 | 183.14 | 349 | 352.58 |
| 2. Student hostels | 59 | 81.84 | 75 | 133.37 |
| 3. Teachers hostels staff quarters | 15 | 16.53 | 181 | 217.00 |
| 4. Non-resident student centres | 42 | 15.66 | 68 | 31.58 |

In addition, the Commission approved the payment of grants amounting to Rs. 4.20 lakhs for the provision of tube wells and over-head tanks in 22 colleges, Rs. 5.12 lakhs for cycle sheds in 35 colleges, Rs. 1.58 lakhs for provisions of chalk boards in 78 colleges and Rs. 3.10 lakhs for the provision of semi-micro analysis equipment in 82 colleges.

During the year under review, 776 projects were approved by the Commission under this programme for which the Commission's assistance would amount to Rs. 5.94 crores. Assistance for the projects mentioned above is at present not available to colleges of agriculture, engineering and technology and medicine.

In addition to the financial assistance available to colleges on the prescribed sharing basis upto a limit of Rs. $3,00,000$ per college, the Commission has been providing basic grants for colleges for books and science equipment on a cent per cent basis. The grant for books is determined keeping in view the student enrolment and for science equipment on the basis of the subjects taught at the graduate and postgraduate levels. The details of the programme were given in the report of the Commission for 1970-71. Basic grants for books were made available to more than 2,500 colleges and for science equipment to more than 1,500 colleges. During 1971-72, the Commission's grants to 1,512 colleges for books and journals amounted to Rs. 37.99 lakhs. For science equipment, a sum of Rs.106.38 lakhs was paid to 1,488 colleges.

In view of the pressing need for residential accommodation for the teaching staff in the colleges, the Commission decided to provide assistance to selected colleges for the construction of teachers' hostels outside the normal financial ceiling of Rs. $3,00,000$ per college for the current plan period. It was agreed to give this assistance to colleges which have functioned for at least ten years and have a staff of 40 teachers. The Commission shares 80 per cent of the approved expenditure on this account. The proposals received from the colleges under this scheme were examined by a committee which recommended financial assistance amounting to Rs. 1.55 crores for 114 colleges affiliated to various universities. The proposals of these colleges have been accepted by the Commission.

## College Science Inprovement Programme

As explained in the Commission's report for 1970-71, a special programme has been undertaken for the improvement of science teaching in colleges. This is being conducted at two levels as under:
(a) Assistance to selected colleges for better methods of instruction, laboratory equipment and workshop facilities, refresher courses for teachers, project work, special training for gifted students etc.
(b) Assistance to selected university departments for development of improved courses of study and curriculum material, organisation of orientation courses for college teachers, development of workshop facilitics and teaching aids, inviting selected teachers to spend an academic year with a university department and to encourage teachers to undertake research etc.

Significant progress has been achieved under this programme. Thirteen projects to be undertaken by the university departments at an estimated cost of Rs. 104 lakhs have so far been approved. It has been agreed to provide special assistance under this programme to 77 colleges. The estimated cost of development projects of the colleges would be Rs. 213 lakhs.

The university departments under this scheme have undertaken programmes relating to curriculum development, training courses for teachers, initiation of new methods of teaching and job-oriented projects etc. Workshop facilities are being improved and developed. Special short term courses have been organised for training in laboratory techniques and workshop practices. Some colleges have executed a number of research projects designed to link science education with environment and productivity. Some colleges intend to establish production units to provide op-
portunities to undergraduate students for the acquisition of useful skills.

## Teachers' Training Colleges

The Commission has been providing separate assistance to teachers' training colleges in the present plan period. This is available for the provision of additional stafl, extension of library and laboratory facilities, construction of non-resident student centres and residential accommodation for students and staff etc. The financial ceiling of assistance to teachers, training colleges has already been raised by the Commission from Rs. 1.5 lakhs to Rs. 2 lakhs for a college conducting B.Ed. courses, and from Rs. 2 lakhs to Rs. 3 lakhs for a college providing both B.Ed. and M.Ed. courses. Ordinarily, the Commission's assistance is provided on the prescribed sharing basis but for schemes like the preparation of teaching aids, reading material, experimental work etc., assistance is provided on a cent per cent basis.

Earlier in 1970-71, basic grants were provided to teachers' training colleges for books, audio-visual aids and equipment*.

The proposals of 29 teachers' training colleges were accepted by the Commission during 1971-72. The estimated cost of these projects is Rs. 30.54 lakhs, against which the Commission's contribution would be limited to Rs. 19.13 lakhs on the approved sharing basis.

## Grants to Delhi Colleges

The Commission continued to provide maintenance grants to the nonGovernment constituent;affiliated colleges of the Delhi University. Grants to these colleges during 1971-72 amounted to Rs. 3.67 crores (Rs. 2.40 crores non-plan and Rs. 1.27 crores plan). Non-recurring grants amounting to Rs. 29.27 lakhs were paid to the colleges in 1971-72 for various development projects approved by the Commission. During the year under review, approval was given to 15 colleges for introducing additional courses of study. A new women's college, Bharti Mahila College, sponsored by the Delhi Administration, was affiliated to the Delhi University during the year, bringing the total number of colleges, including the institutions maintained by the university to 41 . To meet the increasing demand for admissions, two more colleges e.g. Shyama Prasad Mookerjee College for Women and Mata Sundari College for Women, New Delhi were brought under the scheme of 'extended colleges', thus bringing the total number of such

[^5]colleges to 19. The 'extended colleges' have an effective student enroiment of 1,500 students. as against 1,000 students in other colleges, on the basis of a staggered work schedule.

## Medical Colleges

The Commission had in 1967-68 agreed to give a grant of Rs. 15,000 to each of the medical colleges for books and journals. A grant of Rs. 10,000 each was paid to the medical colleges in 1969-70, on a cent per cent basis for this purpose.

As stated in the report for 1970-71, the development plans of the Jawaharlal Nehru Medical College, Aligarh Muslim University and the College of Medical Sciences, Banaras Hindu University, were examined by committees appointed by the Commission. On the recommendations of these committees grants amounting to Rs. 41.28 lakhs were made available in 1971-72 to the Aligarh Muslim University and Banaras Hindu University for their medical colleges. These grants were meant for buildings, equipment, library facilities, and staff and maintenance, and other developmental projects.

In pursuance of the recommendations of the committee which examined the needs of the hospitals attached to the medical colleges of the Aligarh Muslim University and the Banaras Hindu University, grants amounting to Rs. 22.78 lakhs were made available to these universities in 1971-72 for buildings and equipment. It has been decided that recurring grants for the maintenance of the hospitals attached to the medical colleges of these universities would be paid by the UGC in accordance with the critcria approved by the Government of India. 'On account' grants amounting to Rs. 25 lakhs were made available to the two universities on this account.

The Delhi University established a new medical college and its requirements were assessed by a committee appointed by the Commission. An ad hoc grant of Rs. 6 lakhs was paid to the university during the year under review for the immediate requirements of the medical college.

## PROGRAMMES FOR TEACHERS

The provision of essential amenities and incentives for the teaching provision is an important factor for the maintenance and improvement of standards of education and research. The success of the educational process and plans of educational development ultimately rests on the ability and devotion of teachers. The Commission has undertaken several major programmes for the benefit and welfare of the teaching profession.

## SUMMER INSTITUTES, SEMINARS AND REFRESHER COURSES

The programme of summer institutes, seminars and refresher courses is intended to expose teachers to new concepts and developments in their respective fields of work so that they may improve their professional competence and effectiveness. In view of the rapid advance in various fields of knowledge, it is essential to have a continuous programme for acquainting teachers with modern curricula and techniques of instruction.

## (i) Summer Science Institutes for School Teachers

During 1971-72, 65 summer science institutes for school teachers ( 24 in mathematics, 13 in physics, 17 in chemistry and 11 in biology) were organised at different centres in the country in collaboration with the National Council of Educational Research \& Training and the National Council for Science Education. These included four institutes using Nuffield material, one each in biology, chemistry, mathematics and physics, organised in collaboration with the British Council. As many as 2,558 school teachers participated in these summer institutes. Funds for these institutes were placed at the disposal of the Commission by the National Council of Educational Research and Training, New Delhi.

So far 418 summer instituies in science subjects for school teachers have been organised and 16,297 teachers have attended these institutes as per details given below :

Summer Institutes for School Teachers: 1963-71
(Figures within brackets indicate the number of Institutes organised)

| Year | Number of Participants |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | ---: |
|  | Mathe- <br> matics | Physics | Chemistry | Biology | Total |
|  | $34(1)$ | $43(1)$ | $38(1)$ | $39(1)$ | $154(4)$ |
| 1963 | $169(4)$ | $170(4)$ | $148(4)$ | $153(4)$ | $640(16)$ |
| 1964 | $616(16)$ | $488(13)$ | $464(13)$ | $261(7)$ | $1829(49)$ |
| 1965 | $490(12)$ | $468(12)$ | $410(11)$ | $308(8)$ | $1676(43)$ |
| 1966 | $747(15)$ | $572(16)$ | $580(16)$ | $482(13)$ | $2381(60)$ |
| 1967 | $646(15)$ | $594(17)$ | $612(16)$ | $450(13)$ | $2302(61)$ |
| 1968 | $600(16)$ | $551(14)$ | $734(18)$ | $436(12)$ | $2321(60)$ |
| $1969^{*}$ | $903(21)$ | $610(15)$ | $523(14)$ | $400(10)$ | $2436(60)$ |
| $1970^{*}$ | $991(24)$ | $483(13)$ | $674(17)$ | $410(11)$ | $2558(65)$ |
| $1971^{*}$ | $5196(124)$ | $3979(105)$ | $4183(110)$ | $2939(79)$ | $16297(418)$ |
| Total |  |  |  |  |  |

[^6]During 1971-72, grants amounting to Rs. 7.35 lakhs were paid to the universities for the organisation of summer science institutes for school teachers.

Summer science institutes for school teachers for 1972 and onward are being organised by the National Council of Educational Research \& Training, New Delhi.

## (ii) Summer Institutes for College Teachers

During 1971-72, 56 summer science institutes for college teachers (16 in mathematics, 15 in physics, 12 in chemistry and 13 in biology) were organised in collaboration with the National Council for Science Education. These included one institute for college teachers in chemistry using Nuffield material, organised in collaboration with British Council. The total number of participants in these institutes was 1954. Up to 1971, 356 summer institutes in science subjects have been organised imparting training to 12,616 teacher participants. The table below shows the number of institutes and the enrolment therein, held since 1964 :

Summer Iustitutes for College Teachers: 1964-1971
(Figures within brackets indicate the number of institutes organised)

| Year | Number of participants |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mathematics | Physics | Chemistry | Biolog. |  |
| 1964 | 163 (4) | 166 (4) | 162 (4) | 168 (4) | 659(16) |
| 1965 | 269 (7) | 258 (8) | 248 (7) | 277 (7) | 1052(29) |
| 1966 | 326 (9) | 308 (9) | 344 (9) | 257 (7) | $1235(34)$ |
| 1967 | 560 (14) | 375(11) | 522(14) | 410(11) | 1867(50) |
| 1968 | 627(18) | 508(14) | 449 (14) | 525(15) | 2109(61) |
| 1969 | $500(14)$ | 524(17) | 457(13) | 372(10) | 1853(54) |
| 1970 | 405(12) | 601(19) | 476(14) | 405(11) | 1887(56) |
| 1971 | $570(16)$ | 543(15) | 425(12) | 416(13) | 1954(56) |
| Total | $3420(94)$ | 3283(97) | 3083(87) | 2830(78) | 12616(356) |

In 1971-72, the Commission organised nine short courses (modelled on the courses of the American Chemical Society) for the benefit of college teachers at various institutions and universities.
(iii) Summer Institutes in English Language Teaching

Fourteen summer institutes for college teachers in English language teaching were organised in collaboration with the Central Institute of

English, Hyderabad, and the British Council, New Delhi, during 1971-72. As many as 624 college teachers attended these institutes. The British Council made available the services of experts from the U.K. The Central lnstitute of English, Hyderabad, also provided the services of experts for these institutes. The British Council provided books and reading material. By the end of 1971-72, 67 summer institutes in English language teaching have been held and 3,185 college teachers throughout the country have attended these institutes.

To provide suitable incentives to the best participants of the summer institutes in English language teaching, the Commission awarded, during 1971-72, 13 fellowships of Rs. 300 per month for further training at the Central Institute of English, Hyderabad, to the outstanding participants from the summer institutes.

Follow-up programmes of the summer institutes in English language teaching were held at Madras, Madurai and Bangalore jointly and at Rajasthan for the participants of the institutes held in 1970.

## (iv) Summer Institutes for Postgraduate Students

With a view to accelerating academic advancement of outstanding postgraduate students, the Commission organised two summer institutes for their benefit, one each in chemistry and mathematics, under the auspices of Andhra University and Birla Institute of Technology and Science, Pilani.

## (v) Orientation Courses for New Junior Teachers from Affiliated Colleges

The Commission organises orientation courses for new/junior teachers from affliated colleges under the auspices of various universities. The objective of the programme is to familiarise fresh and junior teachers with the planning of courses of study, phasing out the teaching programmes during the year, holding of the class-tests and examinations, seting of question papers, correction work, evaluation of students performance, tutorials, lectures ctc. During 1971, nine universities organised oricntation courses for new/junior teachers from the affiliated colleges.
(vi) Research Participation Programme in Basic Sciences for College Teachers and Postgraduate Students

The reserch participation programme for college teachers in the basic sciences is intended to initiate bright teachers into the methodology and techniques of research in their disciplines under the guidance of university scientists. This is intended to benefit meritorious teachers working in rural areas and small towns isolated from the universities.

The research participation programme for postgraduate students is intended to foster and develop the spirit of enquiry and research among outstanding postgraduate students in the fields of mathematics. physics. chemistry and biology through initiation into research work and methodology under the guidance of eminent scientists in university departments.

The progress of the implementation of the scheme during 1968-72 is shown below:

Research Participation Programme: 1968-69 to 1971-72

|  | Number of Research Participants |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | College Teachers | Postgiaduate Students |  |  |  |  |
| Subject | $1968-69$ | $1969-70$ | $1971-72$ | $1968-69$ | $1969-70$ | $1971-72$ |
| Biology | 31 | 9 | 17 | 37 | 9 | 7 |
| Physics | 3 | 8 | 19 | 11 | 2 | 7 |
| Chemistry | 28 | 20 | 16 | 30 | 4 | 7 |
| Mathematics | 12 | 7 | 11 | 8 | - | 2 |
| Total | 74 | 44 | 63 | 86 | 15 | 23 |

(vii) Seminars, Refresher Courses, Symposia, Conferences etc.

In addition to the summer institutes, the Commission has been providing financial assistance to the universities for seminars, refresher courses, workshops, symposia and academic conferences in the humanities, sciences and social sciences. During 1971-72, 105 proposals relating to the organisation of seminars, refresher courses, etc. in science subjects and humanities and social sciences were accepted and the assistance amountirg to Rs. 8.01 lakhs was provided to the universities.

The programmes mentioned above have generally helped in improvirg syllabi and methods of instruction. The response to these programmes ha;, on the whole, been very enthusiastic and gratifying. The reports received from the Directors of the summer institutes, seminars and conferences indicate that the programmes organised have been of real value and beneft to the academic community.

## ASSISTANCE TO TEACHERS FOR RESEARCH

The Commission continued to give financial assistance to teachers for books, chemicals, equipment, field work, etc., required for research unde-taken by them. The Commission's grant under this scheme to a teacher is limited to Rs. 5,000 at a time, and this is normally to be utilised within a
period of two years. The projects approved and grants paid under this scheme during the last three years were as follows:
(Rupees in lakhs)

| Year | Projects approved |  |  |
| :---: | :---: | :---: | :---: |
|  | Science <br> Subjects | Humanities and <br> Social Sciences | Grants paid |
| $1969-70$ | 429 | 187 | 6.15 |
| $1970-71$ | 623 | 243 | 4.55 |
| $1971-72$ | 441 | 213 | 4.83 |

Since the institution of the scheme in 1963-64, financial assistance has been given under this scheme to 4,707 teachers, 1,602 in the humanities and social sciences and 3,105 in science subjects.

## EXCHANGE OF TEACHERS

Funds are available to the universities to enable them to invite reputed teachers and experts from other universities or institutions in the country to deliver lectures, conduct seminars or guide research work. Expenditure for this purpose can be met by the universities on a cent per cent basis out of the 'unassigned grants' placed at their disposal each year, without any reference to the Commission. The objective of the scheme is to utilise the services of talented academic personnel in the institutions of higher learning as widely as possible.

## NATIONAL ASSOCIATESHIPS

The Commission earlier decided to institute a scheme relating to national associateships. This is intended to provide opportunities to scientists and scholars, who will be designated as national associates, to visit and work for short periods at other institutions within the country of their choice which have special facilities for research or advanced studies undertaken by them. In 1971-72, 68 teachers from the universities and colleges were invited to participate in the programme. These teachers will visit the institutions of their choice thrice during a period of five years, each visit in a year not exceeding 12 weeks.

## NATIONAL LECTURESHIPS

A limited number of teachers and experts are selected each year as national lecturers for visiting some universities and colleges, to lecture on recent developments in their specialised fields and participate in programmes of advanced studies or research. Each lecturer is expected to visit at least three universities or institutions, and to spend not less than a week at each of them. The Commission provides an honorarium of

Rs. 1,000 and travel expenses to a national lecturer, and a grant of Rs. 250 for preparation of lecture aids etc.

In 1971-72, 26 teachers were invited to participate in this programme. Assistance was provided by the Commission for the publication of the lectures delivered by the participants.

## NATIONAL FELLOWSHIPS

In 1971-72, the Commission initiated a scheme relating to the award of national fellowships. This is intended to relieve teachers of outstanding eminence from their normal duties for a year or two to enable them to give their time and attention to research. The emoluments payable to a teacher are equivalent to his salary and other allowances. A grant of Rs. 3,000 is provided each year for secretarial assistance, travel and other expenses on contingencies. The Commission may also provide an additional contingent grant up to Rs. 2,000 per annum wherever considered essential. One national fellowship was awarded in the social sciences in 1971-72.

## TRAVEL GRANTS

Funds are available to the universities for giving travel grants to leachers and research workers, to enable them to visit centres of research and advanced study, or to attend conferences, seminars, etc. Expenditure on this account is met by the universities, on a cent per cent basis, out of the 'unassigned grant' provided to them, each year, by the Commission.

Financial assistance up to 50 per cent of the expenditure on international travel is also available to college teachers selected for attending international conferences abroad. Such assistance is given to a teacher who is invited to preside over a conference or a section of the conference or is invited to contribute a paper, provided the sponsoring university is willing to share 50 per cent of the expenditure on travel. During 1971-72, 32 teachers from the colleges were given assistance for attending international conferences.

## RETIRED TEACHERS

The Commission has been helping universities and colleges to utilise the services of selected teachers beyond the age of superannuation, provided they are otherwise fit to continuc their teaching and research. An honorarium of Rs. 6,000 per annum and an annual grant of Rs. 1,000 for contingencies related to the work undertaken are provided to the teachers under this scheme. In 1970-71, awards under this scheme were offered to 61 teachers. In 1971-72, awards were made available to 90 teachers. At the end of this year, 186 retired teachers, 113 in the humanities and social sciences and 73 in science subjects, were working in different institutions in the
country. This programme has helped universities and colleges to obtain the benefit of the experience and expertise of a number of reputed teachers after their retirement.

## RESIDENTIAL ACCOMMODATION

There is an urgent and pressing need for adequate residential accommodation for teachers. Within the resources avaitable, the Commission continued to give assistance to the universities and colleges for the provision of staff quarters and teacher's hostels. The grants provided for this purpose during the last three years are indicated below:
(Rupees in lakhs)

| Year |  | Grants paid |
| :--- | :---: | :---: |
|  | Universities | Colleges |
| $1969-70$ | 27.16 | 9.05 |
| $1970-71$ | 20.95 | 16.90 |
| $1971-72$ | 33.34 | 17.79 |

The Commission normally provides two-thirds of the expenditure on teachers' hostels in colleges. In view of the pressing need for residential accommodation, the Commission agreed to provide assistance up to 80 per cent of the expenditure on teachers' hostels to colleges which fulfil the prescribed basic criteria. The Commission's assistance for staff quarters is on 50: 50 basis. For a teachers' hostel in a university, the Commission's assistance is available on a cent per cent basis up to a limit of Rs. 3 lakhs. For additional hostels, the Commission shares 50 per cent of the expenditure.

## PROGRAMMES FOR STUDENTS

The Commission has taken an active and sustained interest in programmes of student services and welfare. High priority has been given to the provision of essential services and amenities for the student community in the universities and colleges. The improvement of the conditions in which students live and work has an important bearing on student attitudes and academic performance. A university or a college is not a barren anteroom to life; it is a part of life, and the student's stay there should be a happy and stimulating experience. A congenial environment and a healthy corporate life are essential for serious intellectual pursuits and a proper development of personality.

The Commission has repeatedly emphasised that the genuine needs and difficulties of the student community should be looked into carefully
and sympathetically ard a consultative machinery devised, so that the authorities in the universities and colleges could discuss with the students periodically and regularly their needs and problems with a view to taking remedial action expedtiously. The question of student participation in the academic and administrative affairs of the universities and colleges has been carefully examined by a committee appointed by the UGC under the chairmanship of Dr. P.B. Gajendragadkar. Part 1 of the report of this committee entitled Governance of Universities, which inter-alia deals with the question of student participation, was made available in June 1971. This has been circulated to the universities and the State Governments for their consideration.

The committee has observed that in most universities and colleges, there is no machinery for a dialogue between the students and the teachers and has recommended "an institutional machinery for consultation of student opinion and ensuring student participation'". It has been suggested that students should have the opportunity to play a leading role in the reorganisation of the corporate life, extra and co-curricular activities, and should also be encouraged to give their thought and attention to important academic questions like the structure of courses, the content of syllabus, pattern of instruction and of examinations. The committee has recommended that there should be a student advisory committee for each faculty and joint staff-student committees in the university departments. Students should also have representation on the Senate or Court. Provision should also be made for establishment of a student council which should have the following functions:
(i) to make recommendations to the Executive and Academic Councils in matters affecting the academic work of the students such as the structure of courses, pattern of instruction etc., the corporate life of the university in so far as it concerns the students, and the co-curricular and extra-curricular activities in the university.
(ii) ordinarily, all rules affecting discipline, welfare, sports, literary and departmental societies, management of hostels, student homes, non-resident student centres, extension work, social work, student's health, National Service Scheme, N.C.C. etc. shall be placed before the Student Council for obtaining its views, which will then be communicated to the Academic and the Executive Councils for decision, and
(iii) the Council shall have the right to communicate its vieus, observations and recommendations to the Vice-Chancellor or any authority of the university, in respect of any matter which
concerns the students. The Chairman of the Student Council will be the authority to decide whether a matter does or does not concern the students.

The suggestions and observations made by the committee are receiving the aftention of the universities.

A number of universities and colleges have recently been affected by out-breaks of students unrest. Acts of indiscipline are by and large committed by a very small section of the student population and are the result of various factors and circumstances, some of them non-academic. The Education Commission (1964-66) was of the opinion that some of the remedies for student unrest go beyond the educational system.

The University Grants Commission has undertaken several programmes for the provision of essential facilities for the student community. Some of these programmes have been diversified and expenditure on student welfare and amenities has risen significantly.

## Scholarships and Fellowships

The enrolment at the postgraduate and research levels has increased significantly in recent years. The enrolment at the postgraduate level has increased from $1,46,804$ in $1969-70$ to $1,80,343$ in 1971-72 and at the research level from 12,474 to 14,995 during the same period. In view of this and the volume and diversity of specialised studies now being undertaken in the universities and colleges, here is a growing need for an adequate provision for research scholarships and fellowships.

The University Grants Commission awards a number of scholarships and fellowships every year for advanced studies and research in different fields. These are in addition to the scholarships and fellowships specially created for centres of advanced study, and those provided for approved programmes of research.

Senior and junior fellowships in the humanities, social sciences, science subjects and engineering and technology are awarded on an all-India basis on the recommendations of committees constituted for the purpose. During 1971-72, 16 senior fellowships were awarded in the humanities and social sciences and 34 in science subjects. The senior fellowship is of the value of Rs. 500 per month and its normal tenure is two years which may be extended by one year in special cases. Fifty five junior fellowships were awarded in humanities and social sciences and 91 in science subjects during the year. The value of a junior fellowship is Rs. 300 per month and its normal tenure is three years.

For research in various fields of engineering and technology, 46 fellowships were sanctioned during the year. The value of these fellowships is Rs. 400 per month.

At the end of the year under review, 156 scholars in the humanities and social sciences, 216 in science subjects and 46 in engineering and technology were carrying on advanced studies and research with the help of the fellowships awarded by the Commission.

In addition to the fellowships mentioned above, the Commission has been allocating every year a speciiic number of research scholarships of the value of Rs. 250 per month each to the universities. In 1970-71, 600 such research scholarships were placed at the disposal of 70 universities. The Commission has now raised the value of these scholarships from Rs. 250 to Rs. 300 per month. In addition, the grant for contingencies has been raised from Rs. 500 to Rs. 1,000 . It has also been agreed that these scholarships would now be designated as junior research fellowships. Grants amounting to Rs. 83 lakhs were placed at the disposal of 77 universities in 1971-72 for the junior research fellowships made available to them.

The Commission continued to give financial assistance to the universities for awarding junior fellowships, each of the value of Rs. 250 per month, for promoting postgraduate studies in engineering and technology.

As in previous years, the Commission provided seven scholarships for honours students in Arabic and Persian, and 11 for studies at the postgraduate level in these subjects. The Commission also awarded 19 scholarships (each of the value of Rs. 1,800 per annum) for postgraduate studies in Sanskrit, Pali or Prakrit. Fifteen scholarships for postgraduate studies and four junior fellowships for research were made available to students belonging to the hill areas of the north-east India.

## Residential Accommodation for Students

The need for considerable expansion of residential accommodation for students in universities and colleges has been emphasised time and again. The Education Commission (1964-66) had suggested that an effort should be made to provide hostel accommodation for about 25 per cent of the enrolment at the undergraduate stage and 50 per cent of the enrolment at the postgraduate level. The requisite funds for achieving these targets are not at present available to the Commission.

The number of students residing in hostels during the last three years is shown in the following table:

| Year | Total student <br> enrolment | No. of students residing <br> in hostels |
| :---: | :---: | :---: |
| $1969-70$ | $24,32,630$ | $3,53,527$ |
| $1970-71$ | $26,11,292$ | $3,61,472$ |
| $1971-72$ | $28,42,314$ | $3,73,277$ |

Within the resources available, the Commission's assistance to the universities and colleges for the provision of residential accommodation to students is limited to 50 per cent of the approved cost in the case of men's hostels and 75 per cent in the case of women's hostels. The grants paid on this account during the last three years are as follows :

Construction of Hostels 1969-70 to 1971-72
(Rupees in lakhs)

| Year | Grants paid |  |
| :--- | :---: | :---: |
|  | Universities | Colleges |
| $1969-70$ | 68.48 | 34.62 |
| $1970-71$ | 50.86 | 49.70 |
| $1971-72$ | 56.78 | 54.79 |

The Commission assisted 49 universities during 1969-70, 1970-71 and 1971-72 for the censtruction of students hostels for accommodating about 7,500 students. The proposals of colleges accepted during the last three years were as follows :

| Year | No. of Colleges <br> assisted | Additional student <br> accommodation |
| :---: | :---: | :---: |
| $1969-70$ | 56 | 3,737 |
| $1970-71$ | 59 | 3,368 |
| $1971-72$ | 75 | 4,556 |

The Commission agreed to assist the universities for the construction of hostels for postgraduate students outside the fourth plan allocations to the universities for their development programmes, on the sharing basis indicated above. During the year under review, the Commission agreed to assist 14 universities for the construction of such hostels for accommodating about 1,300 students.

## Student Amenities

In 1970-71, the Commission decided to provide grants to colleges ranging from Rs. 5,000 to Rs. 10,000 on the basis of student enrolment for improvement of facilities in hostels, common rooms, cantcens, etc. During 1971-72, grants amounting to Rs. 67.35 laklis were paid to the colleges under this programme.

The proposals of 38 universities were accepted in 1971-72 for the improvement of the existing hostel facilities.

A special allocation of Rs. 50 lakhs was earlier approved for the Banaras Hindu University for student amenities. Payments to the universities under this scheme amounted to Rs. 6.75 lakhs in 1970-71 and Rs. 11.36 lakhs in 1971-72. The Commission has agreed to provide assistance to the Visva-Bharati for student amenities. The requirements of the university in this regard are to be assessed by a UGC Committee. A few proposals of the university under this programme amounting to Rs. 54,000 have already been accepted on an ad-hoc basis.

The committee appointed to assess the needs of the Aligarh Muslim University regarding student amenities has submitted its report and recommended grants amounting to Rs. 45.25 lakhs for this purpose. The requirements of the Delhi University are yet to be assessed by the committee.

## Student Homes; Non-Resident Student Centres

The Commission continued to provide financial assistance to the universities and colleges for student homes and non-resident student centres which, inter-alia, are intended to provide facilities for study to day scholars during their leisure hours. The pattern and ceiling of the Commission's assistance for the purpose were indicated in the report for 1970-71.

The proposals of 61 universities have so far been accepted for the establishment of student homes.

Assistance is also being given by the Commission to colleges for non-resident student centres which, intei-alia, provide canteen and reading room facilities. Upto 1970-71, the proposals of 348 colleges for construction of non-resident student centres were accepted by the Commission. In 1971-72, the proposals of 68 more colleges were accepted in respect of which the Commission's assistance would amount to Rs. 31.58 lakhs.

## Study Centres

The Commission has agreed to provide financial assistance to 55 universities for the establishment of 111 study centres in various parts of the country. These centres are to be located in areas having large population of students and are intended to provide essential library facilities, including multiple copies of text-books. The Commission's assistance for each study centre is limited to Rs. 20,000 for books and Rs. 10,000 for stacks and furniture. For library staff and contingencies, the Commission contributes Rs. 10,000 and Rs. 3,000 per annum respectively. The universities are expected to provide rent free accommodation for these centres and to take over the financial responsibility for maintaining them after the Commission's assistance ceases. Up to the end of 1971-72, grants amounting to Rs. 29.35 lakhs were made available to the universities concerned for 81 study centres.

## Book Banks

In 1970-71, the Commission deciued to give financial assistance to colleges to enable them to provide books on loan to deserving students for the period of their studies. It was agreed that 75 per cent of the total allocation for this purpose, ranging from Rs. 15,000 to Rs. 30,000 to a college, depending on student enrolment, would be met by the Commission. The implementation of this scheme was taken up in 1971-72. By the end of the year, about 1,000 colleges were assisted for establishing book banks and grants amounting to Rs. 1.13 crores were paid to them.

## Health Centres

As stated in the report for 1970-71, the Commission accepted the recommendations of committee appointed to consider the programme of health services for students in the universities and colleges. It has been decided that financial assistance for the establishment of health centres may be extended to the universities and selected colleges (two colleges per university, in the first phase of the programme). The Commission's assistance for a health centre during the fourth Plan period is as follows:

## Commission's contribution

(i) University

Non-recurring (building and equipment)

Recurring (salary and allowances of the staff).

75 per cent of the approved cost upto a limit of Rs. 1,50,000.
50 per cent of the approved cost upto a limit of Rs. 30,000 per annum.
(ii) College

Non-recurring (building and equipment)
Recurring (salary and allowances of the staff)

75 per cent of the approved cost upto a limit of Rs. 75,000. 50 per cent of the approved cost upto a limit of Rs. 20,000 per annum.

The proposals of 14 colleges and three universities have so far been accepted by the Commission under this programme.

## Sports and Physical Education

Keeping in view the funds available for the promotion of sports and physical education, the Commission has so far accepted the proposals of 20 universities and 84 colleges for the construction of gymnasia. The Commission's assistance is limited to 75 per cent of the total allocation of Rs. 2,50,000 for a university, of Rs. $1,50,000$ for a college with an enrolment of 1,500 or more, and of Rs. 75,000 for a college with a smaller enrolment. The National Institute of Sports, Patiala, has prepared a manual which, inter-alia, gives detailed guidance regarding the planning of gymnasia. Copies of this manual have been made available to the universities.

The Commission is also giving assistance to the universities and colleges for the development of play-fields and purchase of accessories for games and sports. It has been decided to meet 75 per cent of the total expenditure of Rs, 15,000 for this purpose in the case of a university and of Rs. 10,000 in the case of a college. In view of the limited funds available for this programme, the Commission's assistance is at present available only to 20 per cent of the affiliated colleges. Up to 1971-72, the proposals of 10 universities and 80 colleges were accepted by the Commission for the development of play-fields and purchase of accessories for games and sports*.

The Commission has been assisting the universities for the appointment of sports coaches. The Commission shares 75 per cent of the expenditure on this account. Assistance under this programme has so far been extended to 31 universities.

## Students' Aid Fund

The Commission has been giving grants to the universities and colleges every year for the students' aid fund wherefrom financial assis-

[^7]tance is provided to students for paying their tuition and examination fees, for buying books and meeting other expenses related to their studies. A grant equal to the total amount subscribed by the students and collected from other sources is provided to a university, subject to a maximum of Rs. 15,000 per annum. Grants ranging from Rs. 750 to Rs. 3,250 are given to colleges for the students' aid fund on the basis of student enrolment*.

Grants provided for the students' aid fund in the universities and colleges during the last three years are as follows:
(Rupees in lakhs)

| Year | No. of <br> universities | Grants <br> paid | No. of <br> colleges | Grants <br> paid |
| :--- | :---: | :---: | :---: | :---: |
| $1969-70$ | 23 | 2.22 | 1379 | 22.84 |
| $1970-71$ | 33 | 2.62 | 1792 | 37.93 |
| $1971-72$ | 45 | 3.59 | 1849 | 38.10 |

## Visiting Studentships

The Commission has been providing some assistance to the universities for visiting studentships, to enable students to visit places of interest in the field of national development, culture, history, education, etc. The maximum assistance available to a university under this programme is Rs. 5,000 . Grants amounting to Rs. 1.25 lakhs were made available to the universities during 1971-72 for visiting studentships.

## Employment Bureaux and Career Advising Units

The Commission has agreed to provide financial assistance to the universities for setting up employment, information and advisory bureaux. These bureaux are intended to provide vocational guidance as well as information about courses of study, scholarships, etc. The Commission's grant for such a bureaux to a university is limited to Rs. 4,500 (NR) and Rs. 13,400 per annum for salaries, honoraria and contingencies. For the establishment of a career advising unit in a college, the Commission's assistance is limited to Rs. 1,200 per annum for the honorarium payable to the teacher who is given this work.

## INTERNATIONAL COLLABORATION

The Commission has been promoting programmes involving international collaboration, and helping universities to obtain assistance from

[^8]the Unesco and some foreign countries for their programmes of teaching and research. Programmes relating to international collaboration and foreign aid are operated by the Commission in consultation with the Department of Economic Affairs, Ministry of Finance, and other Union Ministers concerned.

A description of the assistance given by the Unesco, the USSR and the UK for centres of advanced study has been given earlier in this report. Information about some other important programmes of foreign aid made available to the universities by various agencies is given below.

## Cultural Exchange Programmes

Under programmes of cultural exchange, as agreed to by the Government of India and the governments of other countrics, the Commission organises exchange of visits by educationists, teachers, and scholars. During 1971-72, exchange programmes were implemented between India and the following countries: Bulgaria, Czechoslovakia, France, German Democratic Republic, Hungary, Mangolia, Romania, United Arab Republic, the USSR and Yugoslavia.

The Commission also agreed to implement cultural exchange programmes on an ad hoc basis with the Latin American countries, Mexico, Greece and the U.K.

In 1971-72, 30 Indian teachers visited different countries under the cultural exchange programmes and 25 visitors came to India from foreign countries.

The selections for participation in the cultural exchange programmes are made on the recommendations of a standing advisory committee for the implementation of these programmes. The foreign participants are selected by the countries concerned and their programme of visits in India are arranged by the Commission in consultation with the universities and other institutions of higher learning.

It is expected that the Commission will nominate about 60 Indian teachers under the cultural exchange programmes for visits to various countries during 1972-73.

## Indo-UK Exchange Programme

Under the programme of exchange of visits of young scientists between India and the UK, eight Indian scientists were selected to visit the UK in 1971-72. Similarly, eight British scientists were named for visiting India. The visitors delivered lectures in their fields of specialisation and
participated in research work. The question of extending the programme was discussed with a delegation of the Inter-University Council, UK and the British Council. It was agreed that the number of Indian participants may be increased to 12 or 15 in the immediate future. It was also decided that the scheme should be further expanded to include social scientists. Applications for visits in 1972-73 were examined by an expert committee. It is anticipated that 10 persons will participate in the programme on each side.

Commonwealth Academic Staff Fellowships
The Commission continued its collaboration with the Commonwealth Universities Association in the UK for the award of Commonwealth Academic Staff Fellowships and Scholarships. During 1971-72, out of the candidates seconded by the University Grants Commission for the Commonwealth fellowships and scholarships, 16 were selected for visits to the U.K. The programme has helped Indian academics to spend an year or two in the UK to participate in academic work and pursue their research in university departments.

## Other Programmes

Under the assistance made available by the Japan Society for the promotion of science, 10 candidates for visiting professorships and five for visiting fellowships were seconded by the Commission for consideration of the Socicty.

The Government of India was approached to include projects relating to the development of computer facilities and environmental sciences in the universities and the inter-linking of university education with industry and productivity for technical assistance under the United Nations Development Programme. It is expected that the assistance for cach project for the next 2 or 3 years would be of the order of $\$ 1,00,000$. The assistance would be used for expert services, training fellowships and sophisticated equipment. The programme for the development of computer facilities in the universities has been suggested by an expert committee appointed by the Commission. A seminar organised by the Indian National Science Academy in collaboration with the Delhi University has made proposals for the study of environmental sciences.

It has been agreed to provide assistance under the United Nations programme of technical assistance for training fellowships and equipment worth $\$ 42,000$ for the Department of Botany, Calcutta University. It has also been agreed that the services of an expert in architecture may be provided to the Roorkee University for a period of two years under this programme.

The Commission submitted to the Government of India proposals received from the universities for expert services, training fellowships and supply of equipment under the Colombo Plan and the Indo-French Technical Cooperation programme. Nominations were sent to the Government of India for participation in various training programmes organised by different countries under the Colombo Plan. Three teachers visited Japan for two weeks on a study tour programme sponsored by the Government of Japan. Six teachers visited the UK to participate in the 19th study seminar on land tenure, distribution and reforms in a diploma course on urbanisation in developing countries, etc. Two trainees from Nepal came to India under the Colombo Plan for work in the field of university administration.

The information received from the Indian National Commission for Cooperation with Unesco regarding the organisation of various training programmes in different countries was brought to the notice of the universities and nominations were made for the following programmes of the Unesco:
(i) Seventh international seminar for research and education in chemical engineering and physical chemistry at Karlsruhu.
(ii) Seminar course on computing as language of physics, Trieste.
(iii) Fourth international postgraduate course in analytical chemistry, Prague.
(iv) Unesco fellowships in marine sciences.
(v) UNDP International Institute of Seismological and Earthquake Engineering, Tokyo.
(vi) Fourth postgraduate course on teacher education, Philippines.

Two persons left for Sydney to participate in the international postgraduate training course in chemistry at the University of New South Wales. One teacher of Delhi University was selected for participation in the winter school organised by the International Centre for Theoretical Physics at Trieste.

Unesco coupons worth $\$ 47,662$ were obtained by the Commission in 1971-72 for the benefit of universities and colleges. These coupons were made available to the universities and colleges for purchase of small items of equipment, spare parts, rare chemicals, etc., from hard currency areas. The utilisation of these coupons is free from import control restrictions and other formalities.

## CONCLUSION

The programmes and policies approved by the University Grants Commission in the field of higher education have already been described. The expenditure incurred by the Commission during 1971-72 for plan and non-plan projects under major heads is shown in Appendix XIII. The grants paid to the universities and colleges for development projects and the expenditure for plan and non-plan during the last five years is indicated below :
(Rupees in crores)

| - | Expenditure |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Head | $\overline{1967-68}$ | $1968-69$ | $1969-70$ | $1970-71$ | $1971-72$ |
| Non-Plan* | 7.52 | 8.08 | 9.06 | 9.83 | 10.37 |
| Plan** | 11.45 | 12.55 | 15.55 | 21.79 | 24.23 |

Within the resources available to the Commission, planned and concerted efforts have been made for provision of physical and academic facilities required for advanced studies and research, and for improving the quality and standards of higher education. It was stated in the earlier reports of the Commission that the existing syllabi and facilities for advanced studies in various subjects were reviewed by expert committees and suggestions made for their improvement and modernization. Various aspects of the examination system were also carefully examined, and recommendations made for improving the procedures of assessment. Questions relating to student welfare have been examined and steps taken to improve the conditions in which students live and work. The programme for the development of centres of advanced study has been continued and extended. Financial assistance was made available to the universities and colleges for organising summer institutes, seminars and orientation courses. Assistance was given to the institutions concerned for additional staff, library and laboratory facilities, etc. Grants were given to teachers for research and learned work, and the services of selected teachers were utilised after their superannuation. Travel grants were also provided to teachers and research workers to enable them to visit centres of research or advanced studies in the country, and for attending conferences abroad. New programmes for special assistance to university departments, and improvement of science teaching in colleges have been undertaken. The development grants disbursed by the Commission have

[^9]helped the universities and colleges to provide facilities for the courses being conducted and for programmes of research undertaken.

The Commission functions with the help and assistance of expert committees. Academic opinion is regularly consulted, and standing con:mittees have been constituted to advise the Commission in important sectors of higher education. Ad hoc committees are also appointed from time to time to obtain the views and advice of experts on different problems related to the development of teaching and research. The development programmes being implemented are reviewed and evaluated from time to time, and suggestions made for further improvement.

The extraordinary upsurge in recent years in the field of higher education in India calls for a commensurate investment of resources. In view of the pressing requirements of the universities and colleges for essential facilities, the determination of priorities between competing programmes often becomes difficult. Moreover, in view of the rapid rate of growth and expansion, it becomes difficult to achieve worthwhile results unless the investment on various programmes is adequate.

In recent years, there have been serious disturbances in some institutions involving violence, clashes with the police, burning of buses and cinema houses, walk-out from class rooms and examination halls, etc. These are due to a variety of causes, e.g., the uncertain future facing the educated unemployed leading to a sense of frustration, the mechanical and unsatisfactory nature of some curricular programmes, inadequate facilities for teaching and learning, poor student-teacher contacts, want of imagination and tact combined with firmness on the part of authorities, increasing polarisation between teachers, students and administration, and the influence of socio-political conditions on the university system. It is to be recognised, as stated by the Education Commission (1964-66) that "the responsibility for the situation is not unilateral-it is not merely that all the students or parents or teachers or State Governments or the political parties-but multilateral. All of them share it, together with many factors in the objective situation and no effective solution is possible unless each agency responsible for the malaise does its own duty. Some of the remedies for student unrest, therefore, go beyond the educational system'".

Keeping in view the magnitude and complexity of the problems facing the country in the field of higher education, it may be stated that considerable headway has been made in improving the level of academic achievement in different sectors. In spite of difficulties, it may be noted that the diverse needs of the developing economy of the country for various types and categories of personnel are being substantially met by the universities and other institutions of higher studies and research.

The Commission is grateful to the universities and colleges, and to the teachers and educationists who have worked as members of the UGC committees, for their help and cooperation. The Commission also places on record its appreciation of the assistance received from the State Governments, from various Ministries of the Government of India, from the Planning Commission and from other organisations and agencies associated with the Commission's work and activities.
R. K. Chhabra
D. S. Kothari
Secretary
Chairman
J. N. Bhan

Indumati Chimanial
George Jacob
Tapas Majumdar
Sarup Singh
M. R. Yardi

## APPENDIX I

# INDIAN UNIVERSITIES AND INSTITUTIONS DEEMED TO BE UNIVERSITIES : 1971-72 

| Year of <br> Estab- <br> lishment | $\begin{gathered} \mathrm{S} . \\ \mathrm{No} . \end{gathered}$ | University | Total Enrolment |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 |
| 1857 | (1) | Calcutta University | 2,44,584 |
|  |  | Bombay University | 1,02,436 |
|  | (3) | Madras University | 1,46,690 |
| 1887 | (4) | Allahabad University | 17,006 |
| 1916 | (5) | Banaras Hindu University (Varanasi) | 14,539 |
|  | (6) | Mysore University | 76,429 |
| 1917 | (7) | Patna University | 13,317 |
| 1918 | (8) | Osmania University (Hyderabad) | 63,983 |
| 1921 | (9) | Aligarh Muslim University | 9,336 |
|  | (10) | Lucknow University | 24,852 |
| 1922 | (11) | Delhi University | 64,707 |
| 1923 | (12) | Nagpur University | 84,785 |
| 1926 | (13) | Andhra University (Waltair) | 80,119 |
| 1927 | (14) | Agra University | 56,501 |
| 1929 | (15) | Annamalai University (Annamalainagar) | 5,899 |
| 1937 | (16) | Kerala University (Trivandrum) | 1,24,644 |
| 1943 | (17) | Utkal University (Bhubaneshwar) | 34,415 |
| 1946 | (18) | Saugar University | 20,291 |
| 1947 | (19) | Rajasthan University (Jaipur) | 66,192 |
|  | (20) | Panjab University (Chandigarh) | 1,26,282 |
| 1948 | (21) | Gauhati University | 65,734 |
|  | (22) | Kashmir University (Srinagar) | 16,239 |
| 1949 | (23) | Roorkee University | 1,959 |
|  | (24) | Poona University | 78,245 |
|  | (25) | M.S. University of Baroda | 17,308 |
|  | (26) | Karnatak University (Dlarwar) | 68,372 |
| 1950 | (27) | Gujarat University (Ahmedabad) | 78,769 |
| 1951 | (28) | S.N.D.T. Women's University (Bombay) | 12,502 |
|  | (29) | Visva-Bharati (Santiniketan) | 1,281 |
| 1952 | (30) | Bihar University (Muzaffarpur) | 73,802 |
| 1954 | (31) | Sri Venkateswara University (Tirupati) | 31,072 |

## APPENDIX I (Contd.)

| 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: |
| 1955 | (32) | Sardar Patel University (Vallabh Vidya Nagar) | 12,459 |
|  | (33) | Jadavpur University (Calcutta) | 4,305 |
| 1956 | (34) | Kuruksetra University (Kurukshetra) | 5,354 |
|  | (35) | Indira Kala Sangit Vishvavidyalaya (Khairagarh) | 27 |
| 1957 | (36) | Vikram University (Ujjain) | 16,217 |
|  | (37) | Gorakhpur University | 48,173 |
|  | (38) | Jabalpur University | 18,658 |
| 1958 | (39) | Varanaseya Sanskrit Vishvavidyalaya (Varanasi) | 967 |
|  | (40) | Marathwada University (Aurangabad) | 44,156 |
| 1960 | (41) | U.P. Agricultural University* (Nainital) | 1,942 |
|  | (42) | Burdwan University | 57,520 |
|  | (43) | Kalyani University | 1,924 |
|  | (44) | Bhagalpur University | 42,578 |
|  | (45) | Ranchi University | 40,080 |
| 1961 | (46) | K.S. Darbhanga Sanskrit Vishwavidyalaya | -- |
| 1962 | (47) | Punjab Agricultural University | 2,317 |
|  | (48) | Punjabi University (Patiala) | 26,440 |
|  | (49) | Orissa University of Agriculture \& |  |
|  |  | Technology (Bhubaneswar) | 1,282 |
|  | (50) | North Bengal University (Siliguri) | 23,111 |
|  | (51) | Rabindra Bharati (Calcutta) | 3,501 |
|  | (52) | Magadh University (Gaya) | 58,809 |
|  | (53) | Jodhpur University | 9,528 |
|  | (54) | Udaipur University | 7,478 |
|  | (55) | Shivaji University (Kolhapur) | 53,356 |
| 1964 | (56) | Indore University | 16,853 |
|  | (57) | Jiwaji University (Gwalior) | 22,520 |
|  | (58) | Ravi Shankar University (Raipur) | 23,955 |
|  | (59) | University of Agricultural Sciences (Bangalore) | 2,036 |
|  | (60) | Andhra Pradesh Agricultural University (Hyderabad) | 2,000 |
|  | (61) | Bangalore University | 42,596 |
|  | (62) | Jawaharlal Nehru K rishi Vishwavidyalaya (Jabalpur) | 1,777 |

[^10]
## APPENDIX I (Contd.)

| 1 | 2 |  | 3 |
| :---: | :---: | :--- | ---: |
| 1965 | $(63)$ | Dibrugarh University | 23,844 |
|  | $(64)$ | Kanpur University | 46,564 |
|  | $(65)$ | Meerut University | 47,133 |
|  | $(66)$ | Madurai University | 63,559 |
|  | $(67)$ | Saurashtra University (Rajkot) | 30,491 |
|  | $(68)$ | South Gujarat University (Surat) | 20,519 |
| 1967 | $(69)$ | Berhampur University | 6,947 |
|  | $(70)$ | Sambalpur University | 12,946 |
| 1968 | $(71)$ | Gujarat Ayurveda University (Jamnagar) | 2,774 |
|  | $(72)$ | Jawaharlal Nehru University (New Delhi) | 505 |
|  | $(73)$ | Mahatma Phule Krishi Vidyapeeth (Rahuri) | 2,767 |
|  | $(74)$ | Calicut University | 55,661 |
|  | $(75)$ | Awadesh Pratap Singh University (Rewa) | 11,683 |
|  | $(76)$ | Assam Agricultural University (Jorhat) | 830 |
| 1969 | $(77)$ | Guru Nanak University (Amritsar) | 46,184 |
|  | $(78)$ | Jammu University (Jammu) | 10,506 |
|  | $(79)$ | Punjabrao Krishi Vidyapeeth (Akola) | 4,051 |
| 1970 | $(80)$ | Haryana Agricultural University (Hissar) | 1,129 |
|  | $(81)$ | Himachal Pradesh University (Simla) | 14,720 |
|  | $(82)$ | Bhopal University | 14,303 |
|  | $(83)$ | Rajendra Agricultural University (Patna) | 1,136 |
| 1971 | $(84)$ | Tamil Nadu Agricultural University |  |
|  |  | (Coimbatore) | 1,122 |
|  | $(85)$ | Cochin University | 306 |
| 1972 | $(86)$ | Kerala Agricultural University (Trichur) | 405 |
| (Upto 31.3 .1972$)$ |  |  |  |

Notes : 1. The universities have been arranged according to the year in which the respective Acts were adopted.
2. The enrolment figures generally indicate the position as on August 15 , 1971 and include the enrolment in constituent/affiliated colleges of the universities concerned. For Indira Kala Sangit Vishwavidyalaya, Rabindra Bharati and Varanaseya Sanskrit Vishwavidyalaya, figures relate to the university campuses only. Information about enrolment in K.S. Darbhanga Sanskrit University is not available. For the Colleges which did not send the statistics for 1971-72, the data of the previous year has been used.
3. The tota! does not include the enrolment in intermediate classes of the colleges affiliated to the Board of High School and Intermediate Education, Uttar Pradesh.

## APPENDIX I (Contd.)

| Year of Recognition* | $\begin{aligned} & S . \\ & \text { No. } \end{aligned}$ | Institutions Deemed to be Universities | Total Student Enrolment |
| :---: | :---: | :---: | :---: |
| I | 2 | 3 | 4 |
| 1958 | (1) | Indian Institute of Science (Bangalore) | 939 |
|  | (2) | Indian Agricultural Research Institute (New Delhi) | 410 |
| 1962 | (3) | Gurukul Kangri Vishwavidyalaya (Hardwar) | 372 |
|  | (4) | Jamia Millia Islamia (New Delhi) | 1,002 |
| 1963 | (5) | Gujarat Vidyapith (Ahmedabad) | 568 |
|  | (6) | Kashi Vidyapith (Varanasi) | 2,192 |
| 1964 | (7) | Tata Institute of Social Sciences (Bombay) | 146 |
|  | (8) | Birla Institute of Technology \& Science (Pilani) | 2,113 |
| 1967 | (9) | Indian School of Mines (Dhanbad) | 278 |
|  |  | Grand Total | 28,42,314 |

[^11]
## APPENDIX II <br> DISTRIBITION OF COLLEGES ACCORDING TO COURSES OF STUDY (1967-68 to 1971-72)

| Courses of Study | Number of Colleges |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1967-68 | 1968-69 | 1969-70 | 1970-71 | 1971-72 |
| Arts, Science \& Commerce | 2,054 | 2.219 | 2,361 | 2,587 | 2,798 |
| Engineering \& Technology | 106 | 105 | 106 | 107 | 108 |
| Medicine, Pharmacy, Ayurveda, Nursing \& Dentistry | 141 | 157 | 167 | 176 | 186 |
| Law | 66 | 77 | 85 | 91 | 95 |
| Agriculture | 54 | 53 | 54 | 57 | 57 |
| Veterinary Science | 21 | 21 | 23 | 23 | 23 |
| Education | 202 | 224 | 235 | 258 | 269 |
| Oriental Learning | 179 | 179 | 188 | 226 | 272 |
| Others (Physical Education, Music and Fine Arts) | 76 | 77 | 78 | 79 | 88 |
| Total | 2,899 | 3,112 | 3,297 | 3,604 | 3,896 |

## APPENDIX III

## GROWTH OF STUDENT ENROLMENT

(1961-62 to 1971-72)

| Year | Total <br> Enrolment | Increase over <br> the Preceeding <br> Year | Percentage <br> Increase |
| :---: | :---: | :---: | :---: |
| $1961-62$ | $11,55,380$ | $1,20,446$ | 11.6 |
| $1962-63$ | $12,72,666$ | $1,17,286$ | 10.2 |
| $1963-64$ | $13,84,697$ | $1,12,031$ | 8.8 |
| $1964-65$ | $15,28,227$ | $1,43,530$ | 10.4 |
| $1965-66$ | $17,28,773$ | $2,00,546$ | 13.1 |
| $1960-67$ | $19,49,012$ | $2,20,239$ | 12.7 |
| $1967-68$ | $22,18,972$ | $2,69,960$ | 13.9 |
| $1968-69$ | $24,73,264$ | $2,54,292$ | 11.5 |
| $1969-70$ | $27,92,630$ | $3,19,366$ | 12.9 |
| $1970-71$ | $30,01,292$ | $2,08,662$ | 7.5 |
| $1971-72$ | $32,62.314$ | $2,61,022$ | 8.7 |

* Including enrolment in Intermediate classes under the Board of High School and Intermediate Education, Uttar Pradesh.


## APPENDIX IV

## STUDENT ENROIMENT: FACULTY-WISE (1969-70 to 1971-72)

| Faculty | 1969-70 |  | 1970.71 |  | 1971-72 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Earolinent |  | Emolment | $\begin{aligned} & \% \text { of } \\ & \text { Total } \end{aligned}$ | Enrolment | $\begin{gathered} \\ \text { Total } \\ \text { Total } \end{gathered}$ |
| Arts (including Oriental |  |  |  |  |  |  |
| Learning) | 12,18,022 | 43.6 | 13,29,626 | 44.3 | 14,73,979 | 45.2 |
| Science | 9,14,739 | 32.8 | 9,48,009 | 31.6 | 9.88,089 | 30.3 |
| Commerce | 2,96,325 | 10.6 | 3,44,108 | 11.5 | 3,96,009 | 12.1 |
| Education | 51,854 | 1.8 | 56,922 | 1.9 | 63,658 | 2.0 |
| Engineering \& Technology | 97,889 | 3.5 | 90,034 | 3.0 | 85,543 | 2.6 |
| Medicine | 95,017 | 3.4 | 97,601 | 3.2 | 1,02,446 | 3.1 |
| Agriculture | 43,415 | 1.6 | 43,352 | 1.4 | 42,184 | 1.3 |
| Vet. Science | 6,131 | 0.2 | 6,222 | 0.2 | 6,086 | 0.2 |
| Law | 56,240 | 2.0 | 70,618 | 2.4 | 84,443 | 2.6 |
| Others | 12,998 | 0.5 | 14,800 | 0.5 | 19,877 | 0.6 |
| Total | 27.92.630 | 100.0 | -30.01.292 | 100.0 | 32,62,314 | 100.0 |

* Including enrolment in Intermediate classes under the Board of High School and Intermediate Education, U.P.


## APPENDIX V

## STUDENT ENROLMENT*: STAGE-WISE

(1969-70 to 1971-72)

| Stage | 1969-70 |  | 1970-71 |  | 1971-72 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Enrolment |  | Emrolme | $\begin{gathered} \text { \% of of } \\ \text { Total } \end{gathered}$ | Emrolme | $\begin{gathered} * 0 \circ 0 f \\ \text { Total } \end{gathered}$ |
| Pre- |  |  |  |  |  |  |
| University | 5,62,947 | 20.2 | 5,60,809 | 18.7 | 3,98,104 | 12.2 |
| Intermediat | 4,23,174 | 15.2 | 4,74,869 | 15.8 | 7,82,6-6 | 24.0 |
| Pre- <br> Professional | Pre- |  |  |  |  | 0.5 |
| Graduate | 16,03,898 | 57.4 | 17,46,090 | 58.2 | 18,35,077 | 56.2 |
| Postgraduate | 1.46,804 | 5.3 | 1,61.182 | 5.4 | 1,80,343 | 5.5 |
| Research | 12,474 | 0.4 | 13.311 | 0.4 | 14,995 | 0.5 |
| Diploma Certificate | 29.524 | 1.0 | 33.057 | 1.1 | 34,626 | 1.1 |
| Total | 27,92,630 | 100.0 | 30.01 .292 | 100.0 | 32,62,314 | 100.0 |

* Includiag enrolment in Intermediate classes under the Board of High School and Intermediate Education, U. P.


## APPENDIX VI

DISTRIBUTION OF TEACHING STAFF IN UNIVERSITY DEPARTMENTS UNIVERSITY COLLEGES
(1967-68 to 1971-72)

| Year | Professors | Readers | Lecturers* | Tutors <br> Demoons- <br> trators | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 |
| $1967-68$ | 1,606 | 2.575 | 12,110 | 1,165 | 17,456 |
|  | $(9.2)$ | $(14.8)$ | $(69.3)$ | $(6.7)$ | $(100.0)$ |
| $1968-69$ | 1,872 | 2,834 | 12,991 | 1,361 | 19,058 |
|  | $(9.8)$ | $(14.9)$ | $(68.2)$ | $(7.1)$ | $(100.0)$ |
| $1969-70$ | 1,903 | 2,944 | 13,449 | 1,461 | 19,757 |
|  | $(9.6)$ | $(14.9)$ | $(68.1)$ | $(7.4)$ | $(100.0)$ |
| $1970-71$ | 2,139 | 3,324 | 14,389 | 1,767 | 21,619 |
|  | $(9.9)$ | $(15.4)$ | $(66.5)$ | $(8.2)$ | $(100.0)$ |
| $1971-72$ | 2,273 | 3,616 | 15,296 | 1,657 | 22,842 |
|  | $(10.0)$ | $(15.8)$ | $(67.0)$ | $(7.2)$ | $(100.0)$ |

Note : Figures within brackets indicate the percentage of the cadre to the total staff in that year.

[^12]
## APPENDIX VII

## DISTRIBUTION OF TEACHING STAFF IN AFFILIATED COLLEGES ACCORDING TO DESIGNATION

(1967-68 to 1971-72)

| Year | Senior Teachers* | Lecturers** | Tutors <br> Demons- <br> trators | Total |
| :---: | :---: | :---: | :---: | :---: |
| $1967-68$ | 11,555 | 61,861 | 11,482 | 84,998 |
| $1968-69$ | $(13.7)$ | $(72.8)$ | $(13.5)$ | $(100.0)$ |
|  | 12,167 | 67,320 | 12,398 | 91,885 |
|  | $(13.2)$ | $(73.3)$ | $(13.5)$ | $(100.0)$ |
| $1969-70$ | 12,838 | 73,360 | 13.097 | 99,295 |
|  | $(12.9)$ | $(73.9)$ | $(13.2)$ | $(100.0)$ |
| $1970-71$ | 13,185 | 80,468 | 13,604 | $1,07,257$ |
|  | $(12.3)$ | $(75.0)$ | $(12.7)$ | $(100.0)$ |
| $1971-72$ | 14,395 | 88,617 | 13,350 | $1,16,362$ |
|  | $(12.4)$ | $(76.1)$ | $(11.5)$ | $(100.0)$ |
|  |  |  |  |  |

Note : Figures within brackets indicate the percentage of the cadre to the total staff in that year.

* Including Principals.
** Including Assistant Lecturers.


## APPENDIX VIli

DEGREES AWARDED
(1966-67 to 1968-69)


Faculty of Arts

| B.A.* | $1,14,353$ | $1,40,319$ | $1,50,118$ | 31.3 |
| :--- | ---: | ---: | ---: | ---: |
| M.A. | 30,726 | 35,438 | 40,285 | 31.1 |
| Doctorates | 624 | 763 | 664 | 6.4 |

Faculty of Science

| B.Sc.* | 49,767 | 59,045 | 74,242 | 49.2 |
| :--- | ---: | ---: | ---: | ---: |
| M.Sc. | 8,892 | 10,454 | 11,722 | 31.8 |
| Doctoratcs** | 765 | 990 | 1,020 | 33.3 |

Faculty of Commerce

| B. Com.* | 22,611 | 28,598 | 31,832 | 40.8 |
| :--- | ---: | ---: | ---: | ---: |
| M. Com. | 3,400 | 3,843 | 4,806 | 41.4 |
| Doctorates | 26 | 31 | 35 | 34.6 |

Faculty of Education

| B.Ed./B.T. | 29.747 | 32,006 | 36,865 | 23.9 |
| :--- | ---: | ---: | ---: | ---: |
| M.Ed. | 911 | 1,024 | 1,097 | 20.4 |
| Doctorates | 21 | 28 | 24 | 14.3 |

Faculty of Law

| LL.B./B.L. | 10,027 | 13,043 | 13,670 | 36.3 |
| :--- | ---: | ---: | ---: | ---: |
| LL.M./M.L. | 137 | 122 | 165 | 20.4 |
| Doctorates | 3 | 4 | 4 | 33.3 |

Faculty of Agriculture

| B.Sc. (Ag.) | 6,129 | 5,476 | 6,976 | 13.8 |
| :--- | ---: | ---: | ---: | ---: |
| M.Sc. (Ag.) | 892 | 1,223 | 1,417 | 58.9 |
| Doctorates*** | 96 | 89 | 123 | 28.1 |

[^13]APPENDIX VIII (Contd.)

| 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: |
| Faculty of Vet. Science |  |  |  |  |
| B.V.Sc. | 1,120 | 996 | 1,206 | 7.7 |
| M.V.Sc. | 174 | 136 | 173 | -0.6 |
| Doctorates | 9 | 21 | 18 | 100.0 |
| Faculty of Medicine |  |  |  |  |
| M.B.B.S. | 6,317 | 6.892 | 8.197 | 29.8 |
| M.D./M.S. | 1,115 | 1,121 | 1,190 | 6.7 |
| Doctorates | 5 | 20 | 26 | 420.0 |
| Faculty of Engg. Tech. |  |  |  |  |
| B.E. B.Sc. (Engg.) |  |  |  |  |
| B.Sc. (Tech.) etc. | 14,001 | 15,422 | 15,225 | 8.7 |
| M.E./M.Sc. (Engg.) |  |  |  |  |
| M.Sc. (Tech.) etc. | 628 | 620 | 508 | -19.1 |
| Doctorates | 33 | 66 | 75 | 127.3 |
| Total | 3,02,529 | 3,57,790 | 3,91,558 | 29.4 |

## APPENDIX IX

## CENTRES OF ADVANCED STUDY

Subject \& Area of Specialisation Department

## SCIENCE

## Physics

| i. Theoretical Physics and Astrophysics | Department of Physics \& Astro- <br> physics, Delhi University, <br> Delhi. |
| ---: | :--- |

ii. Radiophysics \& Electronics $\quad \begin{aligned} & \text { Institute of Radiophysics \& } \\ & \text { Electronics, Calcutta University }\end{aligned}$
iii. Crystallography \& Biophysics Department of Physics, Madras University, Madras.

## Chemistry

| i. Chemistry of Textile Fibres and | Department of Chemical Tech- <br> nology, Bombay University, <br> Bombay. |
| :--- | :--- |
| ii. Chemistry of Natural Products | Department of Chemistry, <br> Delhi University, Delhi. |

## Botany

| i. Plant Morphology and Embryology | Department of Botany, Univer- <br> sity of Delhi, Deihi. |
| :--- | :--- |
| ii. Plant Pathology and Mycology | Department of Botany, Univer- <br> sity of Madras, Madras. |

## Zoology

| i. Cell Biology and Endocrinology | Department of Zoology, Delhi <br> University, Delhi. |
| :--- | :--- |
| ii. Marine Biology | Department of Marine Biology, <br> Annamalai University, Annam- <br> alainagar. |

## Geology

i. Himalayan Geology and Palaeontology Department of Geology, Punjab University, Chandigarh.
ii. Structural Geology, Geomorphology, Department of Geology and Petrology and Mineralogy.

Applied Geology, University of Saugar, Sagar.

| Mathematics |  |
| :--- | :--- |
| i. Pure Mathematics | Department of Mathematics. <br> Bombay University, Bombay <br> (in collaboration with the Tata <br> Institute of Fundamental <br> Research, Bombay). |
| ii. Applied Mathematics | Department of Applied Mathe- <br> matics, Calcutta University and <br> Department of Mathematics, <br> Jadavpur University, Calcutta. |
| iii. Pure Mathematics | Department of Mathematics, <br> Panjab University, Chandigarh. |
| iv. Pure Mathematics | Department of Mathematics, <br> University of Madras and <br> Ramanujan Institute of Mathe- |
| matics, Madras. |  |

## Experimental Astronomy

i. Experimental Astronomy

## Biochemistry

i. Proteins, Lipids, Vitamins Department of Biochemistry, Indian Institute of Science, Bangalore.

Department of Astronomy and Nizamia Observatory, Osmania University, Hyderabad.

## HUMANITIES AND SOCIAL SCIENCES

## Economics

i. Public Finance and Industrial Department of Economics, Economics
i. Economics of Development and Economic History
ii. Agricultural Economics CIAL SCIENCES

> APPENDIX IX (Contd.)
1

## Philosophy

| i. Philosophy (Indian) | Department of Philosophy, <br> Banaras Hindu University, |
| :--- | :--- |
| Varanasi. |  |

## Sanskrit

i. Sanskrit Literature

## Linguistics

i. Applied Linguistics
ii. Dravidian Linguistics

Education
i. Educational Research

## History

i. Medieval Indian History

## Sociology

i. Sociology

Deccan College Postgraduate and Research Institute, University of Poona, Poona.
Department of Linguistics, Annamalai University, Annamalainagar.

Department of Education, M.S. University of Baroda, Baroda.

Department of History, Aligarh Muslim University, Aligarh.

Department of Sociology, University of Deihi, Delhi.

## APPENDIX X

## FACULTY-WISE ENROLMENT*: UNIVERSITIES AND AFFILIATED COLLEGES

(1971-72)

| Faculty | University <br> Departments: <br> University <br> Colleges | Affiliated Colleges | Total | Percontage in Affilinted Colleges |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1971.72 | 1970.71 | 1969.70 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Alts | 1.32,694 | 11.58,165 | 12,90,859 | 89.7 | 88.8 | 88.8 |
| Science | 78,312 | 7.12,377 | 7,90,689 | 90.1 | 90.0 | 90.6 |
| Commerce | 28.426 | 3,52,543 | 3,80,969 | 92.5 | 91.8 | 91.5 |
| Education | 6,359 | 57,299 | 63,658 | 90.0 | 88.5 | 88.2 |
| Engineering Technology | 23,659 | 61,884 | 85,543 | 72.3 | 72.5 | 72.6 |
| Medicine | 7,664 | $9+782$ | 1,02.446 | 92.5 | 91.8 | 92.9 |
| Agriculture | 19,051 | 7.673 | 26.724 | 28.7 | 36.1 | 41.1 |
| Veterinary science | 4,161 | 1:925 | 6.086 | 31.6 | 33.5 | 39.3 |
| Law | 27,951 | 56.492 | 84,443 | 66.9 | 62.7 | 59.2 |
| Others | 4,548 | 6,349 | 10,59? | 58.3 | 65.2 | 68.8 |
| Total | 3,32,825 | 25,09,489 | 28,42.314 | 88.3 | 87.6 | 87.7 |

* Excluding enrolment in Intermediate classes affilated to the Board of High School and Intermediate Education, Litar Pradesh.


## APPENDIX XI

## STAGE-WISE ENROLMENT*: UNIVERSITIES AND AFFILIATED COLLEGES

(1971-72)

| Stage | University <br> Departments: <br> University <br> Colleges | Affiliated Colleges | Total | Percentage in Affiliated Colleges$1971-721970-711969-70$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Pre-University | 10,935 | 3,87,169 | 3,98,104 | 97.3 | 95.6 | 95.4 |
| Intermediate | 29,008 | 3.33,638 | 3,62,646 | 92.0 | 99.9 | 99.8 |
| Pre-Professional | 649 | 15,874 | 16,523 | 96.1 | 91.4 | 92.6 |
| Graduate | 1,72,878 | 16,62,199 | 18,35,077 | 90.6 | 89.2 | 89.3 |
| Postgraduate | 91,451 | 88,892 | 1,80,343 | 49.3 | 47.7 | 48.3 |
| Research | 13,335 | 1,660 | 14,995 | 11.1 | 11.8 | 12.7 |
| Diploma/ Certificate | 14,569 | 20,057 | 34,626 | 57.9 | 56.5 | 57.0 |
| Total | 3,32,925 | 25,09,489 | 28,42,314 | 88.3 | 87.6 | 87.7 |

* Fxcluding enrolment in Intermediate classes affiliated to the Board of High School and Intermediate Education, U.P.


## APPENDIX XII

## deyelopment grants paid to colleges

1971-72

| S.No. Scheme | Amolint <br> (Rupees) |
| :---: | :---: |
| 1. Hostels | 54,79,472 |
| 2. Laboratory \& library facilities | 2,88,65,741 |
| 3. Staff quarters | 17,79,426 |
| 4. Development of postgraduate studies in sciences | 15,99,671 |
| 5. Development of postgraduate studies in the humanities and social sciences | 7,58,157 |
| 6. Books and journals | 37,99,068 |
| 7. Welfare Schemes |  |
| (i) Students aid fund | 38,01,346 |
| (ii) Non-resident student centres | 13,78,688 |
| (iii) Hobby workshops | 24,352 |
| (iv) Water coolers | 21,752 |
| (v) Students' welfare programmes | 66,75,142 |
| (vi) Establishment of book banks | 1,14,12,742 |
| 8. (i) Graints to constituent affiliated colleges of Dethi University for specific purposes | 29,34,878 |
| (ii) Maintenance grants to new colleges of Delhi University. | 1,27,05,531 |
| 9. Centenary Grants | 1,35,000 |
| 10. Scholarships etc. |  |
| (i) Research followships |  |
| (a) Humanities | 34,512 |
| (b) Science | 96,428 |
| (ii) Utilisation of services of retired teachers | 4,11,739 |
| (iii) Financial assistance to teachers for research work |  |
| (a) Humanities | 98,575 |
| (b) Science | 1,64,539 |
| (iv) Scholarships in Arabic and Persian | 18,373 |
| (v) Hill area scholarships | 7,375 |
| (vi) Post graduate scholarships for |  |
| Sanskrit/Pali/Prakrit | 10,800 |

31. Improvement of chalk boards ..... 1,50,105
32. Travel grant to college teachers ..... 1,06,691
33. Teacher training colleges ..... 13,70,034
34. Purchase of semi-micro analysis equipment ..... 1,56,502
35. College Science Improvement Programme ..... 49,67,000
36. Seminars, symposia, workshops, conferences etc. ..... 2,10,996
37. Over head tanks ..... 53,200
38. Cycle sheds ..... 1,36,000
39. Miscellaneous schemes ..... 6,51,050


UNIV̈ERSITY ENROLMENT



1969-70 TO 1971-72

0

0




## DISTRIBUTION OF STAFF ACCORDING TO DESIGNATION |97|-72





[^0]:    * Shri T.P. Singh ceased to be a member of the Commission on his transfer from the Ministry of Education \& Social Welfare.

[^1]:    * Including institutions deemed to be universities under Section 3 of the UGC Act, 1956.
    ** Excluding intermediate colleges of U.P.
    *** Including enrolment in the intermediate classes under the Board of High School and Intermediate Education, U.P.
    $\dagger$ By November, 1972 , the number of universities in the country rose to 89 .

[^2]:    * Excluding the teaching staff in the intermediate classes under the Board of High School and Intermediate Education, U.P.

[^3]:    * Provision of residential accommodation for staff and students, library buildings, amenities for students etc.

[^4]:    * In 1972-73 (upto November, 1972) the colleges of the Universites of Himachal Pradesh and Kashmir and those located in Manipur were visited by the U.G.C. Committees.

[^5]:    * It has been decided in 1972-73 to repeat the basic grants for books for the benefit of colleges which have utilised the earlier grants for this purpose.

[^6]:    * Includes four institutes, one each in mathematics, physics, chemistry \& biology using Nuffield materials in collaboration with the British Council.

[^7]:    * Up to October 31, 1972, the proposals of 28 universities and 241 colleges were accepted by the Commission.

[^8]:    * The Commission has decided to raise the maximum limit from Rs. 3,250 to Rs. 5,000 from 1972-73.

[^9]:    * Includes maintenance grants to central universities and the constituent. affiliated colleges of the University of Dethi.
    ** Includes expenditure on all development programmes of universities and colleges.

[^10]:    * Since renamed as Gobindh Ballabh Pant University of Agriculture and Technology.

[^11]:    * Year of recognition as an institution deemed to be a university under Section 3 of the UGC Act, 1956.

[^12]:    * Including Assistant Professors and Assistant Lecturers.

[^13]:    * Includes honours.
    ** Doctorates in Mathematics have been included in the faculty of Science.
    *** Inclusive of output figures of the Indian Agricultural Research Institute.

