# UNIVERSITY GRANTS COMMISSION

4

# REPORT FOR THE YEAR 1973-74

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

**NEW DELHI** 

9/7/9/62.54

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Replaced by Shri K. N. Channa, Secretary Ministry of Education & Social Welfare, w.e.f. 28.9.1974. Replaced by Shri H.N. Ray, Secretary, Ministry of Finance, Department of

<sup>•</sup> Replaced by Shri H.N. Ray, Secretary, Ministry of Finance, Department of Expenditure, w.e.f. 26.4.1973 and subsequently by Dr. Ajit Mazoomdar w.e.f. 11.6.74.

Members of the Commission (Contd.)

... Member

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# UNIVERSITY GRANTS COMMISSION ANNUAL REPORT

# APRIL 1973-MARCH 1974

In compliance with Section 18 of the UGC Act, 1956 (No. 3 of 1956) as amended upto June 17, 1972, we have the honour to present to the Central Government the Annual Report of the University Grants Commission for the year 1973-74 to be laid before both the Houses of Parliament.

# SECTION I

# Institutions and Enrolment in Higher Education Growth in Numbers

Against 5,80,218 students in 30 universities and 824 colleges in 1953-54 there were 35,83,986 students in 95 universities, 9 institutions deemed to be universities and 4,308 colleges in 1973-74. The following table indicates the growth of numbers during the years 1953-54, 1962-63, 1967-68 and 1970-71 to 1973-74.

Year	Number of Universities	Number of Colleges*	Number of ** Students
1953-54	30	824	5,80,218
1962-63	54+5 deemed univers	ities 1,938	12,72,666
1967-68	70+8 deemed unviers	ities 2,899	22,18,972
1970-71	85+8 deemed univers	ities 3,604	30,01,292
1971-72	91+8 deemed univers	ities 3,896	32,62,314
1972-73	94+9 deemed univers	ities 4,158	34,56,096
1973-74	95+9 deemed univers	ities 4,308	35,83,986

\* Does not include Intermediate Colleges of the Board of High School and Intermediate Education, U.P.

•• Includes enrolment in the Intermediate classes under the Board of High School and Intermediate Education in U.P.

A chronological list of universities with their student enrolment and number of colleges according to courses of study during the period 1969-70 to 1973-74 is given in Appendices I and II respectively. Appendix III gives stage-wise student enrolment excluding intermediate and pre-university courses for the years 1963-64 to 1973-74. During the year under review, the following four new universities were established: (i) North Eastern Hill University, Shillong; (ii) Kumaon University, Nainital; (iii) Garhwal University, Srinagar, Garhwal; (iv) Kashi Vidyapith, Varanasi. (The Kashi Vidyapith was earlier recognised as an institution deemed to be university under Section 3 of the UGC Act).

In 1973-74, 152 new colleges were established, 127 of these colleges were Arts, Science and Commerce Colleges. The distribution of the 25 new professional colleges is as under : Medicine, Pharmacy, Ayurveda, Nursing and Dentistry 7, Law 3, Agriculture 1, Veterinary Science 1, Education 9, and others 4. Between 1969-70 and 1970-71, 307 colleges were established, 292 colleges between 1970-71 and 1971-72, 262 colleges between 1971-72 and 1972-73 and 150 colleges between 1972-73 and 1973-74. The decline in the number of new colleges can be attributed largely to a drop in the rate of growth of enrolments starting from 1970-71.

During the years 1961-62 to 1969-70 the university level enrolment including pre-university, pre-professional and intermediate classes under the Board of High School and Intermediate Education, U.P. increased by roughly about 12 per cent p.a. The growth rate dropped to 7.5 per cent in 1970-71, it increased to 8.7 per cent in 1971-72 but again declined to 5.9 per cent in 1972-73 and 3.7 per cent in 1973-74. The increase in total enrolment over the preceding year and the percentage increase in the number of students from 1960-61 to 1973-74 are given in Appendix IV.

Excluding pre-university and intermediate courses, enrolment in the universities increased by 14.5 per cent in 1969-70 over the preceding year and by 8.9 per cent in 1970-71, 5.7 per cent in 1971-72, 4.7 per cent in 1972-73 and 3.0 per cent in 1973-74. The drop in the growth rate of enrolment can be attributed partly to the provision of correspondence courses and partly to the fact that more and more universities are now permitting students to appear as private candidates in university examinations.

While there has been a proportionate decline in the number of students enrolled in undergraduate courses, the proportion of postgraduate students has gone up. During 1973-74, postgraduate and research enrolment increased by about 9 per cent as compared to an increase of 3.7 per cent for total university level enrolments. Excluding enrolment in pre-university, preprofessional and intermediate classes under the Board of High School and Intermediate Education, U.P., postgraduate and research enrolment in 1973-74 increased by 8.8 per cent over the enrolment in 1972-73 as compared to an increase of 3.0 per cent for total enrolments. According to stage-wise student enrolment from 1971-72 to 1973-74 given in Appendix V, postgraduate enrolment as a percentage of total enrolment increased from 5.5 per cent in 1971-72 to 5.7 per cent in 1972-73 and 6.0 per cent in 1973-74. This is a marginal increase but is essentially indicative of the trend that relatively more students are now taking to careers of specialisation and advanced research.

The affiliated colleges occupy a position of importance in terms of the number of students and teachers in higher education. The affiliated colleges account for 88.2 per cent of the total enrolment largely in undergraduate classes, 83.0 per cent of teachers are also in the colleges. Enrolment in the affiliated colleges at the pre-university and undergraduate level varies from 90.2 per cent to 97.0 per cent as compared to an enrolment of 51.4 per cent at the postgraduate level and 12.6 per cent for research courses. This shows that postgraduate teaching is shared equally by the universities and colleges and research is, by and large, done in the university departments and university colleges. It is also apparent that no real improvement in undergraduate and pre-university education is possible without meeting the developmental needs of the collegiate sector of higher education. The details of stagewise enrolment in the universities and affiliated soft VI.

The faculty-wise distribution of student enrolment from 1971-72 to 1973-74 given in Appendix VII shows that the percentage enrolment in the faculty of arts (including oriental learning) to the total enrolment went up from 45.2 in 1971-72 to 46.27 in 1973-74 and in the case of faculty of commerce it increased from 12.1 in 1971-72 to 13.5 in 1973-74. In the faculty of science enrolment decreased from 30.3 per cent in 1971-72 to 27.5 per cent in 1973-74. The faculties of arts, science, commerce and law account for 90.4 per cent of the total enrolment in higher cducation. On the other hand, professional faculties including education account for no more than 9.6 per cent of the total enrolment in 1973-74. Between 1971-72 and 1973-74 the percentage enrolment actually declined in the faculties of engineering and technology, and agriculture.

In 1973-74, there were 26,659 teachers in the university departments and university colleges. Of them, 2,639 were professors, 4,295 readers, 17,675 lecturers and 2,050 tutors/demonstrators. Teaching staff in the university departments and university colleges increased in 1973-74 by 1,955 over the preceding year.

The staff in the affiliated colleges totalled 1.29,903 including 15,226 senior teachers, 1,00,177 lecturers and 14,500 tutors/demonstrators. There was an increase of approximately 9,100 teachers in the affiliated colleges over the year 1972-73. The distribution of staff in the university departments and affiliated colleges is given in Appendices VIII and IX respectively. This shows that there was a marginal proportionate increase in the number of readers in the university departments/colleges and senior teachers in the affiliated colleges.

Year	Enrolment	Staff	Staff student ratio
1953-54	4,86,393	27,680	1 : 17.6
1962-63	10,82,666	66,370	1 : 16.3
1967-68	19,18,972	1,03,180	1 : 18.6
1972-73	30,06,096	1,45,524	1 : 20.7
1973-74	31,13,986	1,56,562	1 : 19.9

The staff student ratio between 1953-54 and 1973-74 is given below:

There were 27,680 teachers in university departments/colleges and affiliated colleges in 1953-54 and the staff student ratio was 1:17.6. This ratio improved in 1962-63, but since then, there has been a continuous deterioration in the position, the present ratio being 1:19.9.

Excluding enrolments in pre-university, pre-professional and intermediate classes under the Board of High School & Intermediate Education in U.P., the teacher pupil ratio in 1973-74 works out to 1:14.3. It may also be mentioned that the average teacher student ratio varies from one faculty to another. During 1973-74, the staff student ratio was 1:46.8 in commerce, 1:46.2 in law, 1:16.7 in arts, 1:16.6 in science, and 1:8.7 in the professional faculties.

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# SECTION II

# **Development** of Universities

# (i) Non-Plan and Plan Expenditure

In order to visualise the Commission's assistance to the universities in a wider perspective, it seems desirable to give a break-up of grants paid during the total five years period of the fourth plan ending 1973-74. This is presented below in respect of both plan and non-plan expenditure.

# A---Non-Plan

					(Rupees	in lakhs)
		1969-70	1970-71	1971-72	1972-73	197 <b>3-</b> 74
١.	Administrative charges	31.53	38.85	38.32	41.56	46.23
2.	Block grants to Central Univer- sities	631.25	679.48	720.80	751.03	759.16
3.	Maintenance grants to consti- tuent and affili- ated colleges of Delhi University	243.00	232.06	239.57	247.85	285.10
4.	Grants to Cent- ral Universities for schemes not covered under block grants		32.16	38.09	49.18	91.01
	Total	905.78	982.55	1,036.78	1,089.62	1,181.50

B—Plan

					(1000000 in 10000)		
		1969-70	1970-71	1971-72	1972-73	1973-74	
	1	2	3	4	5	6	
1	Grants to Cent- ral & State Uni- versities for Humanities and Social Sciences	171.74	209.63	254.10	304.72	293.75	
2.	Grants to Cent- ral & State Uni- versities for Science	360.56	345.42	404.09	674.82	473.97	
3.	Grants to Cent- ral & State Uni- versities for En- gineering and Technology	268.14	186.36	190.77	199.54	<b>194.9</b> 8	
4.	Grants to cons- tituent and affi- liated colleges	354.93	740.36	900.15	859.09	680.28	
5.	Grants to Cent- ral & State Uni- versities for mis- cellaneous schemes	334.68	422.63	<b>646</b> .46	776.95	769.86	
6.	Miscellaneous expenditure in- curred by UGC on seminars and conferences	4.59	248.94*	9.51	12.85	13.11	

<sup>\*</sup> Includes expenditure on equipment obtained under the US Dollar Loan scheme, the Rouble Credit Scheme, Unesco Coupons etc.

B-Plan (Contd.)

1	2	3	4	5	6
<ol> <li>Expenditure from grants re- ceived from Gov- ernment of India and other sour- ces for specific purposes</li> </ol>	60.04	25.87	18.44	46.21	32.03
Total	1,554.68	2,179.21	2,423.52	2,874.18	2,457.98
(Plan and Non-Pla) Grand Total	n) 2,460.46	3,161.76	3,460.30	3,963.80	3,639.48

#### (ii) Non-Plan Grants to Central Universities

During the year under review, the five central universities received maintenance (non-plan) grants of Rs. 759.16 lakhs as under:

	Rs. in lakhs
Aligarh Muslim University	236.25
Banaras Hindu University	304.50
Delhi University	126.45
Jawaharlal Nehru University	19.15
Visva-Bharati	72.81
Total	759.16

The maintenance expenditure of the Jawaharlal Nehru University was met from 'plan' funds and a sum of Rs. 69 lakhs was paid to the university for this purpose during 1973-74.

Another university, viz. North Eastern Hill University was established by a Central Act during 1973-74 and a grant of Rs. 10.50 lakhs was paid to it under 'plan' for meeting its recurring and non-recurring expenditure during the year. In addition to the maintenance grant, the Commission also gave assistance to the central universities for payment of interim relief and provisional dearness allowance to the employees of the universities (both teaching and non-teaching) to the extent specified and on the same basis as was admissible to the corresponding central government employees. During 1973-74, grants paid to the central universities for the above purpose under 'non-plan' were as under:

(In Rupees)
24,70,816
29,55,000
11,42,600
9,55,600
1.17,620
76,41,636

The Commission decided to revise the scales of pay of the non-academic staff in the central universities w.e.f. 1st January 1973 consequent upon the decision of the Government of India to accept the recommendations of the Third Pay Commission. The Commission agreed to pay the non-academic staff of the universities on the basis of corresponding scales for the central government employees. The Commission released 'on account' lump sum grants as detailed below by way of arrears.

	(In Rupe
Aligarh Muslim University	4,97,300
Banaras Hindu University	5,45,000
Delhi University	2,58,200
Visva-Bharati	1,10,000
Jawaharlal Nehru University	48,700
Total	14,59,200

During 1973-74, a grant of Rs. 1,76,800 was paid to the colleges of the University of Delhi towards interim relief. Grants amounting to Rs. 30,29,100 were separately provided for the maintenance of the hospitals attached to the medical colleges of the Aligarh Muslim University and Banaras Hindu University. In addition to the above, a sum of Rs. 49,65,000 was paid to these universities towards the non-recurring expenditure of hospitals, viz., buildings, equipment, books, furniture etc.

For projects relating to campus development, grants amounting to Rs. 20,94,090 were paid during the year to the central universities.

#### (iii) Grants for Plan Projects

Development grants to the universities during the Fourth Plan\* period were allocated by the Commission on the recommendations of the visiting committees which assessed their needs and requirements for the construction of academic buildings, library buildings, staff quarters, teachers hostels, students hostels, purchase of equipment and library books and journals and appointment of additional staff for the period ending 31st March, 1974. The Commission also continued to provide assistance towards the construction of buildings which were undertaken by the universities in the 3rd plan period but could not be completed in time. The Commission also accepted certain proposals outside the fourth plan allocations such as provision of essential student amenities and specialised programmes like the establishment of computer centres. Specific proposals received from the universities from time to time were also considered in the light of their academic needs and financial assistance for the purpose was made available to them for the plan period. New schemes approved for the Fourth Plan included the creation of 489 posts of professors, 1,027 posts of readers, 1,307 posts of lecturers and 809 other posts. The following amounts were allocated for different purposes:

(Rs.	111 1	1111	r 10	

Staff	1.179.03
Books	516.25
Equipment	918.22
Academic buildings	1,116.99
Other academic activities	170.48
Hostels	351.72
Staff guarters	309.81
Other general schemes	783.52

\* The pattern of assistance is given in Appendix X.

# (iv) Grants paid to Universities and Institutions Deemed to be Universities

Development grants paid to the universities and institutions deemed to be universities during five years of the Fourth Plan period ending 1973-74 are given in the following table:

				(Rs. in	lakhs)
Purpose	<b>1969-7</b> 0 amount	1970-71 amount	1971-72 amount	1972-73 amount	1973-74 amount
Science Subjects Humanities and	360.56	345.42	404.10	674.82	473.97
Social Sciences Engineering &	171.74	209.63	254.10	304.72	293.75
Technology	268.14	186.36	190.77	199.54	194.98
Schemes*	334.68	422.63	646.46	776.95	769.85
Total	1,135.12	1,164.04	1,495.43	1,956.03	1,732.55

Note: Includes provision for residential accommodation for staff and students, library books, amenities for students, scholarships, fellowships etc.

The above table shows that compared to the expenditure incurred during 1972-73, there was a shortfall of approximately Rs. 220 lakhs in the last year of the Fourth Plan. The major item of expenditure viz., development grants for science departments showed a shortfall of approximately Rs. 200 lakhs. This, however, does not mean that the plan allocations were not utilised by the universities. The situation arose mainly because of financial stringency as bills amounting to Rs. 383.74 lakhs on account of expenditure incurred during 1973-74 were paid in 1974-75.

#### (v) Grants paid to Universities from 1969-70 to 1973-74

An year-wise statement showing grants paid to the universities for all approved schemes during five years of the IV Plan ending 1973-74 is given in Appendix XI.

#### (vi) Grants for Development of Science

During 1973-74, the Commission paid grants totalling Rs. 473.97 lakhs (the universities for the development of science education and research. The assistance given to the universities for this purpose during five years of the fourth plan ending 1973-74 is summarised below:

(Rs. in lakhs)

Items of Expenditure	1969-70	%	1970-71	%	1971-72	%	1972-73	%	1973-74	%
Staff	55.73	15	68.90	20	102.11	25	104 40	15	125.93	27
Equipment	99.65	28	78 09	23	83.83	21	346.29	* 51	186.76**	40
Books & Journals	74,25	21	59.53	17	40.71	10	34.28	5	23.38	5
Buildings	85.50	24	88,86	26	116,91	- 29	107.43	16	66.43	14
Centres of Advance Study	ed 44.85	12	48.44	14	56.18	14	59,49	9	42.55	9
Special assistance to Selected depts					•••		18.56	3	21.96	4
Other Schemes	0.58		1,60		4.90	***	4.37	1	6.96	1
Total	360.56	100	345.42	100	404.10	100	674.82	100	473.97	100

The proportion of development expenditure on various components of science education in the universities over the past five years has varied from year to year. The percentage expenditure varied from 15 to 27 on staff, from 21 to 51 on equipment and from 14 to 29 on buildings. While the year to year variations are hardly significant, they do indicate that the expenditure in the initial year of the plan is rather low on staff mainly because the universities have to give an assurance that the committed expenditure on this account will be taken over by the university/state government at the end of the plan period.

The expenditure on equipment and staff constitutes a significant proportion of the total expenditure on the development of science education and research in the universities. The allocations made for books and journals were utilised largely in the beginning of the Plan period and progressively smaller amounts were available to the universities for the purpose of books and journals from year to year out of the total allocation made for the plan period.

Of the many special schemes for promotion of science education in the universities, mention may be made of short courses in applied sciences. The Commission approved the introduction of post M.Sc. diploma course in electronics/television engineering and space science in Punjabi University, Patiala and sanctioned 10 scholarships of the value of Rs. 250 per month for the purpose. A proposal for the introduction of a postgraduate diploma

<sup>\*</sup> Includes Rs. 227.46 lakhs paid for equipment under the dollar loan scheme.

<sup>\*\*</sup> Includes Rs. 60.91 lakhs paid for equipment under the dollar loan scheme.

course in television engineering received from the Roorkee University was also accepted by the Commission during the year. The Commission also provided additional grants to Aligarh Muslim University for the introduction of courses of a professional nature.

In pursuance of the recommendations of the Education Commission (1964-66), the Commission appointed a committee of experts to examine the question of development of computer facilities in the universities. The committee *inter-alia* suggested the setting up of five regional computer centres to be used on an inter-university collaboration basis and the development of small computer facilities in 10 universities to service satellite computer facilities for the region. During the fourth plan period, five universities, viz., Aligarh, Andhra, Calcutta, Utkal and I.I.Sc., Bangalore were provided with computers obtained under US Dollar Loan Scheme. Six more universities were provided with TDC computers from other institutions by transfer. Proposals from about 20 more universities are being examined in consultation with the Department of Electronics. Government of India.

#### Foreign Exchange for Import of Scientific Equipment

During the year 1973-74, the Commission requested the Government of India in the Ministry of Education & Social Welfare for the allocation of foreign exchange worth Rs. 1.79 crores, i.e., Rs. 1.10 crores from foreign credits, Rs. 50 lakhs from free resources and Rs. 19 lakhs from rupee payment areas. The Government of India, however, allocated foreign exchange worth Rs. 31 lakhs in the normal course and Rs. 10.80 lakhs through additional releases. The Commission utilised foreign exchange worth Rs. 41.80 lakhs during the year, i.e., Rs. 30.77 lakhs from foreign credits, Rs. 9.66 lakhs from free resources and Rs. 1.37 lakhs from rupee payment areas.

The Commission also purchased Unesco Coupons worth Rs. 3,80,160 equivalent to \$ 47,325.67. Unesco coupons worth Rs. 3,69,954.70 equivalent to \$ 48,926.76 were issued to the universities and their colleges for the purchase of small items of scientific equipment/chemicals to meet their immediate requirements.

During the year 1973-74, the Government of India's policy regarding release of foreign exchange for replacements, spare parts, etc. continued to be restrictive and only in very special cases could foreign exchange be obtained for the import of additional or new items of equipment. Collaboration with USSR—Centre of Exploration Geophysics, Osmania University

Under the Indo-USSR Agreement of Economic and Technological Cooperation 1966, the Centre of Exploration Geophysics at Osmania University was established in 1969-70. This project envisaged a total expenditure of Rs. 88.40 lakhs (Rs. 35.00 lakhs USSR credit and Rs. 53.40 lakhs rupee expenditure) over a period of five years viz., 1968-69 to 1973-74. The USSR credit was to be used for import of specialised equipment, books and journals. service of Soviet experts and technicians and training of Indian staff and students in USSR and the rupee expenditure for construction of building and appointment of staff etc. at the centre.

Apart from collaborating with the research institutions in India, viz., National Geophysical Research Institute, Hyderabad, and the Geological Survey of India, the centre has established liaison with the Moscow Geological Prospecting Institute and All Union Institute of Ex-ploration Geophysics, Moscow.

Against the total provision of Rs. 88.40 lakhs, grants amounting to Rs. 57.59 lakhs have been paid upto 1973-74 which include the amount paid to the Ministry of Finance towards cost of equipment supplied by the USSR authorities and the expenditure relating to expert services and training of teachers. The university has requested for approval of the Commission to the continuation of the Centre for another period of five years, i.e., 1974-75 to 1978-79. An expert committee will be visiting the university to assess the progress of the work done and to evaluate the proposal for continuation of the project.

Creation of Awards for Research from the endowment made available by the Hari Om Ashram Trust, Nadiad (Gujarat),

The Hari Om Ashram Trust, Nadiad (Gujarat) placed at the disposal of the Commission a sum of Rs. 6.00 lakhs for the creation of the following awards to be given each year to the Indian scientists for outstanding scientific work:

- 1. Sir C.V. Raman Award for Experimental Research in Physical Sciences
- 2. Homi J. Bhabha Award for Research in Applied Sciences.
- 3. Meghnad Saha Award for Research in Theoretical Sciences.
- 4. J.C. Bose award for Research in Biological Sciences.

Each award is of the value of Rs. 10,000 which will be given from 1974 onwards. The awards are based on the following considerations:

- (i) Only contributions by Indian Scientists whether individually or by a team, would be eligible. Institutions or organisations are not covered.
- (ii) The award is for outstanding scientific work which has made conspicuously important contribution to human knowledge in the areas covered by each award, and thrown light on the problems in a new manner. The prize could be equally shared by two or more persons whose work was of equal merit.
- (iii) In deciding the award, attention would be focussed on contributions made during past 5 to 7 years period.
- (iv) The scientific work to be assessed would cover books, monographs, papers or any other account of unpublished research work, inventions, discoveries etc.
- (v) The research work should have been carried out in India.

#### (vii) Grants for the Development of Humanities and Social Sciences

The pattern of development in the humanities and social science departments in the universities continued to be guided by the plans and programmes earlier approved by the Commission in respect of each university. Grants paid to the universities for the development of humanities and social sciences during the five year period ending 1973-74 are indicated below:

(Rs. in lakhs)

	1969-70 amount	%	1970-71 amount	%	1971-72 amount	%	1972-73 amount	%	1973-74 amount	%
Staff	44.70	26	77.29	37	113.71	45	117.36	39	128.40	44
Equipment	5.59	· 3	5.07	2	6.09	2	8.04	3	6.61	2
Books & Journals	62.21	36	54.67	26	39.01	15	76.89	25	80.11	27
Buildings Centres of	30.47	18	36.19	18	60.33	24	52.35	17	40.17	14
Advanced Study Special Assistance	24.56	14	23,89	11	28.87	11	28.97	9	25.55	9
to selected deptt: Area Studies	s	***					2.04	1	0.82	
Programme Teachers Training	4.21	3	3 49	2	2.37	1	8.80	3	5.56	2
Programme			9.03	4	3.72	2	10.27	3	6.53	2
		_								_
Tota]	171.74	100	209.63	100	254.10	100	304.72	100	293.75	100

Of the total plan expenditure of Rs. 2425.95 lakhs for 1973-74 an amount of Rs. 293.75 lakhs, i.e. 12.1 per cent was paid to the universities during the year for the development of humanities and social sciences departments in the universities. This compares well with 10.6 per cent spent during 1972. Over the five year period, the expenditure on the humanities and social science departments has generally remained between 10 to 12 per cent of the total plan expenditure. A significant portion of the funds spent on the humanities and social science departments was invested to support academic staff in the universities (44 per cent) and the purchase of books and journals (27 per cent).

#### (viii) Grants for the Development of Engineering and Technology

Assistance provided by the Commission to the universities for the development of engineering and technology during the five year period ending 1973-74 is indicated below:

(Rs. in lakhs)

						,			
1969-70 amount	07 70	1970 <b>-7</b> 1 amount	0/ 70	1971-72 amount	%	1972-73 amount	07 70	1973-74 amount	%
50.03	19	51,27	28	51.07	27	51.50*	26	47.05	24
80.08	30	38.20	20	0.22	16	28.19**	14	32.67***	• 17
31.46	12	26.47	14	17.78	9	16.07	8	12. 3	6
6 ?.03	24	44.55	24	53.03	27	54.23	27	70.88	37
34.44	13	23.08	13	37.89	20	47.91	24	31.95	16
9.09	2	2.06	1	0.78	1	1.64	1	0.3 <b>0</b>	
268.13	100	186.36	100	190.77	100	199.54	100	194.98	100
	amount 50.03 80.08 31.46 6?.03 34.44 9.09	amount 50.03 19 80.08 30 31.46 12 63.03 24 34.44 13 9.09 2	amount         amount           50.03         19         51,27           80.08         30         38.20           31.46         12         26.47           6?.03         24         44.55           34.44         13         23.08           9.09         2         2.06	amount         amount           50.03         19         51,27         28           80.08         30         38.20         20           31.46         12         26.47         14           62.03         24         44.55         24           34.44         13         23.08         13           9.09         2         2.06         1	amountamountamount50.031951,272851,0780.083038.20200,2231.461226.471417.786?.032444.552453.0334.441323.081337.899.0922.0610.78	amount         amount         amount           50.03         19         51,27         28         51,07         27           80.08         30         38.20         20         0.22         16           31.46         12         26.47         14         17.78         9           63.03         24         44.55         24         53.03         27           34.44         13         23.08         13         37.89         20           9.09         2         2.06         1         0.78         1	amount         amount         amount         amount         amount           50.03         19         51,27         28         51,07         27         51,50*           80.08         30         38.20         20         0,22         16         28.19**           31.46         12         26.47         14         17.78         9         16.07           63.03         24         44.55         24         53.03         27         54.23           34.44         13         23.08         13         37.89         20         47.91           9.09         2         2.06         1         0.78         1         1.64	amount         amount         amount         amount         amount           50.03         19         51,27         28         51,07         27         51,50*         26           80.08         30         38.20         20         0,22         16         28.19**         14           31.46         12         26.47         14         17.78         9         16.07         8           6?.03         24         44.55         24         53.03         27         54.23         27           34.44         13         23.08         13         37.89         20         47.91         24           9.09         2         2.06         1         0.78         1         1.64         1	amount         amount         amount         amount         amount         amount           50.03         19         51,27         28         51,07         27         51,50*         26         47.05           80.08         30         38.20         20         0.22         16         28.19**         14         32.67***           31.46         12         26.47         14         17.78         9         16.07         8         12.3           6?.03         24         44.55         24         53.03         27         54.23         27         70.88           34.44         13         23.08         13         37.89         20         47.91         24         31.95           9.09         2         2.06         1         0.78         1         1.64         1         0.30

The expenditure on equipment (37 per cent) and support of staff (24 per cent) account for a significant portion of the total expenditure on the development of engineering and technology during 1973-74. Expenditure on books and journals decreased because the universities lifted the greater part of their basic grants for this purpose in the first two years of the plan period.

<sup>\*</sup> Includes grants towards revision of salary scales

<sup>\*\*</sup> Includes a grant of Rs. 4.62 lakhs for construction of hostels and quarters

<sup>\*\*\*</sup> Includes a grant of Rs. 0.91 lakhs for construction of staff quarters

The Commission supports the following schemes in university departments and institutions maintained directly by the universities for development of engineering and technical education:

> Improvement/expansion of existing facilities Five year integrated course Development/improvement of Pharmaceutical education Postgraduate courses in Management studies Postgraduate/specialised courses including research schemes Junior fellowships for postgraduate courses and Senior research fellowships Construction of hostels and staff quarters Student amenities etc. Postgraduate courses in Basic Medical Sciences

Assistance is given on 50% basis for undergraduate courses in Engineering and courses in Business Management and 100% for postgraduate courses in Engineering and Research.

During the Fourth Plan period the requirements of 19 universities/ institutions were examined by AICTE/UGC visiting committees and their recommendations for strengthening postgraduate courses in engineering and technology were approved for implementation.

The recommendations of the AICTE for the improvement of undergraduate courses in institutions in the southern and western regions were accepted by the Commission in addition to development requirements of the universities of Roorkee, Banaras, Jodhpur, Calcutta, and Indian School of Mines, Dhanbad which were assessed by the UGC visiting committees and grants approved by the Commission.

During the Fourth Plan period, the Commission approved part-time courses in Management Studies at Aligarh, Indore and South Gujarat Universities and full-time courses in Management studies at the universities of Allahabad, Kerala, Madras, Madurai, Punjab, Andhra and functional courses and research projects at the universities of Allahabad, Bombay, Delhi, Kerala and Panjab. A total outlay of Rs. 21.49 lakhs non recurring and Rs. 52.29 lakhs recurring (UGC share) was approved for the development of Business Management courses in these universities during the Fourth Plan period. During the year 1973-74, no new scheme could be accepted due to financial stringency.

#### SECTION III

#### **Development of Colleges**

The affiliated colleges, with 89.1 per cent of the total enrolment in the universities and colleges and 84.3 per cent of teachers, have a pivotal position in the field of higher education. It has not been possible to meet the developmental needs of the collegiate sector of education in as large a measure as would be desirable for the maintenance of standards. The assistance provided by the Commission for improving academic and physical facilities in the colleges has at best been marginal, mainly because the resources placed at its disposal have not been adequate even for the improvement of teaching and research in the universities.

#### a. Undergraduate Colleges

The pattern of assistance approved by the Commission in the beginning of the Fourth Plan period (Appendix XII) for supporting the development of colleges continued during the year under report. Assistance was provided to the colleges on the usual sharing basis for library and laboratory facilities, semi-micro analysis equipment, class-room and lecture theatres, workshops, NRSCs\*, residential accommodation for staff, student hostels, tube wells, overhead tanks, cycle sheds and chalk boards. The normal assistance to a college for its develoment programmes mentioned above is limited to Rs. 3 lakhs for the period ending 1973-74. Grants paid to colleges during 1973-74 under various schemes are detailed in Appendix XIII. The number of colleges assisted under the scheme since 1969-70 for different projects is indicated below:—

Year	Number of Colleges	Additional seats created
1969-70	56	3,737
1970-71	59	3,368
1971-72	75	4,556
1972-73	60	3,714
1973-74	36	947

Student Hostels

\* Non-resident Student Centre

# Library and Laboratory Facilities

Year	No. of colleges	
1969-70	198	
1970-71	214	
1971-72	349	
1972-73	297	
1973-74	177	

# Teachers' Hostels/Staff Quarters

Year	No. of colleges					
1969-70	40	272 units				
1970-71	15	189 units				
1971-72	151	1,382 units				
1972-73	49	377 units				
1973-74	35	174 units				

# Non-Resident Student Centres

Year	No. of colleges	
1969-70	31	
1970-71	42	
1971-72	68	
1972-73	68	
1973-74	24	

	Cycle Sheds	Tubeweils, Overhead Tanks.
Year	No. of Colleges	No. of Colleges
1970-71	5	5
1971-72	35	22
1972-73	30	20
1973-74	7	4

	Chalk Boards	*Semi-micro Analysis Equipment				
Year	No. of Colleges	No. of Colleges				
1971-72	78	82				
1972-73	86	60				
1973-74	70	3				

\* Prior to 1971-72, grants were paid to colleges seperately.

In addition to the above, the Commission approved payment of basic grants to the colleges for books and equipment outside the ceiling of Rs. three lakhs as under:

	Books	(Rupees in lakhs)
Year	r No. of Colleges	
1969-70	2,000	80.35
1970-71	1,450	67.45
1971-72	282	14.10
1972-73	12	0.63
1973-74	55	0.75
· · · · · · · · · · · · · · · · · · ·		
	Equipment	(Rupees in lakhs)

- •	Amount		
No. of Colleges			
1150	265.00		
1488	106.38		
19	1.51		
	1150 1488		

# b. Development of Postgraduate Studies in Affiliated Colleges

The Commission continued to provide support for the development of postgraduate studies in the colleges and attached high priority to these programmes. The level of assistance to colleges for the development of post-graduate studies was substantially raised during the fourth plan period. Total assistance available to a college for the development of postgraduate studies in the Fourth Plan was upto a ceiling of Rs. 1,50,000 in the humanities and social sciences and on the basis of Rs. 1,50,000 each for physics

and chemistry, 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 statistics. Under this programme assistance is provided to the colleges for additional staff, teaching accommodation, improvement of library and laboratory facilities, on a sharing basis with prescribed ceiling.

The number of proposals from Postgraduate colleges accepted during the period 1969-70 to 1973-74 are given below:

			(In Kupees)
Year	No. of Colleges	No. of Departments	UGC Share
1969-70	30	57	26,27,000
1970-71	32	57	18,58,000
1971-72	16	22	14,13,000
1972-73	21	41	20.81,000
1973-74	12	23	3,62,472
Total	111	200	()- wind an an represented

Science Subjects

Humanities and Social Sciences

(In Rupees)

(In Rungosi

		1
No. of Colleges	No. of Departments	UGC Share
17	43	7,36,300
32	89	18,81,250
13	41	6.43,068
16	47	8,04,570
5	8	77,000
83	228	Let The Barrison American American
	17 32 13 16 5	17     43       32     89       13     41       16     47       5     8

#### c. Delhi Colleges

The Commission continued to provide maintenance grant to colleges of Delhi University. Grants amounting to (i) Rs. 2,85,10,272 under nonplan projects and (ii) Rs. 1,81,41,614 under plan projects were paid during the year. In addition, non-recurring grants amounting to Rs. 63,30,270 were also paid for the developmental projects of the colleges of Delhi University. This enabled the colleges to improve their library, laboratory and

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building facilities. Twenty three colleges were allowed to introduce additional courses of study at various levels.

To meet the increasing demand for admission, five colleges were brought under the category of extended colleges under the scheme, thus raising the number of such colleges to 24. The extended colleges are intended to have an effective enrolment of 1,500 as against 1,000 students in the colleges. The number of colleges in Delhi assisted during the five year period ending 1973-74 is indicated below:

Scheme	1969-70	1970-71	1971-72	1972-73	1973-74
Land for college buildings	1		2	5	- 1
College buildings	19	17	15	21	27
Library books	42	44	23	27	20
Scientific equipment	8	11	16	9	5
Furniture	10	11	7	7	13
Equipment for general use	7	5	7	6	11
Maintenance grants to newl	у				
established colleges	3	6	7	10	
Miscellaneous schemes	13	13	12	14	19
and the second second					

#### d. Autonomous Colleges

Autonomous colleges represent a radical departure from the existing structure of the university system in India in which collegiate education which caters to more than 80  $\frac{9}{60}$  of students in higher education at the university level, does not enjoy any academic freedom because of the prevailing affiliation system. The Education Commission regarded the exercise of academic freedom and promotion of scholarship on the part of teachers as crucial to the development of intellectual climate in the country. All attempts at reform of university education in the way of curriculum development, changes in the system of examination and promotion of research and its subsequent feedback into the teaching process have tended in the last few years to get defeated by the existing rigidity in the structure of universities, particularly owing to the absence of academic autonomy of the institutions.

The Commission at its meeting held on 10th September 1973 accepted the guidelines and criteria for recognising colleges as autonomous colleges and also the pattern of assistance to such colleges. The criteria and guidelines and pattern of assistance to autonomous colleges have been circulated to the universities and colleges for their information and guidance. It has been emphasised in the guidelines that autonomy does not mean autonomy for the management but autonomy in academic matters only like framing of courses, methods of teaching and evaluation etc. It has also been clarified that the autonomous colleges are not intended to function as 'elite' institutions but as institutions that will set the pace for educational reforms and innovations. The universities have been requested to have this matter considered by appropriate university bodies and make a beginning to implement the scheme. State Governments have also been requested to have enabling clauses in the University Acts so that autonomous colleges may be recognised after careful consideration by the academic bodies of the University.

#### SECTION IV

#### Students

The Commission has been attaching a high priority to the provision of essential student amenities since students and teachers are the pivot around which all development programmes sponsored by the Commission in the universities and colleges revolve. All development programmes of the Commission including appointment of staff, construction of academic buildings, libraries and laboratories. purchase of equipment and books and journals etc. have a direct or indirect bearing on the well being of the students and teachers and on the promotion of a congenial environment and conditions for studies and researches. The main focus of the Commission's programmes in relation to student welfare is on the creation of conditions conducive to study and learning, especially in regard to needy and poor students on the one hand and the meritorious students on the other. Some of the major programmes which have a direct bearing on the welfare of students are reviewed here.

#### a. Scholarships and Fellowships

The Commission has all along been allocating considerable part of its resources for the development of research in the universities and colleges through various schemes of fellowships. The objective of the scheme is to enable academically bright students with motivation for research to pursue their careers of research without hindrance or undue worry about their pecuniary circumstances. They are assured of adequate support for their maintenance and for the purchase of books, journals and equipment etc. so that they can do their research as an independent and full-time activity. It has however not been possible so far to award fellowships to all meritorious students at the postgraduate and research levels. The fellowships provided by the Commission have nevertheless enabled universities and colleges to divert their research and investigation in specialised fields with particular reference to the socioeconomic needs and requirements of the country.

The Commission awards a specified number of fellowships every year for advanced studies and research in different fields in addition to the scholarships and fellowships available with the centres of advanced study and those provided under approved development programmes in the universities and colleges. Senior research fellowships of the value of Rs. 500 per month are intended to promote post-doctoral research and Junior research fellowships of the value of Rs. 300 per month are for doctoral studies. All fellowships carry an annual contingency grant of Rs. 1000 per scholar. During 1973-74 the Commission awarded 55 senior and 110 junior fellowships in science subjects, 25 senior and 71 junior fellowships in the humanities and social sciences and 69 fellowships in engineering and technology. Towards the end of the year under review 83 scholars in humanities and social sciences, 198 in science subjects and 65 in engineering and technology were carrying on research with fellowships awarded by the Commission.

The Commission has also been allocating every year about 600 junior research fellowships to the universities. In 1973-74, an amount of Rs. 83,85,000 was allocated to the universities to support this programme.

Special attention has been paid by the Commission to the promotion of studies in Arabic, Persian, Sanskrit, Pali and Prakrit. Scholarships of the value of Rs. 1,800 per annum for postgraduate studies and Rs. 1,200 per annum for honours courses in these subjects have been instituted. During the year under review, the Commission awarded 27 postgraduate scholarships in Sanskrit and 21 scholarships in Arabic and Persian.

In order to promote channels of academic communication between the students of the hill areas of the north eastern region and the rest of the country the Commission has instituted junior research fellowships for doctoral work and scholarships for postgraduate studies for meritorious students from these regions for study and research anywhere in the country. During 1973-74 17 scholarships for postgraduate studies and 4 junior research fellowships for doctoral research were awarded by the Commission under this programme.

Scheme	1969-70	<i>1970-71</i>		197 <b>2-73</b> Allocation <b>R</b> s.		
1	2	3	4	5	6	
Junior research						
fellowships assigned						
to the universities	600	600	82,00,000	83,85,000	83,85,000	

The number of scholarships and fellowships awarded during the five year period ending 1973-74 is indicated below:

1	2	3	4	5	. 6
Junior research					
fellowships	179	151	146	151	153
Senior research					
fellowships	54	36	50	71	49
Research fellow-					
ships in Engg. and					
Technology	47	63	46	66	60
Arabic and Persian					
scholarships					
(a) for Honourse	8	11	7	7	8
(b) for postgra-					
duate studies	11	12	11	14	13
Hill Area scholar-					
ships					
(a) Postgraduate					
studies	27	17	15	22	17
(b) Junior research					
fellowships		1	4	3	4
Scholarships in					
Sanskrit, Pali and					
Prakrit			19	26	23

The following grants were paid to the universities and colleges for scholarships and fellowships during 1973-74:

(In Rupees)

Scheme	Grants paid to universities	Grants paid to colleges		
Research Fellowships (Humanities)	7,26,831	60,095		
Research Fellowships (Science)	10,41,057	1,32,279		
Junior Research Fellowships	60,94,121			
Scholarships in Arabic & Persian	38,800	21,600		
Hill Area scholarships	92,845	11,043		
Scholarships in Sanskrit, Pali and Prakrit	45,000	28,800		

# (b) Non-Resident Student Centres/Student Homes

The schemes of non-resident student centres and student homes were initiated primarily to provide facilities for study to day scholars during their cisure hours. Student homes have facilities for about 100 students and provide rack space for 5,000 books, besides a cafetaria and a dining hall. The Commission's share towards each student home in the universities is limited to Rs. One lakh or the actual cost whichever is less. A non-recurring grant of Rs. 24,000 is also available for purchase of books and furniture for the student homes. In view of the value and importance of this scheme, the Commission gives assistance to the universities towards the first student home outside their Fourth Plan development allocation. Additional student homes are to be provided by the universities within their plan allocation. The Commission has so far assisted 65 universities to set up student homes. A grant of Rs. 4,90,000 was paid to the universities for the establishment of student homes in 1973-74 in addition to a grant of Rs. 34,012 for NRSCs. During the year under review, a sum of Rs. 14,18,498 was paid to the colleges for NRSCs.

#### (c) Construction of Hostels

The need for residential accommodation for students has been emphasised by the Commission from time to time in view of the fact that a majority of our students do no often have a quiet corner for study at home and hostel accommodation is not available to more than 10 per cent of the students. Right from its inception, the Commission has been assisting universities and colleges towards the construction of student hostels, but the proportion of students residing in the hostels has not increased significantly in view of the annual increase in the number of university students, paucity of funds and the rise in the cost of construction.

The Commission continued to give assistance to the universities for the construction of student hostels on a sharing basis of 50 per cent in the case of men's hostels and 75 per cent in the case of women's hostels. Assistance to central universities for this purpose is on a cent per cent basis. During 1972-73, 40 universities were assisted towards additional hostel accommodation and a sum of Rs. 33,55,000 was released in support of this programme. In 1973-74, the Commission paid a sum of Rs. 59,72,500 to 42 universities including institutions deemed to be universities.

The scheme of assistance to colleges for putting up hostels is also continuing. During 1972-73, 60 such projects were approved and a grant of Rs. 71,83,000 was given to the colleges for this purpose. In 1973-74, an amount of Rs. 36,72,336 was paid to 80 colleges for the purpose.

#### (d) Improvement of Hostel Facilities

The Commission sanctioned grants to 42 universities amounting to Rs. 4.21 lakhs during 1969-70 for the improvement of hostel facilities. During

1970-71 grants amounting to Rs. 1.05 lakhs were paid to universities for this purpose. During 1971-72, the Commission accepted proposals of 38 universities/institutions deemed to be universities under this programme and paid an amount of Rs. 1.21 lakhs for the purpose. During 1972-73, an amount of Rs. 36,000 was paid to 6 universities for the improvement of existing hostel facilities. A grant of Rs. 34,259 was paid in 1973-74 to 10 universities/institutions deemed to be universities for the purpose.

Colleges received grants under the student welfare programme for the improvement of existing hostels, sanitary facilities, provision and improvement of canteen facilities and other programmes. During 1971-72, the Commission assisted 790 colleges and paid grants amounting to Rs. 67,36,000. During 1972-73, an amount of Rs. 12,02,900 was released to the colleges under this scheme. During 1973-74, an amount of Rs. 13,84,578 was paid to 531 colleges under the scheme.

(e) Study Centres

The UGC has agreed to the establishment of 111 study centres equipped with multiple copies of textbooks in towns and cities having large population of students engaged in higher studies. The financial assistance from the Commission for each study centre is as follows:

Non-Recurring		
Books	Rs.	20,000
Stacks and furniture	Rs.	10,000
Recurring		
Assistant Librarian	Rs.	10,000 per annum
Contingencies (including		
electricity charges)	Rs.	3,000 per annum

The universities concerned have generally welcomed this programme. Sanction has been given for the establishment of 85 centres in 51 universities so far. The Commission has agreed to assist the universities for meeting the recurring expenditure upto the end of the fifth plan period.

### (f) Students' Aid Fund

The scheme of students' aid fund was initiated to enable needy students in the universities and colleges to have some financial assistance, however small, for paying their tuition and examination fees, purchasing books and meeting other expenses related to their studies. In order to encourage the universities and colleges to participate in this programme effectively, the Commission pays to the universities a grant equal to the amount collected by them from their departments and affiliated colleges subject to a maximum of Rs. 1,500 per annum. Grants ranging from Rs. 750 to Rs. 5,000 per annum are paid to the colleges on the basis of their enrolment. In 1972-73, the Commission paid a grant of Rs. 4,08,100 to 50 universities and Rs. 42,73,000 to 2003 colleges under this programme. In 1973-74, the Commission paid a grant of Rs. 2,00,919 to 31 universities and Rs. 39,34,433 to 1,725 colleges under the scheme.

#### (g) Health Centres

The Commission has agreed that asistance may be provided to universities (the university and two colleges affiliated to the university forming a complex) for the establishment/development of health centres for their students. The Commission's assistance on this project was on the following pattern:

#### Universities

Non-recurring	— Building and equipment	- Rs. 1,50,000 on 75:25 sharing basis
Recurring	— For Staff	- Rs. 30,000 p.a. on 50:50 sharing basis
Colleges		6
Non-recurring	Building and equipment	- Rs. 75,000 on 75:25 sharing basis
Recurring	— For Staff	- Rs. 20,000 p.a. on 50:50 sharing basis

The Commission's assistance under the scheme is provided to the universities and colleges outside their plan allocation. During 1972-73, 11 universities and 17 colleges were assisted under this programme. In 1973-74, a grant of Rs. 1.80.875 was paid to 9 universities and a grant of Rs. 1.82.481 to 9 colleges under the programme.

#### (h) Book Banks

In 1970-71, the Commission decided to provide financial assistance to colleges for the specific purpose of making available to deserving students books on loan for the period of their study. It has been suggested to the colleges that this might be done by setting up a special section on a book bank in the college library. The basis of assistance under this scheme is as follows:

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	Allocation UGC contribution in Rupecs		
College with a student enrolment of 500 and above but less than 1000	15,000	$75^{9}_{*0}$ of the allocation	
College with a student enrolment of 1,000 and above but less than 1,500	20,000	-do-	
College with a student enrolment of 1,500 and above but less than 2,000	25,000	-do-	
College with a student enrolment of 2,000 and above.	30,000	-do-	

1,222 colleges have been assisted under the scheme upto 31st March, 1974. In 1973-74, a grant of Rs. 9,91,460 was paid to 228 colleges for the establishment of book banks.

#### (i) Sports and Physical Education

The Commission has agreed to assist 32 universities and 85 colleges (upto 31st March 1974) for the construction of gymnasia in the first phase of the programme. The pattern of assistance is as under:

Universities	Rs.	2,50,000	on	75:25	sharing	basis
Colleges—						
(a) with an enrolment						
of 1500 and above	Rs.	1,50,000	on	75:25	sharing	basis
(b) for small colleges	Rs.	75,000	on	75:25	sharing	basis

A grant of Rs. 13,97,767 was paid in 1973-74 for the construction of gym nasia to 12 universities and 36 colleges.

Assistance is also being given to universities and colleges for the development of play fields and purchase of accessories for games and sports. The Commission has agreed to meet 75 per cent of the total expenditure of Rs. 15,000 for this purpose in the case of a university and Rs. 10.000 in the case of a college. Keeping in view the availability of funds for the programme, the Commission's assistance is available to all the universities and only upto 20 per cent of the affiliated colleges in the first phase of the programme. A grant of Rs. 3,47,003 was paid in 1973-74 to 13 universities and 98 colleges for the development of play fields. In order to provide efficient and enlightened guidance to university students in various games and sports, the Commission is assisting universities and colleges to employ trained coaches. A grant of Rs. 91,290 was paid to 11 universities for the purpose in 1973-74.

#### (j) Employment Information and Advisory Bureaux

In 1971-72, the Commission initiated a scheme of Employment Information and Advisory Bureaux and Career Advising Units to provide necessary guidance to university and college students to select their courses of study and subjects according to their aptitude and ability as well as information about career opportunities so that they can take up the right kind of career on completion of their education. The Commission's assistance for the setting up of a Bureau is Rs. 13,400 (R) per annum and Rs. 14,500 (NR) for a university and Rs. 1,200 per annum for a college for a Career Advising Unit. The Commission has so far approved the proposals of 41 universities and 75 colleges. In 1973-74, the Commission paid grants amounting to Rs. 30,238 to four universities and Rs. 27,400 for 33 colleges for the purpose.

### SECTION V

#### **Faculty Development**

It is hardly necessary to emphasize that the quality of higher education depends essentially on the competence of the teachers. In recent times, there has taken place a tremendous explosion of knowledge, particularly in the fields of Science, Technology and Social Sciences. A good teacher has, therefore, to be a continuing student. Teachers have also to be exposed to new concepts and developments in their subjects to enable them to improve their professional competence. The programme of summer institutes, seminars, refresher courses, academic conferences, fellowships and visits is intended to acquaint teachers with current developments in their respective fields of work.

Apart from disseminating knowledge to the students, a teacher has also to discover new knowledge and new tools of analysis. He has therefore to engage himself in research and investigations which may be of practical use to the society. It is to fulfil this particular objective that the Commission has been providing support for research projects in the universities as well as assistance to individual teachers working in the universities and colleges for undertaking research in their special fields.

The schemes of the UGC for retraining of teachers, research support to individual teachers and departments and revision of salary scale of teachers are reviewed below:

#### Summer Science Institutes for College Teachers

The summer science institutes for college teachers have been organised since 1964. During 1964-72, the Commission organised 413 summer institutes in various science subjects and 14,706 teacher-participants benefited under the programme. During 1972-73, 57 summer institutes for college teachers (15 in Mathematics, 11 in Physics, 13 in Chemistry and 18 in Biology) were organised in collaboration with the National Council for Science Education. The number of participants in these institutes was 2,090. In 1973-74, the Commission organised 53 summer institutes for 1,465 college teachers (10 in Mathematics, 14 in Physics, 14 in Chemistry, 14 in Biology and one in Engineering).

### Summer Institutes in English Language Teaching

Upto 1972-73, 85 summer institutes in English Language Teaching were organised by the Commission in which 4,057 college teachers participated.

In 1973-74, 12 summer institutes in English Language Teaching for 535 college teachers were organised in collaboration with the Central Institute of English and Foreign Languages, Hyderabad, and the British Council.

#### Indo-British Summer Science Institutes

During 1973-74, four summer institutes one each for college teachers in Biology, Chemistry, Physics and Mathematics using Nuffield materials were organised in collaboration with the British Council. The number of participants in these institutes was 144.

#### Summer Institutes for Postgraduate Students

The Commission has also taken keen interest in improving the quality of postgraduate studies and to this end summer institutes have been organised in various science subjects at this level from time to time. In the summer of 1973, four institutes for postgraduate students were held at the Indian Institute of Science, Bangalore (Life Sciences), Osmania University, Hyderabad (Chemistry), Bangalore University (Mathematics) and Madurai University (Physics).

#### Summer Institutes in Social Science Subjects

The programme of summer institutes in sciences has been extended to the social sciences. With the Commission's support, three such institutes were organised in 1971, seven in 1972 and 19 in 1973-74. The number of participants in the summer institutes organised in 1973-74 was 802.

### Seminars, Refresher Courses and Conferences

The Commission provided financial support for the organisation of 72 seminars, refresher courses, symposia and conferences to help teachers in the universities and colleges to exchange ideas and benefit by the experience, studies and research of their peers from other institutions.

During 1973-74, a grant of Rs. 20,76,181 was paid to 44 universities in addition to a grant of Rs. 2,23,187 to 8 colleges for organising seminars etc. As already reported, the Commission has undertaken a comprehensive review of the summer institutes programme and it should be possible to make them more rewarding and more meaningful during the fifth plan.

### Revision of Salary Scales of Teachers

The revision of scales of pay of university and college teachers has an important bearing on the maintenance of standards of higher education as

without attractive remuneration and conditions of service, it is difficult to attract and retain talented and well qualified teachers in the profession. The Commission has continued to revise salary scales of university and college teachers from plan to plan. At its meeting held on 30th April 1973, the Commission generally accepted the recommendations made by the Committee on Governance of Universities and Colleges as far as they related to teachers. The Commission agreed in particular with the recommendations of the Committee that for university teachers, there should be three scales of pay and not one single and continuous scale for all the teachers. The Commission recommended to the Government of India that keeping in view the scales of pay recommended by the Third Pay Commission, the pay scales for university and college teachers be as follows:—

Universities

	Rs. 700-1600
	Rs. 1200-1900
	Rs. 1500-2500
-	Rs. 3000
	Rs. 700-1300-Assessment-
	1600
	Rs. 1200-1900
	Rs. 1500-2500

The Commission also appointed a committee to consider the recommendations of the Sen Committee relating to the need to improve the professional competence of teachers and their qualifications and suggest methods for the assessment of teachers, their appointment and promotion, security of service, age of superannuation, remuneration for examination work, work-load and code of conduct.

### Staff Quarters/Teachers' Hostels

During the plan period, the Commission has assisted 42 universities for the construction of 570 staff quarters for teachers. Besides, 25 universities have also been assisted for construction of teachers' hostels; total number of units provided in these hostels is 365. Assistance has also been provided to 10 universities for the construction of Vice-Chancellors' residence and to 19 universities for the construction of 457 quarters for Class IV staff. Construction of 27 quarters for supporting staff at the Indian Institute of Science, Bangalore, has also been accepted by the Commission. During 1973-74, the Commission accepted the proposal of Jadavpur University for the construction of 32 class IV staff quarters at an estimated cost of Rs. 5,90,105 the share of the Commission being limited to Rs. 2 lakhs. In 1973-74, a grant of Rs. 41,95,586 was paid for the construction of staff quarters to 34 universities and a grant of Rs. 6,67,000 for the construction of teachers' hostels to 13 universities.

### Research Support to Universities

Research support is provided to the universities as a part of their development programmes in each plan period. In addition to this, the Commission decided in 1969-70 to place at the disposal of each University Rs. 50,000 to Rs. 1,00,000 for support to research and for meeting expenditure on items not ordinarily covered under the development schemes of the universities. During 1973-74, a sum of Rs. 6,60,545 was paid to 29 universities for support of research. In addition to this, individual research projects were also supported for research work.

### Assistance to Individual Teachers

The Commission has been providing assistance to individual teachers working in the universities and colleges for undertaking research in their special fields. Support under this programme is specially provided to college teachers and junior teachers in the universities who do not have adequate resources to meet the expenses connected with their individual research either for a degree or as part of their individual project. Assistance under this programme is limited to Rs. 5,000 for every selected teacher and is available for field work, computation, purchase of equipment, apparatus, chemicals and books which are required for the project and not normally available in the university or college where the teacher may be working at the time. More than 7,000 teachers have benefited under this scheme so far. In 1973-74, a grant of Rs. 91,887 was paid under the scheme to university teachers in the humanities and social sciences and of Rs. 1,79,393 to university teachers in science subjects. For teachers in the colleges, a grant of Rs. 1,91,040 was paid in the humanities and social sciences and Rs. 2,38,756 in the science subjects. During 1973-74, 292 teachers were selected under this scheme in the humanities and social sciences and a grant of Rs. 3,00,850 was approved for their research projects. For science projects, a grant of Rs. 5,87,800 was approved for 436 research projects in 1973-74.

### National Fellowships

Twenty national fellowships are available for teachers of outstanding eminence to take a year or two off from their normal duties and to devote themselves exclusively to research and writing of results of their study.

Teachers selected under the programme receive their normal salary and other allowances and in addition a fellowship amount of Rs. 250 per month, a grant of Rs. 3,000 a year for secretarial assistance, travel and contingent expenditure.

### National Lectureships

The scheme of national lectureships was initiated in 1970-71 to enable outstanding teachers and research scholars to visit different university departments for delivering a series of lectures in their special fields and to participate in the academic programmes of the host universities. The national lecturers are expected to visit upto three universities/institutions of their choice and deliver a series of 3 to 4 lectures on selected topics and to associate themselves with the teaching and research work in progress in the concerned departments in specific areas of their specialization. The Commission provides to the selected teachers an honorarium of Rs. 1500 and a grant of Rs. 250 for the preparation of lecture aids, slides, etc., in addition to travel expenses and support for publication of the lectures. During 1970-71, 1971-72, 1972-73 and 1973-74, 26, 24, 28 and 28 national lecturers participated in this programme.

### National Associateships

Facilities are available to teachers engaged in research to visit and work for short periods in research institutions, university centres, national laboratories, etc. which have special facilities required for research in the sciences, humanities and social sciences. The selected teachers are kept on the national associateship roll for a period of five years and are able to visit the host institutions in India three times in a five-year period, the duration of each visit being not more than 12 weeks at a time. The Commission pays the actual cost of travel and a maintenance allowance of Rs. 500 p.m. The scheme began with 100 positions and on the basis of a review of its usefulness, another 100 positions were added and 102 were filled in by the end of 1973-74.

### Utilisation of Services of Retired Teachers

The scheme of utilisation of services of retired teachers is intended to help universities and colleges to avail themselves of the services of retired teachers of outstanding merit who have crossed the age of superannuation but who are physically fit to continue teaching and research work. An annual honorarium of Rs. 6,000 and a grant of Rs. 1,000 for contingencies related to the work are provided to selected teachers. At the end of 1972-73, 216 teachers (128 in the humanities and social sciences and 88 in sciences) were working under the scheme of whom 64 were selected in 1972-73. With a view to making the scheme more effective and meaningful, this scheme was reviewed by the Commission during the year. The Commission becided that individual teachers may not be required to make applications dut nominations may be invited under the scheme. Institutional nominations may be made by the Vice-Chancellors of universities in consultation with thedean of the faculty concerned and also the head of the department. In the case of college teachers, the nomination may be made by the Vice-Chancellor in consultation with the Principal of the college. All nominations are referred to at least two experts in the subject concerned and the award is made for a period of three years initially with provision for further extension for two more years, subject to an age limit of 68 years.

Since this scheme was under review during the year it was decided that no additions be made during the year. A grant of Rs. 8,31,912 was paid to universities in 1973-74 for the utilization of services of retired teachers selected in earlier years.

### Travel Grants

Travel grants are available to teachers in the universities and colleges for attending international conferences abroad, for visiting centres of research or attending academic conferences within India. For meeting expenditure on these and several other items, an unassigned grant is placed at the disposal of each university for a plan period. A sum of Rs. 16,44,850 was released to the universities in 1973-74 to implement the various programmes under the scheme.

#### SECTION VI

#### Cultural Exchange Programmes and International Collaboration

The Commission arranges exchange of visits by educationists, teachers and scholars between India and other countries, under the purview of programme of cultural exchange finalised by the Government of India with the governments of the countries concerned. The University Grants Commission implements the cultural exchange programmes in the field of higher education, the programmes being in the nature of bilateral agreements. Visits by senior teachers of the universities and institutes normally range from 3 to 12 weeks. In other cases the period of visit may range from 3 months to 2 years.

In 1973-74, the Commission implemented regular cultural exchange programmes with the Governments of Afghanistan, Bangla Desh, Bulgaria, Czechoslovakia, Hungary. Romania. Poland. GDR. FRG, France, USSR, Iran, Yugoslavia, A.R.E. and Mongolia. Besides these regular programmes, the Commission also implemented ad-hoc programmes of bilaterial academic exchange with Greece, some Latin American countries, Australia, Sri Lanka, Malaysia and a few South East Asian countries.

The Commission received 29 foreign experts and sent 33 teachers abroad during the year. These visits have provided excellent opportunities to our teachers to study the latest developments in various disciplines in countries abroad. Comprehensive reports received from some Indian and foreign experts have helped the Commission to formulate effective collaborative programmes between selected universities and institutions in India and their counterparts in foreign countries.

A few university teachers have also been able to develop bilateral exchange programme with their counterparts in foreign countries.

During 1973-76, the Commission received some plans of collaboration from Indian universities to be sponsored under Indo-Soviet Cultural Exchange programmes. Such plans of collaboration were considered by the Commission and included in the Indo-Soviet Cultural Exchange programme 1974-76.

On the basis of experience of the Indian participants and with a view to making the best use of cultural agreements, the Commission has taken steps to encourage studies and research in depth on a collaborative basis. This has usually taken the form of bilateral academic contacts on a continuing basis between specific departments/universities/institutions after proper identification of areas/disciplines in which cooperation could be profitably promoted to the mutual advantage of both the countries. Such bilateral academic programmes include exchange of teachers/scholars and publications and provision of joint scientific research etc. Details of such bilateral collaboration between selected universities of both the sides are generally worked out by the concerned universities and institutions with the concurrence of the implementing agencies.

With the above objective in view, the Commission appointed the following committee to identify selected areas and disciplines of specialisation as also the institutions and universities which could have bilateral academic programmes with institutions of foreign countries within the framework of the cultural exchange programmes:

- 1. Committee on Indo-Czech cultural exchange programme
- 2. Committee on French cultural exchange programme
- 3. Committee on Belgian cultural exchange programme
- 4. Committee on FRG cultural exchange programme
- 5. Committee on Soviet cultural exchange programme
- 6. Committee on Yugoslav cultural exchange programme

The areas identified by these committees have been incorporated in the proposals for inclusion in the cultural exchange programmes with the countries mentioned above.

### Commonwealth Staff Scholarships and Fellowships

Commonwealth staff scholarships and fellowships are made by the Commonwealth Scholarship Commission, U.K., in order to enable some promising staff members in universities or comparable institutions in the developing commonwealth countries to obtain experience in a university or other appropriate institution in the U.K. The Commonwealth Academic Staff Fellowships are meant for senior teachers in the universities, the scholarships on the other hand, are meant for junior members. The UGC considers the nominations received from the universities for the award of Commonwealth Academic Fellowships and Scholarships. The names recommended by the UGC are considered by the Commonwealth Scholarship Commission and generally accepted for final awards.

### **Programme of Exchange of Visits by Young Scientists between India and U.K.**

The programme of exchange of visits by Young Scientists between India and U.K. was initiated in 1962, initially with provision for six young Indian teachers visiting U.K. and six teachers from the U.K. visiting India. This number was raised to eight from the year 1969-70 each way. Subsequently, on the basis of periodical reviews of the benefits occruing to the participating scientists and institutions under this programme, the number of places available has been increased to 20, making provision within this number for 5 persons in social sciences also to participate in the programme.

### Sabbatical Leave Scheme for Indian Scholars Working Abroad

In 1973-74 the Commission initiated a scheme for enabling Indian scholars working in universities abroad to spend either part or whole of their sabbatical leave to engage themselves in teaching and research in Indian universities. Assignments under the scheme are for a period of not less than three months and not more than one academic year. The scholars are paid an honorarium of Rs. 1000 p.m. for the period of their work in Indian universities. Besides, assistance is also provided towards the cost of international travel within India in cases where the scholar's services are required by two or more universities. The Commission provides assistance to the universities on a cent per cent basis towards the payment of honorarium and the cost of internal travel. The Commission does not provide grants towards meeting cost of international travel. A few proposals from universities were accepted during the year.

#### SECTION VII

#### **UGC Sponsored Programmes**

The development programmes undertaken by the University Grants Commission in the field of higher education and the policies approved for assistance to the universities and colleges, have already been described. There are, however, some programmes which have been sponsored by the Commission itself with a view to providing an inbuilt mechanism in the universities for restructuring their courses and syllabi, improving the methods of evaluation, providing alternative channels of higher education and achieving growth and excellence in the respective disciplines. Assistance for these programmes is generally provided by the Commission outside the plan allocation of the universities and colleges.

It has been the general policy of the Commission to involve the academic community in formulating and implementing these special programmes intended to help in the maintenance and improvement of standards. In all academic matters, the Commission functions with the help and assistance of expert committees. Academic opinion is regularly consulted, and standing committees have been constituted to advise the Commission in important policies and programmes. These programmes are also reviewed and evaluated from time to time by the committees appointed by the Commission and suggestions made for further improvement.

### 1. Development of Libraries

With the ever increasing enrolment in universities and colleges, the demand for library service has been constantly growing. The university and college libraries have now to cater for the diversified needs of undergraduates, postgraduates and research scholars. They have also to perform new functions like indexing and abstracting.

Since its inception, the UGC has been giving very high priority to the development of library facilities in the universities and colleges. These include construction and expansion of library buildings, purchase of equipment and furniture for the libraries and purchase of books and journals. Details are given in Section II of the report.

While the availability of funds for the development of libraries in the universities and colleges remains the major problem, there is also the problem of organization of libraries, development of courses in library science, proper utilization of the library resources through selected centres located in big cities and metropolitan towns, the establishment of study centres and training of the library staff. With a view to studying these problems, the Commission has appointed a committee of experts to advise it on

- (a) Development of libraries in the universities and colleges and of library science courses.
- (b) Measures which would help in the most effective utilization of existing facilities available in the country.
- (c) Such matters as may be referred to it by the Commission; and
- (d) Any matter which the Committee on its own considers to be of importance in this area.

### 2. College Science Improvement Programme (COSIP)

The college science improvement programme (COSIP) was initiated in 1970-71 in order to bring about a qualitative improvement in the teaching of sciences in predominantly undergraduate colleges and to initiate a process of continuous experimentation and self-renewal. The programme was implemented at two levels namely (i) selected colleges and (ii) in selected university departments with a view to initiating a process of improving the teaching of some selected subjects in all the colleges affiliated to that university. The institutions selected under this programme have an opportunity to revise syllabi and examination methods and to introduce better methods of teaching, reduce formal class room teaching and make science instruction more meaningful and more relevant. The colleges can devise special projects to bring about necessary upgrading and modernisation of courses of study in their special subjects. They may organise suitable short-term courses in selected areas to enable the teachers to teach effectively the subjects included in the revised syllabi. An attempt has also been made to produce necessary text materials, question banks, laboratory guides, and to design new experiments and fabricate some items of equipment required for demonstration and laboratory work. A COSIP newsletter published by the Department of Biological Sciences, Madurai University with the support of the Commission continued to disseminate information relating to college science improvement programme in the universities and colleges. A standing Committee on COSIP has been appointed to advise the Commission regarding the implementation of the programme.

During first phase of the programme, the following activities have now been taken up:

### University Leadership Projects

Assessment of existing syllabi and development of new courses of study, methods of instruction, development and curriculum material including textbooks, teacher's guides and laboratory manuals, development of workshop facilities and introducing students to workshop practice, training of college teachers by organising short-term courses, etc. design and fabrication of new laboratory and demonstration equipment and bringing up the College department facilities to an optimum level.

### Selected College Projects

Changes in instructional methods, introduction of new teaching methods, introducing elements of modernisation, introducing new laboratory practices and workshop practice, student-teacher projects of local relevance.

To evaluate the work done in the first phase and in order to suggest the follow-up activities, regional committees have been appointed to visit concerned universities and the colleges. It is also proposed to evaluate the work of university leadership projects by expert committees. During the Fourth Plan period, 24 university departments and 111 colleges were participating in the programme.

### 3. Centres of Advanced Study

The programme of Centres of Advanced Study initiated by the UGC in 1962-63, is designed to cultivate centres of excellence in the universities and to strengthen the quality of teaching and research particularly at the postgraduate level, by using effectively a part of the existing rather limited resources on a highly selective basis. The basic purpose of the scheme of the Centres of Advanced Study is to encourage the pursuit to excellence and team work in studies and research and to accelerate the realisation of international standards in specific fields. The centres may invite both junior and senior academicians from other universities to be associated with the work at the centres for short periods. The centres of advanced study, in order to be viable, have to reach a certain critical size as regards their staff and other facilities.

During 1973-74, 17 centres of advanced study in the science subjects and 13 centres of advanced study in the humanities and social sciences were functioning as detailed in the following pages.

University	Department recognised as Centre of Advanced Study	Major field of Specialisation
1	2	3
	1. Sciences	
1. Annamalai	1. Marine Biology	Marine Biology
2. Bombay	<ol> <li>Mathematics</li> <li>Chemical Technology</li> </ol>	Pure Mathematics Applied Chemistry
3. Calcutta	<ol> <li>Mathematics</li> <li>Radiophysics &amp; Electronics</li> </ol>	Applied Mathematics Radiophysics & Elec- tronics.
4. Delhi	<ol> <li>Physics</li> <li>Chemistry</li> </ol>	Theoretical Physics Chemistry of Natural Products
	3. Botany	Plant Morphology and Embryology
	4. Zoology	Cell Biology and Endo- crinology
5. Indian Institute of Science	1. Bio-chemistry	Proteins, Lipids and Vitamins
6. Madras	1. Physics	Crystallography and Bio-Physics.
	2. Botany	Plant Pathology and Mycology.
	3. Mathematics	Pure Mathematics
7. Osmania	1. Astronomy	Astronomy
8. Punjab	1. Geology	Himalayan Geology and Palaeontology.
	2. Mathematics	Pure Mathematics
9. Saugar	1. Geology	Structural Geology and Geomorphology.
II	. Social Sciences and Huma	anities
1. Aligarh	1. History	Medieval Indian History
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1	2	3
5. Bombay	1. Economics	Public Finance and Industrial Economics.
6. Calcutta	<ol> <li>Ancient Indian His- tory &amp; Culture</li> </ol>	Ancient Indian History and Culture.
7. Delhi	1. Economics	Economic Development and Economic History.
	2. Sociology	Sociology.
8. Madras	1. Philosophy	Advaita and allied sys- tems of Philosophy.
9. Poona	I. Economics (Gokhale Instt.)	Agricultural Economics
	2. Linguistics (Deccan College)	Applied Linguistics
	3. Sanskrit	Sanskrit Literature
10. Visva-Bharati	1. Philosophy	Metaphysics

Those centres which had completed 10 years of existence were reviewed by assessment committees which were specially constituted by the Commission for this purpose. It has been decided that only those centres which have maintained comparable standards in their field of specialisation would continue to be recognised by the Commission.

Of the 30 centres of advanced study in science, humanities, and social sciences, 22 continued to receive assistance from U.K. under the British Assistance Programme in the form of equipment, books and journals and exchange of visits. During the year 13 scientists from U.K. visited the centres and 23 teachers from the centres visited U.K. The assistance to the centres of advanced study under the UNDP Programme concluded in August, 1974.

### 4. Special Assistance to Selected Departments

In addition to the centres of advanced study recognised by the Commission, 20 departments in science subjects and six departments in the humanities and social sciences are receiving assistance from the Commission under the programme of special assistance to selected departments in the universities. These are indicated in the following pages.

### Science Subject

1.	Physics	(1)	University of Andhra
		(2)	University of Allahabad
2.	Chemistry	(3)	Indian Institute of Science, Bangalore
	-	(4)	-
		(5)	
		(6)	University of Calcutta
		(7)	University of Osmania
		(8)	
		(9)	•
3.	Biochemistry	(10)	University of Lucknow
	-	(11)	M.S. University, Baroda
4.	Botany	(12)	University of Panjab
			University of Andhra
		(14)	University of Calcutta
		(15)	Banaras Hindu University
5.	Mathematics	(16)	University of Poona
6.	Geology	(17)	University of Andhra
		(18)	University of Jadavpur
7.	Zoology	(19)	Banaras Hindu University
8.	Metallurgy	(20)	Banaras Hindu University
Hun	nanities and So	ocial Sc	iences

9.	Economics	(21)	University of Osmania
		(22)	Presidency College, Calcutta
10.	History	(23)	University of Patna
11.	Sociology	(24)	University of Saugar
		(25)	University of Bombay
12.	Archaeology	(26)	University of Poona
			(Deccan College Postgraduate and Research
			Institute, Poona)

The programme is expected to serve as a support base for improvement in quality at the postgraduate level and eventually help the selected departments to strengthen and consolidate their research and teaching. The Commission's assistance will help departments in identifying areas of specialisation in which they would ultimately achieve excellence.

Assistance to the selected departments was made available for a period of five years from 1st April 1972 when they were recognised as departments of special assistance to the concerned departments up to the end of the Fifth plan period, if the university/State government takes over the recurring expenditure as committed expenditure thereafter.

#### 5. Expert Panels

In February, 1974, the Commission constituted panels in various disciplines in Humanities and Social Sciences to advise the Commission on matters relating to teaching and research in their respective areas. The panels are expected to work on the following aspects of their disciplines: (a) objectives of teaching at different levels, (b) the structure of various courses and the articulation of compulsory and optional papers, (c) modalities of introducing interdisciplinary approach, (d) major developments in the teaching of courses and the need for remedial measures including text books and suplementary reading materials, (e) methods of teaching, (f) faculty improvement and (g) methods of evaluation.

The University Grants Commission has also set up specialist panels in (i) Physics,(ii) Chemistry,(iii) Biological Science,(iv) Mathematics,(v) Geology and Geophysics (vi) Zoology and (vii) Agriculture. The panels are expected to advise the Commission regarding measures for improvement of standards, facilities of teaching and research, development of inter-disciplinary and multi-disciplinary programmes and on such matters as may be referred to them by the Commission. The panels apart from recommending the research projects from universities and colleges may also recommend on their own, proposals for promotion and support of studies and research in relation to educational and developmental needs of the country.

### 6. Science Research Council

In September 1973, the University Grants Commission appointed a Standing Committee on Scientific Research and Development to advise the Commission with regard to the development of fundamental and applied scientific research in the universities and to help in the evaluation of research projects and related matters. The Commission later agreed to name this committee as Science Research Council. The Science Research Council is expected to function in coordination with the various panels in science subjects and to consider the general and specific recommendations made by them. The major research projects recommended by the panels are also to be considered by the Council.

### 7. Support for Publication

The Commission agreed in September, 1966, on the recommendations of a Committee, to give earmarked grants to the

universities for the publication of learned/research work including doctoral thesis. This grant was initially made available for a period of five years. The Commission later in October, 1970 raised the ceiling of assistance to the universities during the fourth plan period (1966-74) based on (a) the number of postgraduate students, (b) the number of research students and (c) the teachers in universities and colleges. The total allocation made to 79 universities and institutions deemed to be universities for the period 1966-74 amounted to Rs. 30.05 lakhs. As against this allocation the grants claimed by the universities during the period 1966-74 amounted to Rs. 11.63 lakhs only, i.e.,  $38.7^{\circ}$ , of the total allocation made for the purpose was utilised during the period. The number of learned works selected so far for publication is 350. A sum of Rs. 2,59,945 was paid to the universities for the purpose during 1973-74. The scheme is being reviewed by a Committee.

### 8. 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 universities 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 specialisation	Year of establish- ment
Jadavpur	Pakistan, South East Asia including Indonesia and Malaysia	1966-67
Bombay	East Africa and USSR	1958-69
Madras	Srilanka, Burma and Malaysia	1966-67
Delhi	(i) African Studies	1954-55
	(ii) China and Japan Studies	1969-70
	(iii) Pakistan Studies	1966-67
Aligarh	West Asia	1966-67
Sri Venkateswara	Indo-China	1968-69
Rajasthan	South Asia	1968-69

The requirements and the development proposals of these centres were assessed by visiting committees. The Commission has now invited development proposals from these cenres for the fifth plan period in the light of the recommendations of the assessment committees and the standing committee on area studies. Proposals have also been invited from the following uniuniversities.

- (a) Visva-Bharati -- Classical Chinese and Art, Culture and Philosophy of China.
- (b) Poona University-Economics of East European countires.
- (c) Banaras Hindu University-Nepal
- (d) Calicut University-Malaysia
- (e) Goa Postgraduate Centre-Latin American countries.

The possibility of strengthening the existing facilities at the Jawaharlal Nehru University in the area studies of China, Pakistan, Afghanistan and Iran is also being considered by the Commission.

### 9. Correspondence Courses

Correspondence courses are now considered to be a recognised method of education to enable the working population and other sections of the community to improve their knowledge and qualification by home study. In India, the Delhi University was the first to establish a Directorate of correspondence courses in July 1962. Facilities for correspondence courses were gradually introduced in other universities also.

University	Correspondence courses offered
Delhi	B.A. (Pass) B.Com.(Pass)
Rajasthan	B.Com., M.A.
Punjabi	Pre-University, B.A., M.A.
Mysore	Pre-University, B.A., B.Com., M.A.
Meeruí	B.A.
Madurai	Pre-University, B.A. B.Com.
Bombay	I.A., I.Com. B.A. B.Com.
Panjab	Pre-University B.A., B.Com.
Andhra	Pre-University, B.A., B.Com.
Himachal Pradesh	Pre-University, B.A., M.A., M.Ed.
Sri Venkateswara	B.A., B.Com.

During 1973-74 11, universities were running correspondence courses at various levels as indicated below :

The Commission provides assistance to a university for undergraduate correspondence courses to the extent of Rs. 5 lakhs for a period of four years on a net deficit basis. The Commission also provides support to the universities for correspondence courses at the postgraduate level for specific programme such as core staff, preparation and evaluation of reading material, conduct of contact programme etc.

The Commission has under consideration laying down of the guidelines for the introduction and development of correspondence courses in the Fifth Plan.

### 10. Adult/Continuing Education

The UGC, considered the general pattern of development and assistance towards Adult/Continuing Education Programmes in the universities and agreed to provide assistance to the universities for this purpose on 75:25 basis upto a maximum of Rs. 3 lakhs to a university during the Fourth Plan period.

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

Professional courses Courses for human relations, leadership and management skills General purpose courses Programmes for the rural community Cultural activities Training of personnel Research in Adult Education.

The universities were requested to send proposals for the development of adult/continuing education programmes during the Fourth Plan period.

Nine universities (including one institution deemed to be university) viz. Bombay, Baroda, GB Pant University of Agriculture and Technology, Pantnagar, Andhra, Gujarat Vidyapeeth, Rajasthan, Poona, SNDT Women's University and Sri Venkateswara University have agreed to implement the programme so far.

In 1973, the Commission decided to extend the period of assistance for setting up of departments of continuing and adult education in the universities till the end of the Fifth five year plan, i.e. 1978-79.

### 11. Examination Reforms

The Plan of Action prepared by an Expert Committee and endorsed by the Commission was circulated to the universities and they were requested to give their comments and suggestions on the report and to indicate the steps taken by them to implement the recommendations. An Implementation Committee to advise the Commission on various measures of examination reforms was then appointed in 1973.

The following universities were proposed for the purpose of initiating examination reform work there :

(1) Andhra, (2) Aligarh, (3) Baroda, (4) Calicut, (5) Gauhati,
(6) Jadavpur, (7) Madras, (8) Mysore, (9) Panjab, (10) Poona,
(11) Rajasthan and (12) Saugar.

These universities have already taken a number of steps for improving their examination system, especially in regard to internal assessment. The progress of reforms in regard to the development of question banks and grading is also picking up. Other universities have also taken measures of examination reforms in the light of the recommendations in the Plan of Action.

The Commission has also agreed to provide assistance amounting to Rs. 5 lakhs to universties for setting up of Examination Reform cell and for implementing other measures of examination reforms.

### 12. Teacher Education

The Government of India made a special allocation of Rs. 8 crores to the UGC for development of teacher education during the Fourth Plan period. A Standing Advisory Committee of experts was set up to advise the Commission on all matters concerning teacher education and improvement of standards in this area. As many as 34 universities were assisted in the Fourth Plan to improve their physical facilities, to strengthen their teaching and research and to introduce facilities for inter-disciplinary studies and research. Grants were paid both to the university departments and the teachers' colleges for strengthening their libraries and for improving their science, audio visual and language laboratories. Assistance to the universities and colleges was given on a cent per cent basis for preparation of teaching aids, reading materials, experimental and cooperative work in teaching in schools, summer schools, publication of research materials, visiting fellowships, and other programmes of academic and professional character.

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With the Commission's assistance the Education Department of Baroda University organised a summer school in Research Methodology and the Bangalore University conducted a summer school for teachers of educational sociology in the universities and colleges.

One of the significant programmes undertaken during the Fourth Plan was the establishment of units of Education in some noted university departments which had shown keen interest in problems related to Education. These research units were established at the Tata Institute of Social Sciences (Educational Sociology), Department of Economics, Bombay University (Economics of Education), Department of Psychology, Utkal University (Educational Psychology) and Department of Sociology, Saugar University (Sociology of Education). The objective of these units was to initiate research on educational problems from the orientation of the concerned disciplines and to produce text books and reading materials urgently required in teacher education institutions. With the Commission's assistance the Central Institute of Education, Delhi brought out a handbook on "Practical Approach to Teaching of Educational Psychology".

An expert committee of the Commission worked out an outline of a twoyear postgraduate course in education; this was circulated to the universities.

### Teachers' Colleges

During the Fourth Plan, the Commission provided assistance for approved facilities (Appendix XIV) upto Rs. 2 lakhs to training colleges with B.Ed. programmes and upto Rs. 3 lakhs to colleges providing courses for B.Ed. and M.Ed. degrees.

The colleges were slow to avail of this assistance partly because of the sharing basis involved in the scheme and partly because of their general inertia in responding to anything new. Although assistance for research and other quality improvement programmes was on a cent per cent basis, not many colleges availed of this opportunity.

### 13. Book Production

The Ministry of Education and Social Welfare, in consultation with the UGC initiated in 1960 a programme of re-publication of books in low priced editions, originally published in USA, UK and USSR and used by university and college students in India. There are three such programmes viz., Joint Indo-American Text Book Programme, English Language Book Society Series (ELBS) and Joint Indo-Soviet Text Book Programmes. Suggestions regarding the books that may be published under any of these programmes

are made by specialists in the subjects concerned from India as well as the respective countries. The Ministry of Education and Social Welfare receives such suggestions and also copies of the books and in turn refers them to the University Grants Commission with a view to getting them evaluated from the standpoint of their suitability to Indian University and college students. The Commission's role in all these programmes has been that of getting the books evaluated with the help of experts in the subjects concerned in the universities and other educational institutions. The recommendations received from evaluators are passed on to the Ministry of Education and Social Welfare. The number of books evaluated during the period 1-4-1973 to 31-3-1974 is detailed below :-

Programme	No. of books
Joint Indo-American Text Book Programme	1
English Language Book Society	21
Joint Indo-Soviet Text Book Programme	7
Total	29

In consultation with the Ministry of Education and Social Welfare the UGC initiated in 1970-71 a scheme for preparation of university level books by Indian authors. Of the 262 projects accepted in various fields of science and humanities, 228 are in progress and 6 have already been completed. During the year under report, 32 new projects have been selected by the Commission bringing the total number of projects to 294 as on 31-3-1974.

#### 14. Postgraduate Centres

The Commission continued to assist the universities towards the establishment and development of centres for postgraduate studies at suitable places with a cluster of good colleges around them. This programme has enabled the universities to start postgraduate instruction under their own leadership and by associating colleges in the locality with the development of the programme. Thus the facilities already available have been put to good use and such centres have the potential of growing in time into viable universities. The Commission agreed to provide grants upto a ceiling of Rs. 30 lakhs for each of the centres during the Fourth Plan period. This was subsequently increased. During the year 1973-74 grants amounting to Rs. 30,36,764 were paid to the following universities for their postgraduade centres:

Imphal (Jawaharlal Nehru University), Guntur (Andhra University), Goa (Bombay University), Centre for Postgraduate Studies (Panjab University) (with the establishment of Himachal Pradesh University the Centre is no longer in existence, Gulbarga (Karnatak University), Tiruchirapalli and Coimbatore (Madras University), Mangalore (Mysore University), Warangal (Osmania University), Rohtak (Panjab University) and Anantpur (Sri Venkateswara University).

### 15. Restructuring of Courses

The University Grants Commission considered a working paper sent by the Ministry of Education and Social Welfare regarding the development of rural higher education. The Commission desired that the suggestions may be examined with the help of a committee keeping in view the efforts being made by other agencies like Agricultural universities, Agricultural polytechnics, mobile rural health service units etc. The Committee felt that there should not be a sharp distinction in the courses in urban and rural colleges and that as a first step a restructuring of the courses at the first degree level should be attempted. The Commission at its meeting held on 16th January 1974 decided to appoint an expert committee to work out the broad outlines and structure of courses at the degree level.

### SECTION VIII

#### Perspective for the Fifth Plan

Education is a key factor in economic growth and social change. Education affects output through knowledge and the applications of science and technology; it also helps growth by inculcating the right kinds of attitudes and skills and by removing some of the obstacles to social change and progress. However, when it comes to higher education, one has to take into consideration a complex of factors; access here has to be on the basis of 'merit' but it is equally important to provide opportunities to the underprivileged sections of the community. The Commission recognises that this is not amenable to easy solutions and that the basic problem is that education in India has expanded faster than the rate of absorption of university products in the economy. Enrolments during the decade 1960-70 increased by 10 to 14 per cent as against a growth rate of 3 to 4 per cent for the economy as a whole. In a developing country like India education has inevitably to grow faster than the rate of economic growth, but a rate of development of more than 10 per cent for post-secondary education seems to be somewhat unrealistic.

The rate of growth of higher education was also not in keeping with our manpower requirements. Consequently, the problem of educated unemployment continued to be acute especially in sciences, engineering and medicine. It is a matter of serious concern that even highly qualified manpower in the country cannot be put to gainful occupation. Another aspect of the problem of expansion of higher education is that not all students admitted to university level courses are properly motivated and possess the necessary aptitude and ability to benefit from courses at the advanced level. This leads to wastage and stagnation and to high failure rates in some of the undergraduate examinations.

The rapid expansion of education also leads to the lowering of academic standards and inadequate physical facilities if we cannot provide resources at a commensurate level. The Commission is therefore anxious to check the unplanned proliferation of institutions of higher education\*, especially the setting up of new universities. The Commission set up a Standing Committee on New Universities and university centres to conside this question in depth. The Commission has accepted the recommendations of this committee with regard to the establishment of new universities and postgraduate

<sup>\*</sup> The efforts of the Commission to regulate the expansion of higher education have borne fruit as shown by the rate of growth of enrolment during 1971 and 1974 given in Section I of the Report.

centres. The Commission has also informed the State Governments that before formulating their proposals for the establishment of a university or universities they should undertake a survey of the existing facilities for higher education in the State and its projected needs. The University Grants Commission should be associated right from the beginning with the survey. It would also be necessary for the State Governments to indicate the existing position and full justification of the needs for the additional university.

The Commission is also anxious to ensure that its support to the universities during the Fifth Plan is used primarily for consolidating, strengthening and improving the quality of teaching, research and extension. There will have to be considerable restraint on expansion and improvement in formal and full-time courses, particularly at the undergraduate stage. Attempts for expansion in enrolment at this level will have to be made substantially through part-time, own-time and correspondence courses or extended or evening classes programmes.

With a view to achieving internationally comparable standards, the Commission would initiate on a selective basis and strengthen schemes, such as college science/humanities and social sciences improvement programmes, autonomous colleges, examination reforms, scholarships and fellowships, grant for support to individual, group and departmental research, area studies, museums, adult/continuing education, teacher education etc. and on a selective basis develop a few departments in different subjects as centres of advanced study etc.

In view of the fact that teaching, learning and evaluation constitute a unity of functions, the Commission is now laying emphasis on examination reform in the context of specific programmes rather than research oriented programmes only. It is not merely a question of improving the reliability and validity of examinations but of adopting those techniques of evaluation that would serve as a 'feed back' to students and teachers and lead to simultaneous improvements in curriculum and courses of study.

The Commission is also impressing upon the universities the need for taking a positive attitude and grant greater measure of autonomy to university departments and colleges with regard to syllabi, courses of study, assessment and examinations.

Consolidation would imply, *inter alia*, participation in various faculty improvement programmes. Steps have, therefore, to be intensified to enable university and college teachers to make maximum use of these programmes which include summer schools, seminars, national associateships, study leave, faculty exchange and teacher fellowships. In view of the qualifications suggested for college teachers, universities will have to develop pre-Ph.D. course programmes. This would also make the training of Ph.D. broad based. Post-MA and M.Sc. course on a regional basis may also be introduced.

The need for developing appropriate extension programmes like parttime education in science subjects for industrial workers in their neighbourhood either as evening or correspondence courses is also being impressed upon the universities. These programmes would have to be organised in collaboration with the industries concerned.

It is the considered view of the Commission that postgraduate teaching should be concentrated as far as possible in university departments or at postgraduate centres set up by the university or through a coordinated programme by groups of colleges, rather than allowing individual colleges to start sub-viable postgraduate departments. The Commission is therefore working out norms for postgraduate education giving due emphasis to assessment of the needs and requirements of the region concerned.

There is also an urgent need to bring affiliated colleges to an optimum level of functioning with regard to facilities as well as enrolments so that they can maintain proper standards and at the same time relate education to relevant local and regional problems.

Steps are also being taken towards removing regional imbalances, creating opportunities for higher education for the underprivileged sections of the society and for under-developed areas in different regions. These could be in the form of special supplementary programmes and courses to help students from scheduled castes and tribes and other underprivileged communities. Universities may give special attention to the structure and contents of courses and colleges selected in rural areas. Academic centres may be established in the big cities with large concentration of colleges to meet the needs of undergraduate colleges.

It is also proposed to diversify general education courses in Arts, Science and Commerce particularly at the undergraduate level so as to relate them to national problems and to employment opportunities. Some universities may try to develop new types of combination courses where a student takes some courses in the humanities area and some in the sciences. Such subjects in science could include development of scientific ideas, scientific method and attitude, science in the problems of economic development, ecology, human environment, impact of science and technology on society etc.

Efforts are also under way to develop collaborative and interdisciplinary programmes of courses and research involving several departments, e.g.

programmes in area studies, biological science, earth science, law and social change, development studies in relation to science and technology and social sciences, environment and ecology etc.

The Year 1973-74 being the final year of the Fourth Five Year Plan was also used for purposes of reviewing and evaluating the various programmes so far initiated by the Commission and supported during the Fourth Plan period. A number of committees were set up to evaluate the philosophy. plan of action, mechanism of implementation and coordination, evaluation and on the basis of the impact, to make necessary modifications in these programmes, both structurally as well as operationally. This, in fact, was in the manner of preparation for the Fifth Plan so that the available resources could be used to maximum advantage and channelised into programmes which have beneficial impact on improvement of standards and also to establish acceptable ratios of expenditure on building up the infrastructure facilities for higher education as well as encourage pursuit of excellence. Towards this purpose, a Planning group was constituted to prepare the draft Fifth Five Year Plan programmes in the field of higher education. The deliberations of this group would help in identifying prime areas of educational development in the universities and colleges and in devising programmes considered most suitable for a variety of institutions which are in different stages of growth and development and also in giving effect to the several suggestions made by the Education Commission, Central Advisory Board of Education and reflected also in the National Policy of Education.

#### **R.K.** Chhabra

Secretary

Satish Chandra Vice-Chairman K.N. Channa Ajit Mozoomdar R.S.Sharma Rais Ahmed S. Gopal M. Santappa J.B. Chitambar B.M. Udgaonkar Amarjit Singh K.T. Chandy

# APPENDIX I

# Indian Universities and Institutions Deemed to be Universities

Year of Establishmen	S. No. t	University Total	Enrolment
1857	(1)	Calcutta University	2,19,878
	(2)	Bombay University	1,16,569
	(3)	Madras University	1,56,304
1887	(4)	Allahabad University	20,226
1916	(5)	Banaras Hindu University (Varanasi)	17,067
	(6)	Mysore University	91,552
1917	(7)	Patna University	13,110
1918	(8)	Osmania University (Hyderabad)	86,152
1921	(9)	Aligarh Muslim University	9,469
	(10)	Lucknow University	25,573
1922	(11)	Delhi University	75,083
1923	(12)	Nagpur University	92,142
1926	(13)	Andhra University (Waltair)	87,433
1927	(14)	Agra University	67,958
1929	(15)	Annamalai University (Annamalainagar)	5,967
1937	(16)	Kerala University (Trivandrum)	1,13,785
1943	(17)	Utkal University (Bhubaneswar)	46,203
1946	(18)	Saugar University	21,991
1947	(19)	Rajasthan University (Jaipur)	78,428
	(20)	Panjab University (Chandigarh)	1,33,975
1948	(21)	Gauhati University	76,752
	(22)	Kashmir University	19,506
1949	(23)	Roorkee University	1,933
	(24)	Poona University	98,791
	(25)	M.S. University of Baroda	19,855
	(26)	Karnatak University (Dharwar)	69,779
1950	(27)	Gujarat University (Ahmedabad)	1,01,153
1951	(28)	S.N.D.T Women's University (Bombay)	12,376
	(29)	Visva-Bharati (Santiniketan)	1,534
1952	(30)	Bihar University (Muzaffarpur)	37,711
1954	(31)	Sri Venkateswara University (Tirupathi	

(1973-74)

Year of Establishm	S.No. ent	University Total En	nrolment
1955	(32)	Sardar Patel University (Vallabh Vidya-	
		nagar)	12,755
	(33)	Jadavpur University (Calcutta)	4,693
1956	(34)	Kuruksetra University (Kurukshetra)	5,948
	(35)	Indira Kala Sangit Vishvavidyalaya	
		(Khairagarh)	48
1957	(36)	Vikram University (Ujjain)	16,760
	(37)	Gorakhpur University	68,903
	(38)	Jabalpur University	17,556
1958	(39)	Varanaseya Sanskrit Vishvavidyalaya	
		(Varanasi)	646
	(40)	Marathwada University (Aurangabad)	60,427
1960	(41)	G.B. Pant University of Agriculture and	
		Technology (Nainital)	2,086
	(42)	Burdwan University	57,358
	(43)	Kalyani University	2,407
	(44)	Bhagalpur University	27,388
	(45)	Ranchi University	49,333
1961	(46)	K.S. Darbhanga Sanskrit Vishvavidyalaya	
1962	(47)	Punjab Agricultural University (Ludhiana)	2,411
	(48)	Punjabi University (Patiala)	27,505
	(49)	Orissa University of Agriculture & Technology	
		(Bhubaneswar)	1,385
	(50)	North Bengal University (Siliguri)	21,028
	(51)	Rabindra Bharati (Calcutta)	4,461
	(52)	Magadh University (Gaya)	50,938
	(53)	Jodhpur University	10,692
	(54)	Udaipur University	8,352
	(55)	Shivaji University (Kolhapur)	67,345
1964	(56)	Indore University	17,416
	(57)	Jiwaji University (Gwalior)	20,749
	(58)	Ravi Shankar University (Raipur)	22,620
	(59)	University of Agricultural Sciences	
		(Bangalore)	2,418
	(60)	Andhra Pradesh Agricultural University	
		(Hyderabad)	2,232
	(61)	Bangalore University	48,858
	(62)	Jawaharlal Nehru Krishi Vishvavidyalaya	-
	. ,	(Jabalpur)	1,936
1965	(63)	Dibrugarh University	30,002

60			
Year of Establishment	S.No.	University Total	Enrolment
	(64)	Kanpur University	60,433
	(65)	Meerut University	. 51,378
	(66)	Madurai University	67,687
	(67)	Saurashtra University (Rajkot)	40,395
	(68)	South Gujarat University (Surat)	23,302
1967	(69)	Berhampur University	9,122
	(70)	Sambalpur University	14,864
1968	(71)	Gujarat Ayurveda University (Jamnagar)	2,601
	(72)	Jawaharlal Nehru University (New Delhi)	1,773
	(73)	Mahatma Phule Krishi Vidyapeeth (Rahuri,	
		Ahmednagar)	1,694
	(74)	Calicut University	51,902
	(75)	Awadesh Pratap Singh University (Rewa)	12,780
	(76)	Assam Agricultural University (Jorhat)	659
1969	(77)	Guru Nanak Dev University (Amritsar)	48,121
	(78)	Jammu University (Jammu)	11,575
	(79)	Panjabrao Krishi Vidyapith (Akola)	2,706
1970	(80)	Haryana Agricultural University (Hissar)	1,656
	(81)	Himachal Pradesh University (Simla)	16,496
	(82)	Bhopal University	15,383
	(83)	Rajendra Agricultural University (Dholi,	
		Muzaffarpur)	1,211
1971	(84)	Tamil Nadu Agricultural University (Coimbatore)	2,037
	(85)	Cochin University	472
197 <b>2</b>	(86)	Kerala Agricultural University (Trichur)	484
	(87)	Gujarat Agricultural University (Ahmeda- bad)	1,752
	(88)	Konkan Krishi Vidyapeeth (Depoli)	576
	(89)	Marathwada Krishi Vidyapith (Parbhani)	978
	(90)	Mithila University (Darbhanga)	29,613
	(90)	Jawaharlal Nehru Technological University	29,015
	(91)	(Hyderabad)	3,259
1973	(92)	North Eastern Hill University (Shillong)	12,231
1713	(92)	Kumaon University (Nainital)	12,231
	(93) (94)	Garhwal University (Srinagar-Garhwal)	
1974	(94) (95)	Kashi Vidyapith (Varanasi)	2,002

Note : (1) The universities have been arranged according to the year in which the respective Acts were adopted. The position shown above is upto 31.3.1974.

- (2) The enrolment figures which include the enrolment in constituent/affiliated colleges of the universities generally indicate the position as on Augnst 15, 1973. The figures for Indira Kala Sangit Vishwavidyala Rabindra Bharati and Sampurnanand Sanskrit Vishvavidyalaya relate to the respective university campuses only. The data is not available in the case of K. S. Dharbhanga Sanskrit Vishwavidyalaya. In the case of some colleges the data for the previous year have been used.
- (3) The enrolment figures pertaining to the universities of Kumaon and Garhwal have been included under Agra and Meerut Universities respectively.
- (4) The total does not include the enrolment relating to the U. P. Board for High School and Intermediate Education.

Year of recognition*	S.No.	Institutions deemed to be Total universities	Enrolment
1	2	3	4
1958	(1)	Indian Institute of Science (Bangalore)	1,065
	(2)	Indian Agricultural Research Institute	
		(New Delhi)	495
1962	(3)	Gurukul Kangri Vishvavidyalay (Hardwar)	276
	(4)	Jamia Millia Islamia (New Delhi)	1,010
1963	(5)	Gujarat Vidyapith (Ahmedabad)	612
1964	(6)	Tata Institute of Social Sciences (Bombay)	170
	(7)	Birla Institute of Technology and Science	
		(Pilani)	2,044
1967	(8)	Indian School of Mines (Dhanbad)	247
1973	(9)	Central Institute of English and Foreign	
	. /	Languages (Hyderabad)	74
Grand Tota	l		31,13,986

\* Year of recognition as an institution deemed to be university under section 3 of the UGC Act, 1956.

# **APPENDIX II**

# Distribution of Colleges According to Courses of Study

(1969-70 to 1973-74)

			Number of Colleges				
Courses of Study	1969-70	1970-71	1971-72	1972-73	1973-74		
Arts, Science and Commerce	2,361	2,587	2,798	2,998	3,125		
Engineering and Technology	106	107	108	110	109		
Medicine, Pharmacy, Ayurveda, Nursing and Dentistry	167	176	186	210	217		
Law	85	91	95	107	110		
Agriculture	54	57	57	54	55		
Veterinary Science	23	23	23	24	25		
Education	235	258	269	287	296		
Oriental Learning	188	226	272	275	274		
Others (Physical Education, Music and Fine Arts)	78	79	88	93	97		
Total	3,297	3,604	3,896	4,158	4,308		

## **APPENDIX III**

# Student Enrolment : Stage-wise

(1963-64 to 1973-74)

Year	Under- graduate	Post- graduate*	Research	Total
1963-64	7,59,530	76,685	5,895	8,42,110
1964-65	8,58,972	84,201	7,104	9,50,277
1965-66	9,66,421	91,830	8,633	10,66,884
1966-67	10,79,247	1,01,798	9,668	11,90,713
1967-68	12,41,532	1,17,250	11,479	13,70,261
1968-69	14,18,499	1,35,459	12,145	15,66,103
1969-70	16,33,502	1,46,804	12,474	17,92,780
1970-71	17,79,207	1.61,182	13,311	19,53,700
1971-72	18,69,703	1,80,343	14,995	20,65,041
1972-73	19,56,357	1,95,307	16,443	21,68,107
1973-74	20,03.277	2,14,691	16,417	22,34,385

\* Does not include Pre-university, Intermediate and Pre-professional Courses.

### APPENDIX IV

## Growth of Student Enrolment

## (1960-61 to 1973-74)

Year	Total Enrolment*	Increase over the preceding year	Percentage Increase
1960-61	10,34,934	37,797	3.8
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
1966-67	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
1972-73	34,56,096	1,93,782	5.9
1973-74	35,83,986	1,27,890	3.7

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

# APPENDIX V

# Student Enrolment : Stage-wise

# (1971-72 to 1973-74)

Stage	1971-72		1972-73		1973-74	
	Enrol- ment*	% of Total	Enrol- ment*	% of Total	Enrol- ment*	% of Total
Pre-university	3,98,104	12.2	3,91,312	11.3	3,57,241	10.0
Intermediate	7,82,646	24.0	8,85,032	25.6	9,80,926	27.3
Pre-professional	16,523	0.5	11,645	0.3	11,434	0.3
Graduate	18,35, <b>0</b> 77	56.2	19,20,364	55.6	19,64,432	54.8
Postgraduate	1,80,343	5.5	1,95,307	5.7	2,14,691	6.0
Research	14,995	0.5	16,443	0.5	16,417	0.5
Diploma/ Certificate	34,626	1.1	35 <b>,9</b> 93	1.0	38,845	1.1
Total	32,62,314	100.0	34,56,096	100.0	35,83,986	100.0

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

## APPENDIX VI

## Stage-wise Enrolment\* : Universities and Affiliated Colleges

### (1973-74)

L Stage	University Department/ University	Affiliated Colleges	Total	Percentage in Affiliated Colleges		
	Colleges			1973-74	1972-73	1971-72
Pre-university	10,768	3,46,473	3,57,241	97.0	97.4	97.3
Intermediate	27,877	4,83,049	5,10,926	94.5	93.5	92.0
Pre-protessiona	1 701	10,733	11,434	93.9	92.4	96.1
Graduate	1,93,475	17,70,957	19,64,432	90.2	90.2	90.6
Postgraduate	1,04,310	1,10,381	2,14,691	51.4	49.4	49.3
Research	14,342	2,075	16,417	12.6	14.9	11.1
Diploma/ Certificate	17,060	21.785	38,845	56.1	58.1	57.9
Total	3,68,533	27,45,453	31,13,986	88.2	88.1	88.3

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

### APPENDIX VII

# Student Enrolment : Faculty-wise

# (1971-72 to 1973-74)

	1971-	-72	1972-	1972-73		1973-74	
Faculty	Enrol- ment*	% of Total	Enrol- ment*	% of Total	Enrol- ment*	% of Total	
Arts (including Oriental							
Learning)	14,73,979	45.2	15,83,903	45.8	16,57,228	46.2	
Science	9,88,089	30.3	10,08,517	29.2	9,86,135	27.5	
Commerce	3,96,009	12.1	4,32,886	12.5	4,84,594	13.5	
Education	63,658	2.0	67,848	2.0	70,680	2.0	
Engineering and Technology	85,543	2.6	85.224	2.5	89,215	2.5	
Medicine	1,02,446	3.1	1,07,811	3.1	1,10,410	3.1	
Agriculture	42,184	1.3	42,958	1.2	43,356	1.2	
Veterinary Science	ce 6,086	0.2	5,954	0.2	6,334	0.2	
Law	84,443	2.6	98,855	2.9	1,13,230	3.2	
Others	19,877	0.6	22,140	0.6	22,804	0.6	
Total	32,62,314	100.0	34,56,096	100.0	35,83,986	100.0	

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

#### APPENDIX VIII

#### Strength and Distribution of Teaching Staff in University Departments, University Colleges according to Designation

Year	Professors	Readers	Lecturers*	Tutors/ Demons- trators	Total
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)
1972-73	2,460	3,938	16,431	1,875	24,704
	(10.0)	(15.9)	(66.5)	(7.6)	(100.0)
1973-74	2,539	4.295	17,675	2,050	26,659
	(9.9)	(16.1)	(66.3)	(7.7)	(100.0)

# (1969-70 to 1973-74)

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

\* Including Assistant Professors and Assistant Lecturers.

### APPENDIX IX

### Strength and Distribution of Teaching Staff in Affiliated Colleges according to Designation

Year	Senior Teachers*	Lecturers*	Tutors/ Demons- trators	Total
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)
1972-73	15,068	91,701	14,051	1,20,820
	(12.5)	(75.9)	(11.6)	(100.0)
1973-74	15,226	1,00,177	14,500	1,29,903
	(11.7)	(77.1)	(11.2)	(100.0)

## (1969-70 to 1973-74)

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

\* Including Principals.

\*\* Including Assistant Lecturers.

# APPENDIX X

# Pattern of Assistance to Universities

		Pattern of a	assistance
S.N	No. Scheme/ <b>P</b> roject	Contribution by UGC	Contribution by State Government or University
1	2	3	4
1.	Postgraduate teaching (university departments and university centres for postgraduate studies) (a) University departments which		
	are centres of advanced study (b) Programme of special assis-	100 °/o	
	tance for selected departments (c) Research/postgraduate facilities	100 %	
	<ul> <li>(NR &amp; R)</li> <li>(d) Postgraduate/undergraduate facilities but largely postgradua</li> </ul>	100 ° <sub>o</sub>	
	(i) Non-recurring	66 <sup>2</sup> °	$33\frac{1}{3}\%$
	(ii) Recurring	50 20*	50%
2.	Engineering and Technology (university departments/institutions) (a) Development/expansion of undergraduate and diploma		
	courses (NR and R)	50%	50 %
3.	(b) Postgraduate/research facilities Libraries :	100%	
_	(a) Buildings	66 <sup>2</sup> / <sub>3</sub> %	33 <u>1</u> %
	(b) Books	100%	a / 0
4.	Summer institute, seminar, sympo- sium, refresher/orientation course.		
	workshop etc.	100 %	
5.	Research participation programme for college teachers and postgra-		
	duate students in basic sciences	100%	
		(upto Rs. 1,700)	

<sup>\*</sup> Commission shares 100% expenditure on the salary of Professors and Readers.

	2	3	4
6.	Conferences of professional/learne academic bodies/associations	ed/ $66_3^2\%$ (Subject to a maxi- mum of Rs. 3,000 for a national con- ference and Rs. 2,000 for a regional con- ference)	331 %
7.	Utilisation of the services of retir teachers	red Rs. 6,000 p.a. and Rs. 1,000 p.a. for contingencies	
8.	Research and learned work b teachers (equipment, field work literature etc.)	by $100^{6/2}$ (up to Rs.	
	National fellowships for teacher of outstanding eminence Staff quarters	's 100 ∞ 50 %	50 %
	Teachers' hostels (two hostels, eac for 24 teachersestimated cos Rs. 3 lakhs each)		
12.	Hostels : (a) Men's hostels (b) Women's hostels	50 % 75 %	50 % 25 %
13.	Health centres :		
	<ul><li>(a) non-recurring (building and equipment up to Rs. 1,50,000</li><li>(b) Recurring (salaries of staff</li></ul>	) 75,0	25 <sup>°</sup> / <sub>c</sub>
	(upto Rs. 30,000 per annum)	50 %	50 %
14.	Students' study homes	Upto Rs. 1,24,000 (Rs. 1,00,000 for building estimated to cost Rs. 1,25,000 and Rs. 24,000 for books & furniture)	
15.	Guest House	$66_3^2\%$ (maximum limit Rs. 1,00,000)	331 %

1	2	3	4
16.	Students' aid fund	An amount equal to the collections made by the univer- sity for the fund, subject to a maxi- mum of Rs. 15,000 per year	
17.	Publication grant for publication of learned work by members of staff, doctoral theses and reports of re- search projects	Earmarked grant on basis for the period ending 31-3-1974	100%
18.	Programmes of adult/continuing education	ng 75% subject to a ceiling of Rs. 3 lakhs for the period end- ing 31-3-1974	
18(a	a) Establishment of archival cells in the universities	100%	
19.	Establishment/improvement of university presses (including Machinery & equipment only)	$66_3^2\%$ subject to a maxi- mum of Rs. 1,21,000	33 <u></u> 3%
20.	Water cooler	50% upto Rs. 2,500 per cooler (upto six coolers)	
21.	<ul> <li>Fellowships and Scholarships</li> <li>(a) Junior research fellowships in humanities and sciences trans- ferred to the universities (Rs. 300 p.m.)</li> </ul>	100%	
	<ul> <li>(b) Research fellowships in humanities and sciences :</li> <li>(i) Junior fellowships</li> <li>(Rs. 300 p.m.)</li> </ul>	100%	
	(ii) Senior fellowships (Rs. 500 p.m.)	100%	
	<ul> <li>(c) Fellowships in engineering and technology :</li> <li>(i) Research fellowships</li> </ul>		
	(Rs. 400/500 p.m.) (ii) Junior fellowships	100 %	
	(Rs. 250 p.m.)	100 %	

1	2	3	4
	(d) Scholarships for study in Arabic/Persian :		
	(i) For postgraduate (Rs. 1,00	0 p.a.) 100 %	
	(ii) For honours (Rs.1,200 p.a		
	(e) Scholarships for postgraduate studies in Sanskrit/Pali/Prakrit		
	(Rs. 1,800 p.m.)	100%	
	(f) Scholarships for students of		
	the hill areas of North-East		
	India :		
	(i) Junior research fellowships		
	(Rs. 300 p.m.)	100 %	
	(ii) Postgraduate (Rs. 1,800		
	p.a.) scholarships	100 %	
	(g) Scholarships in applied geology		
	(Rs. 150 p.m.) and geophysics	100 %	
>>	Study and research in community	100 /0	
	development, co-operation and pan-		
	chayatiraj (research projects, semi-		
	nars, books and journals, fellow-		
	ships, publications, etc.	100 %	
23.	Visiting studentship*	100 %	
		(subject to a ceiling	
		of Rs. 5,000)	
24.	National Lectures	100%	
25.	National Associates (for young		
	research workers from universities		
	and colleges)	100 %	
26.	Unassigned grants :	/0	
	(a) Exchange of teachers	100 %	
	(b) Extension work by university	///////////////////////////////////////	
	teachers	100%	
	(c) Travel grants to teachers for	711	
	attending international con-		
	ferences abroad	50%	50%
	(d) (i) Travel grants to scholars/	100%	/0
	teachers/technicians for	(according to uni-	
	visiting centres of research,	versity rules)	
	academic conferences/se-	. ,	
	minars within India		

<sup>\*</sup> Covers students from affiliated colleges also.

1	2	3	4
	(ii) Travel grants to research	100 0/	
	scholars in connection with	(according to uni-	
	their research at other research centres.	versity rules)	
	(e) UGC Unit	Ranging from	
		Rs. 10,000 to Rs. 15,000	
		depending on number	
		of affiliated colleges	
		of the University.	
	(f) Computer assistance for		
	buying the time of computer	100 %	
	(g) Preparation and development		
_	of teaching materials and aids	100%	
	Employment of trained coaches	75 %	25%
5.	Improvement of hostel facilities		
	(Rs. 20,000 for a university Rs. 10,000 for an institution deemed		
	to be university)	100 %	
)	Development of play-fields and	100 /0	
	purchase of accessories, etc.	Rs. 15.000	25%
).	-	75 %	25%
		(of Rs. 2.5 lakhs)	70
۱.	Appointment of development officer		
	(in the scale not exceeding Rs. 700-		
	1,250)	100 %	
2.			
	tion cum-Advisory Bureau :		
	(a) Non-recurring	100 %	
	(Typewriter and duplicating	(up to Rs. 4,500)	
	machine)		
	<ul><li>(b) Recurring</li><li>(i) Honorarium of chief of bur</li></ul>	eau 100% (upto Rs. 2,400	
	(i) Honoralian of enter of our	p.a.)	
	(ii) Salaries	F,	
	Technical assistant upto	<b>R</b> s. 6,000 p.a.	
	Library clerk upto	Rs. 3,000 p.a.	
	Contingencies upto	Rs. 2,000 p.a.	
	(including printing)		
	Total upto	Rs. 13,400 p.a.	

1	2	3	4				
33. Study centres		100 %					
Non-recurring	:						
Book		Rs. 20,000					
Stacks		Rs. 10,000					
Recurring :							
Staff :		<b>R</b> s. 10,000					
Contingenci	es						
(including e	ectricity charges)	Rs. 3,000					
4. College Science	e Improvement Pro						
gramme :							
•	University Leadership Projects in						
•	mistry, Biological So						
	fathematics in selec						
university d	epartments	100 %					
5. Financial ass	istance to research	)					
scholars resea	rch fellows working	2					
	s/colleges for thei						
	either in connection						
with their re-	search work or for	r					
attending inte	national conference	s 100%					

ł.

#### APPENDIX XI

# Grants paid to Central, and State Universities and Institutions deemed to be Universities during 1969-70 to 1973-74 under Non-Plan and Plan (including section III Grants for specific purposes)

S. No.	Name of the University	1969-70	1970-71	1971-72	1972-73	1973 <b>-7</b> 4	Grand Total
1	2	3	4	5	6	7	8
Cent	ral Universities			Non-Plan			
1. A	Aligarh	1,97,50,000.00	2,17,15,500.00	2,31,47,826.18	2,42,25,400.00	2,65,93,116.00	11,54,31,842.18
2. E	Banaras	2,59,75,000.00	2,86,02,300.00	2,99.93,060.00	3,09,60,900.00	3,39,50,000.00	14,94,81,260.00
3. I	Delhi	1,20,00,000.00	1,27,66,706.19	1.37.82,421.00	1,57,53,912.00	1,40,45,800.00	6,83,48,839.19
4. J	awaharlal		14,93,200.00	20,10,344.00	18,75,650.00	20,81,232.50	74,60,426.50
5. \	/isva-Bharati	54,00,000.00	65,86,000.00	69,55,100.00	72,05,000.00	83,47,170.48	3,44,93,270.48
т	otal Non-Plan	6,31,25,000.00	7,11,63,706.19	7,58,88,751.18	8,00,20,862.00	8,50,17,318.98	37,52,15,638.35

APPENDIX XI (Contd.)

1 2	3	4	5	6	7	8
A. Central Univers	sities		Plan			
1. Aligarh	1,06,63,579.23	79,27,855.26	1,11,09,535.42	1,21,15,949.56	85,87,296.14	5,04,04,215.6
2. Banaras	1,00,27,301.05	77,78,736.58	1,24,75,341.67	2,21,75,209.32	2,28,87,318.63	7,53,43,907.2
3. Delhi	47,59,940.28	40,96,129.86	82,03,097.00	1,01,71,480.26	95,40,718.34	3,67,71,365.74
4. Jawaharlal Nel	nru	52,74,763.77	90,32,242.78	1,61,15,459.64	1,85,29,890.45	4,89,52,356.64
5. Visva-Bharati	14,33,954.14	23,93,930.94	19,24,356.80	13,23,308.44	18,34,175.81	89,09,726.1
6 North Eastern	Hill			_	10,50,000.00	10,50,000.0
Total	2,68,84,774.77	2,74,71,416.41	4,27,44,573.67	6,19,01,407.22	6,24,29,399.37	22,14,31,571.37

· Tarata diana and C						
Kangri	20,000.00	1,26,517.59	1,13,210.06	3,70,109.91	2,81,050.00	9,10,887.56
9. Gurukula						
pith	2,80,798.17	3.89,788.59	4,10,134.18	7,36,876.47	7,72,710.79	25,90,308.20
8. Gujarat Vidya-						
Tech. & Science	10,67,129.42	10,73,489.52	13,92,215.15	11,99,479.19	7,06,347.71	54,38,660.99
7. Birla Institute of						

\* Including grants for specific purp. under Section III  $(\chi$ 

1 2	3 .	4	5	6	7	8
10. Indian Agri.						
Res. Institute	10,278.73	5,596.77	14,600.00	16,160.55	21,534.35	68,170.40
<ol> <li>Indian Institute</li> </ol>						
of Science	73,37,922.31	44,36,546.49	46,10,192.74	95,17,349.67	47,11,706.71	3,06,13,717.92
12. Indian School	12 0 10 54	1 10 006 00	1 11 (07 (5	2 24 772 50	2 46 702 50	0.5(.220.5(
of Mines	43,949.54	1,19,296.29	1,11,607.65	3,34,772.58	3,46,703.50	9,56,329.56
13. Jamia Millia	4,25,200.17	3,26,138.00	6,00,638.50	5,59,774.55	7,66,390.11	26,78,141.33
Islamia 14. Kashi Vidya-	4,25,200.17	3,20,138.00	0,00,058.50	5,59,774.55	7,00,390.11	20,78,141.55
pith	1,58,522.30	1,36,777.70	4,10,461.00	5,85,707.31	7,33,171.48	20,24,639.79
5. Tata Instt. of	1,00,022.00	1,30,777.70	1,10,101.00	5,05,767.51	7,55,171.10	20,21,009.19
Social Science	2,15,770.00	2,43,363.00	1,87,380.56	3,86,271.74	4,59,603.93	14,92,389.23
16. Indian School o		, .,		, ,	, ,	, , -
International						
Studies	6,71,465.94	50,000.00			<u> </u>	7,21,465.94
17. Central Instt.						
of English and	1					
Foreign Langu	uages				55,435.45	55,435.45
Total	1,02,31,036.58	69,07,513.95	78,50,439.84	1,37,06,501.97	88,54,654.03	4,75,50,146.37
C. State Universiti	ies —					
18. Agra	4,22,907.85	4,20,639.10	1,97,001.50	3,86,871.50	4,54,874.93	18,82,294.88
19. Allahabad	16,44,227.53	15,54,657.15	13,96,837.24	18,47,404.76	14,95,163.59	79,38,290.27
20. Andhra	35,63,299.85	20,30,894.94	51,34,090.10	34,92,267.00	45,55,717.36	1,87,76,269.25

1 2	3	4	5	6	7	8
					·	
21. A.P. Agri.	4,000.00	(4) (4) (4)	3,000.000	1,000.00	9,472.00	17,472.00
22. Assam Agri.		-	-			
23. Annamalai	17.59,885.69	17.28,906.61	23,92,342.70	22,19,955.60	16,32,988.27	97,34,078.87
24. A.P. Singh		-	7.997.79	33,000.00	1,61,106.44	2,02,104.23
25. Bangalore	16,27,458.63	8.50,634.55	34,83,358.57	14,51.864.76	35,73,663.44	1,09,86,979.95
26. Berhampur	5.15,399.90	10,63,285.58	11,14,419.00	10,11,152.00	18,89.237.54	55,93,494.02
27. Bhagalpur	6.96,913.10	4,14,188.88	19,66,675.00	16,46,980,11	5,26,715.35	52,51,472.44
28. Bhopal		9,000.00	51,500.00	1.32,301.81	1,49,124.64	3,41,926.45
29. Bihar	7,49,643.98	11,13,666.80	16,54,500.00	22,93,240.59	10,32,772.18	68,43,823.55
30. Bombay	53.27,607.71	55,16,437.15	63.93.173.17	55,54,042.92	34,19,382.40	2,62,10,643.35
31. Burdwan	10,73,892.17	8,54,382.27	19,64,328.91	19,06,201.69	12,75,262.04	70,74,067.08
32. Calcutta	23,49,529.36	24,13,253.05	39,28.841.66	39,67,417.29	57,64,647.21	1,84,23,688.57
33. Calicut	1,68,000.00	1,95,588.24	10.00,963.13	26,00,533.27	31,17,868.22	70,82,952.86
34. Cochin			58,800.00	3,59,519.00	43,193.00	4,61,512.00
35. Dibrugarh	13,12,153.38	11,77,799.06	13,53,002.92	13,03,246.64	11,86,992.49	63,33,194.49
36. Gauhati	9,71,275.22	4,91,918.44	13,53,095.14	22,00.036.43	10,98,632.51	61,14,957.74
37. G.P. Pant						
Univ. of Agri.						
and Tech.		-	58,174.78	54,001.72	31,239.25	1,43,415.75
38. Gorakhpur	7,21,328.88	8,06,955.87	13,10,930.15	11,94,707.70	10,75,761.43	51,09,684.03
39. Gujarat	10,64,253 69	11,57,408.42	15,60,664.73	33,25.341.02	13.80,805.28	84,88,473.41
40. Gujarat Agril.						
41. Gujarat Ayur-						
veda						
42. Guru Nanak	50,000.00	53,380.65	1,09,740.70	17,85,392.72	34,41,948.56	54,40,462.63

1 2	3	4	5	6	7	8
12 Harvana Aguil		500.00	3,143.66	8,554.84	5,993.07	18,191.57
<ul><li>43. Haryana Agril.</li><li>44. Himachal</li></ul>	_	500.00	5,145.00	0,004.04	5,995.07	10,191.57
Pradesh		20,000.00	45,000.00	22,20,550.00	35,15,079.42	58,00,629.42
45. Indira Kala		20,000.00	45,000.00	22,20,330.00	55,15,077.42	50,00,027.42
Sangeet		500.00	5,500.00	23,000.00	2,53,622.90	2,82,622.90
46. Indore	6,84,209.27	10,59,910.65	12,47,556.65	12,22,280.09	6,82,383.89	48,96,340.55
47. Jabalpur	6,73,001.99	6,32,412.99	8,91,270.29	6,25,381.97	5,78,567.51	34,00,634.75
48. Jadavpur	39,07,964.63	18,61,650.25	15,01,687.24	19,55,015.45	23,99,706.79	1,16,26,024.36
49. Kashmir	1,50,347.93					1,50,347.93
50. Jammu	12,41,588.10	8,32,350.13	4,01,966.59	10,90,011.68	7,87,447.29	43,53,363.79
51. J.N. Krishi	_	250.00	250.00	-		500.00
52. Jiwaji	8,98,250.64	5,37,628.27	7,63,661.94	17.08,318.45	4,99,250.00	44,07,109.30
53. Jodhpur	6,64,251.49	10,57,319.39	21,90,417.10	22,62,414.70	3,92,612.07	65,67,014.75
54. Kalyani	6,56,011.77	6,48,488.25	2,18,552.53	4,00,775.81	8,28,057.70	27,51,886.06
55. K.S. Darbhanga	11,493.34	15,303.85	15,600.00	7,500.00	15,000.00	64,897.19
56. Kanpur	1,09,100.00	1,35,410.48	1,37,150.00	1,09,233.00	83,397.92	5,74,291.40
57. Karnatak	11,75,552.08	11,19,863.35	13,37,114.03	18,51,965.86	19,78,285.16	74,62,780.48
58. Kashmir	5,00,831.17	8,94,435.13	15,65,041.51	18,29,405.76	14,80,097.03	62,69,810.60
59. Kerala	12,75,958.24	15,32,220.57	19,67,613.72	17,20,444.81	8,12,007.80	73,08,245.14
60. Kuruksetra	6,33,923.19	17,71,320.93	8,12,740.24	17,73,768.79	9,51,860.59	59,43,613.68
61. Kerala Agril.		-	-			
62. Konkan Krishi						-
63. Lucknow	7,42,572.53	7,16,554.45	12,28,151.56	21,32,432.03	12,39,455.02	60,59,165.59
64. Madras	43,24,118.82	33,94,930.06	41,48,724.18	41,36,461.35	31,33,039.02	1,91,37,273.43

1	2	3	4	5	6	7	8
65.	Magadh	11,12,311.86	9,55,477.84	9,73,050.40	9,41,751.14	18,62,776.52	58,45,367.76
66.	M.S. Univ.						
	of Baroda	34,89,467.82	28,95,158.57	27,59,482.12	34,97,817.03	32,23,384.72	1,58,65,310.26
67.	M.P.K. Vidyapith						
68.	Madurai	7,86,492.41	11,18,850.03	19,77.884.45	27,89,350.72	21,37,266.64	88,09,844.25
69.	Marathwada	9,39,299.90	11,49,382.17	10,43,144.23	13,45,535.99	11,74,933.22	56,52,295.51
70.	Marathwada Krish	ni —			•		
71.	Meerut	9,97,208.80	20,74,875.73	13.34.334.91	10,24,830.60	9,07,330.98	63,38,581.02
72.	Mithila						
73.	Mysore	30,63,303.73	28,80,728.47	28,36.542.80	24,16,858.30	28,52,644.21	1,40,50,077.5
74.	Nagpur	24,76,316.59	18,04,675.21	9,72,981.74	20,16,059.09	10,13,467.32	82,83,499.9
75.	North Bengal	1,69,906.89	43,854.72	2,19,516.00	5,28,516.01	11,33,940.50	20,95,734.1
76.	Orissa Univ. of						
	Agril. & Tech.		6,633.42	20,756.12	12,750.00	7,871.00	48,010.5
77.	Osmania	33,30,734.54	39,39,597.65	33,80,886.83	79,52,114.95	51,92,857.03	2,37,96,191.0
78.	Panjab	26,10,871.94	33,37,533.87	40,21,281.31	39,01,608.58	22,91,736.68	1,61,63,032.3
79.	Patna	16,55,853.62	22,51,097.53	12,54,735.24	19,25,285.66	10,43,130.57	81,30,102.6
80.	Poona	25,04,349.77	30,09,185.11	35,52,536.95	32,23,475.30	27,69,013.91	1,50,58,561.0
81.	Punjab Agril.	2,539.00	500.00	3,000.00	25,883.35	19,300.50	51,222.8
82.	Punjabi	8,28,309.02	4,54,351.20	2,35,490.06	14,33,246.77	13,74,155.94	43,25,552.9
83.	Punjabrao Krishi		_	1,000.00	865.00	596.00	2,461.0
84.	Rabindra Bharati	1,57,562.00	3,12,881.73	2,05,155.36	4,53,499.00	6,34,353.94	17,63,452.0
85.	Rajasthan	14,68,974.82	14,56,221.42	13,88,670.82	22,26,060.08	18,53,138.46	83,93,065.6
	Rajindra Agril.					3,537.71	3,537.7
	Ranchi	6,66,129.14	9,08,263.19	7,56,203.12	10,03,469.48	2,42,491.01	35,76,555.9

1 2	3	4	5	6	7	8
88. Ravi Shankar	10.85,993.72	5,13,204.46	13,20,308.35	13,16,449.75	6,36,543.60	48,72,499.88
89. Roorkee	29,50,763.99	36,83,087.92	33,32,508.51	35,69,938.20	32,88,712.56	1,68,25,011.18
90. Sambalpur	2,12,000.00	14,62,877.84	17,63,706.49	13,85,012.00	13,91,720.00	62,15,316.33
91. Sardar Patel	10,65,756.59	6,95,644.10	9,18,352.26	21,26,182.45	10,17,892.27	58,23,827.67
92. Saugar	12,93,327.12	14,91,860.31	15,59,808.50	12,76,818.54	13,10,811.62	69,32,626.09
93. Saurashtra	5,86,500.00	13,76,692.31	5,98,125.00	9,11,411.94	6,57,603.92	41,30,333.17
94. Shivaji	9,85,360.88	7,15,789.44	9,37,303.95	10,62,399.46	11,05,927.79	48,06,781.52
95. S.N.D.T.						
Women's	6,23,707.55	11,11,897.18	9,16,762.33	17,65,969.34	11,16,188.31	55,34,524.71
96. South Gujarat	1,75,519.96	3,36,389.77	3,88,000.00	12,01,875.00	10,94,105.46	31,95,890.19
97. Sri Venkates-						
wara	16,57,372.46	21,15,318.65	18,51,258.22	21,57,104.54	18,32,513.48	96,13,567.35
98. Tamil Nadu Ag	gril. —			14,043.66	11,329.12	25,372.78
99. Udaipur	8,64,629.37	11,16,009.02	7,14,982.86	8,81,203.26	14,99,368.56	50,76,193.07
100. Univ. of Agril.	Sc. 19,136.01	6,000.00		9,603.00	1,661.29	36,400.30
101. Utkal	17,34,887.83	16,34,251.41	20,60,759.28	20,79,996.76	11,72,378.89	86,82,274.17
102. U.P Agril.		5,654.84				5,654.84
103. Varanaseya San	skrit 2,93,629.48	73,169.09	1,71,363.44	1,41,513.71	1,58,468.40	8,38,144.12
104. Vikram	7,53,411.06	7,54,016.71	11,39,048.04	10,54,609.72	6,66,115.76	43,67,201.29
Total	8,22,32,579.94	8,37,75,176.42	5,95,83,518.12	12,15,17,101.50	10,36,51,699.20	49,07,60.075.18
Total A,B,C,	11,93,48,391.22	11,81,54,106.78	15,01,78,531.63	19,71,25,010.69	17,49,35,752.60	75,97,41,792.92

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### APPENDIX XII

### Pattern of Assistance to Colleges

S. No.	Scheme/project	Contribution by UGC	Contribu- tion by Colleges/ University/ State Govt.
l	2	3	4
1.	<ul> <li>Postgraduate Studies</li> <li>Maximum limits, of UGC grant fixed as under : <ul> <li>(a) Department under the humanities and social sciences :</li> <li>Rs.1,50,000 per college, subject to a ceiling of Rs. 50,000 per department</li> </ul> </li> <li>(b) Science subjects : <ul> <li>(i) Departments of physics and chemistry :</li> <li>Rs. 1,50,000 each</li> <li>(ii) Departments of botany zoology, geology, biochemistry and home science : Rs. 1,00,000 each</li> <li>(iii) Department of mathematics (including statistics), anthropology, geography etc. Rs. 75,000 each</li> </ul> </li> </ul>		
	<ul> <li>(a) Non-recurring :</li> <li>(i) Buildings</li> <li>(ii) Books and equipment</li> </ul>	50 % 75 %	50 % 25 %
	(b) Recurring :		
2	Additional teaching staff	50 %	50 %
2.	Library and Laboratory facilities : (a) Buildings (including furniture and fittings)	$66\frac{2}{3}\%$	33 <u>1</u> %

Note: The maximum limit of UGC grant per college for all or any of the schemes at S-Nos 2-11 is Rs. 3 lakhs.

	1 2	3	4
	(b) Books and laboratory equip-		
	ment	75 °2	25%
	(c) Workshops for science depart		
	ments (building and equipment		25%
3.	Additional teaching accommoda		
	tion, i.e. lecture, theatre and class		221.07
٨	rooms	66 <sup>2</sup> / <sub>3</sub> / <sub>0</sub>	$33\frac{1}{3}$
4.		50.07	50.07
	<ul><li>(a) Men's hostels</li><li>(b) Women's hostels</li></ul>	50 % 75 9 %	50 %
5	Quarters for academic staff :	75 % 50 %	25%
	(a) Teachers' hostels		50 % 33 <u>3</u> %
0,	(b) Residential flats <sup>4</sup> for teachers		20%
7	Non-resident students' centre	upto Rs. 35,000	20/0
	Tion resident students contro	(Rs. 70,000 for a	
		college with student	
		enrolment of 1000	
		and above or for a	
		big non-resident stu-	
		dent centre or two	
		such small centres)	
	Tube wells and over head tanks	50 ° / o	50°/
	Cycle sheds	50 %	50%
10.	Semi-micro analysis equipment (for chemistry department)	100 <sup>°°</sup> (upto Rs. 5,000)	
11.	Chalkboards	100 %	
	Utilization of the services of retired		
	teachers	Rs. 1,000 p.a. for	
		contingencies	
13.	Assistance to teachers for research	-	
	advanced study	in a year for a project	
14.	National fellowships for teachers of outstanding eminence	f 100 %	
15.	Students' Aid fund	100 %	
	For student enrolment	Grant in Rupees	
	250 below	750	
	Between 251 and 500	1,000	

\* Eligible for additional grant if the college is at least ten years old with forty teachers.

Note: The maximum limit of UGC grant per college for all or any of the schemes at S. Nos. 2-11 is Rs. 3 Lakhs.

1	2	3	4
	For student enrolment	Grant in Rupees	
	Between 501 and 750	1,750	
	Between 751 and 1,000	2,250	
	Between 1,001 and 1,250	2,750	
	Between 1,251 and 1,500	3,250	
	Between 1,501 and 2,000	3,750	
	Between 2,001 and 2,500	4,250	
	2,501 and above	5,000	
16.	Student Welfare Programme	100% as below	
	Enrolment in the colleges	Grant in Rupees	
	Below 500 students	5,000	
	Between 500-999 students	8,000	
	Between 1,000–1,499 students	10,000	
	1,500 and above	12,000	
	The assistance may be utilised on :		
	(i) Improvement of existing hostel		
	facilities with regard to kitchen		
	(including equipment), dinning		
	room (including furniture) and		
	students' common room ameni	ties	
	(ii) Recreation facilities for stu-		
	dents e.g., provision of radios,		
	record players, indoor games et	с.	
	(iii) Improvement of canteen faciliti	es	
	(iv) Improvement of sanitary faci-		
	lities. No new construction		
	work may be undertaken under		
	this scheme		
	(v) Water cooler (only one). The		
	share of the Commission will	be	
	limited to Rs. 3,000 or $50\%$ of	the	
	actual expenditure whichever is	less	
7.	Book grant		
	(i) A college with a student enrol-		
	ment of less than 500	Rs. 4,500	
	(ii) A college with a student enrol-		
	ment of 500-999	<b>R</b> s. 5,500 ≻ *	
	(iii) A college with a student enrol-		
	ment of 1,000 or more	Rs. 6,600 J	
*	These norms relate to book grant for blo	ock years 1970-72. Policy	relating

<sup>\*</sup> These norms relate to book grant for block years 1970-72. Policy relating to book grants for 1972-74 is under consideration.

i.

v	4

1	2	3	4
18.	Centenary grant (project of a per- manent nature)	100% subject to a maximum of Rs. 1,00,000	
19.	Financial assistance to teachers for attending international conferences abroad	$50^{\circ}_{\circ}$ of the first class fare in India and air fare (economy class) provided the remain- ing $50^{\circ}_{\circ}$ is met by the college/university /State Government	
20.	Teachers' Training Colleges	,	
	Colleges providing B.Ed. courses Colleges providing B.Ed. and M.Ed. courses Colleges providing B.Ed. and/or	Rs. 2.00 lakhs Rs. 3.00 lakhs	
	M.Ed. courses—scheme		
	(i) Extension of libraries and la- boratories (including furniture		
	and fittings)	66 <u>3</u> %	331
	(ii) Purchase of books and labora-	·	
	tory equipment	75 %	25
	<ul><li>(iii) Hostels for</li><li>(a) Men students</li></ul>	50%	50
	(b) Women students	75 °.	25
	(iv) Residential quarters for aca-		
	demic staff	50 %	50
	(v) Non-resident student centre		
	upto Rs. 35,000		
	(vi) Teachers' Hostel	$66\frac{2}{3}\frac{9}{0}$	$33\frac{1}{3}$
	(vii) Additional staff (viii) Buildings and furniture (class	50 %	50
	room/lecture theatre) (for col-		
	leges with M.Ed. courses)	50 °×	50
	(ix) Preparation of teaching aids and reading materials, experi- mental and cooperative work		
	in practising schools, summer schools, publication, research materials, visiting fellowships and other similar programmes		
	me programmes	100 %	

	2	3	4			
(N	Note : Assistance towards buildin exceed Rs. 1,00,000).	g programmes will not	generally			
(X	() Chalk board	100 %				
(x)	i) Tube wells and over head tanks	50 <u>°</u> /	50%			
(xi	i) Cycle stand	50 ° /	50%			
	evelopment of play fields and urchase of accessories etc. in a					
	ellege (Rs. 10,000)	75%	25%			
	onstruction of gymnasium		2570			
Fc	or student enrolment 1,500 or more (s. 1,50,000)	<b>75</b> %	$25\frac{o}{20}$			
	or small college (Rs. 75,000)	75 %	25 °⁄			
	tting up of Career Advising Unit	100%	20/0			
		(Upto Rs. 1,200 p.a.				
	as honorarium to					
		teacher-in-charge)				
4. Es	tablishment of health centres					
(i)	) Non-recurring (Building and equipment) (upto Rs. 75,000)	75 20	25 °./			
(ii)	) Recurring (salaries of staff) (upto Rs. 20,000)	50 %	50%			
5. Es	tablishment of book banks	75%	25%			
	For student enrolment	The allocation of				
54	00 or above but less than 1,000	Rs. 15,000				
1,0	000 or above but less than 1,500	Rs. 20,000				
	500 or above but less than 2,000	Rs. 25,000				
	000 and above	Rs. 30,000				
	boratory development/procure-	100%				
me me	ent of scientific apparatus/equip- ent	(subject to following limits)				
(i)	College conducting B.Sc. cour-					
(ii)	ses in physical or biological sciences College conducting B.Sc. cour-	Rs. 15,000				
(1)	ses in physical and biological					
	sciences	Rs. 20,000				

1	2	3	4
	(iii) College conducting B.A./B.Sc.		
	courses in :	<b>D C</b> 000	
	(a) Geography	Rs. 5,000	
	(b) Psychology	Rs. 5,000	
	(c) Home Science	Rs. 5,000	
	(d) Statistics	Rs. 5,000	
	<ul><li>(e) Geology</li><li>(iv) College providing M.Sc./M.A.</li></ul>	Rs. 5,000	
	(iv) College providing M.Sc./M.A. courses in :		
	(a) Physics	Rs. 15,000	
	(b) Chemistry	Rs. 15,000	
	(c) Botany	Rs. 10,000	
	(d) Zoology	Rs. 10,000	
	(e) Biochemistry	Rs. 10,000	
	(f) Geology	Rs. 10,000	
	(g) Home Science	Rs. 10,000	
	(h) Geography	<b>R</b> s. 10,000	
	(i) Psychology	Rs. 10,000	
	(j) Statistics	Rs. 10,000	
27.	College Science Improvement Progra	mme	
	Integrated development of science		
	departments (undergraduate only)		
	of selected colleges	100 %	
28.	Writing of university level books/		
	monographs by Indian authors		
	(Rs. 500 p.m. to each fellow and		
	contingent grant of Rs. 2,000 p.a.)	100 %	
29.	Summer Institute, seminar, sympo-		
	sium refresher/orientation course,		
	workshop etc.	100%	
30.	Research participation programme	100 %	
	for college teachers and post-	(upto Rs. 1,700)	
	graduate students in basic sciences	-	
31.	Conferences of professional/learned	$66\frac{2}{3}$ %	
	academic bodies/associations.	(subject to a maxi-	
	academic bodies/associations	mum of Rs. 3,000 for	
		a national/all-India	
		conference and	
		Rs. 2,000 for a regional	
		conference)	

1	2	3	4
32.	Fellowships and scholarships :		
	(a) Junior Research fellowships		
	in humanities and sciences		
	transferred to the universities		
	(Rs. 300 p.m.)	100 %	
	(b) Research fellowships in huma-	/ 0	
	nities and sciences	100 %	
	(i) Junior fellowships		
	( <b>R</b> s. 300 p.m.)	100 %	
	(ii) Senior fellowships		
	( <b>R</b> s. 500 p.m.)	100 %	
	(c) Research fellowships in engi-	. 0	
	neering and technology		
	(i) Research fellowships (Rs.		
	400 p.m.)	100 %	
	(ii) Post-doctoral research	-	
	fellowships (Rs. 500 p.m.)	100 <u>°</u>	
	(d) Scholarships for study in		
	Arabic/Persian		
	(i) for postgraduate (Rs. 1,800		
	p.a.)	100 °	
	(ii) For honours (Rs. 1,200		
	p.a.)	100%	
	(e) scholarships for postgraduate		
	studies in Sanskrit/Pali/Prakrit		
	(Rs. 1,800 p.a.)	100%	
	(f) Scholarships for students of		
	the hill areas of North-East		
	India		
	(i) Junior research fellow-		
	ships (Rs. 300 p.m.)	100 %	
	(ii) Postgraduate scholarships		
	(Rs. 1,000 p.a.)	100 %	
	(g) Scholarships in applied geology		
	(Rs. 150 p.m.)	100%	

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# APPENDIX XIII

# Grants to Constituent/Affiliated Colleges

## 1973-74

S. No.	Scheme	Amount.	in	Rs.
I. Con	struction of hostels	36,72	,336	. 00
2. Lab	oratory & Library facilities	59,76	,027	. 64
3. Cor	struction of Staff Quarters	-46,10		
4. Dev	elopment of Postgraduate Studies in Sciences	18.07		
5. Dev	relopment of postgraduate studies in humanities			
and	social sciences	8,65	,158	.90
6. Boc	oks and Journals	2.68	,908	.47
7. Wei	lfare Schemes			
(i)	Students' Aid Fund	39,34	,433	.00
(ii)	Non-resident student centre	14.18	, <b>49</b> 8	.17
(iii)	Hobby workshop			
(iv)	Water Cooler	6	,245	5.76
(v)	Welfare Programmes in colleges	13,84	,528	. 32
(vi)	Health Centre	1,82	,481	.00
(vii)	Travel grants to students for specific purposes			
(viii)	Establishment of Book Bank	9,91	,459	. 59
(ix)	Physical Education			
8. (i)	Grants to constituent/affiliated colleges of Delhi			
	University for specific purposes	63,30	,270	1.40
(ii)	Maintenance grants to (the newly established)			
	the constituent/affiliated colleges of Delhi Uni-			
	versity	1,81,41		
	itenary grants	1,38	,634	1.51
	nstruction of shooting ranges			
	olarships/Fellowships etc.			
(i)	Research Fellowships			
	(a) Humanities		·	5.00
	(b) Sciences	,	· ·	9.07
	Utilisation of services of retired teachers	6,36	,066	5.65
(iii)	Financial assistance to teachers for research work		~	
	(a) Humanities		· · · ·	0.00
	(b) Sciences			5.26
	Scholarships in Arabic and Persian			),00
	Hill Area Scholarships	11	,043	3.30
(vi)	Postgraduate scholarships for Sanskrit/Pali'		0.00	
	Prakrit	28	,800	),00

S. No.	Scheme	Amount in Rs.
12.	Revision of salary scales	4,000.00
13.	Improvement of Chalk Boards	1,45,405.51
14.	(i) Travel grant to Research Scholars/Fellows for	
	attending conferences abroad	—
	(ii) Travel grant to teachers for attending conferences	
	abroad	92,594.76
15.	Miscellaneous schemes	94,114.28
16.	Training Colleges	15,51,317.79
17.	Exchange Programme	
18.	National Service Scheme	97,358.31
19.	Purchase of semi-micro analysis equipment	×
20.	College Science Improvement Programme	41,11,070.66
21.	Special Assistance to Departments :	
	(i) Science	
	(ii) Humanities	2,11,135.00
22.	Improvement of employment information career,	
	advising and educational guidance for university/	
	college students	27,400.00
23.	New Schemes	art bridge
24.	(i) Seminars, symposium, workshops and	
	conferences, etc.	52,420.16
	(ii) Summer Institute	2,23,187.04
	(iii) Research participation programme	
25.	Advanced Study in the subject of community deve-	
	lopment cooperation and Panchayati Raj	1,500.00
26.	Over-head tanks	56,260.00
27.	Cycle sheds	1,82,378.14
28.	National fellowships	28,713.84
29.	Purchase of equipment under Dollar Loan Scheme	1,00,000.00
	Training programme for the laboratory and Work-	
	shop Technicians	_
	Total	6,80,28,088.53

#### APPENDIX XIV

#### Pattern of Assistance to Teacher Training Colleges

Facilities	UGC Share of the approved cost	
Extension of libraries and laboratories (including	and and a second s	
furniture and fittings)	663 %	
Purchase of books and laboratory equipment	75%	
Hostels for men students	50 %	
Hostels for women students	75%	
Residential quarters for academic staff	50 %	
Non-Resident Student Centre	upto Rs. 35,000	
Additional Staff	50 %	
Building and furniture (class rooms etc.) This is exclu-		
sively for colleges teaching up to B.Ed. level in		
addition to above schemes	50 20	
Teachers' Hostels	$66\frac{2}{3}$	
Chalk Boards	100 %	

\* Assistance in respect of the buildings mentioned above was limited to Rs, 1,00,000:

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