

# **UNIVERSITY GRANTS COMMISSION**

**MINUTES OF THE 262<sup>ND</sup> MEETING OF THE U.G.C.  
HELD ON 8<sup>TH</sup> FEBRUARY, 1984.**

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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MINUTES OF THE 262ND MEETING OF THE UNIVERSITY  
GRANTS COMMISSION HELD ON 8TH FEBRUARY, 1984.

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The following were present :

Dr. (Mrs.) Madhuri R. Shah	Chairman
Professor Rais Ahmed	Vice-Chairman
Mrs. Serla Grewal	Member
Shri R. Ganapati	Member
Professor Anita Banerji	Member
Professor R.C. Mehrotra	Member
Dr. Ramesh Mohan	Member
Shri Kireet Joshi	Member
Dr. V.C. Kulandaiswamy	Member
Professor S.K. Khanna	Secretary

Justice P.N. Shinghal, Professor C.N.R. Rao and  
Dr. B.C. Parekh could not attend the meeting.

SECRETARIAT

Additional Secretary

Shri S. Viswanath

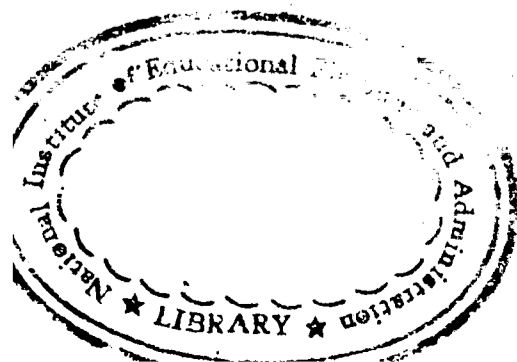
Joint Secretaries

Shri I.C. Menon  
Dr. S.C. Goel  
Dr. S.P. Gupta  
Dr. D. Swaminadhan

DEPUTY SECRETARIES

Dr. M.L. Mahta  
Dr. T.N. Hajela  
Shri Y.D. Sharma  
Shri L.R. Mal  
Shri A.G. Deshmukh  
Shri B.R. Kwatra  
Shri N. Ramanujan  
Shri R.C. Banerji  
Shri V.M. Seth

Shri R.P. Duggal - P.I.O.  
Shri Nem Chand - F.O.



contd...2/-

The Commission put on record its appreciation of the services of Shri C.G.Somiah as member of the Commission and welcomed Shri R.Ganapati, Secretary Finance (Expenditure) as a member of the Commission and Professor S.K.Khanna as Secretary, University Grants Commission.

Section - 1

Item No.1.01(a) : To receive the minutes of the meeting of the Commission held on 23rd December 1983.

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The minutes of the 261st meeting of the Commission held on 23rd December, 1983 were confirmed.

(i) Arising out of the minutes vide item No. 2.01, it was noted that views were expressed by several members which are reflected in the relevant resolution of the Commission. The notes received from Mrs. Serla Grewal, Education Secretary and Shri Kireet Joshi, Special Secretary will be kept on record. It may also be recorded that Shri R.K.Chhabra was invited to the meeting by the Commission during discussion of this item.

(ii) Arising out of the minutes vide item No. 4.05, it was agreed that the following was inadvertently left out and may be added to Appendix VII.

Non-Recurring

Books and Journals (Special needs)	Rs. 3 lakhs
Consumables/working expenses	Rs. 5 lakhs
Preparation of monograph (seed money)	Rs. 1 lakhs
Total	<u>Rs. 9 lakhs</u>

Item No. 1.01(b) : To receive the action taken on the minutes of the meeting held on 23rd December, 1983.

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The Commission noted the action taken on the minutes of the meeting held on 23rd December, 1983. In connection vide Item No.2.01, it was noted that (i) the Report of the Committee to enquire into the working of the Central

contd....3/-

Universities has been sent to the Ministry of Education for further action; (ii) it has also been circulated to the Central Universities for their comments and necessary action; (iii) it will be placed before the Vice-Chancellors of the Central Universities at their meeting to be held on 10th February, 1984; and (iv) Government of India has been requested to approve the creation of a post of Additional Secretary for heading the Cell on Central Universities in the UGC.

Item No. 1.02 (a) : To approve the action taken on certain matters.

.....

The Commission approved the action taken on items listed in Appendix - I\*

Item No. 1.02 (b) : To receive the items of information

.....

This was noted.

Item No. 1.03 : To approve the statement of grants released from 1st December, 1983 to 31st January, 1984.

.....

The Commission approved the grants released from 1st December, 1983 to 31st January, 1984 (Appendix-II)\*

Item No. 1.04 (a) : To receive a statement showing the payments made by the UGC during the year 1983-84 upto 31st January, 1984.

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This was noted.

Item No. 1.04 (b) : To receive a statement showing the sanctions and bills pending as on 31st January, 1984.

.....

This was noted.

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\* Not enclosed.



SECTION - 2

(Matters relating to standards)

Item No. 2.01 : To consider a proposal of Nagarjuna University for the establishment of a "Centre of Buddhist Studies in Nagarjuna University".

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It was desired that the proposal of Nagarjuna University for the establishment of a "Centre of Buddhist Studies in Nagarjuna University" may be referred to the UGC Panel on Philosophy which also considers proposals for the promotion of Buddhist studies.

Item No. 2.02 : To consider the recommendations made by the Standing Committee on new universities and university postgraduate centres at its meeting held on 17th December, 1983 on the report of the Committee which visited the Shri Sharadapeeth, Dwarka for granting deemed to be university status under Section 3 of the UGC Act, 1956 to the Shri Sharadapeeth Vidya Sabha comprising of the Indological Research Institute, Dwarka and Shri Sharda Peeth Arts and College of Education, Dwarka.

.....

The Commission examined the recommendation that Shri Sharadapeeth Vidya Sabha, Dwarka, comprising (i) the Indological Research Institute, Dwarka, and (ii) the Shri Sharadapeeth Arts and College of Education Dwarka, may be declared as an institution Deemed to be University under Section 3 of the UGC Act. The Commission, desired that before further action the conditions laid down by the committee which visited the Shri Sharadapeeth Vidyapeeth, Dwarka may be fulfilled. A clarification may also be sought from the State Government whether the present level of maintenance expenditure and future liabilities of this nature and the matching share for the development schemes of the institute as may be accepted by the Commission will continue to be met by the State Government of Gujarat or the Trust authorities of Shree Sharadapeeth Vidya Sabha, Dwarka.

Item No. 2.03 :

To consider the recommendations made by the Standing Committee on new universities and university postgraduate centres at its meeting held on 17th December, 1983 on the report of the Committee which visited Solapur on May 16-17, 1983 to consider the proposal of the Government of Maharashtra for establishment of a Shivaji University Centre for postgraduate Studies in Solapur.

.....

The Commission accepted the recommendations made by the Committee which visited Solapur to consider the proposal of the Government of Maharashtra for the establishment of Shivaji University Centre for postgraduate studies in Solapur and endorsed by the Standing Committee on New Universities and University Postgraduate Centres and agreed to setting up of a University Centre for Postgraduate Studies at Solapur, subject to the fulfilment of conditions and suggestions made by the Committee in its report.

Item No. 2.04 :

To consider the recommendations made by the Standing Committee on new universities and university postgraduate centres at its meeting held on the 17th December, 1983 on the report of the Committee which visited Nanded on September 19-20, 1983 to consider the proposal of Maharashtra State Government for the establishment of a Marathwada University Centre for postgraduate studies at Nanded.

.....

The Commission accepted the recommendations made by the Committee which visited Nanded to consider the proposal of Government of Maharashtra for the establishment of Marathwada University Centre for Postgraduate studies in Nanded and endorsed by the Standing Committee on New Universities and University Postgraduate Centres and agreed to the setting up of a University Centre for Postgraduate Studies at Nanded, subject to the fulfilment of conditions and suggestions made by the Committee in its report.

Item No.2.05 : To consider the report of the Sixth Plan Visiting Committee to Calcutta University.

...

The Commission accepted the recommendations of the Sixth Plan Visiting Committee appointed by it to examine the Plan Development proposals of Calcutta University amounting to Rs.127.45 lakhs against the Sixth Plan allocation of Rs.100 lakhs.

It was further agreed that the Department of Science and Technology be requested to reimburse to the Commission the amount paid by the University from the funds of the Commission for 15 acres of land which will now be used by the Department for establishing a National Institution to commemorate the memory of the late Professor S.N.Bose. The university may be permitted to use the balance of land i.e. 4.07 acres for housing complex.

### Section-3

(Reference from Government)

Item No.3.01 : To consider a reference received from the Govt. of India, Ministry of Education and Culture (Department of Education) regarding the comments of the UGC on the proposal of the Association of Indian Universities for being entrusted with the work of payment of travel grants to teachers in the universities and colleges for attending International Conferences held abroad and provision of grants therefor from the Govt. of India.

...

The Commission could not accept the proposal.

Item No.3.02 : To consider the recommendations made by the Standing Committee on new universities and university postgraduate centres on the proposal received from the Govt. of Maharashtra Education and Employment Department Bombay through the Govt. of India Ministry of Education and Culture regarding the establishment of a Buddhist University in the State.

...

The Commission considered the recommendations

made by the Standing Committee on New Universities and University Postgraduate Centres on the proposal received from the Government of Maharashtra, Education and Employment Department, Bombay through the Govt. of India, Ministry of Education and Culture regarding the establishment of a Buddhist University in the State. The Commission was not in favour of the establishment of a Buddhist University in the State.

Item No.3.03 : To receive a letter from the Ministry of Education and Culture regarding the establishment of a Nuclear Science Centre.

...

The Commission considered the letter received from the Ministry of Education and Culture regarding the establishment of the Nuclear Science Centre, and felt that the suggestion infringed upon the autonomy of the Commission which had the full right to decide the priorities and programmes of research which needed support. The Commission's policy of establishing major research facilities in the university sector is in national interest, and is in accord with the National Policy on Education (Government of India Resolution on the Report of the Education Commission, 1968) where Section 12(e) says, "There is need to give increased support to research in universities generally. The institutions of research should, as far as possible, function within the fold of universities or in intimate association with them."

#### Section-4

(Special Programmes)

Item No.4.01 : To consider the report of the Expert Committee on the Departmental Support for the Department of Zoology, Panjab University, Chandigarh.

...

The Commission accepted the report of the expert committee for the Department of Zoology, Panjab University and agreed to its participation in the Programme of Special Assistance as DSA for a period of 5 years and to provide assistance as indicated in the Appendix-III.

- Item No.4.02 : To consider the report of the Expert Committee on the Departmental Support for the Department of Mathematics, Roorkee University, Roorkee.

...

The Commission accepted the recommendations of the Assessment Committee on the activities for the Department of Mathematics, Roorkee University that the Departmental Research Support Programme be further extended for a period of 2 years in order to give an opportunity to the staff to interact with other departments in a purposeful manner. The assistance approved is given in Appendix-IV.

- Item No.4.03 : To consider the report of the Expert Committee on the Departmental Support for the Department of Botany, Rajasthan University, Jaipur.

...

The Commission considered the report of the Committee for the Department of Botany, Rajasthan University, and agreed to its participation under the Programme of Special Assistance as DRS for a period of 3 years and to provide assistance as indicated in the Appendix-V.

- Item No.4.04 : To consider the report of the UGC Review Committee on the CAS in Marine Biology, Annamalai University

...

The Commission desired that this may be put up again after a discussion with the Department of Ocean Development.

- Item No.4.05 : To consider the recommendations made by the Chemistry Panel at its meeting held on 1-2 September, 1983 regarding Major Research Projects.

...

The Commission approved the following assistance for the research project ("Model Metal Chelates and

related complexes of Biological interest") of Prof. Arun K.Dev, Allahabad University for a period of three years.

Recurring

Research Associate	1
Jr. Research Fellow	3
Contingency	Rs. 20,000/-p.a.
Honorarium	Rs. 1,000/-p.a.

Non-Recurring

Equipment	Rs. 80,000/-
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Item No.4.06 : To consider the report of the Expert Committee constituted for Evaluating the Biological Education Extension Programme at Madurai Kamraj University.

...

The Commission desired that this may be put up again in the light of discussions.

Item No.4.07 : To consider the report of the Committee on the development of the Centre for Theoretical Studies(CTS) Indian Institute of Science, Bangalore (19th November, 1983).

...

The Commission desired that this may be put up again in the light of the discussion held in the meeting.

Item No.4.08 : To consider the report of the UGC Review Committee on the Department of Crystallography and Bio-Physics University of Madras (3rd December, 1983).

...

The Commission considered the report of the Review Committee on the Department of Crystallography and

contd...10/-

Biophysics, University of Madras and agreed to its participation under the Programme of Special Assistance as DSA for a period of 5 years and to provide assistance as indicated in the Appendix-VI.

Item No.4.09 : To consider the report of the UGC Committee on the CAS in Physics, University of Delhi (27-28th December, 1983).

...

The Commission desired that this may be put up again in the light of the discussions held in the meeting.

Item No.4.10 : To consider the report of the Expert Committee for Special Assistance Programme for the Department of Chemistry, M.S.University of Baroda, Baroda.

...

The Commission considered the report of the Committee on the Department of Chemistry, M.S.University of Baroda and agreed to its participation under the Programme of Special Assistance as DRS for a period of 3 years and to provide assistance as indicated in the Appendix-VII.

Item No.4.11 : To consider the report of the Expert Committee on the participation of the Economics Department, M.S.University of Baroda under the Special Assistance Programme.

...

The Commission considered the report of the Committee on the Department of Economics, M.S.University of Baroda and agreed to its participation as a Department of Special Assistance and to provide assistance for a period of 5 years, as detailed in Appendix-VIII.

SECTION-5

(Grants to Universities and Colleges)

Item No.5.01 : To consider the question of raising the VI Plan allocation of the Saurashtra University.

The Commission considered the proposal and agreed to raise the Sixth Plan allocation for the Saurashtra University from Rs.75 lakhs to Rs.85.56 lakhs.

SECTION-6

(Miscellaneous)

Item No.6.01 : To consider certain establishment matters of the University Grants Commission.

- (i) (a) Report of the Internal Work Study Unit to provide additional staff to Record Section.
- (b) Report of the Internal Work Study Unit for creating of an additional Section for Adult Section.
- (c) Report of the Internal Work Study Unit for providing additional staff of CE Division and creation of other temporary posts pending study/assessment by the IWSU.

(a) & (b) The Commission considered the reports of the Internal Work Study Unit to provide additional staff to Record Section and creation of additional Section for Adult Education and authorised the Chairman to create such number of posts as a permanent measure as considered absolutely necessary keeping in view the recent directives of the Government of India.

(c) The Commission noted the positions already created by the Chairman for CE Division.

Item No.6.01 (ii) : Representations of Dr. P.K. Khurana and Dr. S.G. Bhatkulikar, Junior Research Officers for redesignation the post of Junior Research Officer as Senior Research Officer.

The Commission agreed to the redesignation of the posts of Jr. Research Officer and Assistant Research Officer as Research Officer and Jr. Research Officer respectively in the existing scale of pay of Rs.1100-1600 and Rs.700-1300



respectively and desired that the matter may be taken up with the Ministry of Education and Culture for notifying the recruitment rules for these posts accordingly.

Item No.6.01(iii) Representation of Shri V.Appa Rao, Publication Officer for Channel of Promotion in the Office of the University Grants Commission.

The Commission considered the representation of Shri V.Appa Rao, Publication Officer for providing him channel of promotion and desired that this may again be referred to the UGC Standing Committee on Establishment matters.

Item No.6.01(iv) Review of the method of recruitment to the post of LDC/Typist in the office of the Commission

...

The Commission considered the question of review of the method of recruitment to the posts of LDC/Typist and in view of the difficult position in the availability of LDC/Typists in the light of the provision in the UGC (Recruitment) Rules, 1983 desired that the recruitment in this cadre to the extent of 90% by direct recruitment may be made through Staff Selection Commission/Employment Exchange failing both by open advertisement.

Item No.6.01(v) Setting up of a Cell for the conduct of National Examinations-Project Report thereon.

...

The Commission considered the Project Report on setting up of a Cell for the conduct of National Examinations and while welcoming the proposal desired that further necessary action in the matter may be taken by the Chairman. Further, regarding the autonomous status to be given to National Educational Testing Service, it was decided that the matter may be taken up with the Government of India at an appropriate time after necessary amendments in the UGC Act are made.

Item No.6.01(vi) : Extension of the tenure of temporary posts of Joint Secretary, Personal Assistant and Assistant create for a period of six months for implementation of the scheme of development of Mass Communication Systems and Programmes in universities.

...

The Commission agreed to the continuation of the following temporary posts created and filled from 6.9.1983 for implementation of the scheme of development of Mass Communication Systems and Programmes in the universities for another six months w.e.f. 6th March, 1984:

Joint Secretary (Rs.2000-2250)	1
Personal Assistant (Rs.650-1040)	1
Assistant (Rs.425-800)	1

Item No.6.02 : To consider a proposal received from Swami Pranavananda Saraswati Director Yoga Societies in America regarding institution of National Awards.

...

The Commission welcomed the proposal and desired that awards to be instituted may be called 'Swami Pranavananda Awards' and the donor may be requested to raise the amount of each award from Rs.5,000 to Rs.10,000. The Commission also desired that in such awards 10% of the interest accruing on the endowment may be earmarked for implementation of the programme in the UGC.

Item No.6.03 : To consider the suggestions regarding Merit Promotion Scheme as made by some universities/ State Governments.

...

The Commission considered the suggestions received from some universities and State Governments regarding

Merit Promotion Scheme and agreed as under:-

1. In the case of Government Colleges, the condition of minimum period of 4 years continuous service in the institution where a teacher is to be considered for merit promotion may be waived, in view of transfers which are made by Government.
2. The suggestion of the State Government of Andhra Pradesh regarding the constitution of a Selection Committee in consultation with the Vice-Chancellors of the universities concerned for assessment and appointment of eligible teachers was accepted.
3. The suggestion of the University of Kalyani regarding eligibility of the teachers under the Scheme after completion of only 6 years of service was not accepted.
4. The suggestion of Karnataka University for provision of advance increments under the scheme was not accepted.
5. It was agreed that the teachers who have been promoted under the Personal Promotion Scheme as Readers in 1972 are also eligible in the present scheme.
6. The Commission agreed to the proposal of M.S. University of Baroda to extend the Merit Promotion Scheme to the three institutions namely (a) Sanskrit Mahavidyalaya, (b) Polytechnic, (c) Oriental Institute provided the State Government agrees to the implementation of the Merit Promotion Scheme in these institutions.
7. The proposal of the Delhi University Teachers Association regarding pay fixation formula under the Merit Promotion Scheme may be referred to the Government of India, Ministry of Education for advice.
8. The Commission agreed that the Central Institute of English and Foreign Languages, Hyderabad should be treated as one Unit for the Merit Promotion Scheme and further, teachers may apply again for review under the Merit Promotion Scheme after a lapse of one year.

Item No.6.04 : To note the place and date for the next meeting of the Commission

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After the discussions with the Chairman, the next meeting is fixed for March 29, 1984.

contd....15/-

- Item No.6.05 : To consider the research project of Dr. Mazharul Islam on "Romantic Literature: Awadhi-Hindi and Bengali".

...

The matter may be referred to the Government of India.

- Item No.6.06 : To consider the question of giving an assurance to ICAR for taking over the recurring liability of Regional Research Station at Mirzapur, Institute of Agricultural Sciences, Banaras Hindu University, after a period of five years.

...

The Commission agreed that an assurance may be given to I.C.A.R. for taking over the recurring liability of the World Bank supported Research project at Mirzapur, Institute of Agricultural Science, Banaras Hindu University after a period of five years. However, this assurance be given to ICAR after a review of the need of technical/supporting staff required for the project.

- Item No.6.07 : To consider a proposal for organising an International Symposium on Democratization of Higher Education under the auspices of UNESCO.

...

The Commission welcomed the proposal for organizing an International Symposium on democratisation of Higher Education under the auspices of UNESCO and desired that the matter may be referred to the Indian National Commission for Co-operation under UNESCO.

Professor S.K.Khanna  
(Secretary)

Dr. (Mrs.) Madhuri R. Shah  
(Chairman)

Appendix III to item No.4.01

Department of Special Assistance (DSA) to  
Zoology Department, Panjab University,  
Chandigarh.

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Recurring (for 5 years)

1. Staff

1.	Readers	2	} Actuals
	(1 for Proto Zoology and one for Cell Biology)		
ii.	Driver	1	
iii.	Research Associates	4	
	(one in each of the thrust area)		
iv.	Junior Research Fellows	4	
	(One in each of the thrust area)		

2. Working Expenses

i.	Contingency including chemicals glass-wares, diesels etc.	Rs.40,000/-p.a.
ii.	Instruments repair/maintenance, spares, etc.	Rs. 10,000/-p.a.
iii.	Seminars - One within course of 5 years.	Rs.25,000/-
iv.	Training for young teachers in others labs/Visiting Professors including travel etc.	Rs. 10,000/-p.a.
	Total	<u>Rs.2,10,000/-p.a.</u>

Total Recurring for 5 years:-Rs.10,75,000/-approx.

Non-Recurring

A. Common Requirements of the Department

1.	Books & Journals	Rs.3,00,000/-
2.	Jeep with Trailor	Rs.1,50,000/-
3.	C.T.Room	Rs.1,00,000/-
4.	Cold Room	Rs.1,00,000/-

5. Voltage Stabilizer	Rs. 25,000/-
6. Green House	Rs. 95,000/-
7. Ultracentrifuge	Rs. 3,25,000/-
8. Spectronic 2000	Rs. 1,50,000/-
Total	<u>Rs. 12,45,000/-</u>

B. Aquatic Biology

1. C <sup>14</sup> Apparatus	Rs. 50,000/-
2. Bomb Calorimeter	Rs. 30,000/-
	<u>Rs. 80,000/-</u>

C. Cell Biology

1. Microphotodensitometer	Rs. 5,00,000/-
2. Lateroscan	Rs. 3,50,000/-
3. Gamma Counter	Rs. 3,00,000/-
	<u>Rs. 11,50,000/-</u>

D. Entomology

1. Insect rearing lab	Rs. 50,000/-
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E. Parasitology

1. Carl Zeiss Amplitival microscope	Rs. 75,000/-
2. Ultrasonic tissue disintegrator	Rs. 50,000/-
3. Magnetic tube stirrer	Rs. 50,000/-
4. Multievent recorder	Rs. 10,000/-
5. Clean Air Bench	Rs. 20,000/-
	<u>Rs. 2,05,000/-</u>

Total NR = Rs. 27.30 lakhs.

Grand Total of R + NR = Rs. 38.05 lakhs.

Appendix IV to item No.4.02

Departmental Research Support (DRS) Department  
of Mathematics, Roorkee University

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Non-Recurring

Equipment (Computer Terminal and other needs) Rs. 1,00,000/-

Recurring (for 2 years)

1. Visiting Faculty @Rs. 30,000/-p.a.	Rs. 60,000/-
2. Books & Journals @Rs. 40,000/-p.a.	Rs. 80,000/-
3. Contingency @Rs. 15,000/-p.a.	Rs. 30,000/-
4. Computation @Rs. 5,000/-p.a.	Rs. 10,000/-
5. Computer Stationery @Rs. 15,000/-p.a.	Rs. 30,000/-
6. Staff - 6 JRFs	Rs. 86,400/-

Total NR + R = Rs. 3,96,400/-

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Appendix V to item No.4.03

Departmental Research Support (DRS) Department  
of Botany, Rajasthan University

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Non-Recurring

1. Refrigerated Contrifuge (20,000 rpm)	Rs.1,50,000/-
2. High Pressure Liquid Chromatography	Rs.2,50,000/-
3. Photomicroscope, Zeiss	Rs.3,00,000/-
4. Electrophoretic apparatus with Scanner (Biorad) or ISCO	Rs.1,50,000/-
5. Stereoscopic microscope (two) Leits or Zeiss	Rs.1,00,000/-
6. Leminar flow Chamber- Two	Rs. 75,000/-
7. One inverted Microscope (Leits/Olympus)	Rs.1,00,000/-
8. Central Air-Conditioning and furnishing of Culture Rooms (underground chambers) and centralised instrumentation room	Rs.3,00,000/-
Total NR	<u>Rs.14,25,000/-</u>

Recurring (for 3 years)

1. Books & Journals @Rs.30,000/-p.a.	Rs. 90,000/-
2. Chemicals & Glasswares @Rs.50,000/-p.a.	Rs.1,50,000/-
3. Contingency and Working expenses @Rs.20,000/-p.a.	Rs. 60,000/-
4. Field Work @Rs.20,000/-p.a.	Rs. 60,000/-
Total R	<u>Rs.3,60,000/-</u>

Grand Total (NR + R )

Rs.17,85,000/-

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Appendix VI to item No.4,08

Department of Special Assistance (DSA) Department  
of Crystallography and Biophysics, Madras  
University.

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<u>Non-Recurring (for 5 years)</u>	<u>Rs. in lakhs</u>
1. Single Crystal X-ray Diffractometer for X-ray Crystallographic Research.	25.0
2. Computer graphics/system developed and Microelectronic Applications.	4.0
3. Protein Crystallographic Project-Cold Room facilities etc.	2.0
4. Solid State and Spectroscopy	1.0
5. 2 X-ray Diffraction Unit.	4.0
6. Reprographic facilities//Duplicating machines, typewriters/furniture etc.	2.0
Total NR	<u>38.0 (A)</u>
 <u>Recurring (for 5 years)</u>	
1. Computation Charges (@Rs.50,000/-p.a.)	2.50
2. Books & Journals (@Rs.30,000/-p.a.)	1.50
3. Working expenses/contingencies (@Rs.40,000/-p.a.)	2.00
4. Travel/Visiting Fellows; (@Rs.20,000/-p.a.)	1.00
Total R	<u>7.00(B)</u>
One National Seminar in the course of 5 years	Rs.30,000/-(C)
 <u>Research Staff</u>	
JRF 4 p.a. (8 in the first year, 4 in the 2nd year and 4 in the 3rd year.)	} Actual
Total positions of 16 will be maintained thereafter.	
Research Associates (2) at any grade at a time	
 Total :- A + B + C + D =: Rs.49.80 lakhs	

Appendix VII to item No.4.10

Departmental Research Support (DRS) Department  
of Chemistry, M.S.University of Baroda

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NON-RECURRING

1. Equipment (Variable temperature magnetic balance, Cyclic voltameter Vacuum line, BET Surface area apparatus UV visible spectro-photometer IR Spectrophotometer, HPLC, Mini Computer, DTA, Air Conditioner (2) Specific Ion, Electrods and specific Ion meter, Punching machine for computer cards	Rs.14,00,000/-
2. Books in special areas and Journals	Rs. 1,25,000/-
3. One Seminar(in the course of 3 years)	Rs. 25,000/-
Total Non-Recurring	<u>Rs.15,50,000/-</u>

RECURRING (3 years)

1. Chemicals (Rs.50,000/- for Organic (Rs.50,000/- for Inorganic (Rs.25,000/- for Physical Chemistry) Rs.1.25 lakhs per annum.,	Rs.3,75,000/-
2. Contingencies/spares/repairing/service charges for equipment @Rs.50,000/- per annum.,	Rs.1,50,000/-
3. Staff : JRF- 6 (Organic-2, Inorganic-2) and Physical Chemistry-2. } Esti- STA -1 } mated	Rs.1,60,000/-
Total Recurring	<u>Rs.6,85,000/-</u>

Grand Total (NR + R) = Rs.22,35,000/-

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Appendix VIII to item No.4.11

Facilities approved for the Department of Economics,  
M.S.University of Baroda - Department of Special  
Assistance

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			<u>Estimated Expenditure</u> Rs.
<u>I. Recurring (Total for 5 years)</u>			
1. Professor	) (Economics of Education and	One	2,25,000/-
2. Readers	) Human Resources	One	1,50,000/-
3. Lecturer	) Growth process of Indian Economy	Two	2,00,000/-
4. Research Associate	(Rs.1500/-)	One	1,00,000/-
5. Statistical Assistant	(Rs.550-900)	One	75,000/-
6. Word Processor Operator-cum-Technical Assistant.	(Rs.475-800)	One	75,000/-
7. Junior Research Fellows		Three	1,20,000/-
8. Visiting Professor/Visiting Fellows (Rs.10,000/-per year)		One	50,000/-
9. Typing and clerical assistance			50,000/-
10. Field work/investigations (Rs.10,000/-per annum)			50,000/-
11. Contingencies (Rs.15,000/-per annum)			75,000/-
12. Library Books & Journals (Rs.10,000/-per annum)			50,000/-
13. Seminars			30,000/-
14. Publications			1,00,000/-
Total			<u>Rs.13,50,000/-</u>

II. Non-Recurring

	<u>Rs.</u>
1. Building 3,000 sq.ft. (including furniture)	5,00,000/-
2. Equipment (Word processor)	2,00,000/-
3. Library (Books and Journals)	1,50,000/-
Total	<u>Rs. 8,50,000/-</u>
Grand Total	<u>Rs. 22,00,000/-</u>

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

...

Meeting:  
Dated 8th February, 1984  
Time 10.00 A.M.  
Place UGC Office, New Delhi.

A G E N D A

Section-1

- Item No.1.01(a) : To receive the minutes of the meeting of the Commission held on 23rd December, 1983.
- Item No.1.01(b) : To receive the action taken on the minutes of the meeting held on 23rd December, 1983.
- Item No.1.02(a) : To approve the action taken on certain matters.
- Item No.1.02(b) : To receive the items of information.
- Item No.1.03 : To approve the statement of grants released from 1st December, 1983 to 31st December, 1983.
- Item No.1.04(a) : To receive a statement showing the payments made by the UGC during the year 1983-84 upto 31st December, 1983.
- Item No.1.04(b) : To receive a statement showing the sanctions and bills pending as on 31st December, 1983.

Section-2

(Matters relating to standards)

- Item No.2.01 : To consider a proposal of Nagarjuna University for the establishment of a "Centre of Buddhist Studies in Nagarjuna University."

- Item No.2.02 : To consider the recommendations made by the Standing Committee on new universities and university postgraduate centres at its meeting held on 17th December, 1983 on the report of the Committee which visited the Shri Sharadapeeth, Dwarka for granting deemed to be university status under Section 3 of the UGC Act, 1956 to the Shri Sharadapeeth Vidya Sabha comprising of the Indological Research Institute, Dwarka and Shri Sharada Peeth Arts and College of Education, Dwarka.
- Item No.2.03 : To consider the recommendations made by the Standing Committee on new universities and university postgraduate centres at its meeting held on 17th December, 1983 on the report of the Committee which visited Solapur on May 16-17, 1983 to consider the proposal of the Government of Maharashtra for establishment of a Shivaji University Centre for postgraduate Studies in Solapur.
- Item No.2.04 : To consider the recommendations made by the Standing Committee on new universities and university postgraduate centres at its meeting held on the 17th December, 1983 on the report of the committee which visited Nanded on September 19-20, 1983 to consider the proposal of Maharashtra State Government for the establishment of a Marathwada University Centre for postgraduate studies at Nanded.

Section-3

(Reference from Government)

- Item No.3.01 : To consider a reference received from the Govt. of India, Ministry of Education & Culture (Department of Education) regarding the comments of the UGC on the proposal of the Association of Indian Universities for being entrusted with the work of payment of travel grants to teachers in the universities and colleges for attending International Conferences held abroad and provision of grants therefor from the Government of India.
- Item No.3.02 : To consider the recommendations made by the Standing Committee on new universities and university postgraduate centres on the proposal received from the Govt. of Maharashtra, Education and Employment Department, Bombay through the Govt. of India, Ministry of Education & Culture regarding the establishment of a Buddhist University in the State.

Section-4

(Special Programme)

- Item No.4.01 : To consider the report of the Expert Committee on the Departmental Support for the Department of Zoology, Panjab University, Chandigarh.
- Item No.4.02 : To consider the report of the Expert Committee on the Departmental Support for the Department of Mathematics, Roorkee University, Roorkee.
- Item No.4.03 : To consider the report of the Expert Committee on the Departmental Support for the Department of Botany, Rajasthan University, Jaipur.

- Item No.4.04 : To consider the report of the UGC Review Committee on the CAS in Marine Biology, Annamalai University.
- Item No.4.05 : To consider the recommendations made by the Chemistry Panel at its meeting held on 1-2 September, 1983 regarding Major Research Projects.
- Item No.4.06 : To consider the report of the Expert Committee constituted for Evaluating the Biological Education Extension Programme at Madurai Kamraj University.
- Item No.4.07 : To consider the report of the Committee on the development of the Centre for Theoretical Studies (CTS) Indian Institute of Science, Bangalore (19th November, 1983).
- Item No.4.08 : To consider the report of the UGC Review Committee on the Department of Crystallography and Biophysics, University of Madras (3rd December, 1983).
- Item No.4.09 : To consider the report of the UGC Review Committee on the CAS in Physics, University of Delhi (27-28th December, 1983).
- Item No.4.10 : To consider the report of the Expert Committee for Special Assistance Programme for the Department of Chemistry, M.S. University of Baroda, Baroda.

Section-6  
(Miscellaneous)

- Item No.6.01 : To consider certain establishment matters of the University Grants Commission.



- Item No.6.02 : To consider a proposal received from Swami Pranavananda Saraswati Director Yoga Societies in America regarding institution of National Awards.
- Item No.6.03 : To consider the suggestions regarding Merit Promotion Scheme as made by some universities/ State Governments.
- Item No.6.04 : To note the place and date for the next meeting of the Commission.

Any other items.

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

...

Meeting  
Dated 8th February, 1984  
Time 10.00 A.M.  
Place UGC Office, New Delhi.

A G E N D A

Section-4  
(Special Programmes)

Item No.4.11 : To consider the report of the Export Committee on the participation of the Economics Department, M.S.University of Baroda under the Special Assistance Programme.

Section-5  
(Grants to Universities and Colleges)

Item No.5.01 : To consider the question of raising the VI Plan allocation of the Saurashtra University.

Section-6  
(Miscellaneous)

Item No.6.05 : To consider the research project of Dr.Mazharul Islam on "Romantic Literature: Awadhi-Hindi and Bengali".

# **SECTION 1**

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

...

Minutes of the 261st meeting of the University Grants Commission held on 23rd December, 1983

...

The following were present:

Dr. (Mrs.) Madhuri R. Shah	Chairman
Professor Rais Ahmed	Vice-Chairman
Mrs. Serla Grewal	Member
Professor Anita Banerji	Member
Professor R.C. Mehrotra	Member
Dr. Ramesh Mohan	Member
Shri Kireet Joshi	Member
Dr. B.C. Parekh	Member
Dr. V.C. Kulandaiswamy	Member
Dr. D. Shankar Narayan	Secretary

Professor C.N.R. Rao, Justice P.N. Shinghal and Shri C.G. Somiah could not attend the meeting.

SECRETARIAT

Additional Secretary

Shri S. Vishwanath

Joint Secretaries

Shri I.C. Menon  
Dr. S.C. Goel  
Dr. S.P. Gupta  
Dr. D. Swaminadhan

Deputy Secretaries

Dr. T.N. Hajela  
Dr. M.L. Mehta  
Shri Y.D. Sharma  
Shri L.R. Mal  
Shri A.G. Deshmukh  
Shri B.R. Kwatra  
Shri N. Ramanujan  
Shri R.C. Banerji  
Shri R.P. Duggal -P. I. O.  
Shri Nem Chand -F. O.

p.t.o.

Section-1.

Item No.1.01(a) : To receive the minutes of the meeting of the Commission held on 28-29th November, 1983.

...

The minutes of the 260th meeting of the University Grants Commission held on 28-29th November, 1983 were confirmed.

It was mentioned that a letter had been received from the Financial Adviser, Ministry of Education, on behalf of Shri C.G.Somiah, with regard to the Minutes on item No.6.08 referring to the proposed Council for Central Universities and its functions. It was agreed that the suggestion made by Shri Somiah may be taken into account at the time of the consideration of the report of the Committee.

Item No.1.01(b) : To receive the action taken on the minutes of the meeting held on 28-29th November, 1983.

...

This was noted.

Item No.1.02(a) : To approve the action taken on certain matters.

...

The Commission approved the action taken on items listed in Appendix-I\*

Item No.1.02(b) : To receive the items of information

....

This was noted.

Item No.1.03 : To approve the statement of grants released from 1st November, 1983 to 30th November, 1983.

...

The Commission approved the grants released from 1st November, 1983 to 30th November, 1983, Appendix-II\*.

\* - Not enclosed.

Item No. 1.04(a) : To receive a statement showing the payments made by the UGC during the year 1983-84 upto 30th November, 1983.

...

This was noted.

Item No. 1.04(b) : To receive a statement showing the sanctions and bills pending as on 30th November, 1983.

...

This was noted.

### Section-2

(Matters relating to standards)

Item No. 2.01 : To consider further the Report of the Committee appointed by UGC to inquire into the working of the Central Universities.

...

The Commission further considered at length the Report of the Committee appointed to enquire into the Working of the Central Universities and while generally accepting the recommendations contained in the Report made the following observations:

- a) Since the recommendations made in the Report are based upon sound academic and management considerations, several of these would be equally applicable in the case of State Universities.
- b) Recommendations made by the proposed Council of the Central Universities regarding terms and conditions of service of the employees and related matters having financial implications would need the approval of the Central Government before implementation and this may accordingly be provided in the concerned Acts and Statutes.

- c) The Constitution of the Planning and Evaluation (Monitoring) Board be suitably expanded with some addition of outside members so as to enable it to discuss the development of the University in a broader perspective.
- d) It was pointed out that it may not be possible, at any rate, at this stage, to bring the employees of Delhi University and its colleges within the purview of C.G.H.S. and an alternative scheme may have to be worked out.
- e) Facilities for Physical Education, games, sports and cultural activities need strengthening in the universities and teachers in the universities should be encouraged to play an effective role in such activities.
- f) The Commission while implementing the recommendations relating to student amenities, corporate life and facilities for teachers in the Central Universities may also keep in view the similar requirements of the State Universities and Institutions deemed to be Universities.

The Commission further desired that steps may be initiated to implement the recommendations of the Committee in consultation, where necessary, with the different agencies concerned.

Item No. 2.02 : To consider the report of the Expert Committee appointed by the Commission to examine the proposal of Jamia Millia Islamia for additional grants for the Mass Communication Centre

...

The Commission generally accepted the recommendations of the Committee on the proposal of the Jamia Millia Islamia for additional grants for the Mass Communication Centre. The Commission could not, however agree to the following:

- i. Payment of a special allowance of Rs.400/-per month to the professor who will function as the Director of the Mass Communication Centre.

p.t.o.

- ii, The personnel to be appointed in the Engineering Service Wing of the Centre should be designated as Technical staff and not as professor/Reader as indicated. In view of this the salary scales to be given to the Engineer-incharge, Engineer (Maintenance) and Assistant Engineer may be in the scales of Rs.1500-2000; Rs.1100-1600; and Rs.700-1300 respectively.

The Commission further desired that the revised estimates of Rs.110 lakhs for construction of buildings, as against original estimates of Rs. 40 lakhs accepted by the Commission, may be further examined.

The Commission further noted the views of the Commission on the Resolution adopted by the Executive Council on 16th November, 1983 with regard to the setting up of a Board of Management and the facilities to be provided to the Chairman of the Board of the Management. The Commission could not agree that the Chairman of Board of Management of the Mass Communication Centre be paid an honorarium of Rs. 1000/- per month and for provision of a regular house or transport as suggested by the Jamia Millia Islamia. The Chairman could, however, draw the admissible TA/DA for attending the meetings of the Board and if possible be provided residential accommodation and transport for official purpose.

With regard to the recommendation of conversion of the existing diploma course into degree course in Mass Communication, it was desired that the matter may be further examined, if necessary by help of a committee.

Item No. 2.03 : To consider further the Report of the Committee appointed by the UGC to assess the working of the Centre of Area Studies, B.H.U. as also its requirements for the five year period beginning 1983-84.

...

The Commission desired that the decision of the University for giving the status of a department to the Centre of Study of Nepali may be awaited and in the meantime an adhoc grant not exceeding 20% of the allocation recommended by the Committee may be released for books and field work.

p.t.o.



- Item No.2.04 : To consider the practice being followed by the Central Universities, Institutions Deemed to be Universities and Indian Institutes of Technology with regard to the Consultancy work being undertaken by them at Individual and Institutional level.

...

The Commission noted the information with regard to the provision for Consultancy work in the Central Universities and Indian Institutes of Technology and desired that a committee may further examine the manner in which such consultancy work can be undertaken by the academic staff of the Central Universities and Institutions Deemed to be Universities. Pending this, the Indian School of Mines, Dhanbad may continue to follow the existing practice.

Section-4  
(Special Programmes)

- Item No.4.01 : To consider the report of the Committee on the Centre of Advanced Study in Sanskrit, Poona University for support towards specific research projects

...

The Commission accepted the report of the Committee on the Centre of Advanced Study in Sanskrit, University of Poona and agreed that necessary financial assistance may be provided to the Centre for specific research projects, towards research staff and other facilities, for a period of five years as in Appendix-II

- Item No.4.02 : To consider the report of the Assessment Committee on the Departmental Support for Bio-Sciences, Saurashtra University, Rajkot.

...

The Commission accepted the recommendations of the Committee which assessed the work done by the

Department of Bio-Sciences, Saurashtra University, Rajkot and agreed to its participation in the programme of Special Assistance to selected departments (DSA) and to provide assistance over the next five years as in Appendix-IV.

Item No.4.03 : To consider the report of the Assessment Committee on the Departmental Support for Mining Engineering, Indian School of Mines, Dhanbad.

...

The Commission accepted the recommendations of the Committee for the Department of Mining Engineering, Indian School of Mines, Dhanbad and agreed to provide assistance as indicated in Appendix-V for its participation in the Programme of Special Assistance to Selected Departments (DSA) over the next five years.

Item No.4.04 : To consider the report of the UGC Review Committee on the CAS in Applied Chemistry (Textiles, Dyes & Polymers) at UDCT, University of Bombay (14th October, 1983).

...

The Commission accepted the recommendations of the Review Committee for the Centre of Advanced Study in Applied Chemistry at the University Department of Chemical Technology, University of Bombay and agreed to provide further assistance, as indicated in Appendix-VI for enabling the department to take up the programme as recommended by the Committee for the next five years. The Commission further desired that the assistance under the Special Assistance Programme agreed to for the Division of Chemical Engineering in the University Department of Chemical Technology particularly for equipment should be suitably coordinated so that sophisticated instrumentation facilities can be built centrally and can be utilised by the Department as a whole.

- Item No.4.05 : To consider the report of the UGC Review Committee on the CAS in Botany, University of Madras (22nd October, 1983).

...

The Commission accepted the recommendations of the Review Committee on the Centre of Advanced Study of Botany, Madras and agreed to provide assistance as indicated in Appendix-VII over the next five years to enable the department to undertake the programmes, as recommended by the Committee.

- Item No.4.06 : To consider the report of the Visiting Committee which visited the Department of Political Science, Rajasthan University, Jaipur for considering its proposal under the programme of Department of Special Assistance.

...

The Commission accepted the recommendations of the Committee for the Department of Political Science, Rajasthan University, Jaipur and agreed to its participation in the Programme of Special Assistance to selected Departments (DSA) and to provide assistance over the next five years as indicated in Appendix-VIII.

- Item No.4.07 : To consider the report of the Visiting Committee for replacement of existing Computer System of Delhi University.

...

The Commission accepted the recommendations of the Committee to provide a larger Computer System for Delhi University in accordance with the specifications of the system recommended and to be set up in two successive phases. The Commission further desired that the existing IBM360/44 Computer may be deployed from Delhi University to another University as may be decided consequent on the Delhi University obtaining the new Computer System.

- Item No. 4.08 : To consider the recommendations of the Economics Panel regarding the participation of the Department of Economics, M.S. University of Baroda under Special Assistance Programme.

...

The Commission noted the position with regard to the proposal for participation of the Department of Economics, M.S. University of Baroda under Special Assistance Programme to Selected Departments and desired that an Expert Committee may be appointed to assess the suitability of this department and make necessary recommendations in this regard.

Section-5

(Grants to Universities and Colleges)

- Item No. 5.01 : To consider the approval of the University of Bombay for the construction of Examination House.

...

The Commission noted that the Government of Maharashtra had accepted a proposal of the University of Bombay for the construction of an Examination House at a cost of Rs. 35 lakhs and keeping in view the special needs of the Bombay University, agreed to share this expenditure on 50% basis i.e. Rs. 17.50 lakhs outside the Sixth Plan allocation to the University.

- Item No. 5.02 : To consider a proposal from the North Eastern Hill University, Shillong for entrusting the work of construction of various buildings approved by the UGC to the National Building Construction Corporation Ltd. (NBCC) on the basis of negotiations.

...

The Commission considered the proposal from the North Eastern Hill University, Shillong and keeping in view the special situation obtaining in the area agreed that the University may entrust the

construction of various buildings approved by the UGC to the National Building Construction Corporation Ltd., on the basis of the negotiations, without inviting tenders, provided the rates quoted by the NBCC were reasonable.

Section-6  
(Miscellaneous)

Item No.6.01 : To consider certain establishment matters of the UGC.

...

(i) : Extension of the tenure of temporary posts of Assistant and LDC/Typist created for a period of six months to cope with the work of the Committee of infrastructure for Science and Technology.

...

The Commission agreed to the continuation of the temporary posts of one Assistant and one LDC/Typist for a period of another six months with effect from 13.1.1984 for the work related to the Committee on Infrastructure for Science and Technology.

(ii) : Recommendations of the Selection Committee constituted to make selection for recruitment to the post of Secretary, UGC made at its meeting held on 22nd December, 1983.

...

On the recommendation of the Selection Committee constituted for the purpose according to rules, the Commission appointed Prof. S.K.Khanna as Secretary UGC (Minutes of the Selection Committee meeting attached), Appendix-IX.

- (iii) : Utilisation of the services of Mrs. V. Mulay in the UGC for implementation of the scheme of development of Mass Communication Systems and Programmes in Universities.

...

The Commission agreed to the utilisation of services of Mrs. V. Mulay as Supervisor for the project of selection of materials for INSAT-IB and to coordinate the production of programmes of the Educational Media Centres, on a fixed honorarium of Rs. 2,800/-per month inclusive of transport and other incidental expenses connected with her work. She would, however, be entitled to the admissible TA and DA for visits undertaken to places outside Delhi as per rules of the UGC. It was further noted that the expenditure on her honorarium etc., would be met out of the funds for the project on Mass Communication.

- Item No. 6.02 : To note the date and place for the next meeting of the Commission.

...

It was agreed that the next meeting of the Commission may be held on Saturday, the 21st January, 1984.

- Item No. 6.03 : To consider the question of creation of Super Time Senior Scale (Professor's grade in the colleges) affiliated to Delhi University.

...

The Commission desired that the matter may be referred to the Ministry of Education, Government of India for further examination.

Item No. 6.04 : To consider the Minutes of the meeting of the UGC Standing Committee on new universities and university postgraduate centre held on 17.12.1983.

...

Consideration of this item was postponed.

Any other item :

The Chairman informed the Commission that the estimates of expenditure for holding the conference of Vice-Chancellors of universities of South East Asia and Pacific region, had been received at about Rs. 4 lakhs. The Commission desired that the objectives and the theme of the conference and participation in the conference may be worked out with the help of a Committee. The Ministry of Education and the Ministry of External Affairs may be kept informed of the progress made in this regard and any clearances that may be also be obtained.

Dr. D. Shankar Narayan  
(Secretary)

Dr. (Mrs.) Madhuri R. Shah  
(Chairman)

Projects for financial support  
..

Project Title :

(A) "A New Edition of Panini's Astadhyayi"

Principal investigator: Prof. S.D. Joshi, Director  
C.A.S.S.

Co-investigator : Dr. (Mrs.) Saroja Bhato, Reader

SUPPORTING STAFF RECOMMENDED

(i) Research Associate 1

(ii) Jr. Research Fellows 2

Project Title:

(B) "A New Concordance to the Upanishads"

Principal Investigator : Dr. (Mrs.) Saroja Bhato,  
Reader

Co-Investigator : Dr. S.D. Joshi, Director

Supporting Staff Recommended

(i) Research Associates 2

(ii) Jr. Research Fellows 4

(C) PROJECT TITLE:

"The Sruta Lexicon"

Principal Investigator : Dr. V. V. Bhide, Reader, CASS

Supporting Staff Recommended

(i) Research Associate 1

(ii) Jr. Research Fellows 2

(D) PROJECT TITLE :

"A Dictionary of Navya-Nyaya Terms"

Principal Investigator : Dr. V. N. Jha, Reader, CASS

Co-Investigator : Dr. S.D. Joshi, Director, CASS

Research Staff Recommended

(i) Research Associate 2

(ii) Jr. Research Fellows 2



(E) PROJECT TITLE :

"Critical Editions of Unpublished Texts"

(I) Satyasadhasrautasutra with the commentary of  
Van chosvarasuchi.

Principal Investigator : Dr.V.V.Bhide, Reader, CASS

Research Staff Recommended

Jr. Research Fellow 1

(II) Tarkamrtatarangini by Mukundabhatta.

Research Staff Recommended

Principal Investigator : Dr.V.N.Jha, Reader, CASS

Jr. Research Fellow : 1

The Committee felt that sufficient funds for publication of work done by members of the faculty may also be placed at the disposal of the centre; and it may also be provided supporting staff and other infra-structural facilities. The Committee, therefore, recommended sanction of the following financial assistance for the purpose indicated below:-

1.	Publication	Rs. 1,50,000/-
2.	Books & Journals	Rs. 50,000/-
3.	Equipment including type-writers index cabinets, steel cupboards etc.	Rs. 40,000/-
4.	Field work/travel/collection of data	Rs. 5,000/-p.a.
5.	Contingency	Rs. 5,000/-p.a.
6.	Part-time clerical/secretarial assistance	Rs. 5,000/-p.a.

Commission's assistance towards the research staff and other items indicated above may be provided for a period of five years.

Appendix IV to item No. 4.02  
23.12.1983

The Financial Support recommended by the Committee to the Department of Bio-Sciences, Saurashtra University for 5 years

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Non-Recurring

1.	Additions & alterations to building including field house and radio-active laboratory	Rs. 4,00,000/-
2.	Air-conditioning & other fittings	Rs. 2,00,000/-
3.	Scientific equipments	Rs. 6,00,000/-
4.	Workshop equipment	Rs. 1,00,000/-
5.	Books, maps, journals and lands-at Imageries etc.	Rs. 1,50,000/-
Total NR		Rs. 14,50,000/-

Recurring (for 5 years)

1.	Field work @Rs. 60,000/-p.a.	Rs. 3,00,000/-
2.	Working expenses @Rs. 50,000/-p.a.	Rs. 2,50,000/-
3.	Purchase of Computer time @Rs. 10000/-p.a. p.a.	Rs. 50,000/-
4.	Participation in National Conferences @Rs. 10,000/-p.a.	Rs. 50,000/-
5.	Visiting Follows for Short period @Rs. 10,000/-p.a.	Rs. 50,000/-
6.	Provision for one National Seminar to be organised during the period of the project	Rs. 25,000/-
		Rs. 7,25,000/-
7.	One Post (either in Reader or Professor's scale) & another Research Scientist (in Lecturer's scale) and one Statistician in the scale of Rs. 700-1300/-	} Actual expenditure
8.	Two Research Associates (Post Doctoral) (One Each at Rs. 900/-p.m. & 1100/-fixed) and four Jr. Research Follows at any given time.	
9.	Two field assistants and one field Vehicle driver (in University scale of pay).	

Appendix V to item No.4.03  
23.12.1983

The financial support recommended by the Committee to the Department of Mining Engineering, Indian School of Mines, Dhanbad for 5 years

<u>Non-Recurring</u>	<u>Rs. in lakhs</u>
1. Equipment (as in the report)	27.10
Total NR	27.10
 <u>Recurring ( for 5 years)</u>	
I. <u>Academic Staff</u>	
a). Professor -1 (Coal Mechanics & Excavation Engineering)	} Estimates of Rs. 8.0 lakhs
b) Asstt. Professor-1 (Open cast mining systems)	
c) Research Associate. -3	
d) Research Fellows -4	
e) Foreman (on deputation)-1	
f) Mechanics -2	
II Consumables/contingencies/working expenses (@Rs.20,000/-p.a.)	2.00
III Seminars/publications/visiting faculty/travel @Rs.20,000/-p.a.)	1.00
IV. Books & New Journals (Rs.20,000/-p.a.)	1.00
Total R	72.00 lakhs
Total NR + R = Rs. 39.10 lakhs.	

Appendix VI to item No.4.04  
23.12.1983

CAS in Applied Chemistry, UDCT, Bombay University

...

The financial implementations of the recommendations are:-

<u>Non-Recurring</u>	<u>Rs.</u>
1. Equipment (List as in the report)	30,00,000/-
2. Books & Journals	2,00,000/-
3. Other items/materials/seminars/ visiting fellows/travel/publica- tions etc.	<u>5,00,000/-</u>
Total N.R.	37,00,000/-

Recurring (for 5 years)

Staff

Reader	1	}	Estimated at Rs. 6,00,000/-
Lecturers	2		
Scientific Officer	1		
J.R.F.	4 p.a.		
(4 in the 1st year)			
(3 in the 2nd Year)			
(12 in the 3rd year)			
(16 in the 4th year)			

Total NR + R = Rs. 43,00,000/-

Appendix VII to item No.4.05  
23.12.1983

CAS in Botany, Madras University

...

The financial implementation of the recommendations are:

<u>N.R.</u>	<u>Rs.</u>
1. Spectrophotometer UV/US	2,50,000/-
2. Accessories for HPLC	1,00,000/-
3. Scanning electron microscope	13,00,000/-
4. Lyophilizer Unit	50,000/-
5. Ultra Centrifuge	5,00,000/-
6. Atomic Absorption Spectrophotometer	2,50,000/-
7. GLC (Indian)	1,25,000/-
8. Other equipment such as gamma counter microscopes, laboratory centrifuge etc. spares and accessories freezing microtome	4,25,000/-
Total NR	30,00,000/-

Recurring (for 5 years)

Staff

Reader (Algology)	1	}	
Lecturer (Algology)	1	}	
Mycology Lecturers (Taxonomic Micology)	2	}	
Pathology Lecturers 1 in Plant biochemistry with special training in enzymology.	2	}	Estimated at Rs. 3,00,000/-
Herbarium Assistant (Mycology)	1	}	
Herbarium Keeper (Algology Group)	1	}	

Appendix VIII to item No. 4.06  
23.12.1983

Assistance to be provided to the Department of Political Science, Rajasthan University, Jaipur(DSA)

...

Recurring

- i. One Professor in Political thought and Institution Structures and processes in contemporary Indian Politics.
- ii. Two Reader: One in Rural Government & Politics and another in Comparative Political Theory.
- iii. Two JRF's p.a.
- iv. Four National Scholarships p.a.
- v. Visiting Faculty Rs. 10,000/-p.a.
- vi. Administrative and teaching staff Rs. 20,000/-p.a.
- vii. Books & Journals Rs. 20,000/-p.a.
- viii. Seminars/symposia Rs. 5,000/-p.a.
- ix. Contingencies Rs. 20,000/-p.a.
- x. Field work Rs. 10,000/-p.a.

Non-Recurring

- i. Building (Amount for construction)  
4,000 sq.ft. as per local PWD estimates.
- ii. Books & Journals Rs. 50,000/-  
(Back volumes etc.)
- iii. Equipment (Typewriters, Cyclostyling  
machine, calculator) Rs. 25,000/-
- iv. Publications Rs. 50,000/-

Appendix IX to item No.6.01(ii)  
23.12.1983

The Selection Committee constituted in accordance with the UGC (Recruitment) Rules, 1983 read with the UGC (Terms and Conditions of Service of Employees) Rules, 1983 to draw up a panel for appointment to the post of Secretary, University Grants Commission met on 22nd December, 1983. The following were present:-

1. Dr. (Mrs.) Madhuri R. Shah  
Chairman, UGC.
2. Professor Rais Ahmed  
Vice-Chairman, UGC.
3. Dr. B.C. Parekh  
Member, UGC.
4. Professor R.C. Mohrotra,  
Member, UGC.
5. Professor (Mrs.) Anita Banerji  
Member, UGC.
6. Shri Kiroot Joshi  
Representative of the Government of India

The Committee noted that on the recommendations of the Screening Committee the following 14 candidates who had applied for the post of Secretary in response to the advertisement were called for interview:-

1. Dr. Baruah S.K.
2. Prof. Bordia S.K.
3. Shri Handa S.K.
4. Shri Harbans Singh
5. Dr. Khanna S.K.
6. Dr. Khuspe V.S.
7. Dr. Mahto R.K.
8. Dr. Malhotra K.C.
9. Dr. Misra D.N.
10. Dr. Muthukumaran S.
11. Dr. Narayan D. Shankar
12. Dr. Rao D. Jeebala
13. Dr. Satyapalan C.N.
14. Dr. Swarup Hom Lata

The following ten candidates presented themselves for interview:-

1. Dr. Baruah S.K.
2. Shri Handa S.K.
3. Dr. Khanna S.K.
4. Dr. Mahto R.K.
5. Dr. Misra D.N.
6. Dr. Muthukumaran S.
7. Dr. Narayan D. Shankar
8. Dr. Rao D. Jeebala
9. Dr. Satyapalan C.N.
10. Dr. Swarup Hem Lata

After interview the Selection Committee recommended the following in order of preference for appointment to the post of Secretary, University Grants Commission in accordance with the provisions of the Revised Rules, as above.

1. Dr. S.K. Khanna
2. Dr. Swarup Hem Lata

Sd/-  
(Madhuri R. Shah)

Sd/-  
(Rais Ahmed)

Sd/-  
(B.C. Parekh)

Sd/-  
(R.C. Mohrotra)

Sd/-  
(Anita Banerji)

Sd/-  
(Kireet Joshi)





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|------|---|--|
| 2.03 | To consider further the Report of the Committee appointed by the UGC to assess the working of the Centre of Area Studies, B.H.U. as also its requirements for the five year period beginning 1983-84.   | The decision of the Commission has been communicated to the Banaras Hindu University.    |
| 2.04 | To consider the practice being followed by the Central Universities, Institutions Deemed to be Universities and Indian Institutes of Technology with regard to the Consultancy work being undertaken by them at Individual and Institutional level. | The decision of the Commission has been conveyed to the Indian School of Mines, Dhanbad. |

Section-4

(Special Programmes)

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| 4.01 | To consider the report of the Committee on the Centre of Advanced Study in Sanskrit Poona University for support towards specific research projects. | The decision of the Commission is being conveyed to the Poona University.                    |
| 4.02 | To consider the report of the Assessment Committee on the Departmental Support for Bio-Sciences, Saurashtra University, Rajkot.                      | The decision of the Commission has been conveyed to the Saurashtra University.               |
| 4.03 | To consider the report of the Assessment Committee on the Departmental Support for Mining Engineering, Indian School of Mines, Dhanbad.              | The decision of the Commission has been communicated to the Indian School of Mines, Dhanbad. |

1.	2.	3.
4.04	To consider the report of the UGC Review Committee on the CAS in Applied Chemistry (Textiles, Dyes, & Polymers) at UDCT, University of Bombay (14th October, 1983).	The decision of the Commission has been communicated to the University of Bombay.
4.05	To consider the report of the UGC Review Committee on the CAS in Botany, University of Madras (22nd October, 1983).	The decision of the Commission has been communicated to the University of Madras.
4.06	To consider the report of the Visiting Committee which visited the Department of Political Science, Rajasthan University, Jaipur for considering its proposal under the programme of Department of Special Assistance.	The decision of the Commission has been communicated to the Rajasthan University.
4.07	To consider the report of the Visiting Committee for replacement of existing Computer System of Delhi University.	The decision of the Commission has been communicated to the Delhi University.
4.08	To consider the recommendations of the Economics Panel regarding the participation of the Department of Economics, M.S. University of Baroda under Special Assistance Programme.	The decision of the Commission has been communicated to the M.S. University of Baroda. The Expert Committee has also been constituted.

Section-5

(Grants to Universities and Colleges)

5.01	To consider the proposal of the University of Bombay for the construction of Examination House.	The decision of the Commission has been communicated to the University of Bombay.
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5.02 To consider a proposal from the North Eastern Hill University, Shillong for entrusting the work of construction of various buildings approved by the UGC to the National Building Construction Ltd. (NBCC) on the basis of negotiations.

The decision of the Commission is being conveyed to the North Eastern Hill University.

Section-6

(Miscellaneous)

6.01 To consider certain establishment matters of the UGC.

i. Extension of the tenure of temporary posts of Assistant and LDC/Typist created for a period of six months to cope with the work of the Committee of infrastructure for Science and Technology.

Necessary office order has been issued.

ii. Recommendations of the Selection Committee constituted to make selection for recruitment to the post of Secretary, UGC made at its meeting held on 22nd December, 1983.

The resolution of the Commission may be read as under:-

"The Commission accepted the recommendations of the Selection Committee constituted to make selection for recruitment to the post of Secretary, UGC made at its meeting held on 22nd December, 1983 (Minutes of the Selection Committee meeting attached - Appendix-IX) and decided that Professor S.K.Khanna who is first on the panel may be sent the offer of appointment as Secretary UGC."

Action regarding appointment of Prof. S.K.Khanna has already been taken.

1.	2.	3.
iii.	Utilisation of the services of Mrs. V. Muley in the UGC for implementation of the scheme of development of Mass Communication Systems and Programmes in Universities.	Necessary office order has been issued.
6.02	To note the date and place for the next meeting of the Commission.	The meeting of the Commission has been postponed to 8.2.1984. No action.
6.03	To consider the question of creation of Super Time Senior Scale (Professor's grade in the colleges) affiliated to Delhi University.	A reference in the light of the decision of the Commission has been made to the Ministry of Education and Culture.
6.04	To consider the Minutes of the meeting of the UGC Standing Committee on new universities and university postgraduate centre held on 17.12.1983.	Consideration of this item was postponed.
	<u>Any other item</u>	Further action in the light of the decision of the Commission is being taken.

M. Sing:  
Dated 15th Feb., 1984

-1-

Item No.1.02(a): To approved the action taken on certain matters.

(1) Proposals for Development of Undergraduate Schemes approved todate during the Sixth Plan p in respect of Colleges affiliated to the State Universities.

S.No.	Name of the College/ University to which affiliated.	Books	Equipment	Teacher Fellowship	Remedial Courses	Building	Others	Total	Date of approval.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	<u>GURU NANAK DEV UNIVERSITY.</u>								
	1. S.D.College for Women, Jullundur.	1,00,000/-	1,00,000/-	-	-	-	-	2,00,000/-	27.9.83
	2. D.A.V.College, Amritsar.	1,00,000/-	1,00,000/-	60,000/-	15,000/-	3,53,754/-	-	6,28,754/-	27.9.83
	3. Guru Nanak College, Batala	1,00,000/-	1,00,000/-	-	40,000/-	2,90,000/-	-	5,30,000/-	17.11.83
	4. Khalsa College, Amritsar.	1,00,000/-	1,00,000/-	-	-	-	-	2,00,000/-	19.11.83
2.	<u>DELHI UNIVERSITY.</u>								
	1. Kalandi College, Delhi.	1,60,000/-	1,60,000/-	-	-	-	-	3,20,000/-	30.9.83
	2. Sri Venkateswara College, New Delhi.	-	1,60,000/-	-	-	5,00,000/-	-	6,60,000/-	15.10.83
	3. Jesus & Mary College, Delhi.	60,000/-	-	-	-	2,80,000/-	-	3,40,000/-	15.10.83
	4. Ram Lal Anand College, New Delhi.	50,000/-	-	-	20,000/-	-	10,000/-	80,000/-	22.10.83
	5. Dyal Singh College, N. Delhi.	1,00,000/-	1,30,000/-	-	20,000/-	-	-	2,50,000/-	20.10.83
	6. Institute of Home Economics New Delhi.	60,000/-	1,20,000/-	-	-	-	-	1,80,000/-	22.10.83
	7. Bharat Singh College, New Delhi.	1,60,000/-	20,000/-	-	-	-	-	1,80,000/-	22.10.83
	8. Sri Aurobindo College, New Delhi.	1,60,000/-	20,000/-	-	-	-	-	1,80,000/-	26.10.83
3.	<u>H.P.UNIVERSITY.</u>								
	1. Govt. College, Chambha.	1,00,000/-	50,000/-	-	-	-	-	1,50,000/-	15.11.83.

Continued - 2

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
<b>5. PANJAB UNIVERSITY.</b>									
1. J.C.D.V.									
1. J.C.D.A.V. College, Dasuya	1,00,000/-	1,00,000/-	-	-	50,000/-	1,25,000/-	-	3,75,000/-	3.10.83
2. Swami Premanand Mahavidyalaya, Mukerian,	80,000/-			60,000/-	20,000/-		16,000/-	1,76,000/-	3.10.83
<b>6. KASHMIR UNIVERSITY.</b>									
1. Govt. College for Women, Anantnag.	1,32,000/-	1,32,000/-	-	-	40,000/-	2,00,000/-	-	5,04,000/-	7.10.83
2. A.S. College, Srinagar.	1,35,000/-	1,35,000/-	-	-	40,000/-	-	-	3,10,000/-	7.10.83
3. Govt. College for Women, Nawakadal.	1,00,000/-	1,00,000/-	80,000/-		45,000/-	4,13,000/-	-	7,38,000/-	7.10.83
4. Gandhi Memorial College, Srinagar.	80,000/-	80,000/-	36,000/-		48,000/-	-	-	2,44,000/-	7.10.83
<b>7. KURUKSHETRA UNIVERSITY.</b>									
1. Chhaju Ram Memorial Jat College, Hissar.	1,34,000/-	1,34,000/-	-	-	40,000/-	-	-	3,08,000/-	13.10.83
2. Indira Gandhi Govt. College, Tohana	1,34,000/-				32,000/-	-	-	1,66,000/-	26.10.83
<b>8. JAMMU UNIVERSITY.</b>									
1. Govt. Degree College, Kathua.	1,00,000/-	1,00,000/-	-	-	18,000/-	-	-	2,18,000/-	13.10.83
2. M.A.M. College, Jammu	1,00,000/-	2,40,000/-	40,000/-		-	1,30,000/-	20,000/-	5,30,000/-	13.10.83
<b>9. MAHARISHI DAYANAND UNIVERSITY.</b>									
1. K.L.P. College, Rewari.	1,00,000/-	1,00,000/-	-	-	-	-	-	2,00,000/-	15.10.83
2. Hindu College, Sonapat.	1,00,000/-	1,00,000/-	-	-	-	3,09,931/-	-	5,09,931/-	26.10.83

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
<b>10. RAJASTHAN UNIVERSITY.</b>									
1.S.D.Govt.College, Beawar.		90,000/-	1,00,000/-	-	-	-	-	1,90,000/-	22.10.83
2.M.K.Saboo College of Commerce, Pilani.		1,00,000/-	-	60,000/-	40,000/-	2,90,000/-	-	4,90,000/-	17.10.83
3.ShriPragya Mahavidyalaya, Bijainagar.		1,07,000/-	-	-	-	2,80,000/-	-	3,87,000/-	18.11.83
4.S.G.N.Khalsa College, Sriganganagar.		1,33,334/-	1,33,334/-	-	-	-	-	2,66,668/-	18.11.83
5.Govt.College, Jellora.		1,07,000/-	1,07,000/-	-	20,000/-	2,80,000/-	-	5,14,000/-	21.12.83



Position of the undergraduate development schemes approved in colleges during the 6th Plan period

S.No.	Name of the University/ College	Scheme	Approved cost	UGC Share	Dated of approval
<b>11. BIHAR UNIVERSITY</b>					
1.	S.R.K.Goenka College, Sitamarhi	1. Books & Journals	1,34,000/-	1,00,000/-	19.10.83
		2. Laboratory Equipment	1,34,000/-	1,00,000/-	
		3. Teacher Fellowship(1)	50,000/-	50,000/-	
			<u>3,18,000/-</u>	<u>2,50,000/-</u>	
2.	S.R.A.P.College, Barachakia (East Champaran)	1. Books & Journals	1,07,000/-	80,000/-	11.11.83
		2. Const. of Laboratory Building	3,00,000/-	1,40,000/-	
			<u>4,07,000/-</u>	<u>2,20,000/-</u>	
<b>12. GORAKHPUR UNIVERSITY</b>					
1.	Udal Pratap College, Varanasi	1. Books & Journals	1,00,000/-	75,000/-	29.10.83
		2. Laboratory Equipment	1,00,000/-	75,000/-	
			<u>2,00,000/-</u>	<u>1,50,000/-</u>	
<b>13. L.N.MITHILA UNIVERSITY</b>					
1.	T.P.College, Madhipura	1. Addl. Teaching ac. m edation	3,51,000/-	1,61,134/-	15.10.83
2.	APSM College, Barauni, Distt. Begusarai.	1. Books & Journals	1,34,000/-	1,00,000/-	7.10.83
		2. Laboratory Equipment	1,34,000/-	1,00,000/-	
		3. Const. of extension of Science Laboratory Building	1,54,000/-	77,000/-	
			<u>4,22,000/-</u>	<u>2,77,000/-</u>	

1.	2.	3.	4.	5.	6.
3.	Mahekavi Kalidas Samarak Mahavidyalaya, Trinujjan Darbhanga	1. Books & Journals 2. Lab. Equipment 3. Extension of class rooms/Laboratory Building.	1,06,666/- 1,06,666/- 3,97,000/- <u>6,10,332/-</u>	80,000/- 80,000/- 1,40,000/- <u>3,00,000/-</u>	27.10.83
4.3	Munshilal Arya College, Kosba (Distt. Purnea)	1. Books & Journals 2. Extension of class rooms	80,000/- 2,98,700/- <u>3,78,700/-</u>	60,000/- 1,40,000/- <u>2,00,000/-</u>	15.11.83
5	Shri Krishna Mahila College, Begusarai	1. Books & Journals 2. Teaching accommodation Arts Block	1,06,666/- 2,80,000/- <u>3,86,666/-</u>	80,000/- 1,40,000/- <u>2,20,000/-</u>	23.12.83
14.	<u>BHAGALPUR UNIVERSITY</u>				
1.	Sahibganj College, Sahibganj (S.P.)	1. Books & Journals 2. Lab. Equipment	1,00,000/- 1,00,000/- <u>2,00,000/-</u>	75,000/- 75,000/- <u>1,50,000/-</u>	27.10.83
2.	Bhagalpur Evening College, Bhagalpur.	1. Books & Journals 2. Lab. Equipment	1,33,333/- 1,33,333/- <u>2,66,666/-</u>	1,00,000/- 1,00,000/- <u>2,00,000/-</u>	11.11.83

- (2) To approve the revised estimates framed by the Central Public Works Department for Mass Communication Centre at Jamia Millia Islamia

...

The University Grants Commission at its meeting held on the 23rd December, 1983 while considering the report of the expert committee appointed by the Commission to examine the proposal of the Jamia Millia Islamia for additional grants for the Mass Communication Centre (item No. 2.02) desired that the question of increase in the building cost approved for Mass Communication Centre at Jamia Millia Islamia may be examined. The details of the revised estimates, as framed by the Central Public Work Departments, are as under:-

Sl. No.	Item	Approved cost (Rs. in lakhs)		
		Original	Revised by C.P.W.D.	Increase
1.	Building	12.61	14.80	2.19
2.	Accoustical treatment	-	9.24	9.24
3.	Special specification in place of normal provision	-	7.65	7.65
4.	<u>Services</u>			
a.	Civil Work	-	1.85	1.85
b.	Electrical	2.34	3.03	0.69
c.	Electric Sub-Station	-	7.25	7.25
5.	Air-Conditioning	-	12.70	12.70
6.	Site Development	6.94	9.43	2.49
7.	Cost Index	14.95	28.52	13.57
8.	Contingencies	1.11	2.20	1.09
9.	Inauguration Ceremony	-	0.25	0.25
10.	Architect fee & clerk of works	1.84	3.04	1.20
11.	Departmental charges	-	10.66	10.66
		39.80	110.62*	70.80

\* Rs. 110.18 lakhs after negotiations with the Architect.

The above revised estimates have been approved vide orders dated the 25th October, 1983.

p.t.o.

- (3) Acceptance of the 6th Plan proposals of Jadavpur University on the basis of the recommendations of the Visiting Committee

...

A tentative allocation of Rs.100.00 lakhs was made for Jadavpur University for 6th Plan.

The schemes amounting to Rs.47.70 lakhs (as UGC share) were already approved prior to the visit of the Visiting Committee. Out of this, an amount of Rs.35.70 is to be met out of the aforesaid allocation of Rs.100.00 lakhs and Rs.12.00 lakhs from the separate allocation of Engineering and Technology.

The schemes amounting to Rs.58.00 lakhs have further been approved by the sub-committee out of the recommendations of Rs.71.11 lakhs made by the Visiting Committee.

Thus the schemes amounting to Rs.105.70 lakhs (Rs.93.70 lakhs to be met from the aforesaid allocation of Arts & Science and Rs.12.00 lakhs to be met from the separate allocation of Engineering and Technology) have thus been approved for 6th Plan.

- (4) Andhra University proposal for replacement of the existing Computer System by a larger one

...

The C.D.C. at its meeting held on 10.2.1983 considered the proposal of Andhra University for replacement of its existing computer system. The UGC at its meeting held on 21.3.1983 agreed that the proposal be examined by an expert committee as suggested by the C.D.C. The expert committee which visited the Andhra University on 1.8.1983 has recommended the replacement of the existing computer system by a larger one within a total cost of Rs.30.00 lakhs. Necessary approval has been conveyed to the Andhra University vide orders dated 30.9.1983.

- (5) Major Research Projects in Geography

...

The Geography Panel set up by the UGC at its meeting held on 13th September, 1983 considered 17 Major Research Projects of which 12 projects have been recommended for UGC support. While one proposal has been deferred the remaining 4 proposals were not recommended for assistance. Expenditure on these projects is expected to be Rs.5.38 lakhs approximately.

CONFIDENTIAL

Additional material to item No.1.02(a)

...

Item No.1.02(a) : To approve the action taken on certain matters

...

(6) Revised guidelines for unassigned grant for the year 1983-84 and onwards.

...

The Commission at its meeting held on the 19th October, 1982 reviewed the scheme of assistance to the university/college teachers for participation in International Conferences.

The Commission agreed that the existing scheme for providing financial assistance to university and college teachers to participate in international conferences may be revised as follows:

(a) Teachers who are not more than 35 years of age (in the case of women 45 years) may send their papers to be presented at such conferences, and the present procedure of evaluation through referees may be continued. Such teachers who are selected for assistance may spend 2-4 weeks in the country where the conference/days for visiting institutions in the subject field and the work plan for such visits should be submitted alongwith the proposal for travel grant to the UGC. This procedure would also apply in the case of university teachers assisted under the 'unassigned grant' directly by the university.

(b) Senior teachers who are invited to chair a session, give a keynote address or lead a seminar/discussion group at the International Conferences may be assisted on 100% by the UGC to attend such conferences not more than once in a two year period. The Commission also agreed that the present system of providing 50% assistance in case where teachers obtain 50% expenditure from other agencies already identified, may however, continue.

In the case of university teachers the above procedure may be followed for purpose of utilising the unassigned grant placed at the disposal of the university. Only proposals from the college teachers may,

p.t.o.

(/ is held and they should utilise the period outside the conference

however, continue to be sent to the UGC for consideration as per procedure prescribed.

The above decision of the Commission was communicated to the universities vide letter No.F.13-1/80(CP) dated 2nd December, 1982.

Several anomalies were raised by the universities on the above decision of the Commission and accordingly the guidelines for unassigned grant for the universities for the year 1983-84 and onwards have since been reviewed further and a copy of the revised guidelines in this regard is enclosed (Annexure). The following modifications have been made in the revised guidelines:

1. The grant allocated to the universities has been increased by 50% to meet the rise in travel cost and daily allowances as under:-
  - a. Rs. 30,000/- for university having upto 100 teachers.
  - b. Rs. 45,000/- for a university having between 101 and 200 teachers.
  - c. Allocation for a university having 201 teachers and above would be determined on the basis of Rs. 150/- per teachers and Rs. 50/- per full time research scholar in the university departments subject to a maximum of Rs. 2.25 lakhs.
2. In the earlier guidelines it was indicated that expenditure on providing assistance to teachers/technicians for participation in international conferences held abroad should not exceed 60% of unassigned grant allocated for the year. This has been modified to read as "expenditure on providing assistance to teachers/technicians for participation in international conferences held abroad should not be less than 40% and should not exceed 60% of the unassigned grant allocated for the year 1983-84. If in a particular year a university does not utilise at least 40% of the unassigned grant on this account, the amount falling short of 40% will have to be refunded to the UGC.
3. The phrases "teachers and scientific/technical officers who have been invited to Chair the Conference/Seminar/Symposia (but not a section of it)" "teachers and technical officers who have superannuated should not be considered for assistance" have been deleted.
4. The phrases "teachers and technical officers who are not more than 35 years of age (45 years in the case of women)" have also been deleted.

5. Pattern of assistance: The following clause has been added " the decision of the university to agree or not to provide 50% of the expenditure involved from the unassigned grant should be based from referees evaluation comments on the papers to be presented regarding its quality and suitability". The rates of daily allowances/maintenance allowances have also been revised.
6. It has been decided to delete the provisions that "senior teachers who are invited to chair a session, give a keynote address or lead a seminar/discussion group at the International Conferences may be assisted on 100% by the UGC to attend such conferences not more than once in a two year period."
7. The following provision has been added in the revised guidelines:-

If a Vice-Chancellor is invited to participate in the Commonwealth Universities 'Vice-Chancellors' conferences and his travel and other expenses are met partially by the organisers of the conferences, the rest of the admissible expenditure may be met by the university from the "unassigned grant" or from their own resources. Each such cases may be sent to the Commission alongwith all details for approval.

Similar guidelines for college teachers are also being prepared and will be reported to the Commission.

- (7) Approval to the provision of Rs. 34,450/- to Poona University for holding a Symposium on the Synchrotron Radiation.

...

As per recommendation of the convenors of the Science Panels, a proposal for holding a Symposium on National Synchrotron Radiation formulated by Prof. M.R. Bhiday and Prof. A.S. Nigavekar was held at Poona University during 1983-84 has been approved a provision of Rs. 34,500/- approval for meeting the expenditure on the seminar as per usual guidelines.

- (8) Guidelines for providing developmental assistance to single faculty colleges in the Sixth Plan.

.....

The University Grants Commission at its meeting held on the 24th & 25th July, 1981 considered the question of determining viability of single faculty colleges in professional subjects e.g. Law, Social Work, Education, Teacher Training, Physical Education etc.

The Commission accepted the criteria suggested by the Panels in Law and Social Work for determining the viability of single faculty colleges in respect of law colleges and social work institutions.

It was decided that the guidelines for all single faculty colleges may be formulated in one bunch rather than doing it separately for each category of single faculty college.

The committee appointed by the UGC to prepare a sub-plan on teacher education met in the office of the University Grants Commission on 27th February, 1982 to consider the question of providing assistance to teacher training colleges in the Sixth Plan period with particular reference to (a) Pattern of assistance; (b) quantum of assistance; (c) sharing basis; and (d) conditions of eligibility. The committee made their recommendations in this regard.

Keeping the above recommendations in view, the guidelines have been framed laying down eligibility conditions for providing basic and developmental assistance to single faculty colleges viz. law colleges, teacher education/teacher training colleges/colleges of physical education/colleges of social work/colleges of Home Science/Colleges of Music and Fine Arts in the Sixth Plan. A copy of these guidelines which have since been circulated to the universities and State Governments is enclosed (Annexure). It may be mentioned that with regard to Home Science Colleges and Colleges of Music and Fine Arts, the eligibility conditions framed in the Sixth Plan are generally on the same basis as in the Fifth Plan.

contd.....2/



In the guidelines, the eligibility condition relating to overall teacher-student ratio has been indicated as under :

<u>Single Faculty College</u>	<u>Teacher-student ratio</u>
(a) Law Colleges	1 : 20
(b) Colleges of Social Work	1 : 8
(c) Teacher Education/Teacher Training Colleges.	1 : 10 or better
(d) Physical Education Colleges	1 : 10 or better
(e) Music & Fine Arts Colleges	1 : 10
(f) Home Science Colleges	1 : 10

The University Grants Commission at its meeting held on 9th June, 1983 reviewed the guidelines for providing assistance to Arts, Science, Commerce and Multi-Faculty Colleges for the development of undergraduate education during the Sixth Plan period and agreed that in the light of the experience for consideration of proposals from colleges for their developmental programmes, the eligibility condition relating to overall student - teacher ratio may not be insisted upon for the present.

It has since been decided that the eligibility condition relating to the overall teacher - student ratio as laid down in the guidelines may not be insisted upon for the present in the case of single faculty colleges also both for basic assistance and for developmental assistance in the Sixth Plan.

- (9) Gurukul Kangri Vishwavidyalaya - Approval to the creation of a post of O.S.D. for Sixth Plan period

...

The Vice-Chancellor, Gurukul Kangri Vishwavidyalaya sent a proposal for the creation of a post of Development Officer/Officer on Special Duty to assist him in preparing the development plans of the Vishwavidyalaya and their implementation. He further said that he would like to have a P.C.S. Officer on deputation as he would be able to develop close liaison with the District authorities and would be helpful in curbing indiscipline on the Campus.

The proposal of Gurukul Kangri Vishwavidyalaya for creation of a temporary post of O.S.D. in the pay scale of Rs. 850-1750 plus Deputation allowance has been accepted upto the Sixth Plan period ending 31.3.1985 subject to the condition that the expenditure will be a charge to Sixth Plan allocation of Gurukul Kangri Vishwavidyalaya vide this office letter No. F.13-2/81 (D.I.) dated 7th January, 1984.

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Annexure I to item No.1.02(a)(6)

REVISED GUIDELINES FOR UNASSIGNED GRANT-1983-84 AND ONWARDS

...

(A) Determining the Quantum of allocation

1. Teachers working in the university teaching departments as on 15th August, 1982 would only be taken into account for determining the quantum of assistance under "Unassigned grant" during 1983-84. (Teachers working in colleges and institutions would not be taken into account).
2. The amount of "Unassigned grant" for 1983-84 would be determined on the following basis.
  - a. Rs.30,000/- for university having upto 100 teachers.
  - b. Rs.45,000/- for a university having between 101 and 200 teachers.
  - c. Allocation for a university having 201 teachers and above would be determined on the basis of Rs150/- per teacher and Rs.50/- per full time research scholar in the university departments subject to a maximum of Rs. 2.25 lakhs.

(B) Items of assistance

Expenditure on providing assistance to teachers/ technicians for participation in international conferences held abroad should not be less than 40% and should not exceed 60% of the unassigned grant allocated for the year 1983-84. If in a particular year a university does not utilise at least 40% of the unassigned grant on this account, the amount falling short of 40% will have to be refunded to the UGC. Adequate emphasis be also given on implementation of other 2 scheme viz. travel grant to teachers/scholars/technicians for attending academic conferences and visiting centres within India and exchange of teachers. Guidelines for implementing the 3 schemes under "Unassigned grant" are indicated below:-

Travel grants to teachers/scientific and technical officers for participation in the international conferences/seminars/symposia held abroad.

i. Eligibility

University teachers including teachers working under the scheme of Career Awards and scientific and technical officers working in a scale of not less than Rs.700-1600/- p.m. whose papers have been accepted for presentation

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at an international academic conference/seminars/symposia may only be considered. Assistance is not provided to a teacher under this scheme for more than once in two consecutive years. The unassigned grant is also not to be utilised for teachers in affiliated colleges.

ii. PROCEDURE

The proposal alongwith the following documents may be sent by the teachers/technical officer to the university, through the head of the department, well in advance so that it reaches the university office at least 60 days before the date of the conference:

- a. Three copies of the full paper prepared by the teacher for presentation at an international conference/seminar, symposia.
- b. Name, place and duration of the conference etc. in which the paper is proposed to be presented.
- c. A copy of the letter from the organisers of the conference accepting the paper for presentation immediately after it is received or a copy of the letter from the organisers of the conference inviting the teacher/scientific/technical officer to chair a session/section of the conference etc.

iii. PATTERN OF ASSISTANCE

The university may meet 50% of admissible travel, Airport tax, maintenance and registration charges as indicated in the following para in respect of persons, selected by it for assistance out of the "unassigned grant" provided the remaining 50% expenses are met by the university from its own funds, by the State Govt. I.N.S.A., D.S.T., U.N.D.P. or from other sources recognised by the university. The decision of the university to agree or not to provide 50% of the expenditure involved should be based upon referees evaluation comments on the paper to be presented regarding its quality and suitability. Personal contribution from the teacher will not be treated as matching share towards travel expenses and airport tax but could be counted towards maintenance and registration charges.

iv. OTHER CONDITIONS

- a. The persons selected for participation in the scheme should travel in Economy class by Air India on the sector where it operates and even on sectors where it does not operate, air passage should be booked through Air India. The persons may be encouraged

to avail of excursion tickets for air travel which require a minimum stay of 14 days wherever it is considered economical compared to normal fare for fewer days stay abroad. First class rail fare or actual bus fare will be admissible for travel from university headquarters to the nearest air port, and back.

a. Daily allowance/maintenance allowance may be paid at the following rates:

<u>COUNTRIES</u>	<u>RATES</u>
Europe, USA, Canada & Japan	Rupees equivalent of \$65 per diem.
Africa and Asia	Rupees equivalent of \$50 per diem.

The above rates cover the expenses of the teachers etc. on board, lodging, incidental expenses and internal travel within the country concerned. Payment of maintenance expenditure should be made subject to the production of attested copy of the permit issued by the Reserve Bank of India allocating foreign exchange for the visit abroad.

b. Such Teachers/Technical/Scientific Officers who are selected for assistance may spend 2-4 weeks in the country where the conference is held and they should utilise the period outside the conference days for visiting institutions in the subject field and the work/plan of such visits should be submitted alongwith the proposal.

c. If a Vice-Chancellor is invited to participate in the Commonwealth Universities Vice-Chancellors' conferences and his travel and other expenses are met partially by the organisers of the conference, the rest of the admissible expenditure may be met by the university from the unassigned grant or from their own resources. Each such cases may be sent to the Commission alongwith all details for approval, ceiling per annum:

- |                                       |              |
|---------------------------------------|--------------|
| a. For 50-200 college teachers        | Rs. 5,000/-  |
| b. For 201-500 college teachers       | Rs. 7,500/-  |
| c. For 501 and above college teachers | Rs. 15,000/- |

#### EXCHANGE OF TEACHERS

The guidelines for visits of teachers/experts/scientists from within the country are indicated below:-

- i. Free accommodation and boarding to be provided by the host university from its own funds.

- ii. Travelling expenses of the Visiting teachers/experts may be met out of the "unassigned Grant" according to the rates proscribed by the host institutions including air fare wherever necessary with the approval of the Vice-Chancellor.
- iii. The visiting teacher/expert may be paid an honorarium upto Rs.100/-per lecture/seminar as decided by the Vice-Chancellor. A maximum amount of Rs.500/- would be admissible for an assignment of not less than two weeks duration.

#### STATEMENT OF ACCOUNTS

The account of expenditure under the scheme of "unassigned grant" may be sent indicating relevant details in respect of teachers/selected for participation in International/Conferences/viz name of the teacher and department, name and place of the international conference attended, total cost separately for travel, registration and maintenance, amount paid out of unassigned grant and amount and the source from which the remaining 50% were met. The account should be sent at the end of each year indicating clearly apart from the above details, the position about the sources from which the remaining 50% is met. In case this is not indicated in the statement the expenditure incurred will be treated as unapproved expenditure and the amount will have to be refunded by the university in case it has been paid to it. A similar statement may be sent in case a Vice-Chancellor as participated in the Commonwealth Universities Vice-Chancellor's Conference. For the remaining items, the university may indicate the total expenditure incurred on each item.

The Registrar or similar other appropriate authority of the university should give a certificate on the statement that the total expenditure as indicated in the statement was incurred by the university out of unassigned grant in accordance with the guidelines laid down by the Commission under the Scheme of unassigned grant and that all the terms and conditions have been fulfilled. Utilisation certificate from the auditor may be sent later after the accounts of the university have been audited.

CONDITIONS OF VIABILITY OF SINGLE FACULTY COLLEGES FOR PROVIDING ASSISTANCE DURING SIXTH PLAN PERIOD.

(A) Law Colleges - Rs.2 lakhs as ceiling of assistance

- i. A college running 3 year LL.B. course must have a minimum enrolment of 200 in all the three years taken together unless it is a university maintained institution.
- ii. There must be 10 permanent full-time teachers exclusively engaged in teaching law at that institution.
- iii. Teacher student ratio of 1 : 20 should be maintained where there are part time teachers, their number should not exceed 25% of the total number of teachers employed in the law college.

(B) College of Social Work - Rs.2 lakhs as ceiling of assistance.

- i. The minimum number of students in a college of social work should be as under.
  - (a) Undergraduate 75 (3 years course)
  - (b) Postgraduate 50 (2 years course)
  - (c) Combined colleges 100 (Undergraduate & Postgraduate).
- ii. A social work college with Postgraduate students must have a minimum of four faculty members excluding the Head/Principal, all of whom (5) must hold professional postgraduate qualifications in social work.
- iii. The optimum pupil-teacher ratio should be 8 : 1.
- iv. No assistance will be available for purchase of Jeep/Vehicle even for field work.

(C) Teacher Education/Teacher Training Colleges:

Conditions of eligibility

For colleges offering B.Ed. - Rs.2 lakhs as ceiling of assistance

- (a) The minimum number of students in the college should be 70.
- (b) The minimum number of teachers in the college should be 7 including part-time teachers on the basis of normal workload of a full-time teacher.
- (c) Teacher student ratio should be 1 : 10 or better.
- (d) The admission of students in the college should not exceed the intake capacity prescribed by the University or the appropriate authority.

FOR COLLEGES OFFERING B.ED. & M.ED. - Rs.3 lakhs as ceiling of assistance:

- (a) The minimum number of students in the college should be 80.
- (b) The minimum number of teachers in the college should be 10 including part-time teachers on the basis of normal workload of a full-time teacher.
- (c) Teacher student ratio should be 1 : 10 or better.
- (d) The admission of students should not exceed the intake capacity prescribed by the university or the appropriate authority.

PATTERN OF ASSISTANCE ON TEACHER EDUCATION COLLEGES

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(a) RECURRING

I. Colleges offering B.Ed.

		Items of assistance	Sharing basis	
			UGC/Institution/State	Govt.
i.	Staff: in the areas viz, population and Health education, Remedial Education, special education for disabled and educational technology.	i. Part-time teachers	75%	25%
		ii. Training of existing teachers in the above fields.	100%	-

contd....



- |                                   |   |      |   |
|-----------------------------------|---|------|---|
| ii. Faculty Improvement Programme | ii. For participation in Summer Instts., workshops, academic conferences etc. | 100% | - |
| iii. Teacher Fellowships          | For M.Phil limited for one year.  | 100% | - |

(B) Non-recurring:

i. Library books	75%	25%
ii. Educational Journals	75%	25%
iii. Laboratory equipment	75%	25%
iv. Development of teaching material	100%	-
v. Preparation of Audio Visual Aids	75%	25%
vi. Test materials	100%	-
vii. Building (Construction/Extension to the existing building of library/laboratory).	50%	50%

(It should not exceed 35% of the total ceiling of Rs.2 lakhs during the Sixth Plan)

II. FOR COLLEGES OFFERING M.ED.

The recurring assistance is the same as per colleges offering B.Ed. In addition a post of a Reader may be provided on 100% basis, on the condition that the recruitment to this post would be made on the basis of the recommendations of the same Selection Committee as constituted for similar post in the University.

D. Physical Education Colleges - Rs.2 lakhs as ceiling of assistance.

The eligibility conditions are the same as for teacher training/education colleges.

E. Home Science Colleges (Rs.2 lakhs as ceiling of assistance)

- (a) The minimum number of enrolment of students in the colleges should be 100.
- (b) The minimum number of teachers in the colleges should be 10 including part-time teachers on the basis of normal workload of a full time teacher.

contd.....

- (c) Teacher student ratio 1 : 10
- (d) The admission of students should not exceed the intake capacity prescribed by the university or the appropriate authority.

F. Music/Fine Arts Colleges (Rs.2 lakhs as ceiling of assistance).

- (a) The minimum number of enrolment of students in colleges should be 70.
- (b) The minimum number of permanent teachers in the colleges should be 7 (including part-time teachers on the basis of normal work load as a full-time teacher).
- (c) Teacher-student ratio 1 : 10
- (d) The colleges can invite visiting faculties and pay them honorarium as prescribed by the university as a sharing basis of 75 : 25.
- (e) The grant for equipment could be used for purchase of instruments and laboratory materials in the college of Fine Arts.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : ~~12~~ February, 1984

Item No.1.02(b) : To receive the items of information

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- (1) Establishment of a Chair of Slavic Studies in the name of Late Madam Lyudmila Zhivkova, daughter of Mr. Todor Zhivkov, President of Bulgaria at University of Delhi, Delhi.

...

The Prime Minister, during her visit to Bulgaria towards the end of 1981, had announced the setting up a Chair of Slavic Studies in Delhi University as a token of admiration of India for Late Madam Lyudmila Zhivkova. In pursuance of the above, the Commission has accepted the proposal of Delhi University for the creation of the post of a Professor in the Modern European Languages Department of Delhi University. In view of the nature of the programme, which has yet to be developed, the Commission has suggested to the university to invite an eminent scholar in this field from one of the countries concerned for a few years in the initial stage to establish the programme as soundlines.

- (2) Programme of Educational and Cultural Cooperation Between the Government of the Republic of India and the Government of the Hashemite Kingdom of Jordan for the years 1983-85 - Items assigned to UGC for implementation

...

Article 2 : Both sides shall stimulate establishment of direct cooperation between Indian and Jordanian universities and other higher education institutions, and for this purpose exchange professors and scientists, as well as statistics, yearbooks, curricular, scientific and professional information and other publications related to higher education.

Article 3 : During the validity period of this programme, the contracting sides shall through their respective competent authorities, exchange a two three

D.T.O.

member delegation) of university professors and administrators with the purpose of getting acquainted with the work and organisation of higher education institutions in their respective countries. The study of each delegation will last for 10 days each.

Article 4 : Both sides will facilitate the participation of 2-3 university teachers or faculty members in national/international conferences in each other country. The participation will be on terms as prescribed for each conference.

Article 17 : The contracting sides shall explore the possibilities of joint activities at international conferences dealing with education and culture, science and technology (This item has jointly been assigned to ICCR/DST/UGC).

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 8th February, 1984

Item No.1.03 : To approve the statement of grants released from 1st December, 1983 to 31st December, 1983

...

Section-I Non Plan Project

Rs.  
14,27,82,342

Rs.

Section II Plan Projects

A. To Central & State Universities for Humanities.	43,42,068	}	7,69,86,114
B. To Central & State Universities for Science	2,52,86,611		
C. To Central & State Universities for Engineering & Tech.	49,62,816		
D. To constituent/affiliated colleges.	1,58,85,119		
E. To Central & State Universities for miscellaneous schemes.	2,63,39,167		
F. Miscellaneous expenditure	1,70,333		

Section-III

Expenditure for grants received from Central Govt. & other Schemes for specific purposes

4,154

Total:

21,97,72,610

CONFIDENTIAL  
UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated:

8th February, 1984

Item No. 1.04(a) : To receive a statement showing the payments made by the University Grants Commission during the year 1983-84 upto 31st December, 1983

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Section-I Non-Plan Project	Budget Estimates 1983-84 (Rs. in lakhs)	Provisional Expenditure upto 31.12.83
A. Administration Charges	132.00	85.90
B. <u>Block Grants</u>		
i. Grants to Central Universities	4,487.00	4,222.00
ii. Grants to Institutions deemed to Universities	936.00	688.18
iii. Grants to State Universities for specific purpose	30.42	22.22
C. Maintenance Grants to Delhi Colleges	1,700.00	1,375.75
D. <u>Grants not covered under Block Grants</u>		
a. Health Service Scheme	-	-
b. House Building Advance to the staff of Central Universities	150.00	146.00
E.1 Scholarships and Fellowships under Engineering and Technology	100.00	44.43
E.2 <u>Teacher Awards</u>		
a. Teacher Fellowships		43.37
b. National Fellowships		3.09
c. National Associate		0.31
d. National Lectures	450.00	0.71
e. Utilisation of services of retired teachers.		1.18
E.3 Research Associate		
a. Junior/Senior Fellowships (Humanities/Sciences)		68.02
b. Research Associates		23.79
E.4 Payments to non-university/Institutions To be allocated later on	14.58	1.06
Total Section-I	8,000.00	6,726.01
Sanctions/bills pending as on 31st December, 1983	8,000.00	127.24 6,853.25

Section-II

Plan Project	Budget Estimates 1983-84	Provisional Expenditure upto 31.12.83
	(Rs. in lakhs)	
A. Grants to Central and State Universities for Humanities	785.00	289.39
B. Grants to Central and State Universities for Science	1,308.00 * 500.00	1,062.39
C. Grants to Central and State Universities for Engineering and Technology	* 600.00	344.86
D. Grants to constituent/affiliated colleges	1,892.00	595.59
E. Grants to Central and State Universities for Miscellaneous schemes	2,552.00	716.19
F. Miscellaneous Expenditure	115.00	45.61
Total Section-II	7,752.00	3,054.03
Sanction/Bill pending as on 31.12.83	-	699.63
Total	7,752.00	3,753.66

\* Includes Rs. 600/- lakhs for Engineering and Technology and Rs. 500/- lakhs for SACC

Break up of the plan grant paid to Central Universities Institutions deemed to be universities, State Universities and Colleges as under:

1. Central Universities	350.96
2. Institutions deemed to be Universities	197.29
3. State Universities	1,823.44
4. Colleges	650.78
5. Others	31.56
	3,054.03

Sanctions/Bills pending as on 31.12.83	699.63
Total	3,753.66

SECTION III EXPENDITURE OUT OF GRANTS RECEIVED FROM  
GOVERNMENT OF INDIA AND OTHER SOURCES FOR SPECIFIC  
PURPOSE

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	(% in lakhs)
A. Out of grants received from Ministry of Education and Culture.	
i. Evaluation of Books.	-
ii. National Sports Organisation Programme	
a. Construction of Gymnasium	1.06
b. Play fields	0.12
iii. National Service Schemes	2.81
B. Out of interest received on endowment funds	
a. Sri Aurobindo Memorial Lectures	0.05
b. Dr. Ambedkar Memorial Lectures	0.02
c. Sri N.L. Bose Memorial Lectures	0.07
Total Section-III	4.13

Section-IV Deposits and Advances

i. Conveyance Advances	17,150.00
ii. Festival Advance	23,000.00
iii. Flood Advance	-
iv. Fan Advance	-
v. House Building Advance	1,23,480.00
Total Section-IV	1,63,630.00



CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting  
Dated:

8th February, 1984

Item No.1.04(b) : To receive a statement showing the sanctions and bills pending as on 31st December, 1983.

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Amount Involved  
(Rs. in lakhs)

	<u>Non-Plan</u>	<u>Plan</u>
A.981. Sanctions issued for which TR bills were awaited from the universities and colleges.	124.28	673.50
B.45 Bills were pending for making payment to the institutions.	2.96	26.13
Total	<u>127.24</u>	<u>699.63.</u>

## **SECTION 2**

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

MEETING :

DATED : 8th February, 1984

Item No. 2.01: To consider a proposal of Nagarjuna University for the establishment of a "Centre of Buddhist Studies in Nagarjuna University."

The Ministry of Education & Culture, Government of India, has forwarded a copy of the letter dated 4th October, 1983 from Dr. K.R.R. Mohan Rao, Vice-Chancellor, Nagarjuna University, Guntur, addressed to Dr. Kapila Vatsyayan, Additional Secretary, Ministry of Education & Culture, New Delhi (Annexure-I)

In this letter the Vice-Chancellor, Nagarjuna University has proposed to have an advanced Centre of Buddhist Studies at Nagarjuna University. The Vice-Chancellor states that with the cooperation of Government of Andhra Pradesh, Nagarjuna University will be probably able to provide the necessary infrastructure like land and buildings which were built at the time of the construction of Nagarjunasagar dam, and these are still available for occupation. It is further stated that the hallowed association of the place with the great Buddhist Savant Acharya Nagarjuna, the ready availability of land and buildings, the existence of the famous Island Museum of Buddhist antiquities at Nagarjunakonda are attractive assets.

The Department of Buddhist Studies in Nagarjuna University was started on 26th May, 1983. The Department at present admits students for M.Phil and Ph.D. courses. In due course M.A and diploma courses in Buddhism as well as Certificate and Diploma courses in Buddhist History and Philosophy, Buddhist Art, Pali, Sanskrit, Tibetan, Chinese and Japanese are proposed to be offered. After developing the Department of Buddhist Studies into an Advanced Centre, it is proposed to provide facilities for scholars and students from this country and abroad to undertake research in various fields of Buddhist Studies. It is stated that Nagarjuna University has already initiated a programme of building up a good library and proposes to equip the library with all the Buddhist texts so far published, important secondary literature on Buddhism and documentation service to scholars and students interested in Buddhist Studies.

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The financial implications for the establishment of a Centre of Buddhist Studies, as intimated by the Registrar, Nagarjuna University, is Rs.48.50 lakhs (non-recurring) and Rs.18.50 lakhs (recurring) (Annexure-II).

The matter is placed before the Commission for consideration.

D.S.(A)

No.F.91-3/82(A.1)

Copy of letter dated 4th October, 1983 from  
Dr. K.R.R. Mohan Rao, Vice-Chancellor,  
Nagarjunanagar University, Guntur to  
Dr. Kapila Vatsyayan, Additional Secretary,  
Ministry of Education & Culture, New Delhi.

.....

I am indeed thankful to you for your kind letter dated 18 August 1983. I am also very happy to note the keen interest taken by the Government of India for the promotion of Studies in Buddhism in India, as could be made out from the proceedings of the first meeting of the Central Advisory Board of Buddhist Studies. In this connection, I would like to bring to your kind notice that the Nagarjuna University has been planning to establish an Advanced Centre of Buddhist Studies. The continuous efforts on the part of this University and the encouragement given by the Government of Andhra Pradesh, and Shri P.V. Narasimha Rao, Hon'ble Minister for External Affairs, Government of India, have made it possible to start a Department of Buddhist Studies in this University, with the aim of providing scope for advanced studies in Buddhism, a religion with which the region in which our University is located had long association and ideals of that great Buddhist Savant Acharya Nagarjuna. The note appended herewith provides a glimpse of the efforts of this University in the direction of organising an advanced institution of Buddhist Studies.

I would like to take this opportunity to request you to see that our dream of bringing such an institution to reality is materialised with the kind help provided by the Government of India through your good offices. I may mention here that the Government of Andhra Pradesh is also very helpful to our efforts in this regard.

It has long been the ambition of this University to have its centre of Buddhist Studies at the famous Nagarjunakonda, a place hallowed by the association of that eminent Buddhist intellectual Acharya Nagarjuna. With the cooperation of the Government of Andhra Pradesh this University will be probably able to provide the necessary infrastructure like land and buildings, which were built at the time of the construction of Nagarjunasagar dam, and these are still available for occupation. Nagarjunasagar as you know is a beautiful and calm place, very much suitable for academic pursuits.

The hallowed association of the place with Acharya Nagarjuna the ready availability of land and

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building, the existence of the famous Island Museum of Buddhist antiquities at Nagarjunakonda are attractive assets. I request you to see that a Centre of Advanced Studies in Buddhism is sanctioned to this University so that we may take up with all enthusiasm a Centre of International repute spreading the message of the Buddha, which the ancient monasteries of Nagarjunakonda were doing once.

On hearing from you I shall be glad to provide you detailed proposals.

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ON ESTABLISHING A MAHAYANA BUDDHIST  
STUDIES CENTRE AT GUNTUR

A NOTE

Buddhist Studies in Modern Andhra: Buddhism, specially in its Mahayana form, flourished for centuries in Andhra, with its chief centres at Amaravati, Nagarjunakonda, Vengi and other places. Yet, it is strange that in modern times Buddhist Studies have not been carried out extensively and deeply in this part of the country, or even anywhere else in South India. The Archaeological Survey of India, of course, carried out excavations and brought out important reports; and in this connection Professor R. Subrahmanyam's work deserves special mention. But almost all South Indian Universities have on the whole ignored this field. Perhaps the only exception has been Andhra University. In 1932 it published K.R. Subrahmanyam's Buddhist Remains in Andhra. In the late 40s and early 50s Professor Sailesvar Sen and Pandit K. Somasekhara Sastry of the Philosophy Department of Andhra University, undertook the task of restoring into Sanskrit Nagarjuna's own commentary Akutobhaya on his Madhyamika Sastra from Walleser's German translation of its Tibetan version. Unfortunately Professor Sen died before the work was completed; but Pandit Sastry composed "Subodhini Vyakya" on the karikas, which was published in 1959 by the Andhra Sahitya Parishad, Kakinada. During 1967-71 while heading the University Postgraduate Centre at Guntur, which later developed into Nagarjuna University, Professor K. Satchidananda Murty wrote a critical biography of Nagarjuna which was published in 1971 by the National Book Trust of India. Its second edition with notes came out in 1978. During the early 70s for the first time in South India a course at the Postgraduate level on "The Philosophy of the Buddha", based on Pali and Sanskrit canonical sources, was organised and taught in the philosophy department of Andhra University by Professor K. Satchidananda Murty. The course continues to be given. He also got a Tibetan scholar appointed as a Lecturer, who unfortunately left after a couple of months. During 1973-75 as UGC National Fellow, Professor Murty made a study of Mahayana, some of the results of which were incorporated in a few of his lectures in recent years; but his study of the Mahayana Sutras awaits completion. In 1979 a Reader in Buddhist Philosophy and a Research Assistant were also appointed in the same department. Some scholars have also been working in it for their doctoral and M.Phil degrees. In June 1981 for the first time in South India a three weeks' Summer Institute in Buddhism was organised in it under the direction of Dr. G. Sundara Ramiah, Reader in Buddhist Philosophy. The philosophy

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Department of Andhra University has thus provided a little oasis for Buddhist Studies in South India. So, the world of learning will rejoice to learn that due to the efforts of Dr. P.V. Narasimha Rao, himself a scholar of repute, a full-fledged centre for Buddhist Studies is going to be established in Nagarjuna University, an offspring of Andhra University.

The Proposed Buddhist Studies Centre, Some Ideas:

Mahayana Buddhist Studies cover a vast field. The relevant literature is found not only in Sanskrit and Apabhramsa but in a number of Central Asian and East Asian languages. It is impossible for any single centre anywhere in the world to comprehensively adumbrate the entire area of Mahayanic Studies: critical editions of texts; restoration of texts into Sanskrit from other Asian languages; exposition and critical studies of texts in different Asian languages; analysis and evaluation of concepts; studies of meditational techniques and religious practices (ancient and contemporary); comparative studies of Mahayana with other eastern systems (e.g., Vedanta and Taoism) as well as with Western systems (e.g., Madhyamika and Hegelian Dialectic and Absolutism); archaeology; history of ideas, institutions, and culture. Not all these can be undertaken by a single institution. So, the proposed centre should have a clear-cut plan and must first determine its focus.

1. Focus: Historical and Archaeological Studies are being carried out not only by the Archaeological Survey of India but by the appropriate departments of many Indian University, including Nagarjuna and Andhra. The political and social history of Buddhist India has been relatively well-investigated (e.g., L.M. Joshi & T. Ling), but a multidimensional study of Buddhist religious and philosophical ideas has been sadly neglected. So, it is suggested that this Centre should have for its focus: study of ideas. (a) Priority, for example may be given to bring out a cheap and authoritative edition of all the authentic and available works (metaphysical, logical, ethical and devotional) of Nagarjuna and aryadeva, in Devanagari script with an English translation (using uniform terminology) and also in Telugu script with a Telugu translation. Next, works like the Mahaprajnaparamita Sastra, attributed to him and not available now in Sanskrit, may be made available in translation in English and Telugu/Hindi. (b) Genetic, analytical, critical, comparative and evaluative studies in Madhyamika and Vijnanavada may be fostered at two levels simultaneously - (i) of professors, readers and

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(ii) postdoctoral fellows and research scholars working for degrees. As this Centre will neither have its own Mss., for decades to come nor is it likely to discover any new Mss., and as institutions elsewhere (e.g. Visvabharati, Nalanda Institute, Varanasi Sanskrit University, the Tibetan Institute at Sarnath headed by Professor Samdhong Rinpoche and Dr. Lokeshchandra's Institute at New Delhi) have and are editing and publishing Mss., and as similar work is carried on in other countries in a splendid way, this Centre will do well to concentrate on analytical and critical studies of texts showing the place of their thoughts in the universal history of ideas and their relevance to the modern world. (c) While on Plato, Aristotle, Kant, Hegel and others, there are hundreds of monographs in several European languages, on Mahayana philosophers like Nagarjuna, Aryadeva, Bhavaviveka, Dharmakirti and others, there are hardly a couple of comprehensive monographs in any language and on some none at all. (d) The interrelationships among the Upanishadic teachings, Mahayanic Philosophies, Samkhya-Yoga, Nyaya-Vaisesika and Vedantic philosophies have not yet been comprehensively and systematically studied; nor are the cross-influences between Vaishnavism and Buddhism (e.g., the Bhagavad Gita and the Saddharma Pundarika) clearly sorted out. (e) Study of Buddhist metaphysics and logic in relation to modern science (as done by F. Capra and G. Zukav) is a fertile and exciting field. Some of these lines may be pursued at the centre. Vajrayana, although it probably arose or initially developed in Andhra, is an intricate and profound subject which is being studied by the competent elsewhere (e.g. Jagannath Upadhyaya). So, the Centre will do well to include it in its programmes only after a decade from now. Similarly research in Buddhist psychology in relation to the modern (e.g., Jung & Fingarette) is an important field to be taken up in a latter phase.

2. Languages: It will not be possible for this Centre, given any amount of resources, to get the services of experts in all the languages in which Mahayana Buddhist literature is found. So, it should first acquire the services of specialists in Sanskrit, classical-philosophical as well as Buddhist hybrid, with excellent knowledge of at least another non-Indian Asian Language like Tibetan, Mongolian, Chinese or Japanese. Recruitment of personnel for the Centre should be on a pan-Indian, preferably international basis. What Tagore did at Cheena Bhavan and Radha krishnan at Andhra may be emulated. A "sons of the soil" policy will be disastrous. After first clearly deciding what type of researches and studies should be undertaken at the Centre, accordingly persons with

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international reputation and contacts should be invited to fill the senior posts and persons with a number of notable publications in Mahayanic field should be appointed in the middle level posts. Not less than two professors, four readers and six lectures can constitute a critical minimum faculty. Most senior posts, if necessary, may be on a contract basis; and persons trained at the Centre may in due course suffice to run it competently.

3. Library: It is most desirable that this Centre should become one on the resources of which can depend all those interested in Buddhist Studies, especially those in other Indian Universities. So paramount importance should be given to build up a first-rate library of all Mahayana works in Sanskrit, Apabhramsa and their translations in English and Modern Indian Languages. A number of Mahayana works edited and published abroad are not accessible to Indian scholars. For example, I would be surprised if more than two or three libraries in India have Waldschmidt's edition of Mahaparinirvana Sutra or Friedrich Weller's Kasyapa Parivarta; and I doubt whether the complete English translation of the Chinese Mahaparinirvana Sutra (published in Japan) is available in any Indian University library. Acquisition of books for the library should be selective and systematic, with predetermined priorities, in view of constraint on resources. Books may be obtained in this order of priorities; (1) All Mahayana sutras and Sastras in Sanskrit and Apabhramsa. Where some of these are out of print, xeroxed copies must be obtained. (2) All translation of Sutras and Sastras in English and Modern Indian Languages so far published. In this case also xeroxed copies of out of print works should be obtained. (3) Monographs in English, French, German, and Indian Languages on Mahayana Buddhism (history, religion, philosophy and culture). (4) Mahayana Literature in Non-Indian Asian Languages. Only after this should other cognate literature, e.g., of and on Theravada and other Indian systems etc., should be obtained. The Librarian should not be allowed to deviate from this policy. Building up of the library on these lines will be a great boon to students of Mahayana all over India and abroad. (5) All journals devoted to Buddhist Studies, giving preference to those specialising in Mahayana, must be subscribed for.

4. Scholarly net-work: Buddhist studies are being carried out almost all over the world. If researches are carried on without knowing what has been and is being done elsewhere, it will result in wastage of

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resources and redundant studies. So, one of the important things this centre should do from the beginning is to establish contacts with centres in India and abroad, concerned with Mahayanic studies. Two examples of such centres abroad are: The Institute of Tibetan and Buddhist Studies at Vienna, headed by Professor E. Steinkallner; and Kommission for Buddhistiche studien, with Professor Heinz Bechert as its Chairman, at Goettingen. Buddhist Sanskrit texts are being intensively studied at the latter place. This centre should also establish contacts with individual scholars who are working on Mahayana Buddhism. To give some examples: Christian Lindtner (Copenhagen) brought out a book on Nagarjuna in Danish in 1980 and has a manuscript ready on Nagarjuna's writings and philosophy; A. Pezzali (Bologna) has worked on Santideva; Gholi (Rome) on some Buddhist Sanskrit texts; R. Kloppenborg (Groningen) on Madhyamika; Vincente Fatone (Spain) on Nagarjuna; Andre Bareau (Paris); Brough, Ruegg, Gombrich & Kunst (U.K.); Klaus Mylius (Leipzig); Pentti Aalto and Harry Halen (Helsinki); Bongard-Levin and others (Moscow); Shri Luvsanvandan (Mongolia); Carmen Daraconetti (Buenos Aires). There are innumerable institutions and individuals in Japan working on different aspects of Mahayana. Only when one is at least broadly familiar with what has been accomplished by these in other countries can one's investigations be up-to-date and original. A researcher in Physics at Guntur cannot do anything worthwhile today while being ignorant of what has been done and is going on at California, Harvard, Moscow, Tokyo, Berlin, London, etc. Similar is the case now with Mahayanic Studies.

5. Training: From what has been said above, it would be wise for this centre to emphasis advanced research and training of scholars in Mahayanic Studies (1) An M.Phil course in Mahayanic studies may be organised and admission to it may be open to: M.A.s in Buddhist Studies; M.A.s or Acharyas Siromanis in Sanskrit/Tibetan/Chinese/Japanese/Pali (with specialisation in Buddhist Philosophy and adequate knowledge of Sanskrit or a non-Indian Asia language); M.A.s in History/Archaeology and Epigraphy (with specialisation in a Buddhist period of some Asian country and adequate knowledge of one of the above Asian languages); M.A.s in Cultural Anthropology (with interest in Buddhist studies and adequate knowledge of Sanskrit or a non-Indian Asian language). At least 6 M.Phil of Sanskrit scholarships should be financed by the Centre. (2) A Ph.D. programme may be organised and fully qualified candidates admitted to it. At least three fellowships must be available for them. At least one post-doctoral fellowship also

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should be offered. A mere first class M.A. in History/Philosophy/Archaeology/Sanskrit should not be admitted to this Ph.D. programme; but only M.Phil.s with specialisation in Buddhist studies and adequate knowledge of one of the languages mentioned above. Here again the "sons of the soil" policy and preference for underqualified local candidates will wreck the Centre. Prescription of qualifications not relevant to Mahayanic Studies in the interest of helping local candidates is to be avoided.

6. Teaching: Only after some M.Phil.s and Ph.D.s are turned out, if there is a felt need, an M.A. course in Mahayana Buddhism may be organised. Starting straightaway a full-time course in Mahayanic studies appears to be premature; whereas starting an M.A. course in general Buddhist Studies (with emphasis on Pali and Theravada) is not necessary as Delhi University has a similar excellent course and as this is to be a Centre for Mahayanic Studies. Duplication of existing courses or research elsewhere is unwarranted. But it may be desirable for the teachers of the Centre to offer part-time (two year) diploma courses in Sanskrit, Apabhramsa, and one or two non-Indian Asian Languages, oriented to Buddhist studies. A part-time (two year) diploma course in Mahayanic studies may also be organised. These courses shall be open only to M.A.s or those taking M.A. courses. M.A.s in relevant subjects who take these diplomas can be candidates for M.Phil in this Centre.

In sum, the Centre should have a direction, a focus, a definite programme and a clear order of priorities. Then only can it make an impact on the widening world of Buddhist scholarship and prove worthy of Dr. E.V. Narasimha Rao who conceived it and H.M. The King of Bhutan who, it is learnt, has agreed to be its Founder and Patron.

Andhra University,  
Waltair,  
Visakhapatnam-530003.

K. SATCHIDANANDA MURTY  
DECEMBER 1, 1981

MAHAYANA BUDDHIST STUDY CENTRE AT NAGARJUNA UNIVERSITY  
GUNTUR

NOTE ON THE DISCUSSION HELD WITH THE PANEL OF EXPERTS

.....

1. Principal Tashi Paljor,  
School of Buddhist Philosophy,  
Choglamsar, Lah, Laddaka.
2. Principal Samdhang Rinpoche,  
Central Institute of Higher Tibetan Learning,  
Sarnath, Varanasi.
3. Dr. Karunasha Sukala,  
Nagarjuna Buddhist Foundation,  
18, Andrsi Bangh, Gorakhpur (U.P.).
4. Dr. Mahesh Tiwari,  
Head, Department of Buddhist Studies,  
University of Delhi, Delhi.
5. Professor C.R. Lama,  
Department of Tibetan Studies,  
Vishwabharati Santiniketan,  
West Bengal.
6. Dr. N.H. Santari,  
Buddha Kutire,  
Banaras Hindu University,  
Varanasi.
7. Dr. Lokesh Chandra, M.P.  
Rajya Sabha Member  
J-22, Haus Khas Enclave,  
New Delhi-16.
8. Professor K. Satchidananda Murty,  
Andhra University, Waltair.
9. Dr. Jinaratna,  
Secretary,  
Mahabodhi Society,  
Calcutta.

Discussions were held on 5th and 6th December, 1981 on the project submitted to the Committee at India International Centre.

Sri P.V. Narasimha Rao, Hon'ble Minister for External Affairs, formally inaugurated the discussion on the project. He explained the origins of the project and the reasons for setting up the Mahayana Buddhist Study Centre at Nagarjuna University, Guntur.

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Then, Dr. K.S. Murty, from Waltair, presented a note on establishing a Mahayana Buddhist Study Centre at Guntur. The note, after referring to the General paucity of Buddhist Studies in Andhra Pradesh and enormity of coverage which the study of Mahayana Buddhism involves, suggested that the Centre should focus on a 'multi-dimensional study' of Buddhism. The note sets forth the following subjects:

- (a) bringing out cheap editions, of the work of Nagarjuna and Aryadeva, together with English and Telugu translations.
- (b) a critical study of Madhyamika and vijnemavada.
- (c) comparative study of Buddhism with other philosophical systems.
- (d) recruiting scholars in Sanskrit, Tibetan, Mongolian, Chinese and Japanese.
- (e) recruitment of teaching personnel on national or international level.
- (f) student recruitment initially for M.Phil. and Ph.D. Degrees and not for M.A.
- (g) Multi-channelled admission to the research courses of such students that have adequate knowledge in Mahayana Buddhism and atleast one non-Indian language.

This was followed by general discussions by all the committee members and all of them unanimously and heartily welcomed the idea of setting such a centre at Guntur, where Nagarjuna lived and preached. There were minor differences of opinions about certain aspects. All of them gave good suggestions with reference to teachers, books, library equipment and museum.

On 6th, a detailed discussion took place on various aspects stressed in Dr. Murty's paper and on the detailed note given by the University.

It was felt that the Centre should be named as Centre for Mahayana Studies, Nagarjuna University, Guntur. They have by and large, agreed on the proposals submitted by the University and Dr. Murty, and made the following suggestions:

1. Studies on Epistemology, metaphysics and also comparative studies with other types of Buddhist Studies should be included in the study centre.

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2. Knowledge of Sanskrit and English is a must and also knowledge of any one of the languages such as Tibetan, Chinese and Mongolian is compulsory. There should be a Reader for each one of these languages.

3. Initial grant of Rs.5 lakhs for library and recurring grant of Rs.2.5 lakhs should be kept for developing the library. It has been suggested that all committee members should send lists of books on these studies, so that they can be purchased. It has also been suggested, that committee be formed to decide about the selection of books. They should meet at least once in three months.

For the library it is very essential to have a Xerox copying machine, microfilm readers and later a computer which can translate various languages. In the latter phase a translation wing also can be established. It was suggested that a book on Buddhism by Hanayama which contains complete bibliography should be obtained.

4. It was also felt that a good museum has to be built and it was also suggested that this can be done by public donations by getting tax exemptions for such donations. The Government can issue specific instructions that contents of all archaeological excavations can be sent to this museum.

5. Only research scholars are to be selected in the beginning and M.Phil and Ph.D. courses only to be started during the first phase.

6. It was also suggested that a printing press is a necessity for printing of manuscripts.

7. As far as the buildings are concerned, the main centre should be situated in Nagarjunakonda, where Nagarjuna stayed and presented, with a sub-centre at Guntur.

8. It was also suggested that the team should visit these places along with the Architect and decide shows the architectural design of the buildings to be constructed.

9. As far as the staff is concerned instead of 3 Readers, it is desirable to have 5 readers and 4 lecturers.

10. All other details submitted by the University and Dr. Murty have been generally approved.

~~ended~~.....

NAGARJUNA UNIVERSITY

DEPARTMENT OF BUDDHIST STUDIES

- A profile

I. PREAMBLE:

Buddhism played a vital and significant role in the history and culture of Andhra Pradesh for over 15 centuries right from about the time of its inception here in about the 3rd-4th century B.C. It was mainly responsible in inaugurating the process of bringing the Andhra region into the mainstream of culture of the Indian sub-continent, through the elevation of autochthonous tribal communities into a larger socio-cultural network. Here were also the ateliers of that aesthetically superb Amaravati School of Art and sanctity in the Buddhist world as to attract intellectuals and devotees from all over Asia. This region also produced such stalwarts in the field of Buddhist thought as Nagarjuna, Aryadeva and Buddhaghosha and according to scholars this was the region responsible for initiating newer developments in the Buddhist creed itself. The region is considered to be the cradle of Mahayanism and Vajrayanism.

several monast-  
brios and  
chaityas that  
gained fame  
and.

Acharya Nagarjuna, a towering personality in the field of Buddhism is particularly remembered with great reverence in Andhra. The ancient Nagarjunakonda the famous Nagarjunasagar and our Nagarjuna University all cherishing the memory of this teacher besperk of the love and reverence of the Andhras to that great intellectual.

Thus this University located in a region rich with Buddhist association and chersishing the name of Nagarjuna felt it a matter of its sacred duty to promote studies in the region to which Nagarjuna devoted his life.

Initial Planning:

The Government of Andhra Pradesh, the Hon'ble Minister for External Affairs of the Government of India, Sri P.V. Narasimha Rao and scholars like Professor K. Satchidananda Murthy and the late Professor R. Subrahmanyam took a major lead in bringing to shape this University's dream of establishing an advanced centre for the promotion of Buddhist studies.

In December 1981, the then Education Minister of Andhra Pradesh convened a meeting of experts in

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Buddhist Studies at New Delhi. Hon'ble Minister for External Affairs of the Government of India, Sri P.V. Narasimha Rao chaired that meeting and Dr.K. Satchidananda Murthy of the Andhra University presented a preparatory note on the proposed centre which was largely accepted. Shortly afterwards, the Government of Andhra Pradesh took steps to sanction a small staff to start the proposed Centre/Chair.

The Centre/Chair for Buddhist Studies was formally inaugurated by His Majesty Jigme Singye Wangchuck, King of Bhutan, on 16th March, 1982. The University has now a Department of Buddhist Studies and has a long-term programme of establishing additional centres for Buddhist Studies at Amaravati, the world famous Buddhist Centre, and at Nagarjunakonda, where once a Buddhist University itself flourished.

## II. THE DEPARTMENT:

### Organisation of the Department:

The Department of Buddhist Studies in the Nagarjuna University was started on 26.5.1983 on the Buddha Purnima day and Dr. K. Satchidananda Murthy, Professor of Philosophy in the Andhra University and former Vice-Chancellor of Sri Venkateswara University has been nominated as its Honorary Director and Dr. S. Nagaraju, M.A., Dipl. in Arch., Ph.D., as the Head of the Department. The sanctioned staff strength of the Department is one Professor, one Reader and three Lecturers. These posts are to be filled up shortly. In addition, it is also proposed to invite distinguished scholars and teachers for short-terms of one or two semesters to cater to the needs of the department in providing instruction in various branches of study, particularly Tibetan, Chinese and Japanese.

### B. Teaching Programme:

At present the department admits students for M.Phil. and Ph.D. courses, which are designed in such a way as to provide both orientation and specialised study programmes.

In due course, however, M.A. and Diploma courses in Buddhism, as well as certificate and Diploma courses in Buddhist History and Philosophy, Buddhist Art, Pali, Sanskrit, Tibetan, Chinese and Japanese are proposed to be offered.

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### C. Research Projects:

In accordance with the guidelines provided by the Committee of Experts for this centre to focus on a multidimensional study of Buddhism, the Department is now proposing to take up the following research projects.

- (1) A critical study of Madhyamika and Vijnanavada.
- (2) Comparative Study of Buddhism with other philosophical systems.
- (3) Corpus of Buddhist Inscriptions in South India.
- (4) Bibliography of Buddhist Inscriptions.
- (5) A study of rise and decline of Buddhism in Andhradesa.
- (6) Buddhist sects in Andhra and the development of Mahayana Philosophical schools.

### III. DEVELOPMENT PROGRAMMES:

It is the ambition of this University to develop the Department of Buddhist Studies into an Advanced Centre, providing facilities for scholars and students from this country and abroad to undertake research in various fields of Buddhist Studies. We hope this would not only serve as a centre of higher learning in Andhra Pradesh but also, in view of the great attraction towards Buddhist studies and ideas seen in other countries, serve the cause of development of friendly international interaction. As a part of this programme our University proposes to create the following facilities.

#### 1. Library of Buddhist Studies

Our University has already initiated a programme of building up a good library, as a first step towards the promotion of Buddhist Studies here. It is proposed to equip the library with all the Buddhist texts so far published, important secondary literature on Buddhism and other borderline subjects as well as relevant journals. It is also proposed in course of time to offer documentation service to scholars and students interested in Buddhist Studies.

#### 2. Manuscript Library

It is proposed to have a central library of Buddhist manuscripts acquiring microfilm, microfiche or photostat copies of all the Buddhist manuscripts distributed in various institutions all over the world. Facilities for consultation and copying too would be provided.

With finance and opportunities forthcoming an endeavour would be made to explore for and collection of

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original manuscripts also. It is hoped that a central library of Buddhist Manuscripts would be one of the most welcome facilities that this university would be offering.

3. A photo-archives of Buddhist monuments & antiquities:

As it is in the case of manuscripts, this would be another facility of immense use and attraction. It is proposed to acquire as many negatives and prints as possible of the Buddhist monuments and antiquities from all over the world.

As an initial step, however, it is the wish to build up a photo-archives of Indian Buddhist monuments and antiquities.

4. A Museum of Buddhist Antiquities:

This region in which our University is situated is itself rich in Buddhist vestiges. Several antiquities are being discovered day after day, while several still lay uncared for or unnoticed in many places. The Museum of Buddhist Antiquities of this University likes to build up a good collection of these initially.

In due course, depending on funds and availability, sculptures, inscriptions, paintings and other antiquities from outside Andhra Pradesh and India can also be acquired. It is also felt desirable to have an anthropological section too where various utensils and aids used in Buddhist rituals could be displayed.

5. A publication section:

This shall focus on the publication of

- i. critical edition of unpublished Buddhist texts;
- ii. inexpensive editions of important texts and general works on Buddhism;
- iii. English and Telugu translations of important works.



NAGARJUNA UNIVERSITY

FINANCIAL IMPLICATIONS FOR THE ESTABLISHMENT OF CENTRE OF BUDDHIST STUDIES

DETAILS

		Non-Recurring	Recurring per annum
<u>STAFF</u>			
<u>i. TEACHING</u>			
Professors	.. 2		60,000
Readers	.. 3		75,600
Lecturers	.. 6		96,000
<p>(For various branches of Buddhist Studies, viz., Buddhist Philosophy, Art, Literature, History, Sanskrit, Tibetan, Chinese, Japanese, Mongolian, Pali and Comparative Religion and Philosophy)</p>			
<u>ii. TECHNICAL</u>			
<u>A. Manuscript Library</u>			
Curator	.. 1		16,000
Asst. Curator	.. 1		12,000
Research Asst.	.. 1		12,000
<u>B. Museum</u>			
Curator	.. 1		16,000
Asst. Curator	.. 2		24,000
Modeller-cum-Artist	.. 1		10,800
<u>C. Photo-Archives</u>			
Senior Photographer	.. 1		16,000
Photographer	.. 1		12,000
Photo Assistant	.. 1		10,800
<u>D. Library</u>			
Assistant Librarian	.. 1		16,000
<u>E. Publication Section</u>			
Publication Assts. (English & Telugu)	.. 2		12,000

111. MINISTERIAL AND OTHERS

Stenographer ..	1	10,800
Upper Division Clerks..	2	21,600
Lower Division Clerks..	3	25,200
Attenders ..	4	24,000
Peons ..	4	16,000
		4,86,800

II. LIBRARY

i. Acquisition of Books	5,00,000	2,50,000
ii. Equipment	2,00,000	50,000
iii. Maintenance		12,000

(1) It is proposed to equip the library comprehensively. All books listed in Bibliographic Budhique and Hanayami's Bibliography of Buddhism and the recent publications are to be acquired. 7,00,000  
3,12,000

ii) Equipment includes, stocking, indexing and copying equipments)

III. MANUSCRIPT LIBRARY

i) Purchase of Manuscripts/Microfilm/microfische/photostat copies of manuscripts	2,00,000	1,00,000
ii) Equipment	1,00,000	40,000
iii) Maintenance		12,000
	3,00,000	1,52,000

(1) It is proposed to develop a Central Library of Buddhist manuscripts. Copies of as many available manuscripts will be acquired from various institutions, besides acquiring originals wherever possible.

ii) equipment includes Microfische/microfilm readers, and photostat machinery)

IV. PHOTO-ARCHIVES

i) Photo-equipment	1,00,000	30,000
ii) Purchase of slides, photographs from organisations & museums	50,000	30,000
iii) Photo-materials	20,000	10,000
	1,70,000	70,000

(1) For cameras, enlarger, dark-room equipment.

ii) Photographs and slides would be acquired from archaeological Department and Museums from all over the world, wherever Buddhist antiquities are present. This would be the first style largest collection of the type

V. MUSEUM

i. Acquisition of Antiquities	2,00,000	1,00,000
ii. Equipment	2,00,000	50,000
iii. Maintenance		20,000

(i) Antiquities, both an archaeological and anthropological connected with Buddhism are proposed to be acquired. This would include, Sculptures, paintings, Tankas objectives used in rituals, etc.

ii) Equipment includes, display and recording equipments as show cases, lighting equipment, etc.)

VI. PUBLICATIONS

Printing charges		2,00,000
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(For printing of cheap and reliable editions of Buddhist works, including translation, both in English and Telugu, and also to sponsor a Journal of Buddhist Studies)

VII. FURNITURE

<del>1,00,000</del>	1,00,000	50,000
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(includes furniture required for all sections)

VIII. RESEARCH PROJECTS

Purchase of a vehicle	1,25,000	
Field work		1,00,000

IX. VISITING PROFESSORSHIPS AND FELLOWSHIPS

<u>1,25,000</u>	<u>1,00,000</u>
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Visiting Professorships	.. 1	1,00,000
Senior R Fellowships	.. 2	30,000
Junior Fellowships	.. 4	43,200

X. ORGANISATION OF SEMINARS/ SYMPOSIA/LECTURES

<u>1,17,200</u>	50,000
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XI. BUILDING	30,00,000	50,000
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XII. MISCELLANEOUS	55,000	36,000
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GRAND TOTAL	<u>48,50,000</u>	<u>18,50,000</u>
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*J. Nagaraju*  
11-12-83

(S. NAGARAJU)

HEAD OF THE DEPARTMENT OF BUDDHIST STUDIES  
NAGARJUNA UNIVERSITY  
NAGARJUNANAGAR-522 510.

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UNIVERSITY GRANTS COMMISSION

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Meeting :

Dated 8th February, 1984

Item No. 2.02 : To consider the recommendations made by the Standing Committee on new universities and university postgraduate centres at its meeting held on 17th December, 1983 on the report of the committee which visited the Shri Shardapeeth, Dwarka for granting deemed to be university status under Section 3 of the UGC Act., 1956 to the Shree Sharadapeeth Vidya Sabha comprising of the Indological Research Institute, Dwarka and Shree Sharada Peeth Arts and College of Education, Dwarka.

....

The Standing Committee on new universities and university postgraduate centres at its meeting held on the 17th December, 1983 considered the report of the committee which visited the Shri Sharadapeeth, Dwarka for granting deemed to be university status under Section 3 of the UGC Act., 1956 to the Shree Sharadapeeth Vidya Sabha comprising of the Indological Research Institute, Dwarka and Shri Sharada Peeth Arts and College of Education, Dwarka.

A copy of the note placed before the Standing Committee in this regard is enclosed (Annexure).

The Standing Committee generally agreed with the recommendations made by the Committee which visited the Shree Sharada Peeth, Dwarka for granting deemed to be university status under Section 3 of the UGC Act, 1956 to the Shree Shardapeeth Vidya Sabha, Dwarka comprising (i) the Indological Research Institute, Dwarka and (ii) Shree Shardapeeth Arts and College of Education, Dwarka and recommended that the Commission may agree in 'Principle' to the grant of deemed to be university status to the above institution subject to the fulfilment of conditions suggested by the Committee in its report. A clarification may also be sought from the State Government whether the present level of maintenance expenditure and future liabilities of this nature and the matching share for the development scheme of the institute as may be accepted by the Commission will continue to be met by the State Government of Gujarat or the Trust authorities Shree Shardapeeth Vidya Sabha, Dwarka.

The matter is placed before the Commission for consideration.



University Grants Commission  
Bahadur Shah Zafar Marg  
New Delhi

Standing Committee on New Universities and  
University Postgraduate Centres

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Meeting :

Dated : 17th Dec.1983

Time : 10.30 A.M.

Item No.2 To consider the report of the Committee which visited the Shri Sharada Peeth, Dwarka for granting deemed to be university status under Section 3 of the UGC Act, 1956 to the Indological Research Institute, Dwarka, and Shree Sharada Peeth Arts and College of Education, Dwarka.

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The UGC Standing Committee on New Universities and University Postgraduate Centres at its meeting held on July 16, 1981 considered the proposal from Shri Sharada Peeth Vidya Sabha, Dwarka for granting deemed to be university status under Section 3 of the UGC Act, 1956 to the Indological Research Institute, Dwarka and Shri Sharada Peeth Arts and College of Education, Dwarka. The Standing Committee recommended that in the first instance a committee may visit and report on the present status of the institution, its academic programmes, financial and management aspects, with reference to the guidelines for considering proposals for granting 'deemed university status. Such a report can then be considered by the Standing Committee. The University Grants Commission at its meeting held on July 24 & 25, 1981 agreed with the above recommendations, and accordingly a committee consisting of the following members to examine the proposal was constituted.

1. Professor Rama Ranjjan Mukherjee  
Vice-Chancellor  
Burdwan University..
2. Professor G. Ram Reddy  
Vice-Chancellor  
Osmania University..
3. Professor Vidya Niwas Misra  
Director  
K.M. Institute of Hindi and Linguistics  
Agra University.

4. Shri Y.D.Sharma  
Deputy Secretary  
University Grants Commission.

The main observations and recommendations of the committee are as under:-

6.1 The Visiting Committee visited the two institutions managed by Shri Sharada Peeth Vidya Sabha, Dwarka and acquainted itself with the courses of studies in which instructions were being imparted in the two institutions also with the life of the community associated with the two institutions. The Committee had the privilege of meeting members involved with the management of the Vidya Sabha as also Shri Jagatguru Shankaracharyaji, the College of Education and Research Institute as also with the members of the Faculty and the representatives of the Students Union. The committee discussed the academic programmes undertaken by the two institutions and the objectives set forth by the sponsors of the Institutions. The Committee also met the representatives of the public of Dwarka and it was overwhelmed by the genuineness of the desire expressed by the members of the public to have a full-fledged University at Dwarka which constitutes one of chief centres of traditional culture and civilization. The committee appreciated the views of the management that in case the status of a 'Deemed to be University' was granted to the institutions, it would be possible for them to introduce new diversified courses with major thrust in Indian Culture, having for their core theme Sanskritic studies of traditional type.

6.2 Shri Sharada Peeth Vidya Sabha, Dwarka, being a registered society under the Societies Registration Act XXI of 1860, as also under Act XXI, 1961, Public Trust Registration Act No.F.53 Jhannagar, enjoys a legal status. The vidya Sabha signifies a society which is running various institutions as mentioned earlier in Section 3.4. and is not in itself an institution of higher learning. It aims to become an institution, deemed to be university, so that it may serve the society in a better way through various programmes to achieve its declared aims and objectives. It has proposed inclusion of two institutions located in Dwarka, viz. (i) Indological Research Institute, Dwarka; and (ii) S.S.Arts and College of Education, Dwarka as the main constituent of the deemed university. These institutions are, however, functioning independently. The combined faculty strength in these two institutions is 20, of which only 7 hold doctorate degrees and a number of the members of the faculty have publications, to their credit, which include books and articles.

6.3 The standard of instruction imparted in these two institutions is creditable as judged from the percentage of the passes, and quality of research work. A large number of students in the undergraduate college come from indigenous families and they are mostly first generation learners. The condition in their homes are not conducive to enable students to serious work required for higher education. The institutions, however, organise special coaching programmes for the students to develop their social and linguistic skills.

6.4 The Committee appreciated the inhibitions experienced by the ties which bind the two institutions to the requirements of the Saurashtra University. The Committee noted that the Saurashtra University Act allows a college to enjoy autonomy in the matter of admission of students to the college, prescribing courses of study in the college, imparting education, holding and conduct of examinations. The Committee was told that the urgency for securing the status of a 'deemed to be university' was being felt all the more because the colleges did not have an opportunity of finding out innovations in the field of undergraduate studies. Under an affiliating university the colleges have to operate within the framework of a stereotyped syllabus drawn by the university and the process of experimenting with new syllabus became all the more difficult for the various constraints. The Committee felt that with the Keeness and urge demonstrated by the management, the Faculty and the student community it could be possible for the institutions at Dwarka to make experiment with new areas of studies and develop it as a special type of institution with major thrust of Indian culture. The committee was of the opinion that diversified courses in different facets of Indian culture could bring into consumation the ideal of national integration and thereby help the society itself in its march towards progress and prosperity. The Committee felt that the Research Institute and college of Arts and Education both were in good order and were trying hard to train the students in their own way in such a manner that they could prove themselves useful to the rural community. The Committee was of the opinion that only granting the status of a 'deemed to be University' to the institute would enable it to move towards the fulfilment of the cherished ideals and objectives of the Sabha.

6.5 In an all round decline in sense of values and rise in the forces of disruption and indiscipline in the country, the Committee was impressed by the efficient management of the institutions at Dwarka, congenial academic atmosphere, discipline of a high order and the cordial relationship existing between the different sectors of the academic community.

6.6. The Committee was of opinion that the Library of the Research Institute was fairly good in the collection of original texts and that the collection of rare manuscripts was really of very high order capable of extending adequate facilities to the research workers desirous of having a deep penetration into the abstruse texts of Sanskritic studies.

6.7 The atmosphere of peace in the small hostel which has yet to develop into its full structure as also at the college was surcharged with a feeling of mutual trust and regard.

6.8 The Committee was pleased to note that the two institutions had been trying to give a new dimension to the activities of the Faculty by inducting the component of 'extension' into the activities of the teachers, giving thereby a three-dimensional form to the assignment of a teacher, namely teaching, research and extension both the institutions are actively engaged in extra-curricular activities aimed at fostering a cultural belongingness. These include folksongs, recital, folk dance recitals, painting and drawing, poetry recitation, music and household arts. These institutions are also nursing a model residential primary (ashram) school at Veraval for tribal boys in a nearby village. The school is run efficiently and it was a pleasure to listen to articulate recitation and folksinging. This is a right type of service demanded from an institution of this type. It, however, lacked adequate facilities for games and sports.

6.9 The Committee felt that it would be possible for the faculty of the institutions to implement academic innovations in the field of undergraduate courses and to break away from the entirely conventional type of education with the ultimate objective of enriching the system of higher learning itself. The administration of the two institutions indicated its keenness to introduce the following areas in the undergraduate stage at the first level and in the postgraduate stage at a subsequent period:

1. Comparative Religion.
2. Study of comparative language.
3. Ancient Indian History and Culture.
4. Archaeology - Pre-historic and early historic.
5. Fine Arts and Performing Fine Arts, including Folk-performance arts.
6. School of Folk-lore ('Lokvarta') with special emphasis on Rituals (Lok-Sahitya).
7. History of Sciences.
8. Comparative Courses in Military Science.

9. Printing and Publishing.
10. Jyotish Vigayan Yoga
11. Ecology of the area.
12. Museology.
13. Marine Archaeology.
14. Temple architecture and study of temple rituals.

6.10 It was presented before the Committee that while framing syllabus in these new areas, due importance would be given to study of original Sanskrit, Pali and Prakrit texts, so that the evolution of the different disciplines could be traced back to ancient period and a synthesis could be established between ancient and modern learning. Dwarka being the paradise of lexicographers and archaeologists, the Committee felt that Temple Archaeology and Temple Rituals could be profitably inducted into the syllabus of new courses proposed to be introduced in the institution, so that persons having interest in temple architecture and having competence in carving out paintings, idols and images could be given sufficient training enriching thereby the texture of Indian society itself. The Committee noted with satisfaction that at a time when schools of different philosophies were originating in the western countries for the purpose of making textual studies and analysis of profound philosophers, the management of the institutions was contemplating to emphasise the necessity of textual studies and analysis with the ultimate objective of projecting the greatness and grandeur of Indian civilization. While accepting these new areas contemplated to be opened the management emphasised that for all these courses the main thrust would be on Indian culture and that substantial traditional component would be inducted into the syllabus of each course, so that the young learners could be converted to real dedicated citizens of posterity willing to give useful service to the cause of the nation and the society.

6.11 The Committee felt that the two Institutions had a significant role to play in the sphere of Sanskrit learning as also in the field of ancient Indian literature, History and Culture, and it was pleased to note that the management was eager to induct modern scientific components into the syllabus of each course alongwith traditional components making thereby a grand and pleasing synthesis between the traditional and modern component with the ultimate aim of making young learners prepared to accept the challenge of the society and participate in the development programmes of the nation. The Committee felt that of the two institutions under consideration which would form the nucleus of the bigger institution on which the status 'deemed to be University'

is going to be conferred, the College of Arts and Education is not in a position to impart instructions at postgraduate level, at the present moment, but the infrastructure there is quite sufficient to enable the college to implement the innovated programmes in Undergraduate stage, programmes which could make young graduates more employable and fruitful for the society. Some of these courses however, could be of shorter duration and could be brought profitably under the programme of 'Continuing Education', so that society and particularly the weaker sectors of the community could be immensely benefitted by these courses and could feel the utility of the institution itself.

6.12 The Committee considered the parameters imposed by the University Grants Commission for conferring the status of 'deemed to be university' on an institution, or a cluster of institutions as provided for in the UGC Act and formulated certain observations with regard to applicability of the parameters in the case of the Dwarka Institutions. The Committee was confident that the Institutions had the competence to initiate innovation to implement programmes having bearing on Indian culture and to effect a harmonious blending between traditional and modern ideas and that they had the necessary inputs for the purpose. The Visiting Committee got ample opportunities of having a thorough and threadbare discussion on academic issues and programmes with the students and members of the faculty, and it was of opinion that though for some reason or other a University could not be established at Dwarka, the Research Institute and the College of Arts and Education had been doing work of high standard in the academic field and that granting of the status of a 'deemed to be University' on them would enable them further to translate into action the highest ideals belonging to higher learning and research. The two institutions should aim at consolidation of the existing programmes at the initial stage and try to confine themselves to implementation of programmes relevant to needs of the environment in which the institutions are situated. This means that due emphasis was required to be paid to culture of tribal people and dialects of the area, so that the tribal people inhabiting the region could feel that they were not isolated from the main stream of Indian life and culture. The Visiting Committee appreciated this line of thinking of the management which demonstrated its determination to establish the thesis that culture of the tribal people was an essential component in the genesis of rich and variegated Indian culture.

6.13 One of the parameters indicated in the UGC guidelines stated that the institutions should be engaged in choosing particular fields of specialisation and should have successfully achieved highest academic standards in those fields. If by this it is meant that these two institutions should have functioned for a considerable period as postgraduate institutions and Centres of Higher Research where students were registered for admission to the Degree of Doctor of Literature or Doctor of Philosophy then it is fruitless to find out these requirements in case of Dwarka Institutions and the reason is simple. At the present moment, the College of Arts and Education, Dwarka imparts instructions in Undergraduate courses only and the Research Institute has arrangements for imparting instructions in postgraduate course and that too in Sanskrit within the framework of the syllabus prescribed by the University of Saurashtra and guiding students in Sanskrit for the Degree of Doctor of Philosophy. But the potentiality was very much there in the two institutions, the surroundings, the serenity of the atmosphere, the richness of the library, the dedication of the Faculty, the keenness of the taught, the sincerity of the management, and above all the spirit of co-operation and coordination between different sectors of the academic community. The Committee was of opinion that once the 'deemed to be university' status was granted to the Institutions at Dwarka they would be able to rise to their full stature according to their cherished ideology and implement new academic programmes of their own.

6.14 The guidelines indicated by the U.G.C. include the fact that the institutions on which the status of a 'deemed to be university' is going to be conferred should make reasonable contribution to the university system and the university system should be enriched by the status of the institution itself. It had been mentioned earlier that by introducing courses of Folklore, Ecology, Modern Archaeology, Temple Architecture, the management had been contemplating to arouse the keenness of the tribal people and to bring them into the main stream of Indian society by way of cultural upliftment. The study of tribal culture is a desideratum in present context of the country. The Committee was confident that the atmosphere and academic climate which the management had been able to maintain during all these years would be enriched further by opening of new courses in which tribal culture, marine archaeology and such other new disciplines could find place simultaneously with the traditional disciplines of Sanskrit and Museology.

6.15 The Committee was told by the management that financial help would come forth from the State and Central Government and the Shri Sharada Peeth Vidya Sabha would also make available funds for this specific purpose. After meeting the representatives of Chambers of Commerce the Committee felt that possibility of flowing funds from business community were also there, in case these institutions are granted deemed to be university status.

6.16 In the backdrop of this assurance the Commission can reasonably expect that adequate funds would be made available to provide more space for the academic programmes and research projects. Once it starts functioning as deemed to be university.

6.17 While recommending that the status of a 'deemed to be university' be granted to the cluster of Dwarka Institutions, the Committee recommended that the Institution should be advised to draw up its courses of study in consultation with eminent experts in respective fields in such a way that proper synthesis could be established between traditional and modern components so that modern mind could blossom forth without forgetting the hoary past and its traditional moorings and cultural heritage. This type of courses being an entirely new one the experts are to be located properly, so that the matter can be taken up with all seriousness in order to enable the Institute to justify its existence as a special type of Institution enriching the University system itself. The Committee also felt that it would be desirable to have an Academic Planning Committee having representatives of the Trust, the University Grants Commission and some eminent experts trained in the fields in which instruction were being proposed to be imparted in the Institution in order to give proper direction to the academic activities of the institutions, so that the new 'deemed to be university' can establish itself on a solid foundation (and the community cannot question the conferment of the status of a 'deemed to be university' on it.)

6.18 To justify the status of deemed to be university, the Vidya Sabha will have to:

(1) Work hard on preparing a blue-print of their specific role as a deemed university centre well-defined, precise and supported by concrete proposals for resources both material and academic.



- (2) Underline the regional needs and requirements for their extension service programmes. The focus should be on such subjects and areas which are unique and which have relevance not only from regional angle, but also from an all India point of view.
- (3) Indicate supported by documents clearly the quantum of endowments, equipments, books, cash deposits, shares, debentures, certificates etc. to be set apart for the would be deemed university in terms of bank account, landed and other property.
- (4) Form a new integrated registered body separate from the 'Math's Trust', so as to ensure secular character of the would be deemed university. The deemed to be university shall be open to all persons, irrespective of sex, race, caste, creed, colour, religion, nationality, state, or citizenship. Requisite provisions for appointment/admission from the weaker sections of society including scheduled castes/tribes and other backward communities shall be made as per direction of the Government of India that may issue from time to time.
- (5) The constitution of the proposed 'Institute' may be drawn in consultation with the UGC.
- (6) Make necessary provision for constitution of selection committees for appointment to teaching and non-teaching posts as also for their source conditions.
- (7) Provide for adequate facilities and machinery for the health, and welfare of their students, teachers and staff.
- (8) Follow the norms laid down by the UGC in regard to postgraduate teaching and research.
- (9) Admit to its membership such numbers of persons as it considers suitable and qualified for furtherance of its objectives.

6.19 The Committee, therefore, takes great pleasure in recommending once again to the UGC that the status of a 'deemed to be university' be granted to the Shree Sharada Peeth Vidya Sabha, Dwarka, cluster of institutions (Indological Research Institute and S.S.Arts and College of Education at Dwarka) subject to the fulfilment of conditions indicated in the para 6.17 and 6.18 above.

The committee recommends that pay scales as applicable to comparable deemed to be universities would be made applicable to the teaching staff of this Institution when it starts functioning as a deemed to be university. The scales of pay of non-teaching staff may be decided in consultation with the UGC. The deemed to be university should be admitted to the pattern of financial assistance for development by the UGC as in the case of other deemed to be universities.

6.20 At the time of finalising this report the committee learnt that the Director of the Indological Research Institute, Dwarka has left the Institute. The Committee therefore, strongly felt that a person of scholarly vision and imagination should be appointed to the post of the Director so that he may be able to implement the recommendations set forth above.

The Committee visited Dwarka on 20,21, September, 1981. A copy of the Report of the Committee is enclosed. (Appendix).



1. CONSTITUTION OF THE COMMITTEE:

1.1 The University Grants Commission Standing Committee on New Universities and University Postgraduate Centres at its meeting held on July 16, 1981 considered the proposal from Shri Sharda Peeth Vidya Sabha, Dwarka for granting deemed to be university status under Section 3 of the UGC Act, 1956, to the Indological Research Institute, Dwarka and Shree Sharadapeeth Arts and College of Education, Dwarka. The Standing Committee recommended that in the present status of the institution, its academic programmes, financial and management aspects, with reference to the guidelines for considering proposals for granting 'deemed University' status. Such a report can then be considered by the Standing Committee. The University Grants Commission at its meeting held on July 24 & 25, 1981, agreed with the above recommendations, and accordingly a committee consisting of the following members to examine the proposal was constituted:

1. Professor Rama Ranjan Mukherjee  
Vice-Chancellor  
Burdwan University
2. Professor G. Ram Reddy  
Vice-Chancellor  
Osmania University
3. Professor Vidya Niwas Misra  
Director,  
K.M. Institute of Hindi and Linguistics  
Agra University
4. Shri Y.D. Sharma  
Deputy Secretary  
University Grants Commission  
Member-Secretary

1.2 The Committee, with the exception of Professor G. Ram Reddy, visited Dwarka on September 20 & 21, 1981. It finalised its report at its meeting held on June 24 & 25, 1983 at Calcutta. It visited (i) The Indological Research Institute, Dwarka and (ii) Shree Sharadapeeth Arts and College of Education, Dwarka and the students hostels of these institutes. The committee also visited ashram school run by the Vidya Sabha for adivasi boys.

first instance a committee may visit and report on the

1.3 The Committee met the members of the Management Board of the Shri Sharda Peeth Vidya Sabha (Annexure-1). It also met the Director/ Principal, College Teachers and students of the two institutes.

1.4 The terms of reference of the committee was to examine the proposal of Shree Sharda Peeth Vidya Sabha for declaring the Indological Research Institute Dwarka and the S.S. Arts and College of Education, Dwarka as an institution deemed to be university under Section 3 of the UGC Act which states as under:

" The Central Government may, on the advice of the Commission, declare by Notification in the Official Gazette, that any institution for higher education, other than a university, shall be deemed to be a university for the purpose of this Act, and on such a declaration being made, all the provisions of this Act shall apply to such institution as if it were a university within the meaning of clause (r) of Section 2."

1.5 The Committee took note of the guidelines laid down by the UGC for considering proposals for developing an institution as 'Deemed to be University' under Section 3 of the UGC Act. These guidelines are in Annexure-2. The Committee proceeded to consider in depth the special historical and other conditions which have necessitated the authorities of the Shree Sharda Peeth Vidya Sabha Dwarka to seek the status of the deemed university for these institutions.

1.6 According to the provisions of the Act No.39 & 1965 passed by the Government of Gujarat, it is within the purview of the Saurashtra University to allow a college to enjoy autonomy in the matter of admission of students to the college, prescribing the course of studies in the college, imparting education, holding of examinations and the conduct of examination etc. The Saurashtra University's letter No. Affl./5236/1983 dated 6-1-1983, containing the relevant provisions is given in Annexure 3.

2. The Proposal

2.1 The Govt. of India, Ministry of Education and Culture forwarded a proposal received by them from Shri H.H. Jagadguru Sankaracharya of Dwarka, President, Shri Sharda Peeth Vidya Sabha, Dwarka for granting 'deemed to be university' status under section 3 of the UGC Act to the Indological Research Institute and S.S. Arts and College of Education, Dwarka.

2.2 Shri Sharada Peeth Vidya Sabha, Dwarka was established in 1959, duly registered under the Indian Societies Registration 1860 (Act. BQM/3 AMR) to achieve development of Indian culture and civilization and to spread knowledge in a way which may consolidate the civilization of Indian people by becoming useful to people in this modern world. One of the basic objectives of the Vidya Sabha is to impart, spread and stabilise the main principles of Indian culture, Indian Ethics and values of Indian philosophy with the help of scholars and teachers in these areas and in Sanskrit. It is also registered under Act XXI, 1961, Public Trust Registration No.F.53, Jamnagar. The list of the members of the Governing Body and other committees of the Vidya Sabha and the Indological Research Institute is given in Annexure 4.

2.3 Shri Sharda Peeth Vidya Sabha is running the research institute in Indology and the S.S. Arts & College of Education, Dwarka which are affiliated to Saurashtra University.

2.4 The Indological Research Institute is stated to have been engaged in the tasks as mentioned in para 2.2 above for the last 22 years and it has built up by now a good collection of original works on Indian culture and Indian Ethics and Indian Philosophy to help its research scholars to produce relevant learning material in these areas for the use of students in degree classes.

2.5 The Institute, is at present running courses at the degree and research level in Sanskrit and is also undertaking a number of short terms and long term research projects in these areas relevant to Indian traditions, culture, customs and manners. Already

by 1981, the Institute has trained 399 scholars in Shastri, 33 in Acharya 125 in M.A. and 12 in Ph.D. and at these levels 59 students including 21 Ph.D. scholars were on the rolls in this Institute in 1982-83.

2.6 The Institute has its own building and adequate accommodation has been provided by it for its library, reading room and classes. It has also been stated that adequate land has been acquired by the institute for future needs and expansion.

2.7 Apart from teaching and research programmes a number of scholars are stated to have been attached to the institute for learning courses at Madhayam, Shastri and Acharya levels through oriental system. It is also engaged in collection and preparation of catalogues of manuscripts and were learning material in sanskrit.

2.8 The SS Arts and College of education, Dwarka is at present providing courses at the first degree level, viz. B.A. and B.Ed.

2.9 It has been proposed that if the Indology Research Institute and S.S. Arts and College of Education are integrated and given "deemed to be university status", new courses and new learning and teaching material could be designed and made available for use on a national scale for the regeneration of Indian Education.

2.10 Such a programme would cover:

- (1) New enriched degree and diploma courses covering roots of Indian culture, ethics, Indian Philosophy and moral sciences.
- (2) Production of literature for teaching new courses from the rare books/manuscripts from ancient and other relevant literature.
- (3) Orientation courses for teachers to teach courses in Indian culture, Indian values and moral and spiritual sciences.

- (4) Extension programmes for adults.
- (5) Awareness courses for working people.
- (6) Development of a library of MSS/books/films filmstrips on Indian culture, ethics, philosophy, traditions, customs and manners.
- (7) Organisation of cultural groups and performing Arts and Groups on Indian culture, traditions and values.
- (8) Establishment of a museum where evolution of Indian culture and its philosophy, its arts and crafts and the comingling of different ethnic and social groups with the help of material and literary evidence and archaeological, anthropological and ancient literatures.
- (9) Teaching of temple architecture.

### 3. BACKGROUND

3.1 Dwarka, being the Karmabhumi of Lord Krishna, is a holy place, and is also the place that Sri Adi Sankara chose as one of the four seats of creating a learning society and for bringing about National Integration. The recent excavations by the Archaeological Survey of India have shown that Dwarka provides a unique archaeological site where Indian culture through ages can be traced in just one place from 1500 BC to 1600 AD. Being a place of pilgrimage, Dwarka has always been receiving saints learned philosophers and indologists from within the country and abroad.

3.2 The Sharada Peeth Vidya Sabha, Dwarka, established in 1959, has been deeply concerned with the weakening of moral and social values in the younger generation which is creating many serious social and ethical conflicts<sup>and</sup> have been advocating speedy measures to balance the knowledge and skills which science and technology bring with the values and insights associated with moral and spiritual science and our ancient literature provides adequate material to give our young people the value orientation which is missing in our education today.



3.3 According to the Memorandum of Association, the Shri Sharada Peeth Vidya Sabha, Dwarka has the following objectives

- (a) To establish and maintain cultural institutions in Dwarka and in other places that come under the area known as "Pashimam Nay Pradesh" supposed to be under preceptorship of Shri Sharada Peethadhish of Dwarka. The said institutions will impart, spread and stabilise the main principles of Bharatiya culture, Bharatiya ethics, philosophy, and will help the scholars of Sanskrit literature and Shastras, and will help the spread of higher education in general.
- (b) To raise funds and to receive donations for the realisation of the objects mentioned below:
- (c) To run a College teaching courses for the degree of B.A. and M.A. with special attention to create love of Sanskrit studies and Bharatiya culture.
- (d) To maintain chair or chairs to help the scholars desirous of achieving the degrees of M.A. Ph.D.
- (e) To impart special courses in Sanskrit literature and to confer diplomas in different branches.
- (f) To provide facilities for study of, and research in, Vedants, Philosophy and the Life and Teaching of Lord Shri Krishna.
- (g) To establish and affiliate Centres for propagating the study of Sanskrit language.
- (h) To organise annual series of lectures of learned Scholars to various places under the auspices of Shri Sharada Peeth Vidya Sabha.
- (i) To take up the work of editing standard classical works of Bharatiya culture and ethics.

- (j) To run a scholarly journal of international colour.
- (k) To run a printing press to help the work of the Vidya Sabha and its various institutions.
- (l) To organise and maintain the Museum at Dwarka of objects of arts, archaeology, history and symbols of Gyan and Bhakti.
- (m) To organise and maintain a library of manuscripts and printed books on Bharatiya culture, ethics, philosophy and Shastras.
- (n) To run an Ashram School of Vagher Tribes at Varvala.

3.4 The Sharada Peeth Sabha, Dwarka, in addition to its traditional activities, runs the following institutions/units, presently:-

- (1) Shri Dwarakadhish Sanskrit Academy and H.H. Jagadgu. Sharada Pitheshwar Shri Abhinava Sachidanand Tirth Swamiji Maharaj Indological Research Institute Dwarka (popularly known as Indological Research Institute, Dwarka....M.A. & Ph.D. (Sanskrit)
- (2) Shri Sharadapith Arts and College of Education, Dwarka.....B.A. , B.Ed.
- (3) Ashramshala, Varvala (near Dwarka)
- (4) Veda Pathsala, Dakor (Distt. Kaira)
- (5) Ayurvedic Clinic at Shankaracharyanagar Antroli (near Kaira)

3.5 The institutes at serial Nos. 1 & 2 above are admitted to the privileges of the Saurashtra University for the degrees noted against each.

3.6 The Ashramshala at Varvala is a residential school for the students of Vaggher and denotified tribes. It provides free boarding and lodging to the students and facilities for primary education and rural activities (including agriculture) sports, games and debates.

3.7 The Veda Pathshala at Dakor is a residential pathshala and provides free board and lodging to students studying vedas, sanskrit and shastri and Acharya classes, moral sciences and vedic Karmakand and Indian customs, culture and manners.

3.8 The Ayurvedic clinic at Shankarcharyanagar Antroli provides free treatment and ayurvedic medicines to villagers.

ENROLMENT:

3.9 In the two university-level institutes at Dwarka the total enrolment over the last three years was as under:

<u>Institution</u>	<u>Enrolment</u>			
	<u>Faculty</u>	1980-81	1981-82	1982-83
1. <u>Indological Research Institute</u>		52	53	59
Arts (including Shastri Acharya, M.A., Ph.D.)				
2. <u>S.S. Arts &amp; College</u>				
Arts		158	165	154
Education		72	72	72
	TOTAL:	282	290	285

Teaching staff

3.10 During 1982-83, in the Indological Research Institute, besides the Professor-cum-Director, there were one Reader,

one lecturer and two research assistants doing teaching also. Professor-cum-Director and the reader possess Ph.D. degree

3.11 In the S.S. Arts and College of Education, besides the Principal and the Director of Physical Education, there were 16 lecturers. Of these 10 lecturers were in the faculty of arts and 6 lecturers including the Vice-Principal in the the faculty of education. Three teachers in faculty of arts and two teachers in faculty of education possess research degrees. The over-all teacher ( inclusive research assistants ) pupil ratio being 1 : 11.

3.12 The admission of students and the appointment of teachers are made on the basic of merit in accordance with the Saurashtra University, rules.

Examination Results:

3.13 The students of these two institutions have obtained consistently excellent results. During the last three years 1980 to 1982, the pass percentage of the alumini was:

B.A. (TYBA)	.....	between 78% to 80.5%
B.Ed.	.....	between 95% to 99.5%
Shastri	.....	" 60% to 100%
Acharya	.....	" 100%
M.A. (Sanskrit)	.....	100%

Libraries

3.14 The Indological Research Institute has a Library stocking 12000 books and 750 manuscripts. The spacious building of the library has four reading rooms and three research rooms with facilities for research workers. It possesses lingua-phone records for the linguistics and scholars. The S.S. Arts and College of Education has about 9950 books. It subscribes to a number of journals and periodicals.

Residences for students and Teachers:

3.15 Residential accommodation for 40 students (including research scholars ) and 5 teachers has been provided. Research scholars and shastri and Acharya students are given free lodging.

3.16 The total assets of the Shri Sharada Peeth Vidya Sabha amount to about Rs.20 lakhs.

3.17 The balance sheet of the Indological Research Institute for 1980-81 shows an assets worth Rs. 3.68 lakhs. The expenditure for 1980-81 was Rs.1.18 lakhs, of which Rs.65570 was contributed by the Shri Sharada Peeth Vidya Sabha, Dwarka, and Rs.52.455 by grant from the Gujarat State Government. The assets of the S.S. Arts and College Education as on 31st March 1981 as per balance sheet are Rs.4.75 lakhs and the expenditure for that year on this college was Rs.4.39 lakhs, of which Rs.3.03 lakhs was contributed by the Gujarat Government as grant. The income and expenditure accounts and balance sheets of the Institute and the college are enclosed as Annexure 5 to 8.

Land and Buildings:

3.18 The areas of land available for all the educational institutions located at Dwarka and around under Shri Sharada Peeth Vidya Sabha is 60,062 sq.mts., including an area of 16,475 sq.mts. for ashramshala for the school education of students belonging to Vagher and other denotified tribes. Of the 43587 sq.mts. of land for the university level institutions an area of 2537 sq.mts. is already built up and 41050 sq.mts. is available for further development of the Institute and the Colleges. In addition, sufficient land has already been acquired for games and sports of the Institute and the College.

Type of land	Indological Research Instt.	S.S.Arts College of Edu.	Hostel & Staff quarters	TOTAL
	<u>Area in square metres</u>			
Land under building	518	917	1102	2537
Land for further development	2000	37734	1316	41050
	2518	28651	2418	43587

Besides, there is plenty of land near the Indological Research Institute that can be available and can be acquired as and when needed.

4. UNIVERSITY LEVEL INSTITUTION  
Indological Research Institute

Founded by the late H.H. Jagatguru Sankaracharya Shri Abhinava Sachchidananda Tirth Swamyji, a renowned scholar in Sanskrit, Philosophy and Vedānta, in 1960, the Indological Research Institute, Dwarka was inaugurated by Dr. S.Radhakrishnan, the then Vice-President of India in March, 1961. Affiliated to Saurashtra University, it provides instructions and research facilities for courses leading to the degrees of M.A. and Ph.D. in Sanskrit. Besides, it is also running courses of Madhyama (Purva and Uttara), Shastri and Acharya examinations of Varanasiya Sanskrit University, Saurashtra Vidvat Parishad, Jamnagar and Brihad Gujarat Sanskrit Parishad, Ahmedabad. No tuition fee is charged from any of the students by the management. The research students and Shastris and Acharyas students are provided free lodging in the hostels and are offered a scholarship of Rs.40/- p.m. by way of encouragement. The institute has an enrolment of 59 students distributed as : Ph.D. 21, M.A. 10, Acharya 7 and Shastri 21 in 1982-83. In

addition, it provides instructions to 18 students of Madhyama. The institute has academic staff strength of 3 teachers; one professor-cum-director, one reader and one lecturer, with 14 to 24 years experience in teaching. The professor and the reader possess research degrees while the lecturer is pursuing his research for Ph.D. degree. In addition, there are two research assistants who also teach. The institute has so far produced 12 Ph.Ds. (In addition, 2 students have submitted their theses), 125 M.A.s (Sanskrit), 33 Acharyas and 399 Shastris. The results of the students at all university examinations are almost cent-per-cent over the last five years (1977-82).

The institute has its own building, the ground floor of which provides residential quarters of the Director (4 rooms) two class rooms, a store room and a research room. On the first floor of the building are 2 rooms and an assembly hall. In the new extension to the building are added 7 rooms used for Vidya Sabha offices and also for teaching and research, 2 big halls, accommodating the library and reading room and a separate reading room. There is also enough land acquired by the Institute for future needs and expansion. The library of the Institute is equipped with 12000 books and 750 manuscripts needed for research on Vedas, Vedanta, Purans, Darshans, Shastras, apart from reference volumes in Sanskrit, Gujarati, Hindi, English, Prakrit and Pali. It possesses linguaphone records for linguistics and phonological purposes for Ph.D. scholars. The library has 3 research rooms and 4 reading rooms. It subscribes to 32 journals and periodicals. It has a qualified librarian possessing M.A. Lib.Sc. qualifications.

The Indological Research Institute publishes a biannual journal entitled "Sharadapeeth Pradipa". It contains learned and scholarly research articles on Indian culture, philosophy traditions in Sanskrit, Gujarati & English. The institute has undertaken the authentic translation and publication of 5 mahakavyas and 5 alankaras and other important Sanskrit manuscripts / works.

The institute has published 16 research publications and undertaken the following research projects:

(a) Long term Research project

- (1) Vadanta Paribhasik Kosha (Dictionaries of Technical Terms in Vedanta ). A 15 years-duration project. Presently the institute is working on Shri Shankara's works as part of the above programme.
- (2) A Dictionary of Technical Terms in Sanskrit Poetics. Under this projects 34 representative works on Sanskrit poets have been selected. It is likely to take 4 years.

(b) Short term Research Projects.

Preparation and publication of:

- (1) Authentic translation with analysis of the philosophy of the work " Naishkarmyasiddhi of Sureshwaracharya in English and Gujarati.
- (2) Dharamasmriti Paribhasik Kosha.
- (3) Authentic Verse translation and critical applications of stotrakvyas of Shri Shankar. The details about the institute is given in Annexure 9.

The Indological Research Institute has established an Indological Museum and are also doing work on Soma Ras Project.

Shri Sharadapeeth Arts and College of Education, Dwarka.

The S.S. Arts and College of Education was established in 1960. It is affiliated to Saurashtra University and imparts instructions for B.A. and B.Ed. degrees of the University. At the B.A. degree level the college provides for the teaching of the subjects of English, Sanskrit, Hindi, Gujarati, Economics, Psychology. The enrolment in the college from 1977 - 78 was as under:



Year	B.A. Course				B.Ed. Course		
	Total	Boys	Girls		Total	Boys	Girls
1977-78	220	106	114		78	45	33
1978-79	180	74	106		75	40	35
1979-80	156	47	89		78	37	41
1980-81	158	82	76		72	29	43
1981-82	165	78	87		72	29	43
1982-83	154	NA	NA		72	NA	NA

The students of the weaker sections of the society and girl students have been in majority. The teaching staff strength, besides the Principal and Director of physical education was 16 including 10 teachers in the faculty of arts and 6 teachers in the faculty of education. Three teachers including the Principal in the faculty of arts and two lecturers in the faculty of education were Ph.D.s. Four teachers are pursuing research for Ph.D. degree. The teachers of the college have published 61 books and a large number of articles. The results of the college in the final examination during the last five years 1977-78 to 1981-82 varied between 78% to 90% for B.A. examination and between 90.6% to 99.5% for B.Ed. examination. Till 1982, 894 students in first year B.A. 701 students in second year B.A. and 581 students in third year B.A. have passed out from the college. The total output of B.Ed. scholars till 1982 has been 560. The college has adopted UGC scales of pay for its teachers.

The College library stocks over 9940 books, and it subscribes to 55 journals. It has a separate book bank section. The students of the college have taken part in extra curricular activities like N.C.C. , N.S.S. adult education, planning forum. The NSS unit adopts a village, keep a ten days camp there and tries to make all-rooms development.

of the village by constant visits for 3 years. Village Drasanwel was adopted for three years. The Planning forum of the college conducted a socio-economic survey.

The college has its own building. About 38650 sq.meters of land is available to the college, which is sufficient for future development and expansion.

The list of the members of the managing committee of S.S. Arts and College of Education, Dwarka and other details about the college are given in the Annexures 10 & 11.

5. Meeting with students, Director/Principal and teachers of the Indological Research Institute and the S.S. Arts and College of Education, Dwarka, Members of the Governing Body of Shree Sharada Peeth Vidya Sabha Dwarka and prominent citizens and representatives of Chambers of Commerce.

5.1 The following observations were made at the meetings of the Committee with the students, Director/Principal, teachers, members, of the Managing Committees of Indological Research Institute and the S.S. Arts and College of Education, Dwarka, Members of the Governing Body of Shree Sharada Peeth Vidya Sabha, Dwarka and prominent citizens and representatives of Chambers of Commerce.

5.2 Shree Sharada Peeth Vidya Sabha, Dwarka, being a registered society, under the Societies Registration Act XXI of 1860, enjoys a legal status. Its two constituents, namely the Indological Research Institute, Dwarka and the S.S Arts and College of Education, Dwarka affiliated to Saurashtra University, follow the courses of study prescribed by that University.

5.3 The Indological Research Institute prepares students for M.A.(Sanskrit) and Ph.D. degrees, while the S.S. Arts and College of Education provides instruction for B.A. and B.Ed. courses of Saurashtra University. The Selection of teachers,

admission of students and examinations are in conformity with the procedures laid down by the Saurashtra University, within whose framework the Vidya Sabha is controlling the academic and financial aspects of these institutions.

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5.4 The University of Saurashtra was not inclined to extend affiliation in other courses of study leading to Master's Degree, and this stood in the way of the two institutions opening new areas of specialised and diversified courses of study. The Committee was told that as the institutions were required to work within the framework of the rules, regulations and the syllabus prescribed by the Saurashtra University, it was not in a position to carry out experiment in new courses of studies with the objective of effecting beneficial linkages between education, employment and national development. The following is quoted from the memorandum given to the Committee in this regard:

"It is not possible to translate into action the various potentialities for this region while remaining affiliated to Saurashtra University. Our field is very much narrowed down. We desire to expand with a view to fulfil the expectations of this region, Moreover, the local needs bearing in mind the peculiarities of this region, cannot be satisfied by continuing our affiliation to Saurashtra University. To cite a few examples of support the above point, we believe that various short and long-term courses for Diplomas and Degrees should be added to meet and develop the regional potentialities of this land. "Dwarka, being a place of pilgrimage and Holy Seat of Jagadguru Shri Shankarcharya, many pilgrimages come here with a view to get performed the various religious ceremonies. For this, a systematic study of 'Karmakand' is inevitable. Hence we desire to

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introduce a diploma courses for these religious rituals. Similarly, Dwarka being a place of great historical and archaeological importance, a degree or diploma courses in this direction is very much desirable. In the same way, studies of marine biology, Oceanography and related subjects can be done systematically if the autonomous status is granted to us.

" At present, with the limited area of affiliation with Saurashtra University we cannot start Archaeology, Fine Arts, Moral Science and Philosophy. The other most important area of education is rural reconstruction. It is our aspiration to contribute our quota in this direction also.

"All this is possible only if we are free from the limitations of our affiliation with Saurashtra University".

It was with these considerations that the Vidya Sabha did not make an application to the Saurashtra University for the grant of autonomy, under the existing provisions of the Saurashtra University.

5.5 The Institute is at present engaged in restructuring new degree courses in important areas which every Indian should be familiar. For these, teaching and learning material have to be prepared particularly from our ancient literature alongwith the new knowledge that is growing day by day with the rapid growth of science and technology. The thinking of the Vidya Sabha in this regard is outlined in the Annexure-XII. On the basis of this outline, the Vidya Sabha is stated to be finalising a report with the help of an expert committee. The programmes are expected to impart the needed knowledge and skill and value orientation to help one to stand on its own feet and will initiate one to continue learning all through one's life so that knowledge really acts as power in the hands of all. The courses and textbooks which will be at degree

level, diploma level and as part of foundation courses for all degree courses are expected to improve the standard of higher education in the country. The books/material produced under this programme will cover a study of the religions of the world, Indian Culture and its essential features, biographies of saints, prophets and philosophers and ethics and needs and methodology of moral and spiritual education.

5.6 Dwarka was a seat of learning for more than 2000 years, and over these years, all the great saints, poets and devotees visited Dwarka from all parts of the country. This is the only place in India where a continuous history of India from the days of Mahabharata could be reconstructed in view of the recent archaeological discoveries. If further excavation are carried out successive townships of Dwarka, stated to be seven in number, traces of which are found, can be excavated. It is proposed to set up a museum having sections on Fine Arts, Crafts, Folk Art, Sociology and growth of scientific thought and philosophy and pre-history, proto-history (pre-vedic, vedic, epic), early history, medieval and modern history etc. This department will run a school for the rejuvenation of traditional arts like, temple building sculpture, bronzecasting, ceramic wares and glass making and undertake excavations and publication. Some details about it are given in the Annexure - XIII.

5.7 To achieve the above objectives, it is imperative that these institutions are accorded deemed to be university status. As and when this status is accorded, it is proposed to impart the above instructions through an institution called "Dwarka Vishwa Vidya Peetham".

5.8 The representatives of the Students Union pointed out that Dwarka being the 'Gateway to India', and the headquarters of the University of Saurashtra being situated some 250 kms. away from Dwarka, the case of setting up a new type of university at Dwarka was there, and that this University can develop as an institution of special type by virtue of its major thrust on Indian Culture. The College of Arts situated in the City of Damnagar was also pretty far from the Dwarka and as such young learners find it difficult to acquire collegiate education even, not to speak of University Education. The students submitted that Dwarka should have a 'full-fledged university' offering courses in Arts, Science, Commerce, Management Studies and other major areas of study, but it was explained to them by the committee that as the establishment of a multi-faculty university depends on a legislation by the Central/State Government and, therefore, it was beyond the competence of the Committee to recommend setting-up of a multi-faculty university.

5.9 The two institutions have shown consistently very good results in university examinations and desire for better scholarship. Even though majority of the teachers do not possess research degrees, this is more than compensated by a spirit of devotion and dedication in discharging their duties and responsibilities towards the students.

6. THE OBSERVATIONS AND RECOMMENDATIONS  
OF THE COMMITTEE:

6.1 The Visiting Committee visited the two institutions managed by Shri Sharada Peeth Vidya Sabha, Dwarka and acquainted itself with the courses of studies in which instructions were being imparted in the two institutions as also with the life of the community associated with the two institutions. The Committee had the privilege of meeting members involved with the management of the Vidya Sabha as

also Shri Jagatguru Shankaracharyaji, the College of Education and Research Institute, <sup>AS</sup> also with the members of the Faculty and the representatives of the Students Union. The Committee discussed the academic programmes undertaken by the two institutions and the objectives set forth by the sponsors of the Institutions. The Committee also met the representatives of the public of Dwarka and it was overwhelmed by the genuineness of the desire expressed by the members of the public to have a full-fledged University at Dwarka which constitutes one of chief centres of traditional culture and civilization. The Committee appreciated the views of the management that in case the status of a "Deemed to be University" was granted to the institutions, it would be possible for them to introduce new diversified courses with major thrust in Indian culture, having for their core theme Sanskritic studies of traditional type.

6.2 Shri Sharada Peeth Vidya Sabha, Dwarka, being a registered society under the Societies Registration Act XXI of 1860, as also under Act XXI, 1961, Public Trust Registration Act No.F.53 Jamnagar, enjoys a legal status. The Vidya Sabha signifies a society which is running various institutions as mentioned earlier in Section 3.4 and is not in itself an institution of higher learning. It aims to become an institution, deemed to be university, so that it may serve the society in a better way through various programmes to achieve its declared aims and objectives. It has proposed inclusion of two institutions located in Dwarka, viz.(i) Indological Research Institute, Dwarka; and (ii) S.S. Arts and College of Education, Dwarka as the main constituent of the deemed university. These institutions are, however, functioning independently. The combined faculty strength in these two institutions is 20, of which only 7 hold doctorate degrees and a number of the members of the faculty have publications, to their credit, which include books and articles.

work

6.3 The standard of instruction imparted in these two institutions is creditable and judged from the percentage of the passes, and quality of research. A large number of students in the undergraduate college come from indigenous families and they are mostly first generation learners. The condition in their homes are not conducive to enable students to serious work required for higher education. The institutions, however, organise special coaching programmes for the students to develop their social and linguistic skills.

6.4 The Committee appreciated the inhibitions experienced by the ties which bind the two institutions to the requirements of the Saurashtra University. The Committee noted that the Saurashtra University Act allows a college to enjoy autonomy in the matter of admission of students to the college, prescribing courses of study in the college, imparting education, holding and conduct of examinations. The Committee was told that the urgency for securing the status of a 'deemed to be university' was being felt all the more because the colleges did not have an opportunity of finding out innovations in the field of undergraduate studies. Under an affiliating university the colleges have to operate within the framework of a stereo-typed syllabus drawn by the University and the process of experimenting with new syllabus became all the more difficult for the various constraints. The Committee felt that with the keenness and urge demonstrated by the management, the Faculty and the student community it could be possible for the institutions at Dwarka to make experiment with new areas of studies and develop it as a special type of institution with major thrust of Indian culture. The Committee was of the opinion that diversified courses in different facets of Indian culture could bring into consumation the ideal of national integration and thereby help the society itself in its march towards progress and prosperity. The Committee felt that the Research Institute



and College of Arts and Education both were in good order and were trying hard to train the students in their own way in such a manner that they could prove themselves useful to the rural community. The Committee was of the opinion that only granting the status of a 'deemed to be university' to the institute would enable it to move towards the fulfilment of the cherished ideals and objectives of the Sabha.

6.5 In an all round decline in sense of values and rise in the forces of disruption and indiscipline in the country, the Committee was impressed by the efficient management of the institutions at Dwarka, congenial academic atmosphere, discipline of a high order and the cordial relationship existing between the different sectors of the academic community.

6.6 The Committee was of opinion that the Library of the Research Institute was fairly good in the collection of original texts and that the collection of rare manuscripts was really of very high order capable of extending adequate facilities to the research workers desirous of having a deep penetration into the abstruse texts of Sanskritic studies.

6.7 The atmosphere of peace in the small hostel which has yet to develop into its full structure as also at the college was surcharged with a feeling of mutual trust and regard.

6.8 The Committee was pleased to note that the two institutions had been trying to give a new dimension to the activities of the Faculty by inducting the component of 'extension' into the activities of the teachers, giving thereby a three-dimensional form to the assignment of a teacher, namely teaching, research and extension both the institutions are actively engaged in extra-curricular activities aimed at fostering a cultural belongingness. These include folksongs, recital, folk dance recitals,

nearby

painting and drawing, poetry recitation, music and household arts. These institutions are also nursing a model residential primary (ashram) school at Veraval for tribal boys in a village. The school is run efficiently and it was a pleasure to listen to articulate recitation and folksinging. This is a right type of service demanded from an institution of this type. It, however, lacked adequate facilities for games and sports.

6.9 The Committee felt that it would be possible for the faculty of the institutions to implement academic innovations in the field of undergraduate courses and to break away from the entirely conventional type of education with the ultimate objective of enriching the system of higher learning itself. The administration of the two institutions indicated its keenness to introduce the following areas in the undergraduate stage at the first level and in the post-graduate stage at a subsequent period:

1. Comparative Religion.
2. Study of comparative language.
3. Ancient Indian History and Culture.
4. Archaeology - Pre-historic and early historic.
5. Fine Arts and Performing Fine Arts, including Folk-performance arts.
6. School of Folk-lore ('Lokvanta') with special emphasis on Rituals (Lok-Sahitya).
7. History of Sciences.
8. Comparative Courses in Military Science.
9. Printing and Publishing.
10. Jyotish Vigayan Yoga
11. Ecology of the area.
12. Museology.
13. Marine Archaeology.
14. Temple architecture and study of temple rituals.

6.10 It was presented before the Committee that while framing syllabus in these new areas, due importance would be given to study of original Sanskrit, Pali and Prakrit texts, so that the evolution of the different disciplines could be traced back to ancient period and a synthesis could be established between ancient and modern learning. Dwarka being the paradise of lexicographers and archaeologists, the Committee felt that Temple Archaeology and Temple Rituals could be profitably inducted into the syllabus of new courses proposed to be introduced in the institution, so that persons having interest in temple architecture and having competence in carving out paintings, idols and images could be given sufficient training enriching thereby the texture of Indian society itself. The Committee noted with satisfaction that at a time when schools of different philosophers were originating in the western countries for the purpose of making textual studies and analysis of profound philosophers, the management of the institutions was contemplating to the emphasise the necessity of textual studies and analysis with the ultimate objective of projecting the greatness and grandeur of Indian civilization. While accepting these new areas contemplated to be opened the management emphasised that for all these courses the main thrust would be on Indian culture and that substantial traditional component would be inducted into the syllabus of each course, so that the young learners could be converted to real dedicated citizens of posterity willing to give useful service to the cause of the nation and the society.

6.11 The Committee felt that the two Institutions had a significant role to play in the sphere of Sanskrit learning as also in the field of ancient Indian literature, History and Culture, and it was pleased to note that the management was eager to induct modern scientific components into the syllabus of each course alongwith traditional components

making thereby a grand and pleasing synthesis between the traditional and modern component with the ultimate aim of making young learners prepared to accept the challenge of the society and participate in the development programmes of the nation. The Committee felt that of the two institutions under consideration which would form the nucleus of the bigger institution on which the status 'deemed to be university' is going to be conferred, the College of Arts and Education is not in a position to impart instructions at postgraduate level, at the present moment, but the infrastructure there is quite sufficient to enable the College to implement the innovated programmes in Undergraduate stage, - programmes which would make young graduates more employable and fruitful for the society. Some of these courses however, could be of shorter duration and could be brought profitably under the programme of 'Continuing Education', so that Society and particularly the weaker sectors of the community could be immensely benefitted by these courses and could feel the utility of the institution itself.

6.12 The Committee considered the parameters imposed by the University Grants Commission for conferring the status of 'deemed to be university' on an institution, or a cluster of institutions as provided for in the UGC Act and formulated certain observations with regard to applicability of the parameters in the case of the Dwarka Institutions. The Committee was confident that the Institutions had the competence to initiate innovation to implement programmes having bearing on Indian culture and to effect a harmonious blending between traditional and modern ideas and that they had the necessary inputs for the purpose. The Visiting Committee got ample opportunities of having a thorough and threadbare discussion on academic issues and programmes with the students and members of the faculty, and it was of opinion that though for some reason

or other a University could not be established at Dwarka, the Research Institute and the College of Arts and Education had been doing work of high standard in the academic field and that granting of the status of a 'deemed to be University' on them would enable them further to translate into action the highest ideals belonging to higher learning and research. The two institutions should aim at consolidation of the existing programmes at the initial stage and try to confine themselves to implementation of programmes relevant to needs of the environment in which the institutions are situated. This means that due emphasis was required to be paid to culture of tribal people and dialects of the area, so that the tribal people inhabiting the region could feel that they were not isolated from the main stream of Indian life and culture. The Visiting Committee appreciated this line of thinking of the management which demonstrated its determination to establish the thesis that culture of the tribal people was an essential component in the genesis of rich and variegated Indian culture.

6.13 One of the parameters indicated in the UGC guidelines stated that the institutions should be engaged in choosing particular fields of specialisation and should have successfully achieved highest academic standards in those fields. If by this it is meant that these two institutions should have functioned for a considerable period as post-graduate institutions and Centres of Higher Research where students were registered for admission to the Degree of Doctor of Literature or Doctor of Philosophy then it is fruitless to find out these requirements in case of Dwarka Institutions and the reason is simple. At the present moment, the College of Arts and Education, Dwarka imparts instructions in Undergraduate courses only and the Research Institute has arrangements for imparting instructions in postgraduate course and that too in Sanskrit within the framework of the syllabus prescribed by the University of Saurashtra and

guiding students in Sanskrit for the Degree of Doctor of Philosophy. But the potentiality was very much there in the two institutions, the surroundings, the serenity of the atmosphere, the richness of the library, the dedication of the Faculty, the keenness of the taught, the sincerity of the management, and above all the spirit of co-operation and coordination between different sectors of the academic community. The Committee was of opinion that once the 'deemed to be university' status was granted to the Institutions at Dwarka they would be able to rise to their full stature according to their cherished ideology and implement new academic programmes of their own.

6.14 The guidelines indicated by the U.G.C. include the fact that the institutions on which the status of a 'deemed to be university' is going to be conferred should make reasonable contribution to the university system and the university system should be enriched by the status of the institution itself. It had been mentioned earlier that by introducing courses of Folk-lore, Ecology, Modern Archaeology, Temple Architecture, the management had been contemplating to arouse the keenness of the tribal people and to bring them into the main stream of Indian society by way of cultural upliftment. The study of tribal culture is a desideratum in present context of the country. The Committee was confident that the atmosphere and academic climate which the management had been able to maintain during all these years would be enriched further by opening of new courses in which tribal culture, marine archaeology and such other new disciplines could find place simultaneously with the traditional disciplines of Sanskrit and Museology.

6.15 The Committee was told by the management that financial help would come forth from the State and Central Government and the Shri Sharada Peeth Vidya Sabha would also make available funds for this specific purpose

After meeting the representatives of Chambers of Commerce the Committee felt that possibility of flowing funds from business community were also there, in case these institutions are granted deemed to be university status.

6.16 In the backdrop of this assurance the Committee can reasonably expect that adequate funds would be made available to provide more space for the academic programmes and research projects. Once it starts functioning as deemed to be university

6.17 While recommending that the status of a 'deemed to be university' be granted to the cluster of Dwarka Institutions the Committee recommended that the Institution should be advised to draw up its courses of study in consultation with eminent experts in respective fields in such a way that proper synthesis could be established between traditional and modern components so that modern mind could blossom forth without forgetting the hoary past and its traditional moorings and cultural heritage. This type of courses being an entirely new one the experts are to be located properly, so that the matter can be taken up with all seriousness in order to enable the Institute to justify its existence as a special type of Institution enriching the University system itself. The Committee also felt that it would be desirable to have an Academic Planning Committee having representatives of the Trust, the University Grants Commission and some eminent experts trained in the fields in which instruction were being proposed to be imparted in the Institution in order to give proper direction to the academic activities of the institutions, so that the new 'deemed to be university' can establish itself on a solid foundation (and the community cannot question the conferment of the status of a 'deemed to be university' on it.)

6.18. To justify the status of deemed to be university, the Vidya Sabha will have to :

- (1) Work hard on preparing a blue-print of their specific role as a deemed university centre well-defined, precise and supported by concrete proposals for resources both material and academic.
- (2) Underline the regional needs and requirements for their extension service programmes. The focus should be on such subjects and areas which are unique and which have relevance not only from regional angle, but also from an all-India point of view.
- (3) Indicate supported by documents clearly the quantum of endowments, equipments, books, cash deposits, shares, debentures, certificates etc. to be set apart for the would be deemed university in terms of bank account, landed and other property.
- (4) Form a new integrated registered body separate from the 'Math's Trust', so as to ensure secular character of the would be deemed university. The deemed to be university shall be open to all persons, irrespective of sex, race, caste, creed, colour, religion, nationality, state, or citizenship. Requisite provisions for appointment/admission from the weaker sections of society including scheduled castes/tribes and other backward communities shall be made as per direction of the Government of India that may issue from time to time.



5. The constitution of the proposed 'Institute' may be drawn in consultation with the UGC.
6. Make necessary provision for constitution of selection committees for appointment to teaching and non-teaching posts as also for their source conditions.
7. Provide for adequate facilities and machinery for the health, and welfare of their students, teachers and staff.
8. Follow the norms laid down by the UGC in regard to postgraduate teaching and research.
9. Admit to its membership such numbers of persons as it considers suitable and qualified for furtherance of its objectives.

6.19 The Committee, therefore, takes great pleasure in recommending once again to the UGC that the status of a 'deemed to be university' be granted to the Shree Sharada Peeth Vidya Sabha, Dwarka, cluster of institutions (Indological Research Institute and S.S . Arts and College of Education at Dwarka) subject to the fulfilment of conditions indicated in the para 6.17 and 6.18 above. The committee recommends that pay scales as applicable to comparable deemed to be universities would be made applicable to the teaching staff of this Institution when it starts functioning as a deemed to be university. The scales of pay of non-teaching staff may be decided in consultation with the UGC. The deemed to be university should be admitted to the pattern of financial assistance for development by the UGC as in the case of other deemed to be universities.

6.20 At the time of finalising this report the committee learnt that the Director of the Indological Research Institute, Dwarka has left the Institute. The Committee therefore, strongly felt that a person of scholarly vision and imagination should be appointed to the post of the Director so that he may be able to implement the recommendations set forth above.

#### VII. A C K N O W L E D G M E N T

7.1 The Committee would like to express its appreciation of the good deal of efforts put up by the Shree Sharada Peeth Vidya Sabha, Dwarka in building up these institutions in Dwarka and around. The Committee was greatly impressed by the desire of Shri Jagatguru Shankaracharya Ji, the members of the Governing Body of the Vidya Sabha, and managing committees of the Institutes, of ensuring the continuity of these institutions to have a perpetuity of the work begun and for a wider perspective for their future role in academic excellence and nation building. The recommendations of the committee have been made towards this end.

7.2 The Committee places on record its gratefulness and sense of appreciation to Shri Jagatguru Shankaracharyaji, Director, Principal, Students Union, Teachers, members of the Governing Body/Managing Committees and Chambers of Commerce in extending all cooperation and facilities in the work of the Committee.

SHREE SHARDA PEETH VIDYA SABHA, DWARKA

List of the members of the Managing Board  
and other personalities who met the committee.

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1. Dr. Jayantilal J. Thaker, Secretary, Shri Sharadapeeth Vidyapeeth.
2. Dr. S. R. Rao, Ex-superintendent, Department of Archaeology - West Zone and at present - Director of the Marine Oceanography, Goa.
3. Shri Shambhuprashad Desai, IAS (Retd.)
4. Prof. V. N. Upadhyay, Retired Prof. of Physics and Vice - Principal of Science Institute, Navsari.
5. Dr. M. T. Buch, Principal, Pachavati College, Jamnagar.
6. Shri Lalitvadan K. Joshi.  
Acting President, College Sanchalan Samiti, Dwarka.
7. Shri Pushkerbhai H. Gokani  
(Member of the Managing Body of Shardapeeth Vidyasabha, Dwarka)
8. Shri Kanailal J. Bhayani,  
Secretary, (College Managing Body, Dwarka)
9. Shri Narshidas H. Kahani.  
President of the Chamber of Commerce, Dwarka.
10. Shri Kantilal K. Mavani  
President, Dwarka Nagar Panchayat, Dwarka.
11. Shrimati Jayashreeben P. Gokani  
President Mahila Mandal, Dwarka.
12. Shri Karabha K. Nanek,  
Ex-President, Taluka Panchayat, Dwarka.
13. Dr. R. T. Vyas, Director, Indological Research Instt, Dwarka.
14. Dr. S. K. Dave, Principal, S. S. Arts and College of Education, Dwarka.

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UNIVERSITY GRANTS COMMISSION  
BAHADUR SHAH ZAFAR MARG  
NEW DELHI-110002.

ANNEXURE-II

Revised guidelines laid down by the Commission for considering proposals for declaring an Institution as deemed to be a University under Section 3 of the UGC Act.

.....

1. Section 3 of the UGC Act provides for declaring an institution of higher education other than a University to be 'deemed to be a University' and when such an institution is deemed as a University, the UGC Act applies to it, as a University within the meaning of Section 2 (f) of the Act.
2. This provision has been made in the Act, to bring under the purview of the University Grants Commission institutions which for historical and other reasons are not universities and yet are doing work of a high standard in an academic field and at University level, and that granting of the status of deemed to be a University would enable them to develop ideals belonging to the higher Education and Research.
3. Keeping in view the general concept of an institution to be deemed to be a University, the institution should generally aim at strengthening its activities in its field of specialisation rather than make efforts towards growing into multi-faculty university of the general type.
4. The type of institution that may be recognised as 'deemed to be University', should generally be (i) an institution, engaged in teaching and research in chosen fields of specialisation and it has maintained the highest academic standards, (ii) in the fields of its specialisation, the institution has a very high standard, is making a distinct contribution to university educational system including innovative undergraduate programmes and significant Extension activity and by bringing it under the UGC Act, the University system would be enriched, (iii) the granting of a deemed University status would further enhance the development of the area of specialisation, teaching and research activities, in that institution, and (iv) the institution has the necessary financial resources and viability and management capable of contributing to university ideals and traditions.

.....

Copy of the letter No.Affi./5236/1983  
of the Saurashtra University dated  
6-1-1983.

.....

To,

Shri Y.D. Sharma,  
Deputy Secretary,  
University Grants Commission,  
Bahadur Shah Zafar Marg,  
New Delhi

Sir,

Please refer to your D.O. Letter No.F.6-1/8/(CP) dated 11th December, 1982 addressed to Shri V.M.Desai, Registrar of this University, I quote below the relevant provisions of the Act, No.39 & 1965 passed by the Gujarat Govt. regarding autonomous colleges:-

48-A(1) Any affiliated college of University college may be a letter addressed to the Registrar, apply to the Sybdicate to allow the college to enjoy autonomy in the matters of admission of students to the college, prescribing the courses of studies in the college, imparting education, holding of examinations and the conduct of examination (hereinafter referred to as "as the specified matters ")

(2) Either on receipt of a letter of application under sub-section (1) or where it appears to the Sybdicate that the standards of education in any affiliated college or University college are so developed that it would be in the interest of education to allow the college to enjoy autonomy in the specified matters on its own motion, the Syndicate shall

(a) for the purpose of satisfying itself whether standards of education in such college are so developed that it would be in the interest of education to allow the college to enjoy autonomy in the specified matters -

- (i) direct a local inquiry to be made by a competent person or persons authorised by the Syndicate in this behalf, and
  - (ii) make such further inquiry as may appear to it to be necessary.
- (b) after consulting the Academic Council on the question whether the college should be allowed to enjoy autonomy in the specified matters, stating the result of the inquiry under clause (a) record its opinion on that question and
- (c) make a report to the Senate on that question embodying in such report the result of the inquiries, the opinion of the Academic Council and the opinion recorded by it.
- (3) On receipt of the report under sub-section (2), the Senate shall, after such further inquiry, if any, as may appear to it to be necessary record its opinion thereon on the question whether the college should be allowed autonomy in the specified matters.
- (4) The Registrar shall thereupon submit the proposals for conferring such autonomy on such college and all proceedings, if any, of the Academic Council, the Syndicate and the Senate relating thereto, to the State Government.
- (5) On receipt of the proposals and proceeding under sub-section (4) the State Government, after such inquiry as may appear to it to be necessary, may sanction the proposals or reject the proposals.
- (6) Where the State Government sanctions the proposals, it shall by an order published in the official Gazette confer on the college specified in the proposals, power to regulate the admission of students to the college the courses of studies in the college the instructions, teaching and training in the course of studies, the holding of examination and the conduct of such examinations and power to make the necessary rules for the purpose after consulting the Syndicate and such other powers as may have been specified in the proposals.

(7) A College exercising the powers conferred under sub-section (6) shall be called an autonomous college.

(8) In the case of an autonomous college, the University shall continue to exercise general supervision over such college and to confer degrees on the students of the college passing any examination qualifying for any degree of the University.

Yours faithfully,

sd/-

Registrar

.....

SHRI SHARADA PEETH VIDYA SABHA, DWARKA

\*  
List of the Members of the Governing Body

.....

President : H.H.Jagadguru Shankarcharya Maharajshree  
Swarupanand Saraswati Swamiji Maharaj,  
Shardapeethadhiswar, Dwarka

Vice-President:

1. Dr.S.R.Rao  
Suprintendent, Department of Archaeology, West-Zone  
and present Director of the Marine Oceanography,  
Goa.
2. Shri P.V.S.Maniyam Saheb  
Vice-President (Operations)  
Tata Chemical Limited, Bombay
3. Shri Narahidas Haridas Kangni  
President, Chambers of Commerce, Dwarka.
4. Prof. V.N.Upadhyay, Retired Vice-Principal  
Petlad.

Secretaries :

1. Dr.Shri Jayantilal J. Thaker  
Managing Secretary
2. Shri Lalitvadan K. Joshi  
Assistant Secretary
3. Shri Mahabal Bhatt.  
Prachar Mantri  
Secretary to H.H.Jagadgurushri Shankarcharya  
Maharaj

Members:

1. Shri Trikamdas Haridas Bhambha,  
Leading merchant of Okha-Port, Okha.
2. Shri Pushkerbhai Haridas Gokani  
D.E., M.I.R.C. Dwarka
3. Shri Kanaiyalal Jamnadas Bhyani  
Leading merchant and social worker, Dwarka.

---

\* This list applies to Indological Research  
Institute also.



4. Shri Anantprashad P. Purohit,  
Agent, Bank of Baroda, Dwarka
5. Dr. R.T. Vyas, Director,  
Indological Research Institute, Dwarka,
6. Dr. S.K. Dave, Principal  
Shri Shardapeeth Arts and College of Education,  
Dwarka
7. Shri R.M. Shah  
Production Manager,  
Tata Chemical Ltd, Mithapur
8. Manager,  
A.C.C. Cement Cos., Ltd.  
Dwarka
9. President,  
Taluka Panchayat, Dwarka
10. Sabhapati,  
Nagar Panchayat, Dwarka.

BOARD OF TRUSTEES:

1. Sheth Shri Jayantbhai B. Kapadia,  
Bombay
2. Sheth Shri Liladhar Chunilal Bhurna,  
Dwarka
3. Sheth Shri Damodar Ramji Davda,  
Okha
4. Shri Bachubhai K. Vaishnav,  
Chatkoper, Bombay
5. Shri Chandrakant Motilal Jagabhaiwala,  
Ahmedabad
6. Shri Dharmisig D. Desai  
Bombay

ADVISOR BOARD:

1. His Holiness Shri Shankarcharya Shri Swarupanand -  
Saraswati Swamiji Maharajshri, Dwarka Peethadhiswar,  
President.
2. Shri Shakerlal Dave, Vice-Chancellor  
Saurashtra University, Rajkot.
3. Dr. Jayantilal J. Thaker,  
Secretary,  
Shardapeeth Vidyasabha, Dwarka.

SHRI BWARKADHISH SANSKRIT ACADEMY & INSTITUTE FOR RESEARCH IN INDOLOGY: DWARKA  
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED UP TO 31st March-1981

Phone:26192  
G.N.Bhatelia & Company  
Chartered Accountants  
A-7, Modi Chambers  
Dhamendra Road, Rajkot-  
360001

EXPENDITURE		RS.PS	INCOME	RS.PS.
<u>Salaries &amp; Allowances</u>			By Gujarat State Grant	52,455.00
<u>Salary</u>				
To Teaching Staff	31,418.72			
To Non Teaching Staff	20,060.66	51,479.38	By Bank Interest	210.04
<u>Dearness Allowance:</u>				
To Teaching Staff	13,110.22		By Pradip Journal subscription	189.50
To Non Teaching Staff	12,869.79	25,980.01	By T.C. Fee	2.00
<u>Provident Fund</u>				
To Teaching Staff	278.33			
To Non Teaching Staff	1,479.92	1,758.25	Excess of Expenditure over income Transferred to Sharda Peeth Vidya Sabha - Dwarka	65,569.81
<u>To Charge Allowance:-</u>				
To Teaching Staff		2,160.00		
To Pradip Printing				81,377.64
To Scholarship				5,798.00
To Library Books				4,497.50
To Unexpected				4,484.70
To Advertisements				1,545.70
To Repairing				916.00
To Stationery				795.80
To Uniform				491.25
To Miscellaneous				339.00
To Audit Fees				324.80
To Travelling				201.00
To Postage Expenses				191.54
				189.15

1	2	3	4	5	6
---	---	---	---	---	---

To Vyakhyanmala 159.70  
 To Electricity Charge 110.72  
 To Arrears to Ex-Chokidar 105.16  
 To Water supply 48.00  
 To Depreciation:-

1. Building 14,000-10  
 2. Furniture 2,812-11  
 3. Equipment 41-48  
16,833.69

1,18,426-35  
 \$=====

TOTAL RUPEES 1,18,426-35  
 =====

Examined & Found correct.  
 Sd/-G.N. Bhatelia  
 Chartered Accountant

N.B.: Income & Expenditure Account of Sharda Peeth  
 Vidya Sabha includes above items of income  
 & expenditure  
 (2) Grant are accounted on receipt basis

R A J K O T  
 DATE: 30.10.81

SHRI DWARKA SANSKRIT ACADEMY & INSTITUTE FOR RESEARCH IN INDOLOGY: DWARKA  
BALANCE SHEET AS AT 31st March - 1981

## ANNEXURE VI

Phone: 26192  
G.N. Bhatelia & Co.  
Chartered Accountants  
A-7, Modi Chambers  
Dhamendra Road,  
Rajkot - 360001

FUNDS & LIABILITIES		RS.PS	PROPERTY & ASSETS		RS.PS.
Shri Sharda Peeth Vidya Sabha Dwarka:			Balance as per last Balance Sheet 2,80,001.95		
Balance as per list Balance Sheet 3,63,341.14			Less Depreciation 14,000.10		
Add: Amount received during the year. 1,01,314.44					
			2,66,001.85		
Less:			Furniture:-		
Amount paid during the year 52,646.50			Balance as per last Balance Sheet 28,121.13		
Excess of expenditure over income transferred to Vidyasabha Dwarka 65,569.81			Less: Depreciation 2,812.11		
1,18,216.31			25,309.02		
3,46,439.27			Equipment:-		
Deposits:-			Balance as per last Balance Sheet: 189.42		
Library deposits from students 1,775.00			Add: 18.00		
Publication of books & Advertisements 1,382.70			207.42		
Book Depreciation charge from student 128.00			Less Depreciation 41.42		
			165.94		
Other Liabilities:-			Library:-		
Shri Jगत Guru Shankarcharya Maharaj 50.00			Balance as per last balance sheet 52,924.91		
C.D. of employees 1,272.89			C.D. of Employees 1,272.89		
Employees Provident Fund 16,564.04			Deposits:-		
17,886.93			With Brihd Gujarat Sanskrit Parishad 300.00		
			With Nagar Panchyat, Dwarka 100.00		
			With Gujarat Electricity Board, Dwarka 60.00		
			With Baroda Uni. Punlication 25.00		
			sales unit. 405.00		

Cash & Bank Balance:  
With Baroda Bank(P.F.) 16,564.04  
With Baroda Bank (Instt) 4,103.74  
With Baroda Bank  
(Vidyapith) 1.00  
With Baroda Bank  
(Academy) 17.70  
With State Bank of  
Saurashtra, Dwarka 669.11  
Cash in hand 96.70 21,452.29

TOTAL RS. 3,67,611.90  
=====

TOTAL RS. 3,67,611.90  
=====

Examined and found correct  
Sd/-  
Chartered Accountants

/SEAL of C.A./

RAJKOT  
Dated: 30.10.81

ANNEXURE - VII

-43-

SHREE SHARDAPEETH & COLLEGE OF EDUCATION : DWARKA  
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDING 31st March, 1981

EXPENDITURE

To salaries & Allowances	383937-51
To Medical Allowances	1008-14
To Provident Fund Contribution	20633-00
To Gratuity Fund Contribution	7198-56
To Merit Scholarship	900-00
b Peon Dress	1986-15
b Stationary & Printing	6569-30
b Electricity Expenses.	1932-00
b Misc. Expenses	225-50
b Postage, Telegram & Telephones	1631-70
b Travelling Expenses	3127-59
b News Papers & Periodicals	1749-25
b Audit Fees	615-00
b Contigent Expenses	547-76
b Colloge Repairs	821-00
b Furniture Repairs	631-61
b Uniform Expenses	46-20
b Rent	10-00
b Surrender leave	3230-31

Depreciation:-

Hostel Furniture	44-89	
Dead Stock	1078-14	
Equipment	784-15	
		<u>1906-58</u>

TOTAL RS.

458667-51  
 =====

AHMEDABAD  
 DATE-13.7.1981

INCOME

By Tution Fees	105850-00
By Grant	/
Gujarat Government	302688-00
By Bank interest	3015-20
By Library Fees	3055-00
By Donations	1500-00
By excess of expenditure over income transferred to Balance Sheer	22539-31

TOTAL RS.

458667-51  
 =====

CHARTERED ACCOUNTANTS

ANNEXURE VIII

SHREE SHARDAPEETH ARTS : COLLEGE OF EDUCATION. DWARKA

BALANCE SHEET AS AT 31st March, 1981

<u>FUNDS &amp; LIABILITIES</u>	<u>RS.PS.</u>	<u>RS.PS.</u>	<u>ASSETS</u>	<u>RS.PS.</u>	<u>RS.PS.</u>
Loan:(Unsecured & not bearing interest Shardapeeth Vidyasabha.)		98044.61	Hostel Balancing		
			As per last year.		29790.62
			<u>SHRI SHARVAJANIK BUILDING:</u>		29312.67
			As per last year		
<u>RESERVE FUND:</u>			<u>HOSTEL FURNITURE AND</u>		
Balance as per last year		13775.00	As per last year.	440.91	
Development Fund		17250.00	Less:Preparation	<u>44.07</u>	396.82
<u>Graduity Fund</u>		21888.19			
<u>SHRI DEHAMANBOL COLLEGE SANCHALAN SANTIT.</u>		192088.01	<u>DEAD STOCK &amp; FURNITURE</u>		
Staff Provident Fund		80028.58	As per last year	10248.47	
LOSS DONATION for			Add:F during the	555.00	
Furniture & Equipment	6600.00		year.	<u>10793.47</u>	
Jilln Panchayat Grant for	6000.00	12600.00		<u>1073.34</u>	9705.11
Equipment					
Fees Received in Advance			Less Depreciation		
<u>LIABILITIES:</u>			<u>Equipment</u>		
College caution money	-1527.50		As per last year	5225.35	
Hostel Cauton Money	740.00		Less Depreciation	<u>784.15</u>	4440.20
Poor Boys Books	379.33				
Gaurashtra University	1139.78		<u>Library Books:</u>		
Planning Forms	400.00		As per last year	56310.65	
Poor Boys Fund	9947.63		Add:Purchase during		
Deposit Advance.	12129.00		the year.	<u>3330.89</u>	69641.51
C.M.S.	1628.30		<u>Electric Fittings:</u>		1616.93
S.D. Debtors	1914.40		As per last year		80.00
S.C.	27.23		<u>Deposit</u>		29239.64
A.F. out of D.A.	962.00		L.I.C.Group Gratuity Scheme A/C		
C.D.S.	2516.00		CASH A BANK BALANCE: AS PER SCHEDULE		136938.21
Surpluss Account	256.50		'A'.		
Scholarship Smt.R.V.Doshi	320.00	36197.67			

Balance Sheet difference

21-85

ADVANCES:

P.F. Loan	2695.00	
Festival Loan	2895.00	
Staff Loan	1689.00	
SECRET	20.00	
Union	325.75	7614.75

Income & Expenditure Account :-

Balance as per last year. 149050.46

Add: Current year's excess  
of Exp. 22559.51 171617.77

TOTAL RS

474493.94  
=====

TOTAL RS.

474493.94  
=====



SHARDAPEETH ARTS AND COLLEGE OF EDUCATION : DWARKA  
OF THE TEACHING STAFF - FACULTY - ARTS

S.NO.	TEACHER	Designation	Qualification	Teaching Experience	Subject
1	2	3	4	5	6
1.	Dr.S.K.Dave	Principal	M.A., B.Ed Ph.D.	30Yrs.	Sanskrit
2.	Shri R.J.Savla	Lecturer	M.A.	18yrs.	Economics
3.	Shri P.T.Patel	Lecturer	M.A., Ph.D	18 "	Gujarati
4.	Shri R.B.S. Caubhan	Lecturer	M.A.	19 "	Psychology
5.	Shri K.M. Gokani	Lecturer	M.A., Ph.D.	22 "	Sanskrit
6.	Shri K.A. Patel	Lecturer	M.A.	11 "	Hindi
7.	Shri B.S. Pandya	Lecturer	M.A., B.Ed.	10 "	Economics
8.	Shri K.N. Pandya	Lecturer	M.A.	7 "	Gujarati
9.	Shri H.J.Thaker.	Lecturer		7 "	Sanskrit
10.	Shri M.S. Manek	Lecturer	M.A.	9 "	English
11.	Shri N.R.Vadgana	Part time	M.A.	11 "	Gujarati
12.	Shri K.K.Savani, DPE	Lecturer	B.A.D, RPED.2	10 "	Phy.Edu.

Library Facilities

Nos.of the Books in the College Library:

1) Arts Faculty : 7384

2) B.Ed. Faculty : 2558

Total Books: 9942

EDUCATION FACULTY

S.No.	TEACHER	Designation	Qualification	Teaching experience	Subject
1	2	3	4	5	6
1.	Shri M.M.Patel	Vice-Principal	M.A.M.Ed. Ph.D.	25yrs.	Gujarati
2.	Shri D.N.Visani	Lecturer	M.A.B.Ed. Ph. D.	20yrs.	Gujarati & History
3.	Shri I.D.Parnar	Lecturer	M.A.M.Ed.	12"	Hindi
4.	Shri D.K.Sajpal	Lecturer	B.Sc.M.Ed.	12 "	Science & Maths
5.	Shri D.J. Shah	Lecturer	M.Ed.	16 "	Geography
6.	Shri B.M. Pathak	Lecturer	M.A.B.Ed.	16 "	Sanskrit

The List of Periodicals received in the College:

- |                               |                               |
|-------------------------------|-------------------------------|
| 1. Akhand Anand               | 30. Pnthik                    |
| 2. Navchethan                 | 31. Strijivan                 |
| 3. Navnit Samarpan            | 32. Bhumputr                  |
| 4. Rangrang                   | 33. Chandni                   |
| 5. Kavilok                    | 34. Commerce                  |
| 6. Kavita                     | 35. Sarika                    |
| 7. Samaskriti                 | 36. Kadajbini                 |
| 8. Grantha                    | 37. Gita Dharma               |
| 9. Vishavmanav                | 38. Arthika Vikas             |
| 10. Budhi Prakash             | 39. National Geography World  |
| 11. Urmil Navrachanna         | 40. Shuganifam                |
| 12. Kankavatti                | 41. Gatishil Shiban           |
| 13. Darab                     | 42. Rojgnr Smachar            |
| 14. Udgar                     | 43. Drashit                   |
| 15. Lokjivan                  | 44. Padma Vartul              |
| 16. Sad Vichar                | 45. Education Review          |
| 17. Artha Sankalan            | 46. Jivan Shikshan            |
| 18. Tandursti                 | 47. Marmik Shikshnn Parikshan |
| 19. Nutan Shikshnn            | 48. Pustakalaya               |
| 20. Ganit Darshnn             | 49. Purnnama                  |
| 21. Swadhyay                  | 50. Bal Snnskritom            |
| 22. Abhayashkram and Ayojan   | 51. Sannskrit Pracharkamn     |
| 23. Secondary School Bulleton | 52. Madhumnti                 |
| 24. Vidyapeeth                | 53. Gnddhimarg                |
| 25. Vignan Dareban            | 54. Virdo                     |
| 26. Yojana                    | 55. Abishak                   |
| 27. Nirikshnk                 |                               |
| 28. Kumar                     |                               |
| 29. Pallak                    |                               |

SHREE SHARDA PEETH ARTS & COLLEGE OF EDUCATION : DWARKA

Details of the various rooms of the building to be used as the Sharda Peeth Arts College - Dwarka.

		<u>Built up Area</u>	<u>Total Sq.ft.</u>
1.	Structure No.1.	1 X 54'-0" X 21'-6"	1161 Sq.Ft.)
2.	" No.2	1 X 37'-6" X 21'-6"	806 " " ) 3821
3.	" No.3	1 X 37'-6" X 36'-0"	1854 " " )
4.	" No.4	1 X 50'-0" X 18'-6" - 9258 sq.ft.	
		1 X 7'-6" X 4'-9" 36" "	
		961 " "	)
5.	" No.5	1 X 63'-6" X 21'-6" - 1365 Sq.ft.	)
		1 X 7'-0" X 5'-9" 40 " "	1405 " " )
6.	" No.6	AS ABOVE --DB--	1405 " " ) 4883
7.	" No.7	1 X 59'-6" X 11'-9"	684 " " )
8.	" No.8	1 X 34'-0" X 12'-0"	428 " " )
9.	" NO.9	1 X 42'-6" X 21'-0" - 893 Sq.Ft.	
		1 X 7'-0" X 5'-9" - 40 " "	
		1 X 10'-0" X 5'-0" - 50 " "	
		983 Sq.ft.	
			983 " " ) 172
10.	" NO.10	1 X 28'-0" X 7'-0" ↓	189 " " )
			<u>9876</u>

The Building thus has complete accommodation, including the play ground, for a Degree College.

It is also fitted with sanitary arrangements.

SHRI SHARDA PEETH VIDYA SABHA , DWARKA  
INDOLOGICAL RESEARCH INSTITUTE, DWARKA

ANNEXURE IX

<u>Enrolment</u> <u>Years</u>	Madhyam	Shastri	Acharya	M.A.	Ph.D.	Total
1980-81	33	20	4	9	19	85
1981-82	34	22	2	8	21	87
1982-83	18	21*Shastri	7	10	21	77
	25					15

Examination Results

<u>Year</u>	<u>Exam</u>	<u>Students appeared</u>	<u>Students passed</u>	<u>Result P.c.</u>
1977-78	Shastri	23	23	100%
	Acharya	3	3	100%
	M.A.	16	10	62%
	Ph.D.	2	2	100%
1978-79	Shastri	15	14	93%
	Acharya	6	-	-
	M.A.	8	8	100%
	Ph.D.	1	1	100%
1979-80	Shastri	15	9	60%
	Acharya	4	4	100%
	M.A.	8	8	100%
1980-81	Madhyama	41	41	100%
	Shastri	22	22	100%
	Acharya	4	4	100%
	M.A.	9	9	100%
1981-82	Madhyama	41	41	100%
	Shastri	21	21	100%
	Acharya	4	4	100%
	M.A.	9	9	100%

Area and Building details:

Old Building : Ground Floor

Director's Quarter	Room No.1	12' X 18'
	Room No.2	7' X 7'
	Room No.3	7' X 12'
	Room No.4	7' X 7'
	Class Room No.1	12' X 18'
	Class Room No.2	30' X 12'
	Store Room	12' X 11'
	Research Room	12' X 11'
	Veranda	

First Floor : Vidya Sabha Office 12' X 18'  
Class Room 12' X 18'  
Varandaha  
Assembly Hall 40' X 20'

New Building: (A) 7 rooms being used as offices of the staff and also used for teaching and research.

(B) 2 Big Halls : One used for housing the library and other for reading and meetings.

(C) 1 Big reading room with 25 chairs and a long table

Library facilities available:

- 1) One big Library Hall
- 2) No. of Research Rooms - 3 - Three
- 3) No. of reading room - 4 - Four
- 4) Cupboards ..... 70 - Seventy
- 5) Total No. of Books in library - 12,000 - Twelve thousand
- 6) Total No. of Manuscripts - 750 - Seven Hundred Fifty
- 7) Price of Books - 1,30,000.00
- 8) List of Periodicals received in the Institution:
  - 1) Annals of the Bhandarkar Oriental Research Institute.
  - 2) Journal of the Gujarat Research Society
  - 3) The American Review
  - 4) Journal of Oriental Studies
  - 5) The Journal of the Ganganatha Jha Research Institute
  - 6) Dayanand Sandesh - Vaidek Manovignan
  - 7) New From Isreal
  - 8) German News
  - 9) News from Hungery
  - 10) Truth 11. the American Review
  - 11) Journal of Higher Education
  - 12) Self Relization
  - 13) Journal of the Oriental Institute, Baroda
  - 14) East and West, Rome
  - 15) Bharatiya Vidya - Bombay
  - 16) Swadhyay - Baroda
  - 17) Anandashram
  - 18) Nav Bhatati
  - 19) Budhi Prakash
  - 20) Granth
  - 21) Sanskrit Pracharkam
  - 22) Employment News
  - 23) Muktidut
  - 24) Atmandnand Prakash
  - 25) Tatvagnan
  - 26) Udgar
  - 27) Bulleteon of Chunilal Gandhi - Vidya Bhavan
  - 28) Raj Bhasha
  - 29) Nagri Pracharini Partika
  - 30) Granthalok
  - 31) Sarvagndha
  - 32) Sudha Bindu

TEACHING STAFF:

-51-

S.No.	Teacher's Name	Designation	Qualification	Teaching experience	Scale
1.	Dr.R.T. Vyas	Director	M.A.Ph.D.	24years	Rs.1500-2500
2.	Dr.M.I.Prajapati	Reader	M.A.Ph.D.	23years	Rs.1200-1900
3.	Prof.H.N.Hindocha	Lecturer	M.A.	14years	Rs. 700-1600
4.	Kum.S.J.Dave	Research Asstt.	M.A.	7years	Rs. 300/(fixed)
5.	Kum.S.C.Padhjar	Asstt. Teacher	M.A.	7years	Rs.300/(fixed)

Research Projects:

The following longterm projects were continued in such a manner that within the next two years the projects will be finalised in Book form.

- i) Shankarvedanta - Paribhasik Kosha
- ii) Alankarshastra - Paribhasik Kosha
- iii) Dharmashastra - Paribhasik Kosha
- iv) Dwarka in ancient literature
- v) Authentic translation of five Mahakavyas
- vi) Authentic translation of five Alankar-works.

The following short term projects are undertaken by the teacher in the Institute and it is hoped that the projects will be completed within two years time:

- 1) Naishkarmyasidhi of Sureshwarcharya
- 2) Translation and philosophical analysis (almost completed)
- 3) Philosophy of Shri Shankaracharya (in progress)
- 4) Philosophy of Kathopanishda of Shankarbhasya on it (in progress)
- 5) The Story Kavya of Shankarcharya (in progress)
- 6) Atmabodhavritti (in sanskrit) - Completed.
- 7) Vivek - Chudamani - translation and Philosophical analysis (completed)
- 8) Subhasita-Kaustubha - Editing & Translation (completed)

The Institute has undertaken the following projects:

(a) Mahakavyas:

- i) Kumarshambhavam (completed)
- ii) Raghuvansam - (In progress)
- iii) Shishupalvadhya (in progress)

(b) Alankarworks:

- 1) Auctiyavicaragam (completed)
- 2) Kavikanthabharan (in progress)
- 3) Kavyalankarsutavritti (in progress)
- 4) Kavyamimansa (in progress)
- 5) Kavyaprakash (in progress)
- 6) Natyashastra (in progress)

c) PUBLICATIONS OF THE INSTITUTE:

- 1) Brahmanandvilasa - Shri Saswatananda
- 2) Translation in Gujarati (i) - S.S.Jha
- 3) Gnankusha
- 4) Translation of Gujarati of (ii) Dr.R.S.Betai
- 5) Evidence of Regveda in Kushashchali. Dr.J.J.Thaker
- 6) A Critical Appreciation of the Vaisistha-  
mandal of the Regveda (in Gujarati). Dr.J.M.Shukla
- 7) Poetry of Regveda (In Gujarati) Dr.Gautam Patel
- 8) Immortal Doctrines of Hinduism Dr.R.S.Betai
- 9) Shri Vallabha & His Philosophy Pro.S.S.Jha
- 10) Rasnispatti Shri Jayanand Dave
- 11) Philosophy of Prasthantriya (in Gujarati)
- 12) Vishnu Idols of Khambat (In Gujarati) Dr.J.P.Amin
- 13) Aprakashanubhuti of Shankaracharya Dr.R.S.Betai
- 14) Dr.Radhakrishna Commemoration Volume
- 15) Shri Shankaracharya Diamond Jubilee Spe. Volume
- 16) Atmabodhavarti Dr.R.S.Betai
- 17) Som Darshan in Regveda Dr.J.J.Thaker
- 18) Shrimad Vallabhaacharya and his Darshan Prof.S.S.Jha
- 19) Advaita Vedanta in the eyes of West.. Dr.Paul and Arther/  
Isenberg
- 20) Shankarvedanta Paribhasika Prof.S.S.Jha
- 21) Paniniya Shastra-Udav and Vikas Dr.J.M.Shukla

SHRI SHARDA PEETH VIDYASABHA DWARKA

List of the Members of the Managing Committee  
of S.S. Arts and College of Education, Dwarka.

.....

President : H.H.Jagadgurushree Shankercharya Mahraj of Dwarka  
Shardapeeth.

Act.President: Shri Lalitvadan K. Joshi, Ex-Chemist, A.C.C.Ltd.,  
Dwarka.

Secretary: Dr.S.K.Dave, Principal, Shri Shardapeeth Arts and  
College of Education, Dwarka.

Act.Secretary: Dr.Motibhai M.Patel, Vice-Principal, Shri Sharda-  
peeth Arts and College of Education, Dwarka.

- Members:
1. Dr.Jayantilal J.Thaker, Secretary, Shri Sharda-  
peeth Vidyasabha, Dwarka.
  2. Shri Pushkerbhai H. Gokani
  3. Shri Kanaiyalal J. Bhayani
  4. Prof. Dr.P.T.Patel,  
Lecturer in Gujarati, Shardapeeth Arts and College  
of Education, Dwarka.
  5. Prof. D.J. Shah, Lecturer, Shardapeeth Arts and  
College of Education, Dwarka.
  6. Prof. D.N.Pathak,  
Lecturer, Shardapeeth Arts and College of Education,  
Dwarka.
  7. Dr,M.I.Prajapati, Director, Shri Dwarkadhish  
Sanskrit Academy and Indological-Research  
Institute, Dwarka.
  8. Sheth Shri Trikamdās H.Davda,  
Merchant, Okha-Port, Okha.
  9. Sheth Shri Jagadishbhai S.Shah,  
Merchant, Okha Port, Okha.
  10. Shri D.V.Trivedi,  
Welfare Officer,  
A.C.C.Cement Cos., Ltd. , Dwarka.
  11. Representative,  
Tata Chemicals Limited.,  
Mithapur.



SHREE SHARDAPEETH VIDYA SABHA DWARKA

Shree Sharada Peeth Arts and College of Education, Dwarka  
ARTS FACULTY  
Enrolment

S.No.	Year	Class	Total	Boys	Girls	Result
1	2	3	4	5	6	7
1.	1977-78	F.Y.B.A.	85	36	49	90%
		S.Y.B.A.	67	36	31	100%
		T.Y.B.A.	68	34	34	90%
			220	106	114	
2.	1978-79	F.Y.B.A.	29	11	18	100%
		S.Y.B.A.	84	29	55	100%
		T.Y.B.A.	67	34	33	90%
			180	74	106	
3.	1979-80	F.Y.B.A.	31	11	20	100%
		S.Y.B.A.	25	9	16	90%
		T.Y.B.A.	80	27	53	80.5%
			156	47	89	
4.	1980-81	F.Y.B.A.	165	62	43	mass promotion by Uni. 80.5%
		S.Y.B.A.	27	9	18	
		T.Y.B.A.	26	15	15	
			158	82	76	
5.	1981-82	F.Y.B.A.	48	17	31	93%
		S.Y.B.A.	91	52	39	63.5%
		T.Y.B.A.	26	9	17	78%
			165	78	87	
6.	1982-83	F.Y.B.A.	73			
		S.Y.B.A.	38			
		T.Y.B.A.	43			
			154			

Faculty of Education : B.Ed.

S.No.	Year	Total	Boys	Girls	Result Per.
1	2	3	4	5	6
1.	1977-78	78	45	33	99.9%
2.	1978-79	75	40	35	90.6%
3.	1979-80	78	37	41	95.5%
4.	1980-81	72	29	43	95%
5.	1981-82	72	29	43	99.5%
6.	1982-83	72			

Total number of students who passed out from the Institute:

F.Y.B.A.	394
S.Y.B.A.	701
T.Y.B.A.	581
B.Ed.	360

ORIENTATION FOR NEW COURSES OF STUDIES

At present, an educated person coming out of our universities with higher educational attainments, professional or non-professional, is hardly aware of what our country is and what its needs are. He has also no general acquaintance with the world. He has scant understanding of the physical environment and of the world of living things. His knowledge and understanding of human affairs is also unsatisfactory. He lacks also training to know what is good or right. On top of all these deficiencies, he is not in a position to take intelligent interests in human purpose, motive and direction in the absence of any lessons in ethics, philosophy and culture. These are required for any educated person, whether he is a doctor or an engineer or a technician or a teacher or any other functionary.

These deficiencies are to be made up by spelling out clearly the objectives to be achieved by the various degree courses. As part of their programmes for restructuring degree courses, some universities and colleges in the country are at present attempting to design courses covering about 25% of the total time available. Such a foundation course covering basic studies in humanities, social sciences and sciences will be common for all. It is through these foundation courses that our students have to know our country and its problems besides developing qualities for continual growth of personality, steady development of character, inculcation of moral and spiritual values and improvement in quality of life.

It is common knowledge that we have practically no teachers for undertaking the training of such foundation courses. We cannot at the same time delay to take up a root and branch reformation in our educational programmes. We have to have such a programme for restructuring education that it will really be a 'growth from within' leading to the development of modern India.

There are two major problems in embarking on a massive programme of this dimension - one is to evolve a positive attitude to secularism which implies not indifference to religion but a willingness to treat religion as a purely private affair being a member of the society which is multi-religious but not anti-religious, or irreligious. Everyone, therefore, has to develop an attitude of goodwill, tolerance, cooperativeness, co-existence, no matter which religion he or she has embraced. This has to happen in our educational institutions. It will be easy to evolve in the rising generation moral and spiritual values which nourish the soul and build up the character. It is a matter of concern, even grown up people in their homes and in community relations do not show any awareness of these values.

It is in this context, the eminent scholar in Philosophy Sanskrit, and Vedanta, late Jagadguru Shri Abhinave Sachidananda Tirtha, Shankaracharya of Dwarka, had expressed his deep concern about the crisis of confidence, character and mutual distrust in the country. He has been advocating for the past 25 years the need to regenerate and reform Indian education and has been exhorting all the time that 'moral education is a must' - Earlier he had held discussions on this subject with Dr.S. Radhakrishnan, late Pt. Jawaharlal Nehru, late Sri Prakasha and a number of other scholars, thinkers and educationists in different parts of the country. Moral sciences in different parts of the country. Moral sciences are nothing but rules of conduct applicable to all members of the society - Truthfulness, tolerance, dependability self-sacrifice for good cause, courtesy and the like are values which are perennial and universal. The mental food is supplied to the mind by cultural goods of the society in which it is placed. These goods are material and non-material forms like its sciences, its arts, its techniques, its customs, its moral and legal codes, its social forms, its institutions, its personalities and these goods of culture are the

products of mental efforts of some individuals or groups of individuals and they are means of setting educational process in motion as they are the food for cultivation of the human mind. The growing mind uses these cultural goods for its gradual development when they are so used, they become educative goods and cultivated minds had produced them and they no cultivate other minds according to their capacity.

Our educational institutions have to create conditions in which the mind of students actually grapples with the cultural goods which correspond to their mental make up, work on them, assimilate them, reconstruct them, change them, improve them, have the values inherent in them and create similar values : they will make the mind work and work earnestly. They will help them to get to the truth, that by trifling with things, words of ideas mechanically or by memorising, the mind does not get educated. There must be programmes for developing the body, mind and spirit of the students and for these our educational institutions have to be places of active receptivity, experience with facilities to discover, work and live.

Looked in this context, the recent move to restructure courses of study at all levels is a great opportunity to supply the missing links in an present system of education which is still groping in the dark without a vision for the country. We are keen to create a learning society, our ancient saints and philosopher too had similar ideas. It has been our traditional view which is also the modern view that one has to continue to learn as long as one lives and this philosophy has to catch up to make education purposive and lifelong. There is agreement in all knowledgeable circles that we have to have clearly spelt out objectives to rebuild our educational programmes - "We want that education by which character is formed, strength of mind is increased, the intellect is expanded and one can

stand on one's own feet. The end of all education is man making and the end and aim of all training is to make the man grow. One is undoubtedly worried and concerned about the problems of unemployed and underemployed among our educated youth - But one cannot afford to ignore any longer the qualitative improvement of education at all levels. This alone can lead to continual growth of personality, steady development of character and qualitative improvement of life.

#### New Courses for Students and Teachers:

For these, new courses, both for students and teachers, have to be designed and introduced. They should be taken up by all universities and colleges and the areas should cover roots of Indian culture, cultural continuity, Indian traditions, customs, manners, moral sciences, philosophy of values and our plans for development.

Qualified and competent people have to be trained to teach the foundation courses which will be compulsory for all. There is need to introduce diploma and certificate courses too for the use of existing teachers and extension workers so that these could reach the community at large.

Extensive researches are also needed to be undertaken in these areas which had been cut off from the main stream in the last 200 years.

The Vidya Sabha by interacting with scholars and scientists in different parts of the country has worked out an outline for a programme for new courses of studies and

Research Institute programmes to be initiated by the same could be taken up and college of education so that on a bigger scale through the country.  
the

Such a Programme would cover -

Such a Programme would cover :

- (1) New enriched degree and diploma courses covering roots of Indian culture, ethics, Indian philosophy and moral sciences.
- (2) Production of literature for teaching new courses from the rare books/manuscripts from ancient and other relevant literature.
- (3) Orientation courses for teachers to teach courses in Indian culture, Indian values and moral and spiritual sciences.
- (4) Extension programmes for adults.
- (5) Awareness courses for working people.
- (6) Development of a library of MSS/books/films films stripes on Indian Culture, ethics, philosophy, traditions, customs and manners.
- (7) Organisation of cultural groups and performing Arts groups on Indian culture, traditions and values.
- (8) Establishment of a museum where evolution of Indian culture and its philosophy, its arts and crafts and the comingling of different ethic and social groups with the help of material and literary evidence and archaeological, anthropological and ancient literature.
- (9) Teaching of temple architecture.
- (10) Discourses/films on Sadacharas.
- (11) Researches on identified areas with scholars participating from different parts of India.

Detailed programmes would be worked out after the outline is finally adopted for implementation when the Indological Research & S.S. Arts College of Education is given the deemed to be university.

At present it has courses at first degree, post-graduate degree and research degree levels with a view to create love of Sanskrit studies and Indian culture. These institutions are also engaged in producing literature relating to Indian culture and ethics. These programmes need to be enriched with extension programmes added on the basis of the outline of a new programme indicated in the note.

.....



Establishment of Museum on Indian Culture, Philosophy.

Traditions, Customs, Arts and Crafts.

If Mathura was the Janmabhumi of Lord Krishna, Dwarka was his Karambhumi. He lived at Dwarka for sixteen years, formulated his policies, welded together the heterogeneous tribes into such a great moral force that it could defeat the vast army of the Kauravas. It is this holy place that Sri Adi Sankara chose as one of the four seats for creating a learning society and bringing about National Integration.

The recent excavations conducted by the Archaeological Survey of India in the forecourt of Dwarkadhish temple have brought to light remains of successive cultures datable from 1500 B.C. to 1600 A.D. and of four temples built before the construction of the present temple of Dwarkadhish, establishing thereby that during the days of the Mahabharata War (1424 B.C.) Dwarka was a flourishing town. Further, it is observed that Dwarka was destroyed, not once but four times by the tidal waves. But what is needed is fairly large scale excavation at potential site to obtain a clear picture of the life led by the people in various periods and the stages of cultural evolution. The ancient site recently discovered near Varvala (5 KMs from Dwarka) is found to have been occupied by the late Harappans and the Lustrous Red Ware using people (1900 - 1300 B.C.) and their successors. Similarly the late Harappan mound at Bet Dwarka (Island off Okha) was also partly submerged under the sea. Shell fishing and production of ornaments of couch shell was an important industry through the ages. Thus we have three coastal establishments in and around Dwarka each one a harbour in different period from 1900 B.C. to 1600 A.D. and even later. At Dwarka itself the Gomti Creek was a sheltered harbour in the protohistoric and early historic periods and according to Harivamsa the fortified town built by Krishna had a secret passage for citizens to escape to the harbour in times of danger. In the present excavation a stone structure superficially appearing like a well is found

to have been in three different phases corresponding to different tidal waves and it has a passage too towards the sea. It is, therefore, evident that from very early times Dwarka was a port and some of the statements made in the Harivamsha are borne out by Archaeological evidence.

Here we have a unique archaeological site where Indian culture through the ages can be traced and as a holy centre it was visited by great saints and philosophers and attracts even now hundreds of thousands of visitors from all over India.

It can be developed into an important educational centre for creating a learning society. Apart from undertaking exploration and excavations at Dwarka, Bet Dwarka, Varvala, etc. and preserving the famous temple of Dwarkadhish which itself is one of the greatest challenges to the Archaeological Survey of India, the establishment of Museum where the evolution of Indian culture and philosophy, its arts and crafts and the comingling of different ethnic and social groups can be projected with the help of material and literary evidences so that the visitor can visualise how Indian culture has evolved itself through the ages. What its ideals were and are and how our ancestors have struggled here to preserve the values. Sanskrit learning, Vedic studies, reconstructing Indian history with the help of archaeological, anthropological evidence and ancient literature.

This can be a good centre for study of history of sciences, especially maritime trade, ports installations, mining and metallurgy. Traditional arts and crafts such as shell working, embroidery, temple architecture and sculpture which are fast dying can be revived if proper traditional craftsman are supported and a training centre is established. Dwarka is a potential site for underwater Archaeology (vide Scheme submitted to INSA by S.R.Rao) and this is a branch of science not yet started in India while other countries have made great progress.

As a first step a detailed scheme for the establishment of a museum is being drawn up for our people to see how Indian culture evolved itself through the ages. Dwarka is the unique place where this is possible to be established as the only archaeological site where such a museum could be established.

INSTITUTE OF ARCHAEOLOGY AND ART.

This Institute will be headed by a Director and the following staff and equipment will be necessary for Archaeology Section:-

Two Readers, two lecturers, four Research Fellows, three Technical Assistants, two Photographers, two Draftsmen (General), two Architectural Draftsmen, two Modellers, one Chemist, one Geologist and ministerial and Class IV staff.

Art Section of the Institute will aim at reviving the traditional arts such as temple-building, sculptural art, Painting, Bronze-casting etc. for which Gujarat was once famous. These arts are fast dying. Some crafts like wood-carving, lacquer work, embroidery etc. should be revived.

Under the Head of the Department, there shall be three Readers, one each for Temple Architecture, Sculpture and designs. The traditional Sthapathis who are still available in adequate number shall also be employed on contract or regular basis for teaching as well as supervising production of sculptures, preparation of drawings and procurement of material etc. There shall be two lecturers drawn from the traditional families in each subject. The aim shall be to make this Section self-sufficient by catering to public demand for sculptures etc. This unit will conduct an architectural survey of monuments and publish monographs.

Archaeological Section will not only undertake excavations, teach archaeological techniques and preserve art treasures but also explore and collect antiquities such as palmleaf Mss, wood carvings, paintings, sculptures etc. and enrich the museum. It will conduct research and publish the results promptly.

This Institute needs adequate equipment by way of cameras, drawing and survey equipment, laboratory equipment (needed for research and preservation of antiquities), a motor vehicle for exploration, camp-equipment such as tents and excavation tools including some for underwater archaeology. The Institute will be an ideal one for cooperating with the National Institute of Oceanography which has plans to dig in the sea near Dwarka and Bet Dwarka to trace the submerged cities of Mahabharata fame. The excavations already conducted by Dr.S.R. Rao on behalf of the Archaeological Survey have revealed the existence of four earlier temples and adduced evidence of destruction of Dwarka of Mahabharata fame and of later days by tidal waves as described in ancient texts.

Gujarat being extremely rich in Protobhistoric sites such as Lothal and Somnath, the Archaeological Institute will be able to reconstruct the history of India through scientific excavations and throw light on the Dark Age of India, namely the Vedic, Epic and Puranic periods. The Epigraphy Section of the Institute will teach and conduct further research in the Indus Script, the decipherment of which by Dr. Rao has been widely acclaimed. It will also take up the study of the ancient scripts of neighbouring countries, namely Cuneiform, Semitic and Egyptian Hieroglyphs so that ancient writings of civilisations contemporary with Indus and Vedic civilisations could be studied. This has not been done in India in any University or by the Archaeological Survey so far.

MUSEUM.

The Museum will be unique in the sense that it will concentrate on the development of thought and India's contribution through the ages to science, philosophic concepts and art. Dwarka, as the abode of Lord Krishna who has given the most sublime thoughts to the world through the Gita, was visited by almost all the great Religious Teachers, Saints, social reformers and thinkers such as Adi Shankara, Madhwa, Ramanuja, Vallabha, Ramdas, Tukaram, Mira, Narsimha Mehta and many others. The emphasis on the harmonisation of inana and karma laid by great Teachers will be highlighted to galvanize people to action and give up a fatalistic attitude and not to be loathsome. To sacrifice for a great cause --(the cause of upholding dharma - righteousness) is what Gita advocates and this can be one of the themes. Similarly the life of Buddha, Tirthankaras and the impact of their teachings in effecting social changes will be another theme.

The Section History of Science will also be unique. The evolution of scientific thought in India, the technological developments such as ship-building, cloth weaving, mining and metallurgy, and town planning will be explained. India's contribution to mathematics, evolution of writing, to other science like medicine, astronomy and chemistry and conceptual thinking etc. will be highlighted.

Archaeology section will highlight with the aid of excavated antiquities, ancient manuscripts and other media, the theme "Dwarka through the Ages" and link it up with other parts of India by depicting life in Hastinapur, Indraprastha, Mathura, Gandhara, Manipura, Kaundinyapura, Ujjaini, Bhrukuccha, Karavirapura (Kolhapur), Gomantapura and Mithila. Similarly, centres which played an important role in Buddhist and medieval periods will also be included. The evolution of cultures beginning from the Stone Age to the introduction of iron and later upto Buddhist period will be the subject of another sub-section.

"Art through the Ages" will include sculptures, painting, temple architecture, folk art, dance and music.

Cultural Anthropology Section will highlight the dress, food, social and religious life of the Tribes and their contribution to the enrichment of Indian culture.

Each Section will be in charge of a curator who will have an assistant, and the overall charge of the museum lie with the Director. The technical staff will include a Photographer, a Draftsman, two Artists, a Carpenter and a Modeller. The necessary security guards and ministerial staff shall be made available.

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Confidential

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 8th February, 1984

Item No. 2.03 :- To consider the recommendations made by the Standing Committee on new universities and university postgraduate centres at its meeting held on 17th December, 1983 on the report of the Committee which visited Solapur on May 16-17, 1983 to consider the proposal of the Govt. of Maharashtra for establishment of a Shivaji University Centre for Postgraduate Studies in Solapur.

...

The Standing Committee on new universities and university postgraduate centres at its meeting held on the 17th December, 1983 considered the report of the Committee which visited Solapur on May 16-17, 1983 to consider the proposal of the Government of Maharashtra for the establishment of a Shivaji University Centre for Postgraduate Studies in Solapur.

A copy of the note placed before the Standing Committee in this regard is enclosed (Annexure.)

The Standing Committee generally accepted the recommendations made by the committee which visited Solapur to consider the proposal of the Govt. of Maharashtra for the establishment of Shivaji University Centre for postgraduate studies in Solapur and recommended that subject to the fulfilment of conditions and suggestions made by the committee in its report, setting up of the university centre for postgraduate studies at Solapur may be agreed to, by the UGC.

The matter is placed before the Commission for consideration.

F.17-1/79 (CP)

US(CP)/ DS(CP)

Standing Committee on New Universities and  
University Postgraduate Centres.

Meeting :  
Dated : 17th Dec.1983  
Time : 10.30 A.M.

Item No. 5 : To consider the report of the Committee which visited Solapur on May 16-17, 1983 to consider the proposal of the Government of Maharashtra for establishment of a Shivaji University Centre for Postgraduate Studies in Solapur.

....

In February, 1979, the Shivaji University sent a proposal for the establishment of a university centre for postgraduate studies at Solapur. The guidelines and policy regarding the postgraduate centres was then under review in the UGC. The revised guidelines for the establishment of University postgraduate centres was circulated on March 1, 1980. The Shivaji University was requested in April, 1980 to send a revised proposal in conformity with the revised guidelines. The University sent the revised proposal towards the end of August, 1980.

The norms and conditions to be fulfilled before the Commission could assist university postgraduate centres are as under:-

- (a) There should be a minimum of three Departments of teaching at postgraduate levels to begin with.
- (b) Every teaching department, in the university postgraduate centre has a provision for a minimum staff of one professor, two readers and an adequate number of lecturers along with the necessary supporting staff.
- (c) Adequate machinery for the health, residence and welfare for the students has either been provided or resources are being made available for this purpose to the University Postgraduate Centres.
- (d) The centre has been provided with adequate facilities in respect of buildings, equipment, books, library, hostel and staff quarters whose aggregate value is not less than Rs.100 lakhs along with the developed land or the State Government is prepared to give assurance to the Commission that a minimum amount of Rs.100 lakhs shall be made available to the centre during the initial period of 5 years for the provision of the above mentioned facilities in addition to the developed land.



- (c) A University P.G. Centre should be allowed academic as well administrative autonomy. Such a centre should normally function with a few selected departments, carefully chosen on well defined needs in sciences and humanities and social sciences subjects, and the courses offered by them should be distinct and not merely duplication or extension of the courses already offered on the main university campus.

The Standing Committee on New Universities and University Postgraduate Centres at its meeting held on December 16, 1980 considered the proposal received from the Shivaji University, Kolhapur for the establishment of a university postgraduate centre at Solapur. The committee desired that the comments of the State Government on the proposal may be obtained. Accordingly, the State Government was requested in March, 1981 to send their comments on the proposal keeping in view to revised guidelines laid down by the Commission for considering proposals for the establishment of University Postgraduate Centres. Since there was no response from the State Government, the proposal was again considered by the Standing Committee on New Universities and University Postgraduate Centres at its meeting held on April 16, 1981. It was agreed that the proposal may be examined by a committee subject to receipt of comments from the Government of Maharashtra on it. The State Government vide its letter dated 9th March, 1982 requested the Shivaji University to recast its proposal. The Shivaji University sent a revised proposal which was received in the UGC, in June, 1982. The comments from the State Government on this revised proposal were received in December, 1982.

The UGC appointed a Committee with the following members to consider the proposal for the establishment of Shivaji University Centre for Postgraduate Studies at Solapur.

1. Prof. R. Radhakrishnan  
Professor of Economics  
Hyderabad University,  
Hyderabad.
2. Prof. R. B. Patankar  
Professor of English  
Bombay University,  
Bombay.

3. Prof. H.S. Khare  
Professor of Mathematics,  
Allahabad University,  
Allahabad.
4. Shri Y.D. Sharma,  
Deputy Secretary,  
U.G.C.
5. Shri Y.M. Duba  
Director of Collegiate Education,  
Pune  
(Maharashtra State Govt.)  
Nominee associated with the Committee

The Committee visited Solapur on May 16 & 17, 1983. The Committee has made the following observations and recommendations.

#### OBSERVATIONS AND RECOMMENDATIONS OF THE COMMITTEE

6.1 The Shivaji University was established in 1962. In the year 1966-67, it started a postgraduate teaching centre by providing facilities for postgraduate teaching in DBF Dayanand College of Arts and Science, Solapur, in 13 arts subjects, with the help of contributory teaching staff from the local colleges and neighbouring areas. This facility has however, been stopped by the University w.e.f. 1982-83 in the wake of the present proposal for the establishment of a University Centre of postgraduate studies at Solapur. The Solapur Colleges were however, allowed to teach postgraduate courses themselves. A special study centre was also run by the University in 1980-81, and a building fund of Rs. One lakhs was created by local donations and the local municipal corporation agreed to provide land for the same.

6.2 The Shivaji University provides postgraduate teaching facilities in the University teaching departments at University headquarters at Kolhapur, and at some selected colleges in various cities under its jurisdiction. It now proposes to provide these facilities in a University Centre for postgraduate studies at Solapur, also.

6.3 Presently, at Solapur three colleges were providing facilities for M.Com. course, two colleges were providing facilities for M.S.W. Course, two colleges for M.B.A. and other management diploma course, one college each in M.Sc.(Chemistry), M.Sc.(Maths) and M.Sc.(Zoo). One college viz. D.B.F. Dayanand College of Arts and Science has two scholars enrolled for research for Ph.D. degree in Chemistry. The Committee felt that this was not a satisfactory arrangement.

6.4 Solapur district has 25 of the 88 affiliated colleges, 13,000 students out of the 52,000 students of the students in the jurisdiction of Shivaji University. Solapur City has 12 colleges: 7 Colleges of Arts, Science and Commerce, 2 Colleges of Education and one College each in modern medicine, ayurvedic medicine and law (evening). The postgraduate enrolment in these colleges was M.A. - 464, M.Sc.-27, M.Com.-364, M.B.A.-125, MSW-162, M.Ed.-21, Ph.D.2 and DBM - 45, MBBS- 406 BAMS -203, LL.B.-317 and B.Ed.-250. The Solapur city has as many as 117 teachers recognised for teaching P.G.subjects.

6.5 The present proposal of the University envisages to provide facilities for postgraduate education in analytical chemistry, Geology and Business Administration. Two colleges in Solapur teach B.Sc.(Chemistry) and B.Sc. (Geology) courses. The University has clarified that the proposed Centre with postgraduate facilities in chosen specialisation will cater to the needs of the students from all the four districts under the jurisdiction of Shivaji University and also the entire State of Maharashtra.

6.06 The Committee learnt that MBA courses were already being provided at two colleges in Kolhapur, in addition to the facilities new created in two colleges in Solapur city. Similarly, MSW courses were provided in colleges in other cities under the jurisdiction of Shivaji University. This may not be necessary unless the university feels that this could be continued on the basis of demand and academic justification. The Committee, however, felt that for MBA courses the courses of study and other conditions prescribed by the All India Council of Technical Education should be strictly adhered to in the interest of proper academic standards.

6.7 The Committee had the opportunity of visiting the (i) Walchand College of Arts and Science, Solapur and (ii) DBF Dayanand College of Arts and Science, Solapur. Both these colleges provide instructions for B.Sc(Geology) courses. The DBF College, however, provides instruction in Chemistry at the undergraduate and postgraduate stages and research facilities also. Whereas the Walchand College provides teaching for M.A. in certain courses. The Committee, would like to express its satisfaction with the library facilities, laboratories and scientific equipment, space and other facilities at the DBF College, which in the opinion of the Committee could be compared with any good college which provides teaching at postgraduate stage.

Centre for post-graduate studies or by allowing more colleges to start postgraduate courses. The establishment of a university

6.8 Considering the pressure of demand and urge for postgraduate education in the area, as also the need for skilled and trained manpower required by the growing industrial and commercial complex in the Solapur district and around, the Committee feels that there is a potential for starting additional facilities for postgraduate education in the area. These facilities could be created either by starting of a multi-faculty university, as it has good number of colleges (some of them very good colleges) having adequate facilities in manpower, equipment, laboratories, libraries etc. or by establishment of a university. It is a very costly proposition as also the State Govt. is eager to start a Centre for the postgraduate studies under the Shivaji University. The Committee, therefore, recommends that a university centre for postgraduate facilities may be started at Solapur and recommends that the UGC may agree to this proposal. The establishment of such a centre is justified on the basis of postgraduate enrolment as percentage of undergraduate enrolment in the area. Also it is a good augury that the local public is very keen to provide all assistance in developing such a Centre in the City.

6.10 Keeping in view the real needs of the region and academic consideration (also to avoid duplication of facilities already being provided at the university teaching departments), the Committee feels that a university centre for postgraduate studies with financial administrative and academic autonomy as prescribed in the UGC guidelines may be started to begin with, in any of the three disciplines from the following areas:

(a) Geo-Sciences with specialisation in

- i. Geology
- ii. Geophysics
- iii. Geo-Chemistry
- iv. Oil exploration

(b) Chemistry: All the branches of Chemistry viz.

Analytical, inorganic, physical, etc. may be taught in the M.Sc. (Prev.) in the M.Sc. (Final) looking to the needs of the region, the following specialisation in order of performance may be undertaken:

- i. Polymer chemistry
- ii. Synthetic Organic Chemistry
- iii. Protein Chemistry
- iv. Petro-Chemistry.

p.t.o.

(c) Physics: Students should have comprehensive physics course at the M.Sc. (Prev), stage and in the M.Sc. (Final) the following specialisation may be considered.

- i. Electronics
- ii. Space Physics
- iii. Astrophysics
- iv. Computer Science

d) Bio-Sciences with specialisation in

- i. Microbiology
- ii. Bio-Chemistry etc.

e) Computer Science with courses in Statistics.

Numerical Analysis, Operation Research and teaching of Computer Languages (software).

6.11 In the interest of maintaining proper standards of postgraduate education and research, the committee recommends that a minimum level of applied as well as fundamental research associated with the needs of the region should be undertaken in each discipline started at the Centre. Keeping in view the development of suggested thrust areas, the committee strongly recommends that the following procedure may be followed.

strongly

a. A very senior academic in professor's rank in one of the three disciplines which the university proposes to start with at the centre may be appointed immediately to plan and coordinate the various academic courses. To achieve this, professors in other disciplines should be appointed soon after. Other academic staff viz. readers, lecturers, etc. may be appointed after sufficient spacework has should interact with expertise available in the industries around as also with the faculty in the colleges at Solapur.

has been done by the professors. Those professors

b. The Centre should start only after the above appointments have been made, preliminary ground work and planning done, courses framed and approved by the various academic bodies, properly equipped laboratories set up and adequate library facilities made available. This can be done by appointing additional teaching and academic staff as per UGC guidelines for postgraduate education.

6.12 The Committee is firmly of the view that the teaching at the centre should be started after proper planning and that the centre has been established on the lines suggested in para 6.11 above. Thus the committee consider most essential in the interest of proper academic standards and development of the centre on rightlines. Such a centre should not function in isolation, but should serve as a model point for collaboration and incooperation with local industry and with colleges in the neighbourhood and also keep in improving the standards of undergraduate teaching in colleges for providing opportunities for college teachers to interact with centres' departments in teaching and research activities.

6.13 If the University/State Government is eager to start the postgraduate teaching w.e.f. 1984-85, the existing facilities in DBF Dayanand College, Solapur should be immediately augmented in the field of chosen disciplines viz. Geology, Chemistry, Physics, Biology, etc. This will ensure proper interaction of University Centre and this college as also with other colleges. But the committee further reiterate that in the interest of academic standards the manner suggested in para 6.12 should be considered as a basic desideratum, and the proposed centre should provide innovative and new courses of study.

6.14 As the postgraduate education is also imparted in the affiliated colleges, the committee recommends that the norms prescribed by the UGC for postgraduate education should be adhered to and strictly followed and used both for purposes of according affiliation to new courses to be started in the college as well as for bringing up to the required level the facilities in the colleges already offering postgraduate courses.

6.15 Before taking a final decision to start the University Centre for postgraduate studies at Solapur, the State Government may ensure that proper steps are taken to provide for necessary finances and facilities for its maintenance and initial developments. This is essential as the UGC assistance for the future development (and not establishment) of the University Centre for postgraduate studies would be available only after conditions laid down by the UGC in respect of the number of minimum department, teaching and other academic staff, adequate machinery for health, residence sports and welfare of students and teachers' and adequate facilities in respect of academic buildings, equipment, books, library, hostel, staff quarters whose aggregate value is not less than Rs.100 lakhs, in addition to developed land etc. are actually made available. It was clarified that the UGC assistance would be available after for these conditions are satisfied.

A copy of the report of the Committee is enclosed  
Appendix.

UNIVERSITY GRANTS COMMISSION

BAHADUR SHAH ZAFAR MARG

NEW DELHI-110002 APPENDIX ..... TO ITEM NO. 203

Report of the Committee which visited Solapur on May 16 and 17, 1983 to consider the proposal of Maharashtra State Government for the establishment of a Shivaji University Centre for Postgraduate Studies in Solapur.

In February 1979, the Shivaji University sent a proposal for the establishment of a university centre for postgraduate studies at Solapur. The guidelines and policy regarding the postgraduate centre was then under review in the University Grants Commission. The revised guidelines for the establishment of university centre of postgraduate studies were circulated on March 1, 1980. The Shivaji University was requested on April 1, 1980 to send a revised proposal in conformity with the revised guidelines. The University sent the revised proposal towards the end of August 1980.

1.2 The proposal stated as under :

(a) At its establishment in 1962, the Shivaji University jurisdiction was 5 districts. In 1974, Ratnagiri district was attached to the Bombay University, leaving with the Shivaji University four districts viz. Kolhapur, Sangli, Satara and Solapur. At the inception, this University, had under it 34 colleges with 14,000 students. In 1980, the corresponding figures were 88 and 52,000 respectively.

(b) The district of Solapur is situated at a comparatively great distance, viz. 265 km. from Kolhapur, the headquarters of the University and some of the colleges affiliated to this University from this district are more than 300-400 kms. from the university town. It was also stated that in 1980, all postgraduate teaching the Science subjects was concentrated in Kolhapur and students from the Solapur District had to come to the University town for their postgraduate studies in science subjects. This acted as a great hardship to the students who had to come from long distances. Moreover, due to a great rush for admission to the science courses, the University found it difficult to cope with the demand of the students for admission in the University Science Departments.

(c) Taking into consideration all these factors, the University arranged to offer postgraduate teaching facilities at Solapur in the subjects of (1) Marathi, (2) Hindi, (3) English, (4) Sanskrit, (5) Urdu, (6) Parsian, (7) Kannada, (8) Ardhamagadhi, (9) History, (10) Economics, (11) Politics, (12) Geography, (13) Mathematics. The Shivaji University had been running the P.G. classes in the above mentioned subjects for the last 16 years with the help of the

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contributory staff drawn from the various colleges in Solapur and neighbouring places. The number of post-graduate students who took advantage of these facilities was about 503 and the number of recognised postgraduate teachers involved in P.G. teaching was 66.

(d) In 1980-81, there was a special study centre in Solapur which was run by the University. It has been stated that the proposal to build a regular study centre has been finalised and a building fund has been raised through donations and other means, which, at present amounts to Rs.1,00,331/-. The Municipal Corporation of Solapur has already reserved, in anticipation, 150 acres of land for the proposed P.G. Centre and the Government was being approached in this connection.

(e) Out of the 88 colleges then affiliated to the University, 24 were stated to be from the district of Solapur and from among the total collegiate students population of 52,450 as many as 13,000 were from this district.

(f) The proposed P.G. Centre would provide postgraduate facilities in Geology, Analytical Chemistry, Marathi, Economics, Hindi, English and Management Courses.

(g) The facility of teaching Geology at B.Sc. level was available in two colleges, namely D.B.F. Dayanand College of Arts and Science, Solapur and Solapur College, Solapur. The University proposes to start postgraduate centre in Geology at the latter college.

(h) The University approached the State Government for financial assistance for development of land and for matching share for academic and non-academic buildings and for maintenance expenditure for staff. The total financial requirements for the establishment of the proposed P.G. Centres were estimated to be to the tune of Rs.59,78,609/- as recurring and Rs.95,66,800/- as non-recurring".

1.3 It was decided to place this proposal before the UGC Standing Committee on New Universities and Postgraduate Centres at its meeting scheduled to be held on September 29, 1980. This meeting, however, did not take place.

1.4 There was no communication from the State Government of Maharashtra regarding the revised proposal. The State Government was requested on March 18, 1981 to consider the proposal submitted by the University and offer its comments with respect to revised guidelines. There was no response despite a telegraphic reminder on



March 25, 1981. The UGC standing committee considered the proposal, as it was, at its meeting held on April 16, 1981. It was agreed that this proposal may be examined by the committee subject to receipt of comments from the State Government of Maharashtra on the proposal. The committee may also keep in view the guidelines laid down by the Commission to define the concept of university centre of postgraduate studies.

1.5 Again on 22nd May, 1981, the Maharashtra Government was furnished with revised guidelines and a copy of the proforma prescribed by the UGC for sending primary information in respect of the postgraduate centre. The State Government was requested to send the information in the enclosed proforma and the details of assistance and facilities provided to the centre as stipulated in the revised guidelines, to enable the Commission to take further action in the matter. The State Government vide its letter dated 9th March, 1982 requested Shivaji University to recast its proposal.

1.6 The Shivaji University sent a revised proposal for the establishment of postgraduate centre at Solapur which was received in UGC in June 1982. The University then sent the information in the revised prescribed proforma vide its letter dated 23rd November, 1982. The comments from the State Government were received in December, 1982.

1.7 The University Grants Commission appointed a committee with the following members to consider the proposal for the establishment of Shivaji University Centre for postgraduate studies at Solapur.

1. Professor R. Radhakrishnan,  
Professor of Economics,  
Hyderabad University,  
Hyderabad.
2. Professor R.B. Patankar,  
Professor of English,  
Bombay University,  
Bombay.
3. Professor H.C. Khare,  
Professor of Mathematics,  
Allahabad University,  
Allahabad.
4. Shri Y.D. Sharma,  
Deputy Secretary,  
University Grants Commission,  
New Delhi.

5. Shri Y.M. Dube,  
Director of Collegiate Education, Pune  
(Maharashtra State Government nominee  
associate with the Committee).

1.8 The Committee visited Solapur on May 16 & 17, 1983 and held discussions with the Vice-Chancellor of Shivaji University, Principals and some teachers of the local colleges, District authorities, the Deputy Minister of Education in Maharashtra. They had the opportunity of meeting the prominent citizens of Solapur district, including local members of Parliament, State Legislature, Zila Parishad, etc. etc.

1.9 The committee took note of the guidelines laid down by the UGC for considering proposals for university centre for postgraduate studies (Appendix-I). The committee proceeded to consider in depth the special historical, economic and other conditions which have necessitated the authorities of the Maharashtra State and the Shivaji University to establish such a centre at Solapur.

## II. THE REVISED PROPOSAL

2.1 It was proposed to start the following postgraduate departments at the proposed Shivaji University centre for postgraduate studies at Solapur :

- i. Geology
- ii. Analytical Chemistry
- iii. Management Courses

Geology for the rural and economically backward areas of the Maharashtra, especially the areas under the shadow of famine and facing problems of water scarcity due to scanty rain. Analytical Chemistry and Management Studies will familiarise the students with the analytical and management techniques, which are very much required in the textile, chemical etc. industrial complex around. Management Studies are, however, already provided at the main university centre at **Solapur**, and (i) Bharatiya Vidyapith's Institute of Management, (ii) H.N. College of Commerce at Solapur. The university felt to advise the management of these colleges to join the Shivaji University postgraduate centre when it is established. Detailed justification for the introduction of these subject at the proposed centre, the existing facilities available and the future plan of expansion of this centre at Solapur are given in Annexure-II to IV.

2.2 The State Government has agreed to make available 178.04 acres of developed land for the proposed centre. The government also agrees to provide necessary funds for

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the establishment of the centre, during the first five years, as per UGC guidelines on the matter. (The State Government has agreed to provide for Rs.35 lakhs during 1983-84 and 1984-85 and Rs.99.98 lakhs during 1985-88). The Government has, however, envisaged that the UGC would also make a contribution as under during the initial five years :

<u>Period</u>	<u>State Share</u>	<u>UGC share</u>
1983-85	Rs.35.06 lakhs	Rs.18.59 lakhs
1985-88	Rs.99.98 lakhs	Rs.47.16 lakhs

The detailed estimates are given in Appendix-VI.

2.3 The proposed centre will serve all the four districts under the jurisdiction of the Solapur University.

2.4 For the time being, the proposed centre would be located in an affiliated college in Solapur where such facilities like library, laboratories, equipment, accommodation etc. are available. However, certain additions will have to be made to the existing facilities.

2.5 In the Shivaji University Act 1974, the provision for giving autonomy to a centre exists. The University, however, stated "the question of giving academic, financial and administrative autonomy does not arise at present, because the proposed centre is being established as sub-centres of the Shivaji University, Kolhapur.

### III. BACKGROUND : BASIC FACTS & FIGURES

3.1 The Shivaji University, Kolhapur was established in 1962.

3.2 The Shivaji University provides for undergraduate and postgraduate courses and research facilities in arts, science, commerce, medicine (including ayurvedic medicine) nursing; pharmacy, engineering education and physical education as per Appendix-VII.

3.3 In the State of Maharashtra, the following universities provide university education :

1. Bombay University, Bombay
2. Poona University, Pune
3. Shivaji University, Kolhapur
4. Marathwada University, Aurangabad
5. Nagpur University, Nagpur

6. SNDT Women's University, Bombay
7. Konkan Krishi Vidyapith, Denoli Distt. Ratnagiri
8. Mahatma Phule Krishi Vidyapith, Rahuri (Distt. Ahmednagar)
9. Marathwada Krishi Vidyapith, Parbani
10. Punjab Rao Krishi Vidyapith, Akola.

In addition, the Tata Institute of Social Sciences, Bombay (a deemed to be university) and Indian Institute of Technology, Powai, Bombay (an Institute of National Importance) provide instructions for undergraduate and postgraduate studies and facilities for research.

3.4 Information about the undergraduate and postgraduate courses of study provided at the Universities of Bombay, Poona, Marathwada, Nagpur and SNDT Women's for the year 1981-82, is given in Appendix-VIII.

3.5 Statistics of affiliated colleges and enrolment in affiliated colleges as well as university teaching departments in the Shivaji University, as in 1981-82, is given in Appendices-IX & X.

3.6 The number of passes (securing 45% marks - II class and above) at the final year degree course and the postgraduate degree course for five years viz. 1976-77 to 1980-81 given in Appendix-XI.

3.7 Appendices XII and XIII give the statistics for postgraduate education (viz. enrolment, teaching staff, number of passes at the final examination and the research output) for the years 1976-77 to 1980-81 for (i) university teaching departments and (ii) affiliated colleges, respectively.

3.8 The statistics of distribution of affiliated colleges providing facilities for teaching undergraduate and postgraduate courses in arts, science and commerce in the year 1980-81 (the latest year supplied by the university) is given below :

District	No. of Arts Science and Commerce Colleges	Enrolment in *classes		No. of passes with 50% marks or more	
		U.G.	P.G.	U.G. Degree	P.G. Degree
Kolhapur	17	3150	228	1062	86
Sangli	17	2163	242	761	85
Satara	16	2423	424	1052	151
Solapur	17	2581	332	914	187
	67	10287	1226	3789	509

\*Enrolment in final year of B.A., B.Sc. & B.Com. course only. The Statistics of total enrolment in undergraduate courses is not available.

3.9 At the time of the visit of the committee in May, 1983, the university informed that there were as many as 25 affiliated colleges in Solapur District : 18 Arts, Science & Commerce Colleges, 3 Colleges of Education, 1 College of Modern Medicine, 1 College of Ayurvedic Medicine and 2 evening law colleges. The list of colleges in Solapur District is given in Annexure-XIV. An Engineering College is proposed to be established during the year.

3.10 Of these, Solapur city has, however, 12 colleges - 7 Arts, Science and Commerce Colleges, 2 Colleges of Education, 1 College of Modern Medicine, 1 College of Ayurvedic Medicine, and 1 evening law college. At the postgraduate stage, these colleges account for an enrolment of 464 students in M.A., 27 students in M.Sc., 364 students in M.Com., 125 students in MBA, 162 students in MSW, 21 students in M.Ed., 45 students perusing courses for DBM and 2 research scholars. The enrolment in MBBS, BMS, LLB and B.Ed., during 1982-83 was 406, 203, 317 and 250 respectively. In the faculty of arts instructions for postgraduate studies in the disciplines of English, Marathi, Hindi, Sanskrit, Ardhamagadhi, Economics, Politics, History, Sociology, Social Work, Kannada and Urdu were provided in the affiliated colleges in Solapur. In addition, postgraduate facilities in Commerce education and management, as also Chemistry and Zoology by papers were also provided. The details of the collegewise enrolment in Solapur city is given in Annexure-XV.

3.11 While no statistics of the total number of teachers in the affiliated colleges in Solapur city was made available, the university, however, supplied the information to the committee, on the details of 117 teachers recognised for teaching postgraduate classes in the affiliated colleges in Solapur City. Their distribution was : English - 15, Marathi - 8, Hindi - 7, Sanskrit - 2, Ardhamagadhi - 1, Economics - 6, Politics - 6, Social Work - 18, Urdu - 5, Kannada - 1, Sociology - 2, History - 4, Geography - 4, Zoology - 1, Chemistry - 1, Geology - 3, Commerce and Management - 27 and Education - 6. Of these, 22 teachers possess Ph.D. degrees. Some of the teachers have published some books and research papers also. The details are given in Annexure-XVI.

3.12 The Shivaji University started in the year 1966-67, a postgraduate teaching centre in Solapur (located in D.B.F. Dayanand College of Arts and Science, Solapur) in the subjects of English, Marathi, Hindi, Sanskrit, Urdu, Ardhamagadhi, Persian, Kannada, Philosophy, History, Economics, Politics, Geography, Mathematics and Chemistry (by papers). The university, however, closed this centre with effect from 1982-83, as it was decided to allow the colleges to teach postgraduate courses by the colleges themselves.

IV. ECONOMIC PROFILE OF SOLAPUR DISTRICT

4.1 Solapur with a population of 5.11 lakhs, is the headquarter of the District of Solapur with 26 lakhs inhabitants, of which 18.5 lakhs live in rural areas. The Bhima is the main drain. Other major rivers are the Sina, the Man and the Bhagwati. Along banks of major rivers and in few valleys, soil is deep-black. In the remaining parts of the district, the soil is shallow. The average annual rainfall is scanty and uneven. The total area of the district is 15021 sq.kms., about 4.8% of the area of the State of Maharashtra. Only 2.17% of the area is under forests.

4.2 Over 3/4th of the working force of the district is engaged in agriculture, the rest dependent on agro based industries, trade, transport etc. At present 13% of the cultivable land is under irrigation, 3/4th through wells. By 1990, it is proposed to cover 23% of the land under irrigation on the completion of Bhima-Ujani Project.

4.3 Solapur city, located on the borders of three States of Karnataka, Maharashtra and Andhra Pradesh, has trade links with major commercial centres. Jacquard chaddars are exported even outside India. Foodgrains, pulses, oilseeds, cotton, oil, sugar, gur, and cloth - handloom, powerloom as well as mills - are the chief exports of the district. Annual turn over was estimated at Rs.73.50 crores during 1980-81 in these markets.

4.4 Solapur; traditionally, holy city of God Siddheshwara, is the sixth largest industrial city of Maharashtra State. Cotton textile industries, powerlooms and handlooms is the main core of industrial life. There are 8 textile mills including 5 spinning mills, 8 sugar factories and 5 other major industries in Solapur district, employing 33,000 workers, and producing Rs.172 crores worth of goods annually. In addition, the present 3,165 small scale industrial units employing 16,000 persons and producing goods worth Rs.80 crores annually will rise to 10,000 units, generating more employment and production.

4.5 Besides, the affiliated colleges mentioned in Sector-II above, 2 industrial training institutes, one polytechnic in Solapur, the year end will witness one Engineering College at Solapur, another Polytechnic at Akhuj and 2 more ITIs start functioning.

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V. MEETING WITH THE DEPUTY MINISTER FOR EDUCATION MAHARASHTRA STATE, LOCAL MEMBERS OF PARLIAMENT AND LOCAL MEMBERS OF STATE ASSEMBLY & PROMINENT CITIZENS:

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5.1 The Committee met the Deputy Minister for Education, Maharashtra State, Local Members of the Parliament, Local Members of State Assembly and prominent citizens and discussed the proposal with them. The following points were made :

- i. The State Deputy Minister for Education pleaded for the establishment of the postgraduate studies centre at Solapur on account of local, economic and social considerations. She promised that the State Government has already taken a decision to provide all the facilities would to recommended by the Committee/UGC for this centre. She informed that the State Government has already allocated 178 acres of land and more developed land would be made available for this centre. Necessary funds for the purposes have already been agreed to, and the approach road to the site of the proposed centre would be constructed soon.
- ii. The district authorities agreed to make about 450 acres of developed land immediately, and assured enthusiastic cooperation for providing every possible assistance require from the State Government. It was further assured that developed land upto an extent of 1,000 acres could be made available within a year for the future development of the postgraduate centre.
- iii. With the rapid increase in the number of students in the Solapur district pursuing university education, the need for the establishment of the postgraduate studies centre was emphasised as more students from the area will be in a position to prosecute their higher studies, which they could not do earlier by going to Kolhapur which is at a great distance.
- iv. Solapur district has lot of economic and industrial activity already, and the completion of the Bhima-Ujani Project will throw up tremendous boost to agricultural production and growth of agro-industries.

Phenomenal growth in the pharmaceutical, Chemical and electronic industries is in the offing with two more spinning mills and two sugar factories coming up, the growth of ancilliary industries in the district is inevitable. This will increase the demand for adequately trained manpower. Further the growth of this intellectual activity centre, will not only cater to the needs of the area around but the entire state of Maharashtra will be benefitted.

5.2 It was clarified that as per the concept of the University Centre for Postgraduate Studies as enumerated by the UGC, the Centre should essentially enjoy necessary autonomy in its academic programmes and administrative and financial matters.

VI. OBSERVATIONS & RECOMMENDATION OF THE COMMITTEE:

6.1 The Shivaji University was established in 1962, In the year 1966-67, it started a postgraduate teaching centre by providing facilities for post-graduate teaching in DBF Dayanand College of Arts & Science, Solapur, in 13 Arts subjects, with the help of contributory teaching staff from the local colleges and neighbouring areas. This facility has, however, been stopped by the university w.e.f. 1982-83 in the wake of the present proposal for the establishment of a University Centre of Postgraduate Studies at Solapur. The Solapur Colleges were, however, allowed to teach postgraduate courses themselves. A special study centre was also run by the University in 1980-81, and a building fund of Rs.1.00 lakh was created by local donations and the local municipal corporation agreed to provide land for the same.

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6.3 Presently, at Solapur three colleges were providing facilities for M.Com. course, two colleges were providing facilities for M.S.W. Course, two colleges for M.B.A. and other management diploma course, one college each in M.Sc. (Chemistry), M.Sc. (Maths) and M.Sc. (Zoo). One college viz. D.B.F. Dayanand College of Arts & Science has two scholars enrolled for research for Ph.D. degree in Chemistry. The Committee felt that this was not a satisfactory arrangement.



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6.5 The present proposal of the University envisages to provide facilities for postgraduate education in analytical chemistry, geology and business administration. Two colleges in Solapur teach B.Sc. (Chemistry) and B.Sc. (Geology) courses. The university has clarified that the proposed Centre with postgraduate facilities in chosen specialisation will cater to the needs of the students from all the four districts under the jurisdiction of Shivaji University and also the entire State of Maharashtra.

6.6 The Committee learnt that MBA courses were already being provided at two colleges in Kolhapur, in addition to the facilities now created in two colleges in Solapur city. Similarly M.S.W. courses were provided in colleges in other cities under the jurisdiction of Shivaji University. This may not be necessary unless the University feels that this could be continued on the basis of demand and academic justification. The Committee, however, felt that for M.B.A. courses the courses of study and other conditions prescribed by the All India Council of Technical Education should be strictly adhered to in the interest of proper academic standards.

6.7 The Committee had the opportunity of visiting the (i) Walchand College of Arts and Science, Solapur and (ii) D.B.F. Dayanand College of Arts and Science, Solapur. Both these colleges provide instructions for B.Sc. (Geology) course. The D.B.F. College, however, provides instruction in Chemistry at the undergraduate and postgraduate stages and research facilities also. Whereas the Walchand College provides teaching for M.A. in certain courses. The Committee would like to express its satisfaction with the library facilities, laboratories and scientific equipment, space and other facilities at the D.B.F. College, which in the opinion of the Committee could be compared with any good college which provides teaching at postgraduate stage.

6.8 Considering the pressure of demand and urge for postgraduate education in the area, as also the need for skilled and trained manpower required by the growing industrial and commercial complex in the Solapur district and around, the committee feels that there is a potential for starting additional facilities for postgraduate education in the area. These facilities could be created either by starting of a multi-faculty university, as it has good number of colleges (some of them very good colleges) having adequate facilities in manpower, equipment, laboratories, libraries etc. or by establishment of a university centre for postgraduate studies or by allowing more colleges to start postgraduate courses. The establishment of a university is a very costly proposition as also the State Government is eager to start a centre for postgraduate studies under the Shivaji University. The Committee, therefore, recommends that a University Centre for postgraduate facilities may be started at Solapur and recommends that the UGC may agree to this proposal. The establishment of such a centre is justified on the basis of postgraduate enrolment as percentage of undergraduate enrolment in the area. Also it is a good augury that the local public is very keen to provide all assistance in developing such a Centre in the city.

6.10 Keeping in view the real needs of the region and academic consideration (also to avoid duplication of facilities already being provided at the university teaching departments), the committee feels that a university centre for postgraduate studies with financial administrative and academic autonomy as prescribed in the UGC guidelines may be started to begin with, in any of the three disciplines from the following areas :

(a) Geo-Sciences with specialisation in

- i. Geology
- ii. Geophysics
- iii. Geo-chemistry
- iv. Oil exploration

(b) Chemistry - All the branches of Chemistry viz. analytical, inorganic, physical etc. may be taught in the M.Sc. (Prev.). In the M.Sc. (Final) looking to the needs of the region, the following specialisation in order of preference may be undertaken :

- i. Polymer chemistry
- ii. Synthetic Organic Chemistry
- iii. Protein Chemistry
- iv. Petro-chemistry

- (c) Physics : Students should have comprehensive physics course at the M.Sc. (Previous) stage and in the M.Sc. (Final) the following specialisation may be considered :
- i. Electronics
  - ii. Space Physics
  - iii. Astrophysics
  - iv. Computer Science
- (d) Bio-sciences with specialisation in -
- i. Microbiology
  - ii. Bio-Chemistry etc.
- (e) Computer Science with courses in Statistics, Numerical Analysis, Operation Research and Teaching of Computer Languages (software).

6.11 In the interest of maintaining proper standards of postgraduate education and research, the Committee recommends that a minimum level of applied as well as fundamental research associated with the needs of the region should be undertaken in each discipline started at the Centre. Keeping in view the development of suggested thrust areas, the committee strongly recommends that the following procedure may be followed :

- (a) A very senior academic in professor's rank in one of the three disciplines which the University proposes to start with at the Centre may be appointed immediately to plan and coordinate the various academic courses. To achieve this, professors in other disciplines should be appointed soon after. Other academic staff viz. readers, lecturers etc. may be appointed after sufficient spacework has been done by the professors. These professors should interact with expertise available in the industries around as also with the faculty in the Colleges at Solapur.
- (b) The Centre should start only after the above appointment have been made, preliminary ground work and planning done, courses framed and approved by the various academic bodies, properly equipped laboratories set up and adequate library facilities made available. This can be done by appointing additional teaching and academic staff as per U.G.C. guidelines for postgraduate education.

6.12 The Committee is firmly of the view that the teaching at the Centre should be started after proper planning and that the Centre has been established on the lines suggested in Para 6.11 above. Thus, the committee consider most essential in the interest of proper academic standards and development of the Centre on rightlines. Such a Centre should not function in isolation, but should serve as a model point for collaboration and in cooperation with local industry and with colleges in the neighbourhood and also keep in improving the standards of undergraduate teaching in colleges for providing opportunities for college teachers to interact with Centres' departments in teaching and research activities.

6.13 If the University/State Government is eager to start the postgraduate teaching w.e.f. 1984-85, the existing facilities in D.B.F. Dayanand College, Solapur should be immediately augmented in the fields of chosen disciplines viz. Geology, Chemistry, Physics, Biology etc.). This will ensure proper interaction of University Centre and this college as also with other colleges. But the committee further reiterated that in the interest of academic standards the manner suggested in Para 6.12 should be considered as a basic desideratum, and the proposed Centre should provide innovative and new courses of study.

6.14 As the postgraduate education is also imparted in the affiliated colleges, the committee recommends that the norms prescribed by the UGC for postgraduate education should be adhered to and strictly followed and used both for purposes of according affiliation to new courses to start in the college as well as for bringing up to the required level the facilities in the colleges already offering postgraduate courses.

6.15 Before taking a final decision to start the University Centre for postgraduate studies at Solapur, the State Government may ensure that proper steps are taken to provide for necessary finances and facilities for its maintenance and initial developments. This is essential as the UGC assistance for the future development (and not establishment) of the University Centre for postgraduate studies would be available only after conditions laid down by the UGC in respect of the number of minimum departments, teaching and other academic staff, adequate machinery for health, residence, sports and welfare of students and teachers, and adequate facilities in respect of academic buildings, equipment, books, library, hostel, staff quarters whose aggregate value is not less than Rs.100 lakhs, in addition to developed land etc. are actually made available. It was classified that the UGC assistance would be available after for these conditions are satisfied.

VII. ACKNOWLEDGEMENT

7.1 The committee would like to express its gratefulness and sense of appreciation to the Deputy Minister for Education, Maharashtra State and District Collector and members of Parliament and State Legislative from Solapur for sparing their valuable time for affording all facilities to the members of the committee. The committee also places on record its appreciation to the Vice-Chancellor, Registrar, some faculty and functionaries of Marathwara University and Principals and teachers of local colleges in extending all cooperation and facilities in the work of the Committee.

APPENDIX-I

GUIDELINES TO DEFINE THE CONCEPT OF  
UNIVERSITY POSTGRADUATE CENTRES:

- (i) At present three broad patterns for providing postgraduate education obtain in the country. These are : (a) Universities where postgraduate teaching is imparted in university teaching departments only, (b) universities where postgraduate instructions are given by affiliated colleges only, and (c) universities where postgraduate teaching is done through university teaching departments as well as affiliated colleges. In addition, . new universities provide postgraduate instructions in university teaching departments and university centres for postgraduate studies as well as affiliated colleges. In the interest of maintaining and raising the standard of postgraduate education and research in the country, it would be desirable to develop postgraduate education (and a minimal level of research associated with it) in the university teaching departments and/or in the university centres for postgraduate studies. In the case of universities where postgraduate education is imparted through affiliated colleges, the norms prescribed by the Commission for postgraduate education should be used both for purposes of according affiliation to new courses to be started in the colleges as well as for bringing up to the required level the facilities in the colleges already offering postgraduate courses.
- (ii) It will be desirable to advise the universities to modify their conditions of affiliation for starting postgraduate courses in affiliated colleges in consonance with the norms prescribed by the UGC for the purpose.
- (iii) The pressure of demand for postgraduate education will continue to grow on account of limited employment opportunities. Increasing facilities would have to be provided to students from the weaker sections of the society to pursue postgraduate education. Towards this end, greater use may be made of providing facilities for correspondence courses, external degrees and allowing students to appear as private candidates for various postgraduate courses.
- (iv) With a view to maintaining academic standards of P.G. education and making optimum use of the limited resources, additional facilities for

P.G. studies be created only at such places where it is considered absolutely necessary to do so. New centres for postgraduate education should be established where existing facilities for postgraduate education have been fully utilised and the need for the creation of additional facilities for postgraduate education is justified on academic considerations. The universities may consider the desirability of introducing multiple streams of courses as also multiple shifts in the existing departments at the postgraduate level before a proposal for the establishment of a university centre for postgraduate studies is considered to ensure the optimum utilisation of the existing resources.

- (v) The establishment of university centre for postgraduate studies, should, as a rule, be a step towards raising the academic standards, innovative changes and interaction with the college system rather than merely as providing for another campus for postgraduate teaching and research in the existing subjects only. P.G. Centre should not provide for such courses as would be duplicating the courses existing in university departments and affiliated colleges. Also, such a centre should not function in isolation, but should function as a model point for purposes of collaboration and in cooperation with the colleges in the immediate vicinity, and also help in improving the standards of undergraduate teaching in the colleges by providing opportunities for college-teachers to interact with centres departments in teaching and research activities.
- (vi) Proposals for the establishment of a university P.G. Centre would be considered by the UGC, if the State Government, in consultation with universities concerned, has formulated a long-range (10-15 years), perspective plan for the development of higher education in the State based on a well designed survey of existing facilities and future projected demand and need for higher education in the State. The survey should also determine whether the demand and need for higher education could be met by extending and improving the facilities for postgraduate education in existing university teaching departments and affiliated colleges (selected with the help of college development councils recently set up in universities to ensure their optimum utilisation, or by opening a university P.G. Centre or in the alternative allowing some

carefully selected college departments to start postgraduate classes. Proposal from a university which allows its colleges to have postgraduate courses may not normally be agreed to for setting up a university P.G. Centre also. Some of the existing better developed postgraduate colleges may be provided additional facilities and inputs to function on the pattern of a university P.G. Centre.

- (vii) Based on a well-designed educational survey, and long range perspective plan, if the need for setting up a new university P.G. Centre has been established then it may be allowed to grow as an autonomous centre, on the basis of a ten year development plan. It should be examined and ensured that the local for the proposed centre, which should be sufficiently away from the existing university/ies has essentially the potential for removing regional imbalances, if any, and serves the local needs of trained manpower.
- (viii) The University Grants Commission while considering a proposal for the establishment of a university P.G. Centre would keep in view the All India average for postgraduate enrolment as to percentage of undergraduate enrolment in a State. The State having a ratio which is significantly lower than all India average may be given a higher priority for the establishment of such a university postgraduate centre.
- (ix) The State Government while formulating a proposal for the establishment of a university P.G. Centre would not only ensure to take appropriate steps to provide for necessary finances and facilities for its establishment but also for its maintenance and initial development. The University Grants Commission would consider providing assistance to such a centre for its future development only after the following conditions have been fulfilled.
  - (a) There should be a minimum three departments of teaching at postgraduate levels to begin with.
  - (b) Every teaching department, in the university postgraduate centre has a provision for a minimum staff of one professor, two readers and an adequate number of lectures alongwith the necessary supporting staff.
  - (c) Adequate machinery for the health, residence and welfare for the students has either been provided or resources are being made available for this purpose to the University Postgraduate Centre.



- (d) The centre has been provided with adequate facilities in respect of buildings, equipment, books, library, hostel and staff quarters whose aggregate value is not less than Rs.100 lakhs, alongwith the developed land or the State Government is prepared to give assurance to the Commission that a minimum amount of Rs.100 lakhs shall be made available to the centre during the initial period of five years for the provision of the above mentioned facilities in an addition to the developed land.
- (x) A University P.G. Centre should be allowed academic as well as administrative autonomy. Such a centre should normally function with a few selected departments, carefully chosen on well defined needs in science and humanities and social sciences subjects, and the courses offered by them should be distinct and not merely duplication or extensive of the courses already offered on the main university campus.

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## APPENDIX-II

### I. THE PROPOSED POST GRADUATE DEPARTMENT IN GEOLOGY AT SOLAPUR CENTRE NEED OF A POSTGRADUATE IN GEOLOGY

There are a number of colleges in Shivaji University area where Geology is being taught at B.Sc. level. But there is no post graduate department, and students have to go the neighbouring universities for higher studies. In other universities the number of seats are limited, and usually their own students get preference. Thus the students of the Shivaji University are at a considerable disadvantage. Moreover, most of the students graduating from Shivaji University hail from rural areas and belong to financially poor families and they find it rather difficult to go to places like Dharwar, Poona, Nagpur, Baroda, Bombay, Roorkee, Kharagpur etc. for P.G. studies in Geology under such conditions students feel discouraged to the geology as principal subject at the U.G. level even though, the subject has at present high employment potential.

The need of a centre for postgraduate teaching in 'Geology' for the rural and economically backward areas of Maharashtra is fully justified. The State Government has embarked upon an ambitious project of ground water search and in coming years, will require a large number of geologists. The proposed centre will provide training and employment to the students of south Maharashtra.

The centre will not only provide opportunities to the students for higher studies in Geology but will also be a nucleus where specialisation in certain branches may be developed. As Shivaji University covers essentially a rural population, it will be most appropriate of teaching and research, relevant to the Physical, social and economic Environment of South Maharashtra.

The P.G. Course in Geology should be so planned that it provides :

- i) A through training in the fundamentals of the various branches of the subject, and,
- ii) emphasis on one or Two major thrusts areas identified by the UGC panel for Geology.

The UGC panel for Geology, has identified several thrust areas. Looking to the rural completion of the Shivaji University Jurisdiction, and prevailing environmental conditions, emphasis should be on "Environmental Geosciences" at the proposed postgraduate centre. The specialisation by way of special papers, dissertations and field training in branches like Agricultural and soil Geology. Ground Water Geology, Earthquake studies etc. will be most appropriate for this centre. All these courses fall within the above stated three areas, identified by the UGC panel.

II. LOCATION OF THE CENTRE :

At present in Solapur facility of teaching Geology is available in two colleges.

- i) D.B.F. Dayanand College of Arts and Science, Solapur
- ii) Sholapur College, Solapur.

Out of these two colleges teaching is upto B.Sc. III principal Geology is only in D.B.F. Dayanand College of Arts and Science, Solapur.

D.B.F. Dayanand College of Arts and Science at Solapur is ideally suited for the postgraduate centre in Geology. This college is one of the most progressive and forward looking Institution, having shown steady progress during last 40 years. It is one of the biggest Degree College of this University. At present, college is under COSIP programme of UGC. All science departments have fully and nicely utilised the COSIP funds by adding many more sophisticated equipment to their section.

Under COSIP programme Geology department of the said college is developing a workshop fitted with microsection preparation equipment and 'Ore Polishing Machinery'.

Recently the college has introduced 'Geo-Chemistry' as interdisciplinary subject at B.Sc. Part II. Geology department is developing 'Geo-Chemical' laboratory under the UGC grant received by the College (Rs. 5,00,000 under the 5th year plan).

The said college is teaching geology at graduate level since 1951. College has enrolled about 260 students at Junior College level for Geology and about 200 students at Senior College level for Geology.

Proposed schemes of their minor research projects are known on soil Geology, Geochemical studies of rocks around Solapur and Geohydrological survey of Solapur.

The equipment position of the Geology department is satisfactory. There are in all 9 polarising microscopes out of which one of Bionocular available in Geology department. It is learnt that following equipment are added to the department

during current academic year :

- i) Ore-Polishing Machine
- ii) Ore-mounting press
- iii) Ore-microscope
- iv) Oven
- v) I.S.S. Seives with shaker
- vi) Water bath and hot plate
- vii) Water-still
- viii) Rock cutter/Polishing/grinding machine
- ix) Fine/Glass polishing machine
- x) Chemical tables with require glass wares.  
Petro-gas plants etc.

This department has a good collection of Rocks(800), Minerals (600) Crystal models (200) and fossils (300), Oriented minerals section (7), Non-oriented mineral sections (100) Rock sections (400) etc.

The Geology department of D.B.F. Dayanand College of Arts and Science will be a great asset for the proposed postgraduate centre. It will serve good purpose in the initial stages. In my opinion, a good collection of geological specimens is a prerequisite for post graduate teaching and that the department is in a position to provide a good beginning in this respect.

This geology department of D.B.F. Dayanand College of Arts and Science has two teachers having postgraduate recognition. Two more teachers of this college can get postgraduate recognition as they have teaching as well as research experience to their credit. As such, for contributory teachers can be made available from this college for new postgraduate department.

Even at present, when there are no opportunities of higher studies, the college is attracting about 8 to 10 students for Principal Geology. With the starting of P.G. Centre this number will certainly go up. Moreover, Geology students from other colleges of this region will also prefer to come to Solapur.

### III. RECOMMENDATIONS.

The Post-graduate Department in Geology in the first instance be started at the D.B.F. Dayanand College of Arts and Science, Solapur. To begin with the maximum number of students to be admitted to be kept between 8 to 10. The syllabi etc. be so framed so as to provide emphasis on Environmental Geology. The Department in due course would be shifted to the centre Bldg., when ready.

Facilities in respect of space, equipment, books and staff as well as running expenses be provided as per the following details :-

<u>A)</u>	<u>NON RECURRING</u>	<u>ESTIMATES FOR 5 YEARS</u>
	i) Space : 5000 Sq.ft. as per enclosure No.1	Rs. 7,50,000
	ii) Equipment : List as per enclosure No. 2	Rs. 4,00,000
	iii) Books/Journals : As per Encl. No.3	Rs. 1,00,000
	iv) Furniture	Rs. 50,000
	v) Jeep	Rs. 1,00,000
<u>2.</u>	<u>RECURRING</u>	
	i) <u>Staff (Teaching)</u>	
	Professor (1500-2500) - One	Rs. 1,50,000
	Reader (1200-1900) - Two	Rs. 2,60,000
	Lecturer (700-1600) - Two	Rs. 2,00,000
	Contributory - Three (6 clockhours work per week per teacher)	
	ii) <u>ANCILIARY</u>	
	Storekeeper - One	Rs. 40,000
	Clerk/Typist (260-495) - One	Rs. 37,000
	Laboratory Asstt.(260-495) - Two	Rs. 74,000
	Lab. Bearers (205-355) - Two	Rs. 46,000
	Driver (260-495) - One	Rs. 37,000
	iii) <u>RUNNING EXPENSES (ANNUAL)</u>	
	Contingency	Rs. 10,000
	Field work/Tours and Vehicles Maintenance etc.	Rs. 20,000 Encl. No. 1
		.....
	1) Class Room (30' X 20')	-2- 1200 sq.ft.
	2) Laboratories (30' X 20')	-2- 1200 sq. ft.
	a) Optical	
	b) Other work	
	3) Staff Room (10' X 15')	-5- 750 sq.ft.
	a) Professor 1	
	b) Reader 2	
	c) Lecturers 2	
	4) Other Rooms (10' X 15')	-4- 600 sq.ft.
	5) Museum/Library (30' X 40')	-1- 1200 sq.ft.
		Total: 4950 sq.ft.
		Say 5000 sq.ft.

Encl No. (2)

.....5/-

1.	Polarising Microscope	Student Type	10
		Research type	1
2.	Stereoscopic Microscope	Student type	5
		Research type	1
3.	5-Axes U Stages	-	1
4.	Ore Microscopes	-	2
5.	Photomicro Camera Attachment	-	1
6.	Refrectronerter (Abbey)	-	1
7.	Rock Cutting grinding and Polishing machine		1
8.	Ore Mounting press		
9.	Sieve	set of sieves	1
10.	Liquid	Apparatus	1
11.	Soil Training Kit		1
12.	Jodhpur type Pemeameter		1
13.	Sedi	Analysis Apparatus	1
14.	P.H.M.		1
15.	Turbidimeter		1
16.	Apparatus for conducting weathering test of natural building stones		1
17.	Ground Water Level indicator		1
18.	Chemical Balances		1
19.	Single pan Electric Balance		1
20.	Centrifuge		1
21.	Muffle Furnace		1
22.	Air oven		1
23.	Platinum Crucibles		1
24.	Platinum		1
25.	Photoglectric Colorimeter		1
26.	Spectrophotometer (Elico Type)		1

27. Flame Photometer	1
28. Refrigerator	1
29. Water Distillation Apparatus	1
30. Mirror Stereoscope with stereometer and tracing device	1
31. Packet Sterioscopes	5
32. Camera	1
33. Enlarger (Photographic)	1
34. Complete set of Dark Room Apparatus	1
35. Abney level	1
36. Dunpey level	1
37. Theodolite	1
38. Planimeter	1
39. Prismatic Compass	1
40. Plane Table with Telescopic Alidade	1
41. Pentograph	1
42. Brunton Compass	10
43. Jeep with Trailer	1
44. Enidiascope	1
45. Slide Projector	1
46. Thin sections of rocks, minerals and micro fossils	500
47. Crystal models	200
48. Rock Specimens	200
49. Mineral specimens	200
50. Fossil Specimens	200

.....7/-

LIST OF JOURNALS

1. American Journal of Science
2. American Mineralogist
3. Economic Geology
4. Geological Magazine
5. Geological Society of America Bulletin
6. Journal of Geology
7. Journal of Palaeontology
8. Journal of Petrology
9. Journal of Sedimentary Petrology
10. Mineralogical Magazine
11. Indian Minerals - G.S.I.
12. G.S.I. Bulletin Bangalore
13. Indian Journal of Earth Science Calcutta
14. The Indian Mineralogist Mysore
15. Journal of Geological Society of India.
16. Journal Indian Geoscience Association

N.B. : List of Text Books and Reference Books can be prepared afterwards when required.

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SHIVAJI UNIVERSITY, KOLHAPUR

ESTABLISHMENT OF A POSTGRADUATE CENTRE IN 'ANALYTICAL CHEMISTRY'  
WITH UNIVERSITY GRANTS COMMISSION ASSISTANCE AT SOLAPUR :

INTRODUCTION : At present the Shivaji University has jurisdiction over the following districts : i.e. Kolhapur, Sangli, Satara and Solapur. The University had in 1963, when it was started, only 38 Colleges affiliated to it. Today the number of Colleges under its jurisdiction has gone up to 88.

Such proliferation of colleges under one and the same University is not desirable as it is not conducive to maintenance of academic standards. The student strength in all the colleges has risen to nearly 52,458. It is being felt for sometime now that the areas under jurisdiction of the University is too vast considerable inconvenience is being experienced in keeping effective academic control over these colleges, some of which are situated at a distance of more than 200 miles. With the tremendous increase in the number of colleges and students, the need for restricting the jurisdiction of the University is being keenly felt. This can be done by developing a centre of Post-graduate studies within the jurisdiction of the University which ultimately would develop into an independent University and cater to the needs of higher education in the Solapur district which is far off from Kolhapur.

Need and Justification to Establish the Department in the Subject of Analytical Chemistry : The district of Solapur is situated at a little far off distance from Kolhapur, the present seat of University, and road and communications to Solapur are not adequate with the result considerable inconvenience is being felt in maintaining contacts with the educational Institutions in this district. Moreover, at present University has only one postgraduate centre in the subject of 'Chemistry' situated at Kolhapur and students of all four districts have to come to Kolhapur for joining M.Sc. Chemistry courses. This acts as a great hardship to the students who have to come from long distance such as from Solapur district and adjust themselves to new environment, food habits, climate etc. Moreover in the existing University Department of Chemistry there is a great rush for admission & the University in finding it extremely difficult to cope up with the demand for admission to M.Sc. Chemistry in the University. Many of the students from Solapur in spite of their good academic career are unable to continue the Post-graduate education at Kolhapur because of the financial difficulties. The starting of another postgraduate centre in Analytical Chemistry will relieve the rush for admission to University Department which are over crowded. This will also increase the facilities for Post-graduate Studies in Chemistry for which the demand is increasing year after year at Solapur.

Further Solapur is one of the biggest centres of Textile Industry in India, with four big mills like Laxmi Vishnu Textile Mill, a renowned name amongst Textile Mills. In addition there are more than 3000 power and Handlooms. There are number of Dyeing Houses as well as two co-operative spinning Mills also add to the galaxy of the textile industries in Solapur. There are many oil mills producing edible oil especially from

groundnut. A few soap factories are also running in the city. One of the biggest foundries in Maharashtra engaged in manufacturing various types of castings is situated very near to Solapur at Shivshahi. A large number of units is busy in manufacturing oil engines and spares. A few concerns are manufacturing pharmaceutical products also. All these industries will be greatly benefited not only for getting skilled and technically qualified chemists to run the industries but will also help in their scientific progress if the Postgraduate centre in Analytical Chemistry is started at Solapur. This will naturally solve the problems of Postgraduate education of a large number of students around Solapur area.

Location of Centre : There are three colleges in Solapur teaching B.Sc. Chemistry (Principle) course. Out of these D.B.F. Dayanand College of Arts and Science, Solapur is the oldest and biggest, teaching B.Sc. (Principle) course since 1947.

The D.B.F. Dayanand College of Arts and Science, Solapur was also selected for the college Science Improvement Programme (COSIP) by the UGC and the COSIP grants have been fully and usefully utilised by the various science departments to equip and modernise the laboratories.

The Chemistry Department of D.B.F. Dayanand College is one of the best departments in Shivaji University area. It is also recognised for M.Sc. (Partly by Papers and Partly by Research) as well as for Ph.D. in Chemistry. Three students have already completed their M.Sc. (PPPR) and presently four students for M.Sc. (PPPR) and two for Ph.D. in Chemistry, are carrying out research. The Chemistry department is very well equipped and has four spacious Laboratories of dimensions :-

Laboratory	1	40' X 30'
Balance Room	2	30' X 20'
Laboratory	2	60' X 30'
Balance Room	2	20' X 15'
Balance Room	3	40' X 3'
Balance Room	3	26' X 9'
Physical Lab.		27' X 27'
Research Laboratory		30' X 20'

Thus the difficulty of accommodation can be solved to some extent if the Post-graduate centre in Analytical Chemistry is started at D.B.F. Dayanand College in initial stages until the new campus is established.

It may be noted that out of the 15 colleges in Solapur district five colleges run the B.Sc. Hons. course in Chemistry and three of them are situated in the Solapur city leaving one each at Barsi and Pandharpur.

The following statement will give an idea of the number of students and teachers in the above mentioned Science in their Chemistry department :

Classes	Year	No. of students Enrolment	Number of Passes
B.Sc. Hons. Chemistry	1972-73	294	250
Final Year	1973-74	268	219
	1974-75	296	254
	1975-76	257	224
	1976-77	245	218
		1500	1165

Number of students

M.Sc. Partly by paper and partly by Research	1974-77	17	3
Ph. D.	1977-78	2	

About 45 No. of teachers are involved in teaching Chemistry course in colleges under the jurisdiction of Solapur district. Name of the five Science College conducting the B.Sc. (Hons.) course in Chemistry:

It is hoped that the proposed course will familiarize the graduates of this University with analytical techniques, instrumentation Alloys, Oils and fats fertilizers, fibre, dyes, soil and environment pollution. The course will not only help the out going students in finding employment in Chemical industries and R & D laboratories but it will also enable them to cope up with the latest industrial and Scientific development. Further, the course may stimulate interest in research, modelling and designing in this specialized area.

4. Detailed estimates regarding staff, space (building) equipment and library are given as under :-

I.	Recurring	Scale	Estimates for five years
1.	Teaching Staff		
	Professor (One)	(1500-2500)	Rs. 1,50,000
	Reader (Two)	(1200-1900)	Rs. 2,60,000
	Lecturer (One)	(700-1600)	Rs. 1,00,000
	Recognised teacher (three at Rs.800/- per year per teacher		Rs. 12,000
	Scientific assistant (two) at Rs.8,400 per year per head		Rs. 84,000

2. <u>Acilliar/Staff</u> :	<u>Scale</u>
1. Store Keeper (one) Rs.40,000	(335 to 650)
2. Clerk/typist (one) Rs.37,000	(260 to 495)
3. Lab.Asstt. (two) Rs.74,000	(260 to 495)
4. Lab.Bearers (two) Rs.46,000	(205 to 255)
3. Chemicals and Glass-ware	Rs.1,50,000
4. Contingency and Miscellaneous	Rs.1,50,000
 II. <u>Non-recurring</u>	
1. Building and Laboratory	Rs.4,50,000
2. Furniture	Rs. 30,000
3. Equipment	Rs.2,50,000
4. Books and Journals	Rs.1,50,000

Department of Analytical Chemistry, Solapur Proposed Course  
Outline.

- First Term :
- a) Principles of Analytical Chemistry objectives functions and limitations of analytical chemist error of measurement, accuracy and precision.
  - b) Introduction to separation techniques : Thin layer chromatography, Gas chromatography, Ion Exchange chromatography, Solvant Extraction, RING over techniques, Electrophoresis.

1. D.B.F. Dayanand College of Arts and Science, Solapur
2. Solapur College, Solapur
3. Sanganeshwar College, Solapur
4. Shri Shivaji Mahavidyalaya, Barshi.
5. Pandharpur College, Pandharpur.

List of equipment, books and journals available with D.B.F. Dayanand College, Solapur is attached herewith (See Appendix I, II, and III)

3. Routine Courses, Special branches, if any to be started in the subject

It is proposed to set up a Post-graduate course in Analytical Chemistry at Solapur. Historically, Chemistry could be easily divided in five areas : analytical, biochemical, inorganic, organic and physics. Analytical Chemistry, like other areas of Chemistry and of all Sciences has gone through a period of rapid growth and change. This branch of chemistry has acquired vital position in the development of all fields viz. pure chemistry, physical Science, biological sciences, geology, mineralogy etc. Hence, it is difficult to assess the important role of analytical chemistry in modern industry almost every item of commerce has been subjected to analytical testing at one or more stages in its

manufactures. Similarly many advances in Scientific field were possible analytical results. It is obvious, therefore, that analytical chemistry is necessary and must be integrated with other scientific and Technical Disciplines.

The importance of analytical chemistry related to scientific areas can be illustrated by considering its impact of clinical analysis and in pharmaceutical research and quality control.

Solapur is fast developing as in industrial and agricultural city. The city, at the moment, has one medical college, one Engineering college and about five science colleges from where about 250 to 300 graduates come out every year. The present day syllabus covers the conventional techniques like distillation, extraction etc. However, little attention is paid to latest Analytical Techniques and Separation Processes.

c) Spot tests, Gas and Water analysis.

- Second Term :
- a) Principles of Instrumental Analysis :  
Polorography, Sepectrophotometry (UV and visible)  
IR, MMR, mass spectre, Atomic absorption spectroscopy,  
Thermogravimetry, Potentiometry and flame photometry.
  - b) Isotope dilution and activation analysis.
  - c) Analysis, of oil, soap, paints, varnishes, food, alloys  
preservatives, milk and trace impurities in good like  
as Pb, Sn, Cu. Analysis. of IP drugs.
- Third Term :
- a) Origin and development of use of commercial fertilizers.
  - b) Source, production and uses of fertilizers.
  - c) Commercial nitrogenous fertilizers, phosphate and  
fertilizers.
  - d) Structure of fertilizer industry.
  - e) Principles underlying the use of fertilizers and  
applications of liquid fertilizers.
- Fourth Term:
- a) Environmental effects of Industrial and Urban activity  
chemical principles environmental Science and technology.
  - b) Air pollution, origin, nature, detection and control of  
atmospheric pollution.
  - c) Soil pollution and its control
  - d) Water pollution and its control.

In addition to above the following few specialised courses in applied Chemistry will also be included.

1. Chemistry of Fibres :

/fibres.

Classification of fibres; Occurance, morphology, constitution Physical and chemical properties and uses of natural cellulosic and protein fibres, materials, manufacturing process, physical and chemical properties and uses of regenerated fibres; Chemistry, preparation, Physical and chemical properties and uses of important synthetic / Important physical properties of fibres; action of various chemicals, heat, light and microorganisms of textile fibres.

2. Chemistry of Fats :

Natural Fats : Source, composition and classification. Constituents and natural fats Glycerides, Phospholipids, fatty acids, non-triglyceride constituents. Glycerides and fatty acids; Nomenclature, structure, concurrence in fats. Physical properties of fats and fatty acids, properties of the liquid state, solution properties, spectral properties.

Other Constituents : Phospholipids, sterols, vitamins and constituents imparting colour, odor and stability of fats, Toxic constituents.

Chemical reactions of fats and fatty acids Chemistry of Hydrogenation, hydrogenolysis, autoxidation, polymerization, dehydration, pyrolysis, esterification, into esterification and hydrolysis. Chemical oxidation of fatty acids, Significance and importance of these reactions in analytical work and industrial applications.

Physical and Chemical characteristics : Elementary methods of analysis of oilseeds, oils and fats, and fatty acids. Identification of fats. Methods for detection of adulteration in fats. Indian Standards for oils and fats. Methods for evaluation of stability of fats. Antioxidants and synergists.

3. Technical Analysis (Textile Chemistry)

Analysis of chemicals such as alkalis, acids, oxidising agents, reducing agents, mordants, salts, etc. used in textile processing analysis of water, soaps and textile auxiliaries, Students will be encouraged to use various instruments during the course of the above analytical work.

4. Chemistry of Intermediates and Dyes.

Classification of dyes according to chemical structure and according to application, Systematic treatment of the chemistry of synthetic dyes. Colour and chemical constitution. Chemical structure and substantivity of dyes. Action of light on dyes and dyed fabrics.

5. Dying of Textile Fibres.

General considerations of the applications of different classes of dyes on important textile fibres, Introduction to physics and chemical principles involved in dyeing.

6. Analysis of intermediates and Dyes :

Analysis of important inorganic and organic raw materials and intermediates used in the dye stuff industry. Identification & estimation of intermediates and dyes. Colour matching with compar and Lovibond tintometer. Colour measurements with spectrophotometer & colorimeter. Fading of colour in light Measurements of the degree of fading Measurements of brightness and lustre.

7. Analysis of Fats and Fatty Acids :

Determination of various physical and chemical characteristics of oils and fats, colour, solubility and thermal tests for purity. Analysis of seeds, cakes, crude and refined oils and waxes. Analysis of nickel catalyst and acid oils. Estimation of rancidity. Determination of physical and chemical characteristics of vanaspathi margarine and ghee. Analysis of oils by thin layer chromatography. Detection of adulteration. Preparation and analysis of fatty acids.

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Annexure III

List of Journals available in D.B.E. Dayanand College,  
Solapur

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1. Journals of Chemical Education (USA)
2. Indian Journal of Chemistry
3. Current Science.
4. Scientific American
5. Journal of Indian Chemical Society
6. Science Today.
7. Science Digest
8. Every man's Science
9. Indian Chemical Journal
10. Everyday Science.
11. Science Reporter.

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List of Equipment

Available at D.B.F. Dayanand College of Arts  
and Science College, Solapur.

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1.	Abbe's Refractometer	1
2.	Accumulators	7
3.	Battery-Charger	1
4.	Calomel electrodes	2
5.	Conductivity apparatus	4
6.	Centrifuge Machine (electric)	1
7.	Colorimeter (Breme)	1
8.	Constant Voltage Stabilizer	1
9.	De-ioniser	1
10.	Dipolemeter	1
11.	Dunouy tensio meter	1
12.	Electric ovens	2
13.	Hair drier	1
14.	Heating mantle	1
15.	Magnetic stirrer	1
16.	Micro buretess	8
17.	Mono molecular film balance	1
18.	Mercury distillation unit	1
19.	Potentiometers	3
20.	PH meters	2
21.	Polarimeter	2
22.	Polarograph	1
23.	Quick-fit-distillation unit	3
24.	Rotational viscometer	1
25.	Seme-micro balances	2
26.	Sport-reflecting galvanometer	4
27.	Spectro-colorimeter (Special)	1
28.	Spectro-photometer (VSU 2p)	1
29.	Thermo-stats	5
30.	Soxhlet extraction unit	1
31.	SLC equipment	1
32.	Vaccumit	2
33.	Water stills	2

List of Books

Available at D.B.F. Dayanand College of Arts  
and Science, Solapur.

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1. Nature of the atom by conn.
2. Physical Chemistry by Bronsted.
3. Valency Classical and Modern by palmer.
4. Chapter in Physical Chemistry by phadke.
5. Mass spectra and Isotopes by Asten.
6. Dipole moment and Chemical Structure by Debye.
7. Electrochemistry and Electromechanical  
analysis by sand volume-I
8. -do- by sand volume-II
9. -do- by sand volume-II
10. Electrochemistry of the Solution by Glasstone.
11. Electronic Theory of Valency by Sidgwich (two copies).
12. A manual of Radioactivity of Henry Geogra and paneth.
13. Kinetics of Chemical Change by Hinshelwood.
14. Phase rule studies by Rhodes.
15. Physical Chemistry by Classtone (two copies).
16. The Kinetics of radtion in solution by Hughes.
17. Chemical thrmodynamics by Butler.
18. Quantum Chemistry by Erying and others.
19. Elements of Physical Chemistry by Glasstone.
20. Electronic structure & chemical binding by rice.
21. Thorpe's dictionary of applied chemistry Vol.I to  
X edited by Whiteley.
22. Electrical phenomena at interfaces by Butler.
23. Kinetics of Chemical change in Solutions by Aims.
24. Valence by Coulson.
25. Electronic Theory of Acids and Bases by Luder and  
Zuffanti.
26. Theoritical Chemistry by Glasstone.
27. Problems in Physical Chemistry by Sillen and others.
28. Manual of paper chromatography and paper electrop-  
horesis by Block & Ot.
29. Nature of Chemical bond by pauling.
30. Ino exchange theory & applications by Nachod.
31. Phase rule and heterogeneous equilibrium by Rice.
32. The world of Isotopes by Mezentsev.
33. Dipole moment by Le Fevre.
34. Physical Chemistry by Daniels and Alberty,
35. Practical Physical Chemistry by Findlay.
36. Principales, of Physical Chemistry by Prutton and Muron.
37. Electrolyte solutions by Rebinson and Stokes.
38. Catelysis and its Industrial applications by Maxted.
39. Physical chemistry by Moore (two copies).
40. Principles and applications of electrochemistry  
by creghton-H Jermain Vol.I by Kochler Vol.II
41. -do-
42. Physic Chemical Calucations by Knox.
43. Chemical instrumentation by Strobel.
44. Thermodynamics for Chemists by Glasstone.
45. Physical Chemistry by Sheehab.

46. Physical Chemistry by Barrow.
47. Inorganic complex compounds by Murmann.
48. Chemistry in nonaqueous solvents by Sislet Harry H.
49. Colloid Chemistry by Vold and Vold.
50. Modern Chemical Kinetics by Eyring and Eyring.
51. Acids bases and Chemistry of Covalent bond by  
Wanderwerf.
52. Source book of atomic energy by Glasstone.
53. Essential of Physical Chemistry by Glasstone and Lewis.
54. Technique of Organic Chemistry Volume I part II  
Edited by Weissberger.
55. Technique of Organic Chemistry Volume-III edited by  
Weissberger.
56. Chemistry of metal chelate compounds by martell  
and calvin.
57. Atomic Physics by Rajam.
58. Advanced inorganic chemistry by Cotton & Wilkinson.
59. Inorganic Chemistry, An advanced text-books by Meoler.
60. Fundamental concepts of Inorganic Chemistry by Gilreath
61. Theoretical Inorganic Chemistry by Day and Selbin.
62. Chemical Periodicity by Sanderson.
63. Industrial Electrochemistry by Mantell.
64. Selected topics in Modern instrumental analysis by Bolt
65. Instrumental methods of analysis by willard and others.
66. Physical Methods in Inorganic Chemistry by Drage.
67. Applications of Absorption spectroscopy of Organic  
compounds by Dyer.
68. Technique of organic chemistry Vol-I Part-III by  
Weissberger.
69. Technique of organic chemistry Vol-III by Weissberger.
70. Technique of organic chemistry Vol-III part I and  
II by Weissberger.
71. Physics and Chemistry of surfaces by Adm.
72. Synthesis and technique in Inorganic Chemistry by  
Angolici
73. Chromatography by Heltmann.
74. Chemistry of complex equilibria. by Dr. BECK M.T.
75. Solvent extraction of metals by Dr. Khopkar, Chalmers.
76. Co-ordinate chemistry by Basalor.
77. Physical Chemistry Vol. I by Gerasimov.
78. Physical Vol. II by Gerasimov.
79. Radiochemistry - By Nesmeyanov.
80. Theoretical Electrochemistry by Antropov. I
81. Comprehensive Inorganic Chemistry Vol-I Edits by  
Bailer J.C.
82. -do- Vol-II Edited by Bailer J.C.
83. -do- Vol-II -do-
84. -do- Vol-IV -do-
85. -do- Vol-V -do-
86. Chapters in Physical Chemistry by Pandit Phadke &  
others.
87. Concepts and Models in Inorganic Chemistry by  
Dougals & MaDaniel.
88. Thin Layer Chromatography by E.Sthal.
89. Co-ordination Chemistry Vol.-I by Martell A.E.
90. Solution Equilibria in Analytical Chemistry by  
Dr. Sucha and Dr.Ko.

91. Chemical bonding and the Geometry by Ryschwitsch.
92. International Encyclomedia of Chemical Science- Van Nostrand Compar.
93. Chemical Applications of Potentiometry by Rossotti H.
94. Valency and Molecular structure by Cartweel and Fowles.
95. Chemical technology by Mukherylyonov and others.
96. Structural principles in Inorganic compounds by Addison W.E.
97. Inorganic Chemistry principle of structures & reactivity by Hubeey J.E.
98. Introduction to advanced Inorganic Chemistry by Durrant P.N.
99. Chemical applications of group theory by F.Albert cotton.
100. Theritical basis of Inorganic Chemistry by A.K.Barnard.
101. Stoichimetry by Bhatt and Vore.
102. Pcinciples of Physical Chemistry by Hamill W.H. and others.
103. Scientific Encylope-dia-Van Nastrand Company.
104. Encyclopedia of Science and Technology Vol-I to XV McGrew Hill Book Company.
105. University General Chemistry by CNR RAO.
106. Principles of Organic Chemistry by English J.and others.
107. Fundamental concepts of Inorganic Chemistry by Gilreath.
108. A text Book of Modern inorganic chemistry by Jagindersingh.
109. Organic Chemistry by Fisher and Fisher.
110. Advanced organic chemistry Reaction Mechanisms and structures, by Jerry March.
111. A new concise Inorganic chemistry - By Lee, J.D.
112. Theory and Problems of organic chemistry by Mesilich & others.
113. Organic Chemistry by Boyd.
114. Inorganic Chemistry by Savur.
115. Stereochemistry of organic compounds by Elier.
116. Individual study programme in Chemistry (Vol.1 to 7)

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SHIVAJI UNIVERSITY, KOLHAPUR

Proposal for establishing University Post-Graduate  
Centre in Management Courses at Solapur.

The demand for trained management personnel is test increasing in the area of this University as elsewhere, particularly, in Solapur this is a place which is industrially advanced. There are both large and medium scale industries in Solapur Corporation area. Small scale units are also rapidly developing. In Solapur District also there are a large number of cooperative suger factories. We believe that there is an urgent need of supplying top and medium level management personnel to the entire areas covered by Shivaji University and particularly to Solapur. We also believe that Manggement training can best be done not by an affiliated institute but by an institute in the University sector. It is, therefore, essential to establish a post-graduate centre of Management Courses at Solapur.

Number of students : 50 in the First Year and  
100 in the Second year  
and thereafter.

SUBJECTS TO BE TAUGHTS

1. Paper - I : Management Principles. a) personnel  
Management  
paper-I & II.
2. Paper - II : Management Accounting. b) Financial  
Management  
paper I & II
3. Paper - III : Managerial Economics. c) Production  
Materials  
Management  
paper I & II
4. Paper- IV : Business Environment & d) Marketing  
Human Relations. Management  
paper - I & II
5. Paper- V : Business Law.
6. Paper - VI : Case Studies (Practical  
Work & Project Work.)
7. Communication Skills (Non-university subject)

ESTIMATE OF RECURRING EXPENSES FOR FIVE YEARS:

1. Salaries of the Teaching Staff: (Full-Time Staff)

1. Professor & Head (1500-2500)	Rs.1,50,000
2. Professor Marketing Management (1500-2500)	Rs.1,50,000
3. Professor of Personnel Management (1500-2500)	Rs.1,50,000
4. Professor of Production Management (1500-2500)	Rs.1,50,000
5. Asstt. Professor of Financial Management (1500-1900)	Rs.1,30,000
6. Asstt. Professor of Managerial Economics (1200-1900)	Rs.1,30,000

VISITING PROFESSORS:

7. Asstt. Professor of Management Accounting	: 3 Lecturers a week.
8. Asstt. Professor of Case Studies.	: 3 Lecturers a week.
9. Asstt. Professor of Communication Skills.	: 3 Lecturers a week.
	<u>9 Lecturers a week.</u>

10. Lecturers a week @ Rs.25/- per Lecture for weeks.  
9 x 30 = 270 x Rs.25/- 6,750 x 3 Rs.20,250/-  
Travelling Expenses for 3 Visiting Professors at  
Rs.50/- per visit.  
3 x 30 x Rs.50/- Rs.22,500/-

2. Salaries of Administrative Staff : Estimates for Five Year.

1. Jr. Clerk-cum-Typist-Two (260 to 495)	Rs.74,000/-
2. Peons Five (205 to 355)	Rs.92,000/-
3. Officer Expenses : (Contingency):	

Stationary	) Rs.1,50,000/-
Advertisement	
Postage	
Travelling	
Electricity, Water etc.	
Telephone	
Miscellaneous	

NON RECURRING EXPENSES:

1. Cost of Building

1. Class Rooms (6)	:	20 X 10 X 6	=	1,200 s.Ft.
2. Seminar Rooms (3)	:	25 X 12 X 3	=	900 sq.ft.
3. Conference Hall for 200	:	50 X 30		
4. Office (Visitor's Room)	:	40 X 15	=	600 sq.ft.
5. Administrative Office	:	30 X 15	=	450 sq.ft.
6. Library Reading Room	:		=	2,500 sq.ft.
7. Staff Common Room	:	25 X 20	=	350 sq.ft.
8. Students Common Room	:	30 X 20	=	600 sq.ft.
9. Cabins for Professor (10)	:	10 X 10 X 10	=	1,000sq.ft.
10. Ladies Common Room ( 20 X 20 )	:		=	400 sq.ft.
11. Common Room for Administrative	:		=	150 sq.ft.
12. Store Room 10 X 10	:		=	100 sq.ft.
13. Residence to Head	:		=	1,200 sq.ft.
14. Quarters for Class-IV 15 X 10 X 2	:		=	300 sq.ft.
				<hr/>
				10,900 sq.ft.

is 11,000 sq.ft. @ 150/- per sq.ft. Rs.16,50,000/-

FURNITURE:

1. Chairs for 6 Class Rooms	150 X Rs.100	=	Rs.15,000
2. Tables for 6 Class Rooms	6 X Rs.150	=	Rs. 900
3. Chairs for 3 Seminar Room	75 X Rs.100	=	Rs. 7,500
4. Tables for 3 Seminar Room	3 X Rs.150	=	Rs. 450
5. Chairs for Conference Hall	200 X Rs.200	=	Rs.40,000
6. Tables for Conference Hall	3 X Rs.200	=	Rs. 600
7. Chairs for library & reading rooms	3 X Rs.100	=	Rs.10,000
8. Desks		=	Rs.10,000
9. Chair for the Head of the Depttl.	1 X Rs. 600	=	Rs. 600
10. Chairs for the office visitors room etc.	10 X Rs.150	=	Rs. 1,000
11. Table for the office	5 X Rs.200	=	Rs. 1,000
12. Chairs for the staff common room	30 X Rs.150	=	Rs. 4,000
13. Table for the staff common room	5 X Rs.200	=	Rs. 1,000
14. Chairs for Professor room	10 X 40Rs.100	=	Rs.4,000
15. Tables for students common room	20 X Rs.100	=	Rs. 3,000
16. Chairs for students common room	50 X Rs.150	=	Rs. 7,500
17. Table for Professor room	10 X Rs.150	=	Rs. 1,500

TOTAL: - Rs.1,09,050

18. Chairs for ladies common room	20 X Rs.150 = Rs. 3,000
19. Tables for ladies common room	10 X Rs.200 = Rs. 2,000
20. Chairs for canteen	50 X Rs.100 = Rs. 5,000
21. Tables for canteen	25 X Rs.150 = Rs. 3,750
22. Class Block-!Boards -10	10 X Rs.500 = Rs. 5,000
23. Type-writers - 3	3 X Rs.4000= Rs.12,000
24. Cyclostyling Machine - 1	1 X Rs.13,000=Rs.13,000
25. Steel Cupbard -half size for office.	10 X Rs.500 = Rs. 5,000
26. Steel cupboard-full size for office	10 X Rs.1200= Rs.12,000
27. Godrej Safe for office	1 XRs.5000= Rs. 5,000
28. Cupboard for library book	20 XRs.1200=Rs.24,000

TOTAL: - Rs.1,98,000/-



Future Plan of expansion of proposed Shivaji University  
Post-Graduate Teaching Centre, Solapur.

A) Science Subjects:

1. Preamble : The Solapur centre is proposed to begin with only two science departments viz. analytical chemistry and geology and it is hoped that these two departments will become full-fledged in teaching and research in the first five years. In the next ten years proposed plan, creation of new departments, adding up specialisations in the existing departments and strengthening them are aimed at. In doing so the concept of avoiding duplication of various subjects at Shivaji University Post-graduate departments and the Solapur centre has been kept in view.

Presently the various postgraduate departments developed in the Shivaji University Campus impart instructions mostly in basic sciences such as Chemistry Botany, Zoology, Physics, Mathematics and Geography. While developing these departments, the main view kept before the University authorities was to satisfy the needs of a vast majority of students population seeking education in basic sciences. While developing various specialisations in these subjects also mainly the basic specialisations were kept in view. Only in the last five years some applied specialisations such as fine chemicals in Chemistry Department, Fisheries science and entomology in Zoology and plant protection in Botany were initiated and are presently being developed.

The developmental plan of the subjects in science faculty of Solapur centre mainly aims at developing this centre as a centre for instructions in applied specialisations in various subjects. The need of the student population not only of the Solapur and adjoining area but of entire Shivaji University areas is kept in view while preparing the present phase programme. The specialisations selected for various science subjects are such that the students passing out of this centre will be able to start their own small scale industries or may be able to get jobs in various industries or technical institutions. Thus Kolhapur centre will satisfy the need of basic Sciences and the Solapur centre will satisfy the need of applied sciences of entire Shivaji University area.

However the importance of the basic specialisations as a basis of applied specialisations cannot be neglected. Hence it is proposed that even at Solapur centre, the students will undergo training in basic science in the first two semesters and then in next two semesters they will undergo training in the applied specialisation. The following new departments are proposed to be started at Solapur Centre in the ten years:

- 1) Environmental Science and Pollution.
- 2) Textile Chemistry.
- 3) Forensic Science.
- 4) Applied Physics and Astronomy.
- 5) Molecular Biology.

2. Need: None of the proposed subjects are presently taught at the Shivaji University Post-Graduate Departments. All the proposed subjects are of highly applied nature and Job-oriented in nature.

Environment and pollution are not only important from the Shivaji University area point of view but they have national importance. Even restricting the attention to Shivaji University area, the problems of pollution are many and divergent. The four districts coming under the Shivaji University area form a rich centre for the sugar-cane production and more than 20 of sugar factories with ancillary acetic acid and distilleries are present in this area. The main problem concerning these factories is that of effluents, which are generally let into some rivers, thus, leading to a major water pollution problem. Because of several textile factories in Solapur and Ichalkaranji and other places in this area basic problem of air pollution and a problem of water pollution due to the washing up of dyes in the rivers have cropped up. Presently Shivaji University does not have any departments imparting any instructions in environmental science and pollution. Hence there is an urgent need of starting and developing this subject in this area.

Applied Physics and Astronomy is another subject for which presently there is no facility of teaching and research in the Shivaji University area. The present department of physics at Kolapur imparts instruction in basic specialisations such as theoretical Physics electronics etc. Kolhapur and Solapur are big industrial centres with a number of small scale industries units and factories. They need well trained persons in applied physics and hence the need of this subject. This department is proposed to develop fabrication facilities and courses and research in computer science, communication science, solar energy, biophysics, explosives and ballistics.

The starting of textile chemistry as a subject of instructions and research is another basic need not only of Solapur area but of entire Shivaji University areas since a number of textile factories are situated in Solapur and also in Ichalkaranji, the latter is sometimes called as Manchester of Maharashtra. These factories need well trained persons in textile chemistry.

No University in entire Maharashtra has developed this important subject and training is available only in IIT, Bombay. But this can as well be done by any University with proper staff and facilities.

Forensic Science is another subject which has not been taken up by any University in Maharashtra, though some Universities in North India like Lucknow University has developed this department. Presently the forensic laboratories draw their personnel from graduates in basic sciences such as chemistry, who are not well suited to work in forensic laboratories. It is well known that many key posts in forensic departments are presently vacant for want of well trained persons.

Molecular biology is the queen of Sciences in the modern era of Science. Only the University of Poona has recently started this subject. But in other Universities this subject has not yet been started. This subject is of great importance from the point of view of medicine, pharmacology, genetic engineering, human heredity and concerned metabolic disorders etc.

3. Courses in various science subjects: As mentioned earlier the courses of the aforementioned five subjects will be so prepared that the students will have to give 8 papers in the applied specialisation. The exact papers and the details of the syllabi will be decided by the concerned boards of studies and faculty of science.

4. Location of the new Departments and phased Programme of development.

These five departments cannot be started in the existing science laboratories of any college situated in Solapur, since laboratories are not at all suited for these subjects.

By the time the developmental plan of starting these subjects is taken up somewhere in 1985-86, the Solapur Centre might have developed its administrative building, Departments of Geology and analytical chemistry. Hence these will form a nucleus around which further development will take place. New building and laboratories will have to be built up according to the phased programme.

- (1) 1983-86 : Development of Geology and analytical Chemistry Departments.
- (2) 1987-90 : Development of Textile Chemistry and Environmental Science and Pollution Deptts.
- (3) 1991-94 : Development of Forensic Science and Molecular Biology Departments.
- (4) 1995-98 : Development of Applied Physics and Astronomy Department.

5. Staff: The staffing pattern of the proposed Departments will be as per the norm laid down by the UGC Every Department will have at least one Professor two Readers and an adequate number of lecturers along with the necessary supporting staff.

(1) Department of Textile Chemistry:

(a) Teaching Staff:

- 1) Two Professors : One with specialisation in Textile fibres one with colour and calico-printing dyeing specialisation.
- 2) Four Readers : i) Synthetic fibre specialisation.  
ii) Textile processing specialisation.  
iii) General Textile Technology.
- 3) Six Lecturers : With general above specialisation.

b) Supporting staff:

- |                        |   |   |
|------------------------|---|---|
| 1) Store Keepers       | - | 2 |
| 2) Clerk/Typist        | - | 1 |
| 3) Lab. Assistance     | - | 4 |
| 4) Lab. Attendants     | - | 6 |
| 5) Instrument Operator | - | 1 |
| 6) Research Assistants | - | 2 |

(2) Department of Environment Science and Pollution:

A) Teaching Staff:

- 1) Three Professors - One with environmental Science or ecology specialisation, one with pollution specialisation one with Chemistry specialisation.
- 2) Three Readers - 1) One with Zoology specialisation with freshwater biology.  
2) One with Botany specialisation.  
3) One with Chemistry specialisation.
- 3) Five Lecturers - With exology, Physiology, Statistics, Botany specialist.

4) Supporting Staff:

- 1) Store-keeper - 1
- 2) Clerk/typist - 1
- 3) Lab. Assistants - 3
- 4) Lab. Attendants - 6
- 5) Research Assistants - 1
- 6) Instrument Operator - 1

(3) Department of Forensic Science:

a) Teaching staff:

- 1) One Professor : With Forensic Science specialisation.
- 2) Two Readers : 1) With Forensic Analysis Specialisation.  
2) With ballistics specialisation.
- 3) Six Lecturers : General

b) Supporting Staff:

- 1) Store-keeper - 1
- 2) Clerk/Typist - 1
- 3) Lab. Assistants - 3
- 4) Lab. Attendants - 6
- 5) Research Assistant - 1
- 6) Instrument Operator - 1

4) Department of Molecular Biology:

a) Teaching Staff:

- 1) Two Professors - One with molecular Biology specialisation, one with biochemistry specialisation.
- 2) Three Readers - One with Physiology specialisation, one with genetics specialisation and one with chemistry specialisation.
- 3) Five Lecturers - With above specialisation.

b) Supporting Staff:

- 1) Store-keeper - 1
- 2) Clerk/typist - 1
- 3) Lab. Assistants - 3
- 4) Lab. Attendants - 6
- 5) Research Assistant - 1
- 6) Instrument Operator - 1

(5) Department of Applied Physics and Astronomy:

a) Teaching Staff:

- 1) Two Professors : One with applied Physics specialisation, one with astronomy specialisation.
- 2) Three Readers : One with electronic specialisation, one with solid state specialisation and one with space science.
- 3) Five Lecturers : With above specialisation.

b) Supporting Staff:

- 1) Store-keeper - 2
- 2) Clerk/typist - 1
- 3) Lab. Assistants - 3
- 4) Lab. Attendants - 6
- 5) Instrument operatory - 1
- 6) Research Assistant - 2

\* During the course of the subsequent development of all the five departments additional senior teaching posts of Professors and Readers will be created filled.

\* For teaching theory and practicals of the basic courses in each subject, the available qualified staff from the Colleges in Solapur, and the post-graduate departments in Kolhapur will be taken.

6. Equipment: Some of the items of equipment which will have to be purchased for these departments are listed above. A due revision in this list will have to be made in future before actually starting the Departments.

1) Textile Chemistry:

- 1) uv recording single and double beam spectrophotometer (2) IR ratio recording spectrophotometer (3) Infrared (4) NIR spectrophotometer (5) Laser Raman spectrophotometer (6) X-Ray diffraction units Automatic emission spectrometer (7) Gas- Chromatograph unit (8) Ultracentrifuges (9) Derivative graph spectrofluorometer (10) HPLC unit (11) Radiation source counters (12) High vacuum pressure High-Low presser equipment.
- 2) General Chemical Laboratory equipment.

...7/-

(2) Environmental Science and Pollution:

(1) Research Microscopes (2) High efficiency spectrophotometers (3) B.O.D. apparatus (4) Oxygen analyser (5) Multiple water analyser system (6) Deep Freezes (7) Hydrobiological instruments (8) Atomic absorption spectrometer (9) Mass spectrometer.

(3) Forensic Science:

(1) Emission spectrograph (2) Electroscan equipment (3) Microanalysis equipment (4) Metallurgical microscope (5) General Laboratory equipment for explosives testing (6) Fluorescence polarisation and phase-contrast microscope.

(4) Molecular biology:

(1) Ultracentrifuges (2) Fraction Collector (3) Electron microscope (4) Scanning electron microscope (5) High efficiently recording spectrophotometers (6) Densitometers (7) GLC equipment (8) X-Ray apparatus (9) Fluorescence, polarisation and phase-contrast microscopes. (10) General Laboratory equipment.

(5) Applied Physics and Astronomy:

(1) Astronomical telescope (2) Radio- antenna, (3) High altitude research equipment (4) Materiological instruments. (5) Different Electronic Instruments.

\* The costly sophisticated instruments common to all subjects will be pooled together in a central instrumentation room and will be used commonly by all Departments under the supervision of an instrumentation officer.

(B) Management Course:

During the course of initial five years (From 1983 to 1988) the P.G. Centre for Management Education and Training is expected to accumulate adequate experience and to complete the ground work so as to sprout into a greater specialization in the field of management thinking. A stage will be ripe to open some axilliary sections. On one side, there will be required a Research Section to undertake projects in the preparation of case studies and other training documents based on the information from the regional industry & commerce, and, on the other side, there will have to be an emphasis on the more practice oriented simulated training with the active cooperate of the more enlightned elements from the official, social and industrial organisations in the region.

There will be a need, therefore, to appoint an additional staff to equip the Research Section and also to man the Training Laboratory with the help of young talents adequately qualified in behavioural sciences. The primary task of the training laboratory will be to organise sensitivity and communication sessions for developing human relations skill and fostering enterpreneurship spirit a few research associates will have to guide the Inplant Training.

Increasing use of modern training aids will be a 'must' so to catch with the rate of progress of similar professional management training institutions. The procuring of training aids such as overhead projectors, slide projectors, 8 m.m. projectors, tape-recorders with relevant accessories will be necessary to support the impact of management education.

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Appendix VI

SHIVAJI UNIVERSITY POST-GRADUATE

CENTRE AT SOLAPUR

The details of Item-wise assistance during first two year (i.e. 1983-84 & 1984-85) and next three years (i.e. 1985-86, 1987-88)

Item of Assistance	Estimate financial requirement during first three years (i.e. 1983-84 to 1984-85).		Estimated Financial requirement during next two years (i.e. 1985-86 & 1987-88)	
	UGC share	State Govt. share	UGC share	State Govt. share
1	2	3	4	5
A) Construction of academic building, project, Hostels and Teachers quarters.				
i) Geology	250000	250000	125000	125000
ii) Analytical chemistry	250000	250000	125000	125000
iii) Management Course	550000	550000	275000	275000
iv) Library Building	-	-	525000	525000
v) Boy's Hostel	-	-	630000	630000
vi) Ladies Hostel	-	-	472000	157000
vii) Teachers Quarters	-	-	1350000	1350000
Sub- Total:	1050000	1050000	3502500	3187500
B) Construction of Non-Academic Building projects and other projects:-				
i) Clerical, Officer and servant quarters.	-	-	-	1500000
ii) Administrative buldg.	-	-	-	750000
iii) Construction of Roads	-	-	-	500000
iv) Water Supply and Maintenance.	-	450000	-	450000
v) Development of site and Garden.	-	-	-	750000
Sub-total	-	450000	-	3950000

	1	2	3	4	5
<b>C) Staff Salaries:</b>					
i) Central Office Administrative staff.	-	-	587200	-	880800
ii) Departmental supporting staff (Non-teaching staff salary)	-	-	356000	-	534000
iii) Teaching Staff	809100	-	-	1213650	-
Sub-total:	809100	-	943200	1213650	1414800
D) Equipment	-	-	400000	-	450000
E) Books	-	-	200000	-	300000
F) Furniture	-	-	163520	-	245280
G) Recurring Expenditure - (i.e. Contingency & MISC. Chemicals Glass ware.)	-	-	300000	-	450000
Grand Total:	1859100	-	3506720	4716150	9997580

SHIVAJI UNIVERSITY  
COURSE OF STUDY  
(1981-1982)

- 1) Under
- 1) Under-Graduate : B.A., B.Sc., B.Com., M.B.B.S.,  
B.Pharmacy, B.A.M.S., LL.B.,  
B.L. & I.Sc. B.P.Ed., B.E.  
B.Ed., B.A. B.Ed., B. Sc.(Nursing)
- 2) Post-Graduate : M.A., M.Sc., M.L., M.S.,  
M.Sc. (Medical), M.Com.,  
M.B.A., M.S.W., M.Ed.,  
M.Sc. (Engg.) M.Sc. (Physiology)  
M.Sc. (Anatomy)  
M.Sc. (Physical  
(Chemistry)  
M.Sc. (Pharmacology)
- 3) Research : Ph.D., Litt.

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Appendix-VIII

Name of the other Universities in the Maharashtra State with the courses of study provided by each.

Name of the University	Courses of study under graduate	Courses of study Post-graduate.
1. University of Bombay, Bombay.	B.A., B.S.W., B.Ed., B.Lib., B.F.A., B.Sc., B.Sc. (Home Science), B.Com. B.Sc. (Nursing) B.D.S., B.A.M.S., B.E., B.Sc. (Tech.), B.Chem., Engg., B.Arch., B.Pharm., LL.B. M.B.B.S.	M.A., M.S.W., & I.R., M.Ed., M.Lib., M.Sc., M.Sc. (Home Science), M.Com., M.E.S., M.S., M.D.S., M.E., M.Sc. (Tech.) M.Chem. Engg., M.Pharm., M.Tech., LL.M.
2. University of Poona, Poona.	B.A., B.Sc., B.Lib., B.Com., B.G.L. LL.B., B.Sc. (Nursing), D.Pharm. B.A.M.S., B.Ed., B.Ed., M.B.B.S.	M.A., M.Sc., M.Sc., M.B.A., M.P.M., LL.M., M.S., M.D., M.Sc. (Non-Medical), M.A., (Sc.), M.A. (Sc.) M.E., M.Ed.
3. Marathwada University, Aurangabad.	B.A., B.Lib., B.J., B.Sc., B.Com., B.E., B.G.L., LL.B., M.B.B.S., B.A. M.S., B.Ed., B.P.Ed.	M.A., M.Sc., M.Com., M.B.A., M.E., LL.M., M.Ed., M.S., M.D.
4. Nagpur University, Nagpur.	B.A., B.A. (Rural Services), B.S.W., B.F.A., B.J., B.Lib., B.Sc. (Home Science) M.B.B.S. B.Pharm., B.A.S.M., B.Sc. (O.T.) B.Tech., B.Sc. (Tech.)	M.A., M.Sc., M.Sc. (Tech.), M.Com., M.Ed., M.P.Ed., LL.M., M.Sc., (Home Science), M.D., M.S., M.Pharm., M. (Plastic Surgery), M.E., M.Arch., M.Tech.
5. S.N.D.P Women's University, Bombay.	B.A., B.Lib., B.Sc., (Home Science) B.Ed., B.Sc. (Nursing).	M.A., M.Sc. (Home Science), M.Ed.

Appendix - IX

Statement Statistics of Colleges affiliated for various courses under the university for last five year (1977-1982).

Item	Years					Remarks
	1977 -78	1978-79	1979-80	1980-81	1981-82	
No. of affiliated colleges.						
a) B.A.	53	55	55	57	57	
B.Sc.	50	50	51	52	52	
B.Com.	28	28	29	28	28	
b) M.A.	13	12	13	13	14	
M.Sc.	6	5	6	5	8	
M.Com.	9	8	8	8	11	

NOTE: The numbers added will not give a correct picture of the total number of affiliated colleges under the University, as a college may be affiliated for more than on courses.

Appendix - X

Enrolment in affiliated colleges as well as University Department  
of Shivaji University.

Final Year of Degree and Post-graduate Degree.	1977-78	1978-79	1979-80	1980-81	1981-82
a) B.A. -	5921	6770	6199	5034	2705
B.Sc. -	955	1253	1050	1304	1502
B.Com. -	2968	3745	2761	3888	2922
b) M.A. -	1832	2196	2581	2937	1953
M.Sc. -	404	506	594	668	671
M.Com. -	1265	1244	1675	1583	1758

NOTE: This gives the enrolment in final years of courses, and does not give a correct picture of the total enrolment in these courses.

Appendix - XI

Shivaji University : Examination Results

No. of passes (securing 45%-II Class and above)  
at the Final Year Degree Course and the  
Postgraduate Degree Course.

Degree/ Post-graduate Degree	76-77	77-78	78-79	79-80	80-81
a) B.A.	3397	3556	3600	4929	4031
b) B.Sc.	817	844	961	854	976
c) B.Com.	2157	2289	2833	1688	1867
d) <u>M.A.</u>					
Sanskrit	19	7	10	7	7
Ardhamagedhi	2	3	-	-	-
Marathi	320	332	263	217	155
Kannada	24	17	20	15	2
Urdu	37	12	5	4	4
Hindi	201	194	135	119	108
English	64	58	79	67	57
Phylosophy	-	2	-	5	5
History	48	74	107	135	170
Economics	42	35	26	49	41
Politics	27	23	15	34	32
Sociology	49	55	62	72	91
Psychology	4	5	2	7	10
<u>M.Sc.</u>					
Geography	48	37	51	77	47
Mathematics	27	33	33	36	67
Physics	30	27	39	32	50
Chemistry	56	39	63	51	67
Botany	27	24	17	21	31
Zoology	32	12	12	14	21
Microbiology	-	-	-	-	-
M.Com.	62	90	123	108	204

Appendix No. XII

9. Existing Post-graduate Facilities in the University Teaching Departments under the Shivaji University for the last five years. (1976 - 1981)

Institution & subject.	1976-1977				1977-1978				1978-1979				1979-80				1980-1981				
	E	T	O	RD	E	T	O	RD	E	T	O	RD	E	T	O	RD	E	T	O	RD	
University Teaching Departments.																					
1. English	129	8	45	1	128	8	50	1	127	9	40	1	137	9	40	2	125	9	40	1	
2. History	68	4	24	-	60	5	16	-	56	5	21	1	38	5	12	1	62	5	11	1	
3. Economics	128	5	32	-	123	5	31	-	93	5	17	1	188	6	32	2	211	7	53	-	
4. Botany	53	13	27	2	48	13	24	1	40	13	17	1	65	12	21	-	62	14	31	5	
5. Chemistry	95	19	53	-	130	19	67	8	130	23	67	5	125	21	52	8	144	22	73	2	
6. Mathematics	67	9	29	2	91	7	34	3	73	7	37	4	99	8	37	-	138	8	66	2	
7. Physics	33	10	33	2	26	18	26	2	36	18	33	2	33	19	31	5	56	22	53	3	
8. Zoology	48	11	31	2	27	11	14	4	26	10	11	1	55	11	22	1	62	11	30	6	
9. Geography	85	10	47	1	60	11	25	1	79	11	25	1	94	10	45	1	84	10	36	1	
10. Politics	44	3	25	-	25	3	10	-	44	3	7	1	35	4	15	1	51	5	15	3	
11. Sociology	59	3	20	-	50	3	16	1	59	4	14	1	74	4	17	-	71	3	20	-	
12. Education	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	20	4	15	-	
13. Sanskrit	7	4	5	-	3	6	2	-	3	6	1	-	3	-	1	-	2	-	-	-	
14. Marathi	54	12	20	-	43	9	19	-	37	11	16	-	25	4	11	1	28	4	10	-	
15. Hindi	76	10	33	-	62	8	27	-	61	9	18	1	53	7	24	1	70	12	25	-	
16. Ardhamagadhi	3	3	1	-	1	3	1	-	1	3	-	-	-	-	-	-	-	-	-	-	
17. Philosophy	11	4	1	-	12	3	3	-	9	3	3	-	-	-	-	-	-	-	-	-	
18. Psychology	23	3	4	-	18	7	10	-	19	4	2	-	-	-	-	-	-	-	-	-	

E - Stands for Enrolment  
T - Stands for Teaching Staff  
O - Stands for No. of passes at the Final Exam.  
RD - Research output- No. of Ph.D. Degree awarded.  
Note: i) Enrolment shown above is of part - I & II.  
ii) Number of passes shown above is of part-II only.



9) Existing Post-graduate Facilities in the colleges affiliated to the Shivaji University  
for the Last Five Years.(1976 - 1981)

Institution & Subject University Affili- ated College	1976-1977				1977-1978				1978-1979				1979-1980				1980-1981			
	E	T	O	RD	E	T	O	RD	E	T	O	RD	E	T	O	RD	E	T	O	RD
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
<b>Arts &amp; Social Science</b>																				
1. English (Entire)	482	32	118	-	500	41	125	-	588	42	100	-	488	41	76	-	478	58	79	-
2. Marathi (Entire)	684	32	90	-	678	46	170	1	588	48	129	1	550	49	129	2	546	65	110	2
3. Hindi	477	22	143	-	416	29	144	-	398	30	93	-	393	30	88	-	346	37	71	-
4. Sanskrit	30	11	19	-	26	12	13	-	23	15	10	-	36	13	8	-	41	13	45	-
5. Ard. (Sub.Ord.)	16	1	14	-	13	1	9	-	14	1	9	-	8	1	2	-	9	2	1	-
6. Urdu	10	1	10	-	5	2	-	-	4	3	-	-	5	3	2	-	10	3	-	-
7. Parsian	11	1	-	-	-	1	-	-	-	1	-	-	-	2	-	-	-	2	-	-
8. Kannada	6	2	4	-	12	2	4	-	6	2	2	-	-	2	-	-	6	2	-	-
9. Mar. (Prin) & Hindi (Sub.)	-	-	-	-	-	-	-	-	-	1	-	-	1	1	1	-	1	1	1	-
10. English (Prin.) & Marathi (Sub.)	-	-	-	-	2	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-
11. Economics	211	12	32	-	237	15	20	-	273	14	17	-	456	14	23	-	597	17	45	-
12. Politics.	54	9	11	-	80	12	11	-	102	12	12	-	98	12	8	-	118	15	18	-
13. History	192	11	74	-	297	15	69	-	362	16	69	-	357	15	95	-	392	21	75	-
14. Geogrphy	59	4	16	-	66	9	32	-	91	10	82	-	106	13	19	-	100	15	17	-
15. Philosophy	-	-	-	-	-	-	-	-	-	-	-	-	2	1	2	-	2	1	2	-
16. Psychology	-	-	-	-	-	-	-	-	-	-	-	-	32	3	10	-	32	3	12	-
17. History & Soc.	17	3	8	1	10	3	3	1	15	4	4	1	4	4	5	1	8	4	4	-
18. History & Eco.	3	4	-	1	1	4	-	1	9	3	2	1	3	4	2	-	2	4	2	1
19. Eco. & Sco.	5	4	1	2	2	4	3	2	4	4	2	2	2	4	1	1	7	4	2	1
20. History	-	-	-	-	-	-	-	-	38	3	-	-	52	3	8	-	14	3	7	-
<b>Sciences:</b>																				
1) Mathematics	35	10	1	-	27	10	3	-	23	10	3	-	50	16	-	-	37	8	4	-
2) Microbiology	-	-	-	-	-	-	-	-	7	1	7	-	15	3	15	-	15	3	15	-
3) Botany	2	1	-	-	2	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-
4) Zoology	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5) Physics	-	-	-	-	-	-	-	-	1	1	-	-	1	1	1	-	-	-	-	-
<b>Commerce:</b>	<b>714</b>	<b>47</b>	<b>59</b>	<b>1</b>	<b>779</b>	<b>40</b>	<b>67</b>	<b>1</b>	<b>881</b>	<b>41</b>	<b>89</b>	<b>1</b>	<b>1155</b>	<b>39</b>	<b>95</b>	<b>-</b>	<b>915</b>	<b>57</b>	<b>159</b>	<b>-</b>

E- Stands for Enrolment; T-Stands for Teaching Staff; O - Stands for No. of Passes  
at the Final Exam. ; RD-Research output - No of Phd Degree Awarded.  
NOTE: i) Enrolment shown above is of Part-I and II/ii) Number of Passes shown above is  
of part-II only

Annexure-XIV

List of affiliated colleges in Solapur District 1982-83.

1. D.B.F. Dayanand College of Arts & Science, Solapur.
2. D.A.V. Velankar College of Commerce, Solapur.
3. Sangameshwar College, Solapur.
4. D.P.B. Dayanand College of Education, Solapur.
5. Walchand College of Arts & Science, Solapur.
6. Dr. V.M. Medical College, Solapur.
7. D.G.B. Dayanand Evening Law College, Solapur.
8. Kasturbai College of Education, Solapur.
9. Seth Govindji Raoji Ayurved Mahavidyalaya, Solapur.
10. Hirachand Nemchand College of Commerce, Solapur.
11. Arts & Commerce College Muslim Fachha Peth, Solapur.
12. Institute of Management, Solapur.
13. Pandharpur College, Pandharpur, Distt. Solapur.
14. Shri Shivaji Mahavidyalaya, Distt. Solapur.
15. College of Education, Barsi, Distt. Solapur.
16. Yashwantrao Chavan Mahavidyalaya, Karmala, Distt. Solapur.
17. Shankarrao Mohite College, Akluj, Distt. Solapur.
18. B.I. Sulake College of Commerce, Barsi, Distt. Solapur.
19. Shriman Bhausahab Zadbuke College, Barsi, Distt. Solapur.
20. Arts & Commerce College, Kurduwadi, Distt. Solapur.
21. C.B. Khedgi's Basweshwar Science, Raja Vijaysinh commerce & Raja Jaysinh Arts College, Akalkot, Distt. Solapur.
22. Arts & Commerce College, Madha, Distt. Solapur.
23. Rajarshi Shahu Evening Law College Barsi, Distt. Solapur.
24. Sangola College, Sangola, Distt. Solapur.
25. Shri Sant Damaji Mahavidyalaya, Mangalwedha.

Annexure-XIV

List of affiliated colleges in Solapur District 1982-83.

1. D.B.F. Dayanand College of Arts & Science, Solapur.
2. D.A.V. Velankar College of Commerce, Solapur.
3. Sangameshwar College, Solapur.
4. D.P.B. Dayanand College of Education, Solapur.
5. Walchand College of Arts & Science, Solapur.
6. Dr. V.M. Medical College, Solapur.
7. D.G.B. Dayanand Evening Law College, Solapur.
8. Kasturbai College of Education, Solapur.
9. Seth Govindji Raoji Ayurved Mahavidyalaya, Solapur.
10. Hirachand Nemchand College of Commerce, Solapur.
11. Arts & Commerce College Muslim Fachha Peth, Solapur.
12. Institute of Management, Solapur.
13. Pandharpur College, Pandharpur, Distt. Solapur.
14. Shri Shivaji Mahavidyalaya, Distt. Solapur.
15. College of Education, Barsi, Distt. Solapur.
16. Yashwantrao Chavan Mahavidyalaya, Karmala, Distt. Solapur.
17. Shankarrao Mohite College, Akluj, Distt. Solapur.
18. B.I. Sulake College of Commerce, Barsi, Distt. Solapur.
19. Shriman Bhausahab Zadbuke College, Barsi, Distt. Solapur.
20. Arts & Commerce College, Kurduwadi, Distt. Solapur.
21. C.B. Khedgi's Basweshwar Science, Raja Vijaysinh commerce & Raja Jaysinh Arts College, Akalkot, Distt. Solapur.
22. Arts & Commerce College, Madha, Distt. Solapur.
23. Rajarshi Shahu Evening Law College Barsi, Distt. Solapur.
24. Sangola College, Sangola, Distt. Solapur.
25. Shri Sant Damaji Mahavidyalaya, Mangalwedha.

Enrolment in Colleges located in Solapur City 1982-1983

Name of the College	Enrolment in Courses								
	B.A.*	D.SC*	B.COM.*	M.A.	M.Sc.	M.Com.	MBA	MSW	Others
1. DBF Dayanand College of Arts & Science, Solapur	96	112	-	-	3. (Chem)	-	-	-	28
2. DAV Velankar College of Commerce, Solapur.	-	-	128	-	-	150	-	-	-
3. H.N.College of Commerce Solapur.	-	-	160	-	-	82	50	-	-
4. Sangameshwar College, Solapur.	257	116	170	352+	22 (Math)	132	-	-	-
5. Walchand College of Arts & Science, Solapur.	94	30	-	105++	2 (Zoo)	-	-	150	-
6. Arts & Commerce College, Muslim Paccha Peth, Solapur.	28	-	-	6+++ (Urdu)	-	-	-	-	-
7. Institute of Management, Solapur (Recognised)	-	-	-	-	-	-	75	32	45&&
	475	250	466	464	27	364	125	162	47

Contd.....

8. D.P.B. Dayanand College of Education, Solapur	B.Ed. 120	M.Ed. 21	} 271
9. K.W. College of Education, Solapur.	130	-	

Z			
10. D.G.B. Dayanand Evening Law College, Solapur.	LLB	-	317
11. Dr. V.M. Medical College, Solapur.	MBBS	-	406
12. Seth Govindraoji Ayurved Mahavidyalaya,	Pre-Ayurved BAMS	- 47 -203	} 250

Total Enrolment in Solapur - 3,652  
(1982 - 1983)

- 1. \* Enrolment in final year only
- 2. & Ph.D. in Chem.
- 3. & D.B.M. Course.

4. Subject	MA +	MA ++	MA ++
English	46	11	-
Hindi	14	24	-
Marathi	72	23	-
Sanskrit	-	1	-
Ardhamangadhi	-	1	-
Economics	97	24	-
Politics	54	22	-
Kannada	39	-	-
Urdu	3	-	-
Sociology	27	-	-
	352	106	6 = 464

Annexure--A VI

Teaching staff Recognised for Teaching Postgraduate subjects in affiliated college in Solapur city in 1982-83.

College	Subject	Teaching Staff		Research Work
		No.	With Research qualification	
1. Arts & Commerce College, Solapur	Urdu	4	1	
2. H.N. College of Commerce, Solapur	Commerce	9	2	
3. Walchand College of Arts & Science, Solapur.	English	4	-	
	Marathi	3	-	
	Hindi	3	1	10 Books, 6 articles, 200 literary and Research papers
	Sanskrit	1	1	
	Ardham-gadhi	1	-	10 Books
	Economics	2	-	
	Politics	2	1	
	Zoology	1	1	5 Research papers
	Social work	18*	4	* includes partime 8 Research papers and 3 Reports.
Geology	3	2		
4. DPB College of Education, Solapur.	Education	6	1	
5. Institute of Management, Solapur.	Management	6	1	
6. DAV College of Commerce, Solapur	Commerce	8	-	a Book
7. Sangameshwar College Solapur	English	6	-	6 papers
	Marathi	3	3	3 Critical works
	Politics	2	1	
	Kannada	1	-	1 Teacher Registered for Ph.D.
	Hindi	3	-	-do-
	Sanskrit	1	1	
	Economics	3	-	
	Urdu	1	-	
	Sociology	2	-	
	Commerce	4	-	
History	1	-		
8. DBF Dayanand College of Arts & Science, Solapur.	Economics	1	-	
	Politics	2	1	
	History	3	-	
	Geography	4	-	
	English	5	-	
	Marathi	2	-	
	Hindi	1	1	
Chemistry	1	1	25 books	

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 8th February, 1984

Item No. 2.04 : To consider the recommendations made by the Standing Committee on new universities and university post-graduate centres at its meeting held on the 17th December, 1983 on the report of the Committee which visited Nanded on September 19-20, 1983 to consider the proposal of Maharashtra State Govt. for the establishment of a Marathwada University Centre for Postgraduate Studies at Nanded.

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The Standing Committee on New Universities and University Postgraduate Centres at its meeting held on the 17th December, 1983 considered the report of the Committee which visited Nanded on September 19-20, 1983 to consider the proposal of Maharashtra State Government for the establishment of a Marathwada University Centre for Postgraduate Studies at Nanded.

A copy of the note placed before the Standing Committee in this regard is enclosed (Annexure.)

The Standing Committee generally accepted the recommendations made by the Committee which visited Nanded to consider the proposal of Marathwada University Centre for Postgraduate studies in Nanded and recommended that subject to the fulfilment of conditions and suggestions made by the Committee in its report, setting up of the university centre for postgraduate studies at Nanded may be agreed to, by the U.G.C.

The matter is placed before the Commission for consideration.

F.17-8/77(CP)

US(CP)/DS(CP)

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CONFIDENTIAL

Annexure to Item No. 2.04

UNIVERSITY GRANTS COMMISSION  
NEW DELHI

Standing Committee on New Universities and  
University Postgraduate Centres.

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Meeting:

Dated : 17th Dec., 1983

Item No. 6. To consider the report of the Committee which visited Nanded on September 19 & 20, 1983 to consider the proposal of Maharashtra State Government for the establishment of a Marathwada University Centre for Postgraduate Studies at Nanded.

.....

The University Grants Commission received in August, 1977 from the Marathwada University, Aurangabad a proposal for the establishment of a Centre for Postgraduate studies and research at Nanded.

The proposal was considered by the UGC Standing Committee on New Universities and University Centres at its meeting held on September 7, 1977. The Committee recommended that a committee may be appointed to examine the need of a postgraduate centre at Nanded. The University Grants Commission at its meeting held on October 17, 1977 accepted the above recommendation. Accordingly, a visiting committee consisting of (1) Professor N.O. Mathew, Department of Commerce, Annamalai University (2) Professor K.D. Gangurade, Delhi School of Social Work (3) Professor D.N. Kamat Department of Zoology, Shivaji University and Professor R.N. Kapoor, Department of Chemistry, Delhi University, visited Marathwada University Nanded and proposed postgraduate centre at Nanded on January 23-25, 1978, and held discussions with the Vice-Chancellor, Director of the Centre at Nanded, Heads of concerned departments, Principals of colleges etc.

The University Grants Commission at its meeting held on 29th May, 1978 considered the report of the Visiting Committee appointed to examine the need for postgraduate centre at Nanded. The Commission desired that the report of the Visiting Committee may be referred to the New Universities Committee with the request that it may examine the same in the light of the concept of the Postgraduate Centres. This was, accordingly, considered by the UGC Committee on New Universities and Postgraduate Centres at its meeting held on 12th July, 1978. The consideration of the proposal was postponed in view of the fact that there was need for rethinking to define the scope and role of the university centre for Postgraduate Studies at various places. It was recommended that the UGC may review the whole question with the help of a Sub-Committee and in the meantime the Universities be informed of this.

Contd.....2/-



The Marathwada University was informed by the UGC on 7th August, 1978 that "the whole question of defining the scope and role of University Centre for Postgraduate studies is being reviewed with the help of a Sub Committee. As soon as a decision is arrived at, the University will be informed accordingly!".

The guidelines were circulated to the universities and State governments on March 1, 1980. The Marathwada University and the Maharashtra State Government were specifically requested to send the revised proposals in conformity with revised guidelines. The university informed on October 24, 1980 that a sub-committee to prepare the proposal of Marathwada University Postgraduate Studies and Research Centre, Nanded has been appointed. The Marathwada University sent the revised proposal in January 1981. The university was requested on 5th March 1981 to send the proposal through the State Govt. to enable UGC to take action in the matter. A telegraphic reminder was also sent on 25.3.1981. The State Government informed on 9th April, 1981 that the proposal from the Marathwada University has been received recently and the same is being examined in all its aspects. The proposal with the remarks of the State Govt. will be sent soon. The UGC Standing Committee on New Universities and university centres considered the proposal, as it was, at its meeting held on April 16, 1981. It was agreed that this proposal may be examined by a committee subject to receipt of comments from the State Government of Maharashtra on the proposal. The committee may also keep in view the guidelines laid down by the Commission to define the concept of university centre of postgraduate centres.

The UGC sent on 22.5.1981 to the State Government and the university one copy each of the revised guidelines defining the concept of university postgraduate centres, and the proforma prescribed by the Commission for primary information for setting up such a centre, and requested that the proposal from Marathwada University may be sent along with the comments of State Govt. It was in January 1983 that the State Government sent the modified proposal of Marathwada University for the establishment of a Centre of postgraduate studies at Nanded. The State Government was requested on 4th February, 1983 to send the proposal in the prescribed proforma sent earlier to them on 22.5.1981. Another copy of the proforma was sent for ready reference. The requisite proforma and the information was received from the State Government in the middle of April, 1983. Immediately the UGC constituted a committee to examine the proposal, and simultaneously on 27th May 1983 the university was requested to send certain information which was received in the UGC on 23rd June, 1983. Initially the date of visit of the committee was fixed on August 11 and 12, 1983. Some of the members of the committee however, could not reach Aurangabad, and those who reached could not go to Nanded on account of the roads being blocked due to floods.

A UGC Committee with the following members visited Nanded on September 19 and 20, 1983.

1. Professor A.M. Mehta  
Retired Professor of Chemistry  
Indian Institute of Technology  
Bombay.
2. Professor V.S.D 'Souza  
Department of Sociology  
Panjab University  
Chandigarh.
3. Professor S.P. Modak  
Department of Zoology,  
Poona University  
Poona.
4. Shri Y.D. Sharma;  
Deputy Secretary,  
UGC, New Delhi.
5. Dr. P.V. Rangnekar,  
Director,  
Institute of Science  
Aurangabad  
(State Govt. Nominee associated  
with the Committee)

In the absence of the Vice-Chancellor and Registrar Marathwada University, the committee held discussions with other officers of the university, Heads of the concerned Departments of the University, Director of the Centre at Nanded, Principals and faculty of the Yeshwant Mahavidyalaya and Science College, Nanded etc.

A copy of the report of the Committee is enclosed (Appendix).

The Committee has made the following observation and recommendations.

#### VI- OBSERVATIONS AND RECOMMENDATIONS OF THE COMMITTEE

6.1 The committee did not have the benefit of advice and consultations with either the Vice-Chancellor (who was reported to have resigned in July, 1983) or the Registrar (who was reported to be on leave owing to Spondylitis), during the course of its visit. The Commissioner, who was looking after the current duties of the Vice-Chancellor, could not, however, meet the committee. The Heads of the concerned departments and some officers of the university, however, held discussions

with the committee and accompanied it to Nanded. At Nanded the committee held discussions with the Honorary Director of the Postgraduate Centre and local Principals and Teachers.

6.2 The Marathwada University was established in 1958. In 1975, it started a postgraduate studies centre at Nanded by providing teaching facilities for the courses of M.A. (Sociology), M.Sc. (Modern Biology) and Master of Business Administration. Teaching was done on a contributory basis by the teachers of local colleges. The teaching of M.A. (Sociology) has however been stopped w.e.f. 1982-83, and admissions to M.A. (Social Work) started w.e.f. 1983. The Centre is headed by an Honorary Director, Shri Kamal Kishore Kadam, M.Tech. In addition, teaching for postgraduate degree in English, Hindi, Marathi, Economics, Political Sciences, Chemistry, Botany, Zoology, Mathematics and Commerce was provided in three local colleges at Nanded viz: People's College, Science College and Yashwant Mahavidyalaya, on contributory basis.

6.3 The Marathwada University provided postgraduate teaching facilities in the university teaching departments at the headquarters at Aurangabad, and at some selected colleges in various cities under its jurisdiction as also at the university centre for postgraduate studies at Nanded.

6.4 The M.Sc. (Modern Biology) degree course (classes as well as practicals) is being conducted at the Science College, Nanded (for Botany), and Yashwant Mahavidyalaya, Nanded (for Zoology) on the basis of contributory teaching.

6.5 The Committee had the opportunity of visiting (i) the Science College, Nanded, and (ii) the Yashwant Mahavidyalaya, Nanded.

a) The Science College, Nanded provided instructions for Post-graduate courses in Mathematics and Botany.

i) As per information supplied to the committee, in the department of Mathematics, in the college, there were 35 students (32 in Pt. I and 3 in Pt. II) in M.A. (Mathematics) in 1983-84. All the 7 teachers were recognised to teach postgraduate courses. Three of these teachers had Ph.D. degrees, and other two teachers were pursuing research for Ph.D. Two research scholars were studying for Ph.D. degree in Mathematics under the teachers of this college.

ii) The Department of Botany enrolled 29 students in M.Sc. (Botany) (16 Pt. I and 13 in Pt. II) in 1983-84. Of the 9 teachers in the Department, 8 were recognised for postgraduate teaching. Six teachers had Ph.D.

degrees, and the remaining three had registered themselves and were working for Ph.D. degrees. It was reported that 9 thesis for Ph.D. degree prepared under the guidance and supervision of the faculty have already been submitted and seven research scholars including (4 CSIR research fellows and 1 SISI research fellow) were working for Ph.D. degree in Botany under the guidance of the faculty in the Department. Nine research projects have been approved by the CSIR, UGC, SISI, ICAR and SRTRI to the faculty of this department. The main thrust of the department were plant pathology, mycology etc. The teachers of the department have a large number of research papers/articles to their credit. The committee felt that the faculty in the department of Botany was active and highly motivated and the department has a good laboratory having ample research facilities. The department offers a good base for applied botany and it was teaching botany courses to the M.Sc.(Modern Biology) course students. The college has a good stock of scientific books and journals in Biology.

- (b) The Yashwant Mahavidyalaya offers facilities for post-graduate teaching in History, Economics, Zoology and Chemistry.
- (i) The Department of History enrolled 31 students in pt.I and 12 students in pt.II of the M.A.(History) course. Of the 5 teachers, 4 are recognised for teaching post-graduate classes. Two teachers held Ph.D. degrees, while one more teacher has submitted his thesis for Ph.D. degree.
- (ii) The Economic Department with 5 teachers (4 of whom are recognised for postgraduate teaching) enrolled 83 students (81 in pt.I and 2 in Pt.II) in 1983-84. One teacher holds a Ph.D. degree, one teacher holds an M.Phil degree and another is registered for Ph.D. degree. The course is run with the help of contributory teachers from other colleges.
- (iii) The Department of Chemistry, in this college, has 9 teachers, of whom 8 teachers are recognised for post-graduate teaching. Four teachers have Ph.D. degree, two teachers are working for Ph.D. degree and three teachers are recognised as guides for Ph.D. There were 21 students (12 in pt.I and 9 in pt.II) in the M.Sc.(Chemistry) course in 1983-84. The department offers only one specialisation viz. Organic Chemistry. In the opinion of the committee, the laboratory facilities were first adequate whereas the library was inadequately stocked. The research facilities in the department are poor and the research output of the faculty had been meagre so far. Even after the post-graduate centre has been created the committee felt that there is likely to be a good demand for the M.Sc.(Organic Chemistry) course, and considered it necessary to recommend to

strengthen this course and upgrade it. Further, it was desirable that the staff of the department should have access to a good library and the use of sophisticated instruments. The proposed centre could fulfil these requirements. In the area of teaching also the centre can render valuable assistance.

- (iv) The Department of Zoology prepares students for M.Sc. (Zoo) degree and teaches Zoology courses to the students of M.Sc. (Modern Biology). The department had 23 students (including 12 students in Part I and 11 students in Part II) in the M.Sc. (Zoo) course in 1983-84. All the six teachers in the department have Ph.D. degree. It was reported that some research papers have been published by the faculty of the department. The Committee felt that the teaching back-up in the department was quite limited with traditional emphasis on Helminthology derived from the mother institution. There was little evidence of research activity, and the teaching facilities, although equipped with basic instrumentation needed better utilisation. For the teaching Zoology part of the M.Sc. (Modern Biology) course, taught in this college, the committee felt that much more effort in teaching and research is required.

6.6 Considering the pressure of demand and urge for post-graduate education in the area, as also the need for highly skilled and trained manpower required by the growing industrial and commercial complex in the Nanded District and around, the Committee feels that there is a potential for starting additional facilities for postgraduate education in the area. The land for creating additional facilities having already been made available, the Committee recommends that a University Centre for Postgraduate studies may be set up at Nanded. The establishment of such a centre and additional facilities is also justified on the basis of postgraduate enrolment in the area.

6.7 Keeping in view the real needs of the region, and avoiding implication of postgraduate facilities already provided at the headquarters of the Maharashtra University at Aurangabad, the Committee feels that this centre with financial, administrative and academic autonomy (a provision of which already exists in University statutes) as per UGC guidelines may be started in the Sixth Plan in the following areas/courses in the first phase:

- 1) M.Sc. (Bio-Technology)
- 2) M.Sc. (Industrial Chemistry)
- 3) Master of Social Work.

6.8 In the second phase, after the satisfactory working of the above courses has been ensured, degree courses in M.A. (Music), M.A. (Applied Arts: Commercial Arts) and M.Sc. (Polymer Chemistry) could be taken up in the Seventh Plan. Simultaneously, at that stage the centre could undertake providing facilities in Postgraduate diploma courses in Analytical Chemistry, Environmental Chemistry, Pharmaceutical Chemistry, Pharmaceutical Chemistry, Textile Chemistry, Fermentation and Petrochemicals.

6.9 For teaching MBA course, the committee could not make any recommendation. The university may have to adhere to the guidelines laid down by the All India Council of Technical Education: Board of Management Studies and seek the advice of these bodies.

6.10 The Committee while making their recommendation for various courses of study kept in view the following:

(a) M.Sc. (Biotechnology)

- (i) The University in its proposal, requested for a course on M.Sc. (Applied Genetics). The committee examined this issue. Within 300 kms. of Nanded, Genetics is being taught in Osmania University which has developed large facilities to conduct this programme. The committee felt that there was no need to begin a similar programme so close. The existing Modern Biology syllabus is already outdated and fewer and fewer students from the South-Western Marathwada attend this course. Marathwada itself has primarily an agricultural base with severe poverty in the area under consideration. The cash crops include cotton, sugar-cane and tur (pulses). The main industries are tur and cotton processing plants and sugar factories. There is severe power shortage also. The hygienic conditions are poor with virtually non-existent sewage disposal facilities and fuel shortage has resulted in a demudation of this land. The committee felt that a postgraduate studies centre would be relevant and needed if it developed M.Sc. syllabus and teaching facilities in "Biotechnology" under the Faculty of Science. Such a course, to be developed in continuation of the 10+2+3 course alignment and restructuring will produce trained man-power for the region as well as the limitrophe.
- (ii) The Committee suggests such a "Bio-technology" teaching programme should be highly field-and-laboratory oriented (action-and-skill-oriented) rather than having a usual bookish approach. The mind-to-hand connection has to be established in order to make present biology teaching programme relevant to the needs of training, research and application in frontier areas of fundamental and applied fields.

(iii) The course should include discipline such as fermentation, poultry science, plant protection, plant tissue culture, sericulture, biomedical technology, water-recycling, biogas production, enterprise, small business and industry management, communication, public-health hygiene, food and nutrition, biomass production, applied genetics and genetic engineering.

(iv) For helping in designing and formulating the course content for the Bio-technology, the University would be well-advised to constitute a committee. Some of the names suggested were: Dr.S.Ramachandran(D.S.T.), Dr. N.Notani (BARC), Dr. Adi Patel (Terredes Hommes, Pune), Dr. Jagannath Rao (Pest Control India Pvt. Ltd.), Dr. S. Krishnaswamy (Deptt. of Bio-Sciences-Madurai University), Dr. M.V. Joshi (Zoology Deptt. Poona University), Prof. V.C. Bhide (School of Energy Studies Poona University), Dr. S.H. Godbole (MACS, Pune), Dr. P.V. Sabe (NIBR, Lucknow), Dr. A.P. Joshi (V.P. Chest Institute, Delhi), Dr. V. Modi (M.S. University of Baroda) etc. This committee be coopted the Marathwada University Head of Departments of Botany, Zoology, Statistics, Management and Sociology, Head of the Institute of Science, Aurangabad and Dr. K.S. Deshpande and Deo both of Science College, Nanded.

(b) M.Sc. (Industrial Chemistry)

(i) The proposal as formulated by the University was not well conceived since it visualised a very narrow specialisation. The committee felt that the course should be broad based carrying greater emphasis on the physics-Chemical principle underlying all the major industrial processes and avoiding undue emphasis on technological details pertaining to a few industries. The programme should be offered in the Faculty of Science and lead to M.Sc. (Ind-Chem.) degree. It must naturally and essentially have an adequate science content, e.g. reaction kinetics, mechanisms underlying reaction of industrial importance, instrumentation in process control and automation, spectral and chromatographic methods in analysis etc. In other words, the students must be prepared to enter industry as scientists rather than as technicians. They should be equipped to enter sophisticated R & D laboratories etc.

(ii) This course will have much in common with the currently run M.Sc. course at Yashwant Mahavidyalaya, especially in the Part I curriculum. The committee hopes that a suitable coordinating system will be evolved so that the better faculty and physical resources of the centre may be utilised to upgrade the latter.

(c) Master of Social Work (MSW)

- i. MSW which was introduced at the postgraduate centre in 1983 is a substitute for M.A. (Sociology) which was started at the inception of the centre in 1975. The switch over seemed to have been dictated by the declining popularity of M. A. (Sociology) course and by the perception of better job opportunities for MSW's. The introduction of MSW was justifiable in view of the need for such a course as also this is not taught at Aurangabad campus of the university.
- ii. The committee felt that the arrangement made by the centre for teaching this course (with 6 compulsory and 36 optional papers and project work to be completed by every student) by two inexperienced fresh MSW's on part-time basis were inadequate and perfunctory, though their teaching is supplemented by lecturers delivered by social science teachers from the local Colleges, who are not well qualified to teach social work students.

The job potential can be realised only when all the courses are taught and when different students specialise in different fields of social work. For running a comprehensive professional programme the department would need a strength of at least 8 teachers, eventually.

6.11 The Committee recommends the inclusion of a one Term course in Fundamentals of computers science which may even be conducted as a common course for all the postgraduate courses in physical, biological and social science.

6.12 Considering the agricultural and industrial environment of the region these course will not only attract many students but will also ensure that most of them will be absorbed in the surrounding industries, many of which are based on agricultural raw materials like cellulose, sugar and oil. The centre will therefore have to forge close links with the industries.

6.13 In the interest of maintaining proper standards of postgraduate education and research, the Committee recommends that a minimal level of applied as well as fundamental research associated with the needs of the region should be undertaken in each discipline started at the centre. Keeping in view the development of suggested thrust areas, the committee strongly recommends that the following procedure may be followed:



- a. A very senior academic in professor's rank in one of the three disciplines which the university proposes to start with at the centre may be appointed immediately to plan and coordinate the various academic courses. To achieve this objectives professors in other disciplines should be appointed soon after. Other academic staff viz. readers, lecturers etc. may be appointed after sufficient spade work has been done by the professors. These professors should interact with expertise available in the industries around as also with the faculty in the colleges at Nanded.
- b. The centre should start only after the above appointments have been made, preliminary ground work and planning done, courses framed and approved by the various academic bodies, properly equipped laboratories set up and adequate library facilities made available. This can be done by appointing additional teaching and academic staff as per UGC guidelines for postgraduate education.

6.14 The Committee is firmly of the view and would reiterate that the teaching at the centre should be started after proper planning and that the centre has been established on the lines suggested in para 6.11 above. This the committee consider as most essential in the interest of proper academic standards and development of the centre along right lines. Such a centre should not function in isolation, but should serve as a model point for collaboration and cooperation with local industry and with colleges in the neighbourhood and also help in improving the standards of undergraduate teaching in colleges and in providing opportunities for college teachers to interact with centre's departments in teaching and research activity.

6.15 As the postgraduate education is also imparted in the affiliated colleges, the committee recommends that the norms prescribed by the UGC for postgraduate education should be adhered to and strictly followed and used both for purposes of according affiliation to new courses to be started in the college as well as for bringing up to the required level the facilities in the colleges already offering postgraduate courses.

6.16 Before taking a final decision to start the university centre for postgraduate studies at Nanded, the State Govt. may ensure that proper steps are taken to provide for necessary finances and facilities for its maintenance and initial development. This is essential

as the UGC assistance for the future development ( and not establishment) of the university centre for post-graduate studies would be available after the conditions laid down by the UGC in respect of the number of minimum departments, teaching and other academic staff, adequate machinery for health, residence, sports and welfare of students and teachers, and adequate facilities in respect of academic buildings, equipment books library, hostel, staff quarters whose aggregate value is not less than Rs. 100 lakhs, in addition to developed land etc. are actually made available. It was repeatedly clarified that the UGC assistance would be available only when these conditions are satisfied.

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UNIVERSITY GRANTS COMMISSION

Report of the Committee which visited Nanded on September 19 and 20, 1983 to consider the proposal of Maharashtra State Government for the establishment of a Marathwada University Centre for Postgraduate Studies at Nanded.

....

The University Grants Commission received in August, 1977 from the Marathwada University, Aurangabad a proposal for the establishment of a Centre for Postgraduate studies and research at Nanded. The university had decided to introduce nine postgraduate courses in the faculties of Commerce (2) Social Sciences (1) Science (3) and Technology (3). However, in the first phase the university forwarded the proposal for three postgraduate courses viz. M.Sc. (Modern Biology) M.A. (Sociology) and M.B.A. already started in February 1975 at the Centre with necessary autonomy to develop facilities for postgraduate studies proposed to be started, having local and regional relevance. It was indicated that the State Government of Maharashtra had given in October 1975 concurrence in principle for the establishment of postgraduate centre at Nanded and for the last two years (viz. 1975-76 and 1976-77) the expenses incurred on the sub centre were borne by the State Government by sanctioning grant on ad-hoc basis, on the presumption that the U.G.C. will approve the proposal of the sub-centre. The State government indicated in its approval that the total expenditure should not exceed Rs. one lakh per year.

The proposal was considered by the UGC Standing Committee on New universities and university centres at its meeting held on September 7, 1977. The Committee recommended that a committee may be appointed to examine the need of a postgraduate centre at Nanded. The University Grants Commission at its meeting held on October, 17, 1977 accepted the above recommendation. Accordingly, a visiting committee consisting of (1) Professor M.O. Mathew, Deptt. of Commerce, Annamalai University (2) Professor K.D. Gangradan Delhi School of Social Welfare (3) Prof. D.N. Kamat, Deptt. of Zoology, Shivaji University and Prof. R.N. Kapoor, Deptt. of Chemistry, Delhi University, visited Marathwada University, Nanded and proposed postgraduate centre at Nanded on January 23-25, 1978, and held discussions with the Vice-Chancellor, Director of the Centre at Nanded, Heads of concerned departments, Principals of colleges etc.

The University Grants Commission at its meeting held on 29th<sup>3</sup> May 1978 considered the report of the Visiting Committee appointed to examine the need for postgraduate centre at Nanded. The Commission desired that the report of the Visiting Committee may be referred to the New Universities Committee with the request that it may examine the same in the light of the concept of the Postgraduate Centres. This, was, accordingly, considered by the UGC Committee on New Universities and Postgraduate Centres at its meeting held on 12th July, 1978. The consideration of the proposal was postponed in view of the fact that there was need for rethinking to define the scope and role of the university centre for Postgraduate Studies at various places. It was recommended that the UGC may review the whole question with the help of a Sub-Committee and in the meantime the universities be informed of this.

The Marathwada University was informed by the UGC on 7th August 1978 "the whole question of defining the scope and role of University Centre for Postgraduate Studies is being reviewed with the help of a Sub-Committee. As soon as a decision is arrived at, the university will be informed accordingly".

The guidelines were circulated to the universities and State Governments on March 1, 1980. The Marathwada University and the Maharashtra State Government were specifically requested to send the revised proposals in conformity with revised guidelines. The university informed on October 24, 1980 that a sub-committee<sup>to</sup> prepare the proposal of Marathwada University Postgraduate Studies and Research Centre, Nanded has been appointed. The Marathwada University sent the revised proposal in January 1981. The university was requested on 5th March 1981 to send the proposal through the State Govt. to enable UGC to take action in the matter. A telegraphic reminder was also sent on 25.3.1981. The State Government informed on 9th April, 1981 that the proposal from the Marathwada University has been received recently and the same is being examined in all its aspects. The proposal with the remarks of the State Govt. will be sent soon. The UGC Standing Committee on New Universities and university centres considered the proposal, as it was, at its meeting held on April 16, 1981. It was agreed that this proposal may be examined by a committee subject to receipt of comments from the State Government of Maharashtra on the proposal. The committee may also keep in view the guidelines laid down by the Commission to define the concept of university centre of postgraduate centres.

The U.G.C. sent on 22.5.1981 to the State Government and the university one copy each of the revised guidelines defining the concept of university postgraduate centres, and the proforma prescribed by the Commission for primary information for setting up such a centre, and requested for that the proposal from Marathwada University may be sent along with the comments of State Govt. It was in January 1983 that the State Government sent the modified proposal of Marathwada University for the establishment of a Centre of postgraduate studies at Nanded. The State Government was requested on 4th February 1983 to send the proposal in the prescribed proforma sent earlier to them on 22.5.1981. Another copy of the proforma was sent for ready reference. The requisite proforma and the information was received from the State Government in the middle of April 1983. Immediately the UGC constituted a committee to examine the proposal, and simultaneously on 27th May 1983 the university was requested to send certain information which was received in the UGC on 23rd June, 1983. Initially the date of visit of the committee was fixed on August 11 and 12, 1983. Some of the members of the committee however, could not reach Aurangabad, and those who reached could not go to Nanded on account of the roads being blocked due to floods.

A UGC committee with the following members visited Nanded on September 19 and 20, 1983.

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Retired Professor of Chemistry  
Indian Institute of Technology  
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2. Professor V.S.D'Souza  
Department of Sociology  
Panjab University  
Chandigarh.
3. Professor S.P.Modak  
Department of Zoology  
Poona University  
Poona.
4. Shri Y.D. Sharma  
Deputy Secretary  
UGC, New Delhi
5. Dr.P.V. Rangnekar  
Director  
Institute of Science  
Aurangabad  
(State Govt. Nominee associated with the Committee).

In the absence of the Vice-Chancellor and Registrar, Marathwada University, the committee held discussions with other officers of the university, Heads of the concerned Departments of the university, Director of the Centre at Nanded, Principals and faculty of the Yashwant Mahavidyalaya and Science College, Nanded etc.

The Committee took note of the guidelines laid down by the UGC for considering proposals for university centre for postgraduate studies (Annexure I). The Committee proceeded to consider in depth the special, historical, economic and other conditions which have necessitated the authorities of the Maharashtra State and the Marathwada University to establish such a centre at Nanded.

## II - THE REVISED PROPOSAL

The Centre for postgraduate education at Nanded proposes to have the following courses of study:

- (1) M.Sc (Applied Genetics)
- (2) M.Sc (Industrial Chemistry)
- (3) Master of Social Work (MSW)
- (4) Master of Business Administration (MBA)
- (5) M.A (Music)
- (6) M.A.(Applied Arts.)(Commercial Arts)
- (7) M.Sc. Polymer (Chemistry)
- (8) Postgraduate Diplomas:
  - (i) Diploma in Analytical Chemistry
  - (ii) Diploma in Environmental Chemistry
  - (iii) Diploma in Pharmaceutical Chemistry
  - (iv) Diploma in Textile Chemistry
  - (v) Diploma in Fermentation
  - (vi) Diploma in Petro-Chemicals.

The proposal is spread over ten years - in two phases of five years each. The estimated cost of the proposed proposal is Rs.308.78 lakhs, of which the UGC share will be Rs.209.38 lakhs for ten years. The details of the courses are given in the Annexure-II.

Temporarily the Centre is located in the building of Government Ayurvedic College, Nanded, where classes are conducted, modern biology classes including practicals are conducted in Science College and Yashwant Mahavidyalaya Nanded. All the teaching work is being done on contributory basis.

An area of 100.85 hectares has been allotted in the Development Plan of New Nanded City for the Marathwada University Centre. This land will be fully developed and will have the benefit of getting ample water supply of Vishnupur Irrigation Project.

III - BACKGROUND : BASIC FACTS & FIGURES (1982-83):

3.1 The Marathwada University, Aurangabad was started in 1958. The university provides instructions for undergraduate and postgraduate courses and research facilities in the faculties of social science, arts, science, commerce, medicine (including Ayurvedic medicine), law, engineering and education as per Appendix-III. It also provided postgraduate instructions for M.A(Sociology) and M.Sc.(Modern Biology) in the postgraduate centre set up by the university in 1975 at Nanded.

3.2 The State of Maharashtra has the following universities:

1. Bombay University, Bombay.
2. Poona University, Poona.
3. Shivaji University, Kolhapur.
4. Marathwada University, Aurangabad.
5. Nagpur University, Nagpur.
6. S.N.D.T.Women's University, Bombay.
7. Konkan Krishi Vidyapeeth, Depoli(Distt.Ratnagiri)
8. Mahatma Phule Krishi Vidyapeeth, Rahuri(Distt.Ahmednagar)
9. Marathwada Krishi Vidyapeeth, Parbhani
10. Punjab Rao Krishi Vidyapeeth, Akola.

In addition, the Tata Institute of Social Sciences, Bombay (a'deemed university') and Indian Institute of Technology, Bombay (an institute of National Importance) provide facilities for undergraduate and postgraduate studies and research.

3.3. Appendix IV gives the number of Marathwada University Teaching Departments and Affiliated Colleges and enrolment therein from 1978-79 to 1982-83.

3.4. The number of passes(securing 50% marks and above) at the final year degree examination and at the postgraduate degree course for five years 1978 to 1982 are given as under:

.....6.....

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
a) B.A.	15	33	16	439	486
b) B.Sc.	118	95	89	289	371
c) B.Com.	28	32	33	423	374
d) M.A.	43	74	198	282	336
e) M.Sc.	60	35	154	149	177
f) M.Com.	28	37	107	257	248

The enrolment in the postgraduate courses at Nanded Centre (located in Govt. Ayurved College, Nanded) was :

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
a) M.A.(Sociology)	90	197	103	57	45
b) M.Sc.(Modern Biology)	14	13	7	13	31

3.5. The statistics of existing postgraduate facilities under the university under its various teaching departments and affiliated colleges (viz.enrolment, teachers, output and research output) for the years 1977-78 to 1981-82 are given in Appendix-V.

3.6. The districtwise details of university teaching departments colleges: enrolment and teachers is given in Appendix-VI.

3.7. At the time of the visit in September 1983, the committee was informed that there were as many as 16 affiliated colleges in Nanded District; 11 arts, science and commerce colleges, one college each of education, law, engineering, ayurveda and chitrakala. The list is given in Appendix-VII.

3.8. Nanded city has however 10 colleges ; 5 arts, science and commerce colleges, one college each of education, ayurveda, law, engineering and chitrakala. Of these, only four colleges provide instructions for postgraduate courses. These colleges are: People's College Nanded(Marathi, Hindi, English, Political Science and Commerce), Yashwant Mahavidyalaya, Nanded (History, Economics, Chemistry and Zoology), Science College, Nanded (mathematics and Botany), and Metaji Subhash Chandra Bose Arts, Science and Commerce College, Nanded has started M.A(Public Administration from 1983. In addition, law College, and college of Education, Nanded also provide instructions for respective postgraduate degree. These four colleges accounted for an enrolment of 1131 students: viz. 459 students in M.A., 112 students in M.Sc., 445 students in M.Com. and 115 students in LL.M. While no statistics of total number of teachers in the colleges



in Nanded City was made available, the committee was supplied information on the details of 66 teachers recognised for postgraduate teaching in colleges of Nanded city. Their distribution was; English 5, Marathi 2, Hindi 4, Economics 6, History 2, Commerce 5, Mathematics 8, Botany 11, Chemistry 9, Zoology 7, Physics 2, Public Administration 2, and Sociology 3. Of these 29 teachers possess Ph.D degrees. Some of the teachers have published research papers, articles and books. The details are given in Appendix VIII.

#### IV- ECONOMIC PROFILE OF NANDED

4.1. Nanded is a fast developing town from the point of view of education and industries. Total population of Nanded district is 17,47,600 and Nanded city is 3,27,300 as per 1981 census. Nanded is known for its black cotton soil. It is also famous for its substantial contribution in production of cotton of a good variety. It is extremely fertile district especially in the valley of the Godavari and its tributaries. It produces jawar, rice, wheat, cash crops like cotton, oil-seeds, chillies, sugarcane; pulses like gram, tur, mug etc. Regulated markets in the district are Nanded, mukhed, Umari, Dharmabad, Bhokar, Kinwat, Hadgaon, Loha, degloor, Mudkhed, Kundalwadi and Naigaon. One taluka of Nanded is Kinwad has dense forest from where timber is obtained and even sent outside. There are number of large scale furniture manufacturers and dealers. Nanded is connected with railway line. It is connected by metalled road with important town of Maharashtra. It has an air-strip also.

4.2. Two irrigation projects viz. the Mannar Project and the Purna Project have been recently completed. With the completion of two projects viz. Upper Pen Ganga Project and Vishnupuri lift Irrigation Project, an additional area of about one lakh hectares will be brought under irrigation. 80% of the villages are electrified and current is available for lift irrigation.

4.3. At present there are more than 100 factories in the Nanded city and other taluka places providing employment to more than 10,000 workers. The industries in Nanded district comprise of textile mills, oil mills, spun-pipe factories, metal works, potteries, furniture works etc. Besides there are two industrial estates one at Nanded with 25 units and one at Dharmabad. Sixty places in the district have banking facilities.

V - MEETING WITH THE HONORARY DIRECTOR OF THE  
CENTRE FOR POSTGRADUATE STUDIES AT NANDED

5.1. In the meeting with Shri Kamal Kishore Kadam, M.Tech., Honorary Director of the Centre for postgraduate studies at Nanded the Principals of local colleges and the concerned of faculty and some officers of the Marathwada University, the following points were made:

- (1) The Marathwada University, started the postgraduate centre in 1975 with courses in postgraduate degree courses in Sociology, Modern Biology and Business Administration in the building of the Government Ayurvedic College, Nanded. Modern Biology classes including practicals are conducted in Science College, Nanded and Yashwant Mahavidyalaya, Nanded. The teaching work is done on contributory basis by the teachers of local colleges. The Maharashtra Government gave a token grant of Rs. one lakh in 1975. The expenses incurred on the centre are borne by the State Government on the presumption that the UGC would approve the proposal.
- (2) The Director of the Centre pleaded for the early approval for the establishment of the centre for postgraduate studies at Nanded on account of academic, local, economic and social considerations. He informed that the State Government has already taken a decision to provide all the facilities as would be recommended by the committee/UGC for this centre. It was informed that the Administrator, Nanded Municipal Council, Nanded has already allotted land measuring 100.85 hectares for this Centre. This land will be fully developed and will have the benefit of getting ample water supply of Vishnupuri Irrigation Project. The land is about 2 km. from the banks of the Godavari river. The committee visited the site also. Necessary funds for the purpose have already been agreed to. The committee was also apprised that more land could also be made available for the proposed centre and its future expansion.
- (3) With the rapid increase in the student population in the Nanded and adjoining districts, and increasing urge for university education, the need for the establishment of a centre for postgraduate studies was emphasised. With the establishment of such a centre, more students from this area/region would be in a position to prosecute their higher studies, which they could hardly do now by going to Aurangabad which is at a great distance.

- (4) Nanded district has witnessed a lot of economic and industrial progress during the recent years; the completion of various irrigation projects will give a boost to agricultural production, especially cash crops and agro-based industry and general and ancilliary industrial activity in the Marathwada region. This is likely to generate demand for trained manpower for manning this growing activity.
- (5) M.A.(Sociology course) has not been so very popular, of late, and as such admission to this course has been discontinued w.e.f. 1983. There has been a demand for Master of Social Work(MSW) course and from 1983 admissions have been made to this course.
- (6) During the course of discussions the committee clarified that the syllabus for present M.Sc. (Modern Biology) course being taught in the two colleges, was out-dated, it would neither serve the needs of the region nor would be suitable for training the students in the modern techniques in biosciences, as also the arrangement for teaching Botany syllabus at the Science college, Nanded and Zoology at the Yashwant Mahavidyalaya, Nanded was anything but satisfactory. The Director agreed that in the event of the UGC approval of the establishment of the centre of post-graduate studies, the admission to the M.Sc.(Modern Biology) under the present arrangement would be discontinued, and the new postgraduate degree course in Biosciences as recommended by the committee and agreed by the UGC would be started.
- (7) For continuing the MBA course, the rules and courses as laid down by the All-India Council of Technical Education may have to be followed and the university may seek the approval of AICTE in this regard.

5.2. The committee clarified that the concept of the university centre for postgraduate studies as enunciated by the UGC requires that such a centre should essentially enjoy necessary autonomy in its academic programmes and administrative and financial matters.

#### VI - OBSERVATIONS AND RECOMMENDATIONS OF THE COMMITTEE

6.1. The committee did not have the benefit of advice and consultations with either the Vice-Chancellor (who was reported to have resigned in July 1983) or the Registrar (who was reported to be on leave owing

to Spondylitis), during the course of its visit. The Commissioner, who was looking after the current duties of the Vice-Chancellor, could not, however, meet the committee. The Heads of the concerned departments and some officers of the university, however, held discussions with the committee and accompanied it to Nanded. At Nanded the committee held discussions with the Honorary Director of the Postgraduate Centre and local Principals and Teachers.

6.2. The Marathwada University was established in 1958. In 1975, it started a postgraduate studies centre at Nanded by providing teaching facilities for the courses of M.A.(Sociology), M.Sc.(Modern Biology) and Master of Business Administration. Teaching was done on a contributory basis by the teachers of local colleges. The teaching of M.A.(Sociology) has however been stopped w.e.f.1982-83, and admissions to M.A.(Social Work) started w.e.f. 1983. The Centre is headed by an Honorary Director Shri Kamal Kishore Kadam, M.Tech. In addition, teaching for postgraduate degree in English, Hindi, Marathi, Economics, Political Sciences, Chemistry, Botany, Zoology, Mathematics and Commerce was provided in three local colleges at Nanded viz: People's College, Science College and Yashwant Mahavidyalaya, on contributory basis.

6.3. The Marathwada University provided postgraduate teaching facilities in the university teaching departments at the headquarters at Aurangabad, and at some selected colleges in various cities under its jurisdiction, as also at the university centre for postgraduate studies at Nanded.

6.4. The M.Sc.(Modern Biology) degree course (classes as well as practicals) is being conducted at the Science College, Nanded (for Botany) and Yashwant Mahavidyalaya, Nanded (for Zoology) on the basis of contributory teaching.

6.5 The Committee had the opportunity of visiting (i) the Science College, Nanded, and (ii) the Yashwant Mahavidyalaya, Nanded.

a) The Science College, Nanded provided instructions for postgraduate courses in Mathematics and Botany.

(i) As per information supplied to the committee, in the department of Mathematics, in the college, there were 35 students (32 in Pt.I and 3 in Pt.II) in M.A.(Mathematics) in 1983-84. All the 7 teachers were recognised to teach postgraduate courses. Three of these teachers had Ph.D. degrees, and other two teachers were pursuing research for Ph.D. Two research scholars were studying for Ph.D. degree in Mathematics under the teachers of this college.

(ii) The Department of Botany enrolled 29 students in M.Sc (Botany) (16 in Pt.I and 13 in Pt.II) in 1983-84. Of the 9 teachers in the Department, 8 were recognised for postgraduate teaching. Six teachers had Ph.D. degrees, and the remaining three had registered themselves and were working for Ph.D degrees. It was reported that 9 thesis for Ph.D. degree prepared under the guidance and supervision of the faculty have already been submitted and seven research scholars including (4 CSIR research fellows and 1 SISI research fellow) were working for Ph.D. degree in Botany under the guidance of the faculty in the Department. Nine research projects have been approved by the CSIR, UGC, SISI, ICAR and SRTTRI to the faculty of this department. The main thrust of the department were plant pathology, mycology etc. The teachers of the department have a large number of research papers/articles to their credit. The committee felt that the faculty in the department of Botany was active and highly motivated and the department has a good laboratory having ample research facilities. The department offers a good base for applied botany and it was teaching botany courses to the M.Sc. (Modern Biology) course students. The college has a good stock of scientific books and journals in Biology.

(b) The Yashwant Mahavidyalaya offers facilities for postgraduate teaching in History, Economics, Zoology and Chemistry.

(i) The Department of History enrolled 31 students in Pt.I and 12 students in Pt.II of the M.A.(History) course. Of the 5 teachers, 4 are recognised for teaching postgraduate classes. Two teachers hold Ph.D. degrees, while one more teacher has submitted his thesis for Ph.D degree.

(ii) The Economic Department with 5 teachers (4 of whom are recognised for postgraduate teaching) enrolled 83 students (81 in Pt.I and 2 in Pt.II) in 1983-84. One teacher holds a Ph.D. degree, one teacher holds an M.Phil degree and another is registered for Ph.D degree. The course is run with the help of contributory teachers from other colleges.

(iii) The Department of Chemistry, in this college, has 9 teachers, of whom 8 teachers are recognised for postgraduate teaching. Four teachers have Ph.D. degree, two teachers are working for Ph.D. degree and three teachers are recognised as guides for Ph.D. There were 21 students (12 in Pt.I and 9 in Pt.II) in the M.Sc.(Chemistry) course in 1983-84. The department offers only

one specialisation viz. Organic Chemistry. In the opinion of the committee, the laboratory facilities were first adequate whereas the library was inadequately stocked. The research facilities in the department are poor and the research output of the faculty had been meagre so far. Even after the post-graduate centre has been created the committee felt that there is likely to be a good demand for the M.Sc.(Organic Chemistry) course, and considered it necessary to recommend to strengthen this course and upgrade it. Further, it was desirable that the staff of the department should have access to a good library and the use of sophisticated instruments. The proposed centre could fulfil these requirements. In the area of teaching also the centre can render valuable assistance.

- (iv) The Department of Zoology prepares students for M.Sc(Zoo) degree and teaches Zoology courses to the students of M.Sc.(Modern Biology) The department had 23 students (including 12 students in Part I and 11 students in Part II) in the M.Sc (Zoo) course in 1983-84. All the six teachers in the department have Ph.D. Degree. It was reported that some research papers have been published by the faculty of the department. The Committee felt that the teaching back-up in the department was quite limited with traditional emphasis on Helminthology derived from the mother institution. There was little evidence of research activity, and the teaching facilities, although equipped with basic instrumentation needed better utilisation. For the teaching Zoology part of the M.Sc (Modern Biology) course, taught in this college, the committee felt that much more effort in teaching and research is required.

6.6. Considering the pressure of demand and urge for postgraduate education in the area, as also the need for highly skilled and trained manpower required by the growing industrial and commercial complex in the Nanded District and around, the Committee feels that there is a potential for starting additional facilities for postgraduate education in the area. The land for creating additional facilities having already been made available, the Committee recommends that a University Centre for Postgraduate studies may be set up at Nanded. The establishment of such a centre and additional facilities is also justified on the basis of postgraduate enrolment in the area.

6.7. Keeping in view the real needs of the region, and avoiding implication of postgraduate facilities already provided at the headquarters of the Marathwada University at Aurangabad, the Committee feels that this centre with financial, administrative and academic autonomy ( a provision of which already exists in university statutes) as per UGC guidelines may be started with in the Sixth Plan in the following areas/courses in the first phase:

- (1) M.Sc.(Bio-Technology)
- (2) M.Sc.(Industrial Chemistry)
- (3) Master of Social Work.

6.8. In the second phase, after the satisfactory working of the above courses has been ensured, degree courses in M.A.(Music), M.A.(Applied Arts: Commercial Arts) and M.Sc(Polymer Chemistry) could be taken up in the Seventh Plan. Simultaneously, at that stage the centre could undertake providing facilities in postgraduate diploma courses in Analytical Chemistry, Environmental Chemistry, Pharmaceutical Chemistry, Pharmaceutical Chemistry, Textile Chemistry, Fermentation and Petrochemicals.

6.9. For teaching MBA course, the committee could not make any recommendation. The university may have to adhere to the guidelines laid down by the All India Council of Technical Education: Board of Management Studies and seek the advice of these bodies.

6.10. The Committee while making their recommendation for various courses of study kept in view the following :

(a) M.Sc.(Biotechnology)

- (i) The university in its proposal, requested for a course on M.Sc (Applied Genetics). The committee examined this issue. Within 300 kms of Nanded, Genetics is being taught in Osmania University which has developed large facilities to conduct this programme. The committee felt that there was no need to begin a similar programme so close. The existing Modern Biology syllabus is already outdated and fewer and fewer students from the South-Western Marathwada attend this course. Marathwada itself has primarily an agricultural base with severe poverty in the area under consideration. The cash crops include cotton, sugar-cane and tur(pulses). The main industries are tur and cotton processing plants and sugar factories. There is severe power shortage

also. The hygienic conditions are poor with virtually non-existent sewage disposal facilities and fuel shortage has resulted in a demudation of this land. The committee felt that a postgraduate studies centre would be relevant and needed if it developed M.Sc. Syllabus and teaching facilities in "Biotechnology" under the Faculty of Science. Such a course, to be developed in continuation of the 10 + 2 + 3 course alignment and restructuring will produce trained man-power for the region as well as the limitrophe.

- (ii) The Committee suggests such a "Bio-technology" teaching programme should be highly field-and-laboratory oriented (action-and-skill-oriented) rather than having a usual bookish approach. The mind-to-hand connection has to be established in order to make present biology teaching programme relevant to the needs of training, research and application in frontier areas of fundamental and applied fields.
- (iii) The course should include discipline such as fermentation, poultry science, plant protection, plant tissue culture, sericulture, biomedical technology, water-recycling, biogas production, enterprise, small business and industry management, communication, public-health hygiene, food and nutrition, biomass production, applied genetics and genetic engineering.
- (iv) For helping in designing and formulating the course content for the Bio-technology, the university would be well-advised to constitute a committee. Some of the names suggested were: Dr.S.Ramachandran(D.S.T), Dr.N.Notani(BARC), Dr.Adi Patel (Terre des Hommes, Pune), Dr.Jagannath Rao (Pest Control India Pvt.Ltd ), Dr.S.Krishnaswamy (Deptt. of Bio-Sciences -Madurai University), Dr.M.V.Joshi(Zoology Deptt. Pona University), Prof.V.C.Bhide (School of Energy Studies, Poona University), Dr.S.H.Godbole(MACS Pune), Dr.P.V.Sabe (NIBR Lucknow), Dr.A.P.Joshi (V.P.Chest Institute, Delhi), Dr.V.Modi(M.S.University of Baroda) etc. This committee be coopted the Marathwada University, Head of Department of Botany, Zoology, Statistics, Management and Sociology, Head of the Institute of Science, Aurangabad and Dr.K.S.Deshpande and Deo both of Science College, Nanded.



(b) M.Sc.(Industrial Chemistry)

(i) The proposal as formulated by the University was not well conceived since it visualised a very narrow specialisation. The committee felt that the course should be broad based carrying greater emphasis on the physico-chemical principle underlying all the major industrial processes and avoiding undue emphasis on technological details pertaining to a few industries. The programme should be offered in the Faculty of Science and lead to M.Sc.(Ind-Chem.) degree. It must naturally and essentially have an adequate science content, e.g. reaction kinetics, mechanisms underlying reaction of industrial importance, instrumentation in process control and automation, spectral and chromatographic methods in analysis etc. In other words, the students must be prepared to enter industry as scientists rather than as technicians. They should be equipped to enter sophisticated R & D laboratories etc.

(ii) This course will have much in common with the currently run M.Sc. course at Yashwant Mahavidyalaya, especially in the Part I curriculum. The committee hopes that a suitable coordinating system will be evolved so that the better faculty and physical resources of the centre may be utilised to upgrade the latter.

(c) Master of Social Work(MSW)

(i) MSW which was introduced at the Postgraduate Centre in 1983 is a substitute for M.A.(Sociology) which was started at the inception of the centre in 1975. The switch over seemed to have been dictated by the declining popularity of M.A.(Sociology) course and by the perception of better job opportunities for MSW's. The introduction of MSW was justifiable in view of the need for such a course as also this is not taught at Aurangabad campus of the university.

(ii) The committee felt that the arrangement made by the centre for teaching this course (with 6 compulsory and 36 optional papers and project work to be completed by every student) by two inexperienced fresh MSW's on part-time basis were inadequate and perfunctory, though their teaching is supplemented by lecturers delivered by social science teachers from the local colleges, who are not well qualified to teach social work students.

The job potential can be realised only when all the courses are taught and when different students specialise in different fields of social work. For running a comprehensive professional programme the department would need a strength of at least 8 teachers, eventually.

6.11.

The Committee recommends the inclusion of a one Term course in Fundamentals of computer science, which may even be conducted as a common course for all the postgraduate courses in physical, biological and social sciences.

6.12.

Considering the agricultural and industrial environment of the region, these courses will not only attract many students but will also ensure that most of them will be absorbed in the surrounding industries, many of which are based on agricultural raw materials like cellulose, sugar and oil. The centre will therefore have to forge close links with the industries.

6.13. In the interest of maintaining proper standards of postgraduate education and research, the Committee recommends that a minimal level of applied as well as fundamental research associated with the needs of the region should be undertaken in each discipline started at the centre. Keeping in view the development of suggested thrust areas, the Committee strongly recommends that the following procedure may be followed:-

- (a) A very senior academic in professor's rank in one of the three disciplines which the university proposes to start with at the centre may be appointed immediately to plan and coordinate the various academic courses. To achieve this objective professors in other disciplines should be appointed soon after. Other academic staff viz readers, lecturers etc. may be appointed after sufficient spadework has been done by the professors. These professors should interact with expertise available in the industries around as also with the faculty in the colleges at Nanded.
- (b) The centre should start only after the above appointments have been made, preliminary ground work and planning done, courses framed and approved by the various academic bodies, properly

equipped laboratories set up and adequate library facilities made available. This can be done by appointing additional teaching and academic staff as per UGC guidelines for post-graduate education.

6.14. The Committee is firmly of the view and would reiterate that the teaching at the centre should be started after proper planning and that the centre has been established on the lines suggested in para 6.11 above. This the committee consider as most essential in the interest of proper academic standards and development of the centre along right lines. Such a centre should not function in isolation, but should serve as a nodal point for collaboration and cooperation with local industry and with colleges in the neighbourhood and also help in improving the standard of undergraduate teaching in colleges and in providing opportunities for college teachers to interact with centre's departments in teaching and research activity.

6.15. As the postgraduate education is also imparted in the affiliated colleges, the committee recommends that the norms prescribed by the UGC for postgraduate education should be adhered to and strictly followed and used both for purposes of according affiliation to new courses to be started in the college as well as for bringing up to the required level the facilities in the colleges already offering postgraduate courses.

6.16. Before taking a final decision to start the university centre for postgraduate studies at Nanded, the State Government may ensure that proper steps are taken to provide for necessary finances and facilities for its maintenance and initial development. This is essential as the UGC assistance for the future development (and not establishment) of the university centre for postgraduate studies would be available after the conditions laid down by the UGC in respect of the number of minimum departments, teaching and other academic staff, adequate machinery for health, residence, sports and welfare of students and teachers, and adequate facilities in respect of academic buildings, equipment books library, hostel, staff quarters whose aggregate value is not less than Rs.100 lakhs, in addition to developed land etc are actually made available. It was repeatedly clarified that the UGC assistance would be available only when these conditions are satisfied.

The committee would like to place on record its gratefulness and appreciation to the Honorary Director, the Faculty and the offices of the Marathwada University, Principals and Teachers of Local colleges at Nanded in extending all cooperation and facilities in its work.

# Annexure I

## GUIDELINES TO DEFINE THE CONCEPT OF UNIVERSITY POSTGRADUATE CENTRES:

- (i) At present three broad patterns for providing postgraduate education obtain in the country. These are : (a) Universities where postgraduate teaching is imparted in university teaching departments only, (b) universities where postgraduate instructions are given by affiliated colleges only, and (c) universities where postgraduate teaching is done through university teaching departments as well as affiliated colleges. In addition, new universities provide postgraduate instructions in university teaching departments and university centres for postgraduate studies as well as affiliated colleges. In the interest of maintaining and raising the standard of postgraduate education and research in the country, it would be desirable to develop postgraduate education (and a minimal level of research associated with it) in the university teaching departments and/or in the university centres for postgraduate studies. In the case of universities where postgraduate education is imparted through affiliated colleges, the norms prescribed by the Commission for postgraduate education should be used both for purposes of according affiliation to new courses to be started in the colleges as well as for bringing up to the required level the facilities in the colleges already offering postgraduate courses.
- (ii) It will be desirable to advise the universities to modify their conditions of affiliation for starting postgraduate courses in affiliated colleges in consonance with the norms prescribed by the UGC for the purpose.
- (iii) The pressure of demand for postgraduate education will continue to grow on account of limited employment opportunities. Increasing facilities would have to be provided to students from the weaker sections of the society to pursue postgraduate education. Towards this end, greater use may be made of providing facilities for correspondence courses, external degrees and allowing students to appear as private candidates for various postgraduate courses.
- (iv) With a view to maintaining academic standards of P.G. education and making optimum use of the limited resources, additional facilities for

P.G. studies be created only at such places where it is considered absolutely necessary to do so. New centres for postgraduate education should be established where existing facilities for postgraduate education have been fully utilised and the need for the creation of additional facilities for postgraduate education is justified on academic considerations. The universities may consider the desirability of introducing multiple streams of courses as also multiple shifts in the existing departments at the postgraduate level before a proposal for the establishment of a university centre for postgraduate studies is considered to ensure the optimum utilisation of the existing resources.

- (v) The establishment of university centre for postgraduate studies, should, as a rule, be a step towards raising the academic standards, innovative changes and interaction with the college system rather than merely as providing for another campus for postgraduate teaching and research in the existing subjects only. P.G. Centre should not provide for such courses as would be duplicating the courses existing in university departments and affiliated colleges. Also, such a centre should not function in isolation, but should function as a model point for purposes of collaboration and in cooperation with the colleges in the immediate vicinity, and also help in improving the standards of undergraduate teaching in the colleges by providing opportunities for college-teachers to interact with centres departments in teaching and research activities.
- (vi) Proposals for the establishment of a university P.G. Centre would be considered by the UGC, if the State Government, in consultation with universities concerned, has formulated a long-range (10-15 years), perspective plan for the development of higher education in the State based on a well designed survey of existing facilities and future projected demand and need for higher education in the State. The survey should also determine whether the demand and need for higher education could be met by extending and improving the facilities for postgraduate education in existing university teaching departments and affiliated colleges (selected with the help of college development councils recently set up in universities to ensure their optimum utilisation, or by opening a university P.G. Centre or in the alternative allowing some

carefully selected college departments to start postgraduate classes. Proposal from a university which allows its colleges to have postgraduate courses may not normally be agreed to for setting up a university P.G. Centre also. Some of the existing better developed postgraduate colleges may be provided additional facilities and inputs to function on the pattern of a university P.G. Centre.

- (vii) Based on a well-designed educational survey, and long range perspective plan, if the need for setting up a new university P.G. Centre has been established then it may be allowed to grow as an autonomous centre, on the basis of a ten year development plan. It should be examined and ensured that the local for the proposed centre, which should be sufficiently away from the existing university/ies has essentially the potential for removing regional imbalances, if any, and serves the local needs of trained manpower.
- (viii) The University Grants Commission while considering a proposal for the establishment of a university P.G. Centre would keep in view the All India average for postgraduate enrolment as to percentage of undergraduate enrolment in a State. The State having a ratio which is significantly lower than all India average may be given a higher priority for the establishment of such a university postgraduate centre.
- (ix) The State Government while formulating a proposal for the establishment of a university P.G. Centre would not only ensure to take appropriate steps to provide for necessary finances and facilities for its establishment but also for its maintenance and initial development. The University Grants Commission would consider providing assistance to such a centre for its future development only after the following conditions have been fulfilled.
- (a) There should be a minimum three departments of teaching at postgraduate levels to begin with.
  - (b) Every teaching department, in the university postgraduate centre has a provision for a minimum staff of one professor, two readers and an adequate number of lectures alongwith the necessary supporting staff.
  - (c) Adequate machinery for the health, residence and welfare for the students has either been provided or resources are being made available for this purpose to the University Postgraduate Centre.

- (d) The centre has been provided with adequate facilities in respect of buildings, equipment, books, library, hostel and staff quarters whose aggregate value is not less than Rs.100 lakhs, alongwith the developed land or the State Government is prepared to give assurance to the Commission that a minimum amount of Rs.100 lakhs shall be made available to the centre during the initial period of five years for the provision of the above mentioned facilities in an addition to the developed land.
- (x) A University P.G. Centre should be allowed academic as well as administrative autonomy. Such a centre should normally function with a few selected departments, carefully chosen on well defined needs in science and humanities and social sciences subjects, and the courses offered by them should be distinct and not merely duplication or extensive of the courses already offered on the main university campus.

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## ANNEXURE - II

Details of the courses to be started in the proposed centre for postgraduate studies in Nanded:

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### Faculty of Science, M.Sc. (Applied Genetics)

This is a modern branch of study of great practical value and has of late picked up in some Indian Universities. The general approach of this subject at this centre is to provide instruction in basic and applied aspects and build in the students necessary abilities and understanding of the principles rather than a mass of details in a traditionally accepted pattern. The course will have a relevance to regional problems especially in regard to the crop plants and the livestock. The subject will include hard core, soft core courses apart from electives. It would also involve investigations in the form of Projects or Dissertations in lieu of a paper in elective/s. It would have the necessary field facilities and green/glass houses, Animal house etc.

There are 35 colleges in Marathwada providing instruction in Botany, Zoology and Chemistry at the degree level and Post-graduate department of Botany, Zoology, Microbiology and Bio-chemistry which would act as the feeder for teaching and research programmes of the proposed department.

The intake would be 10 students every year.

### M.Sc. (Industrial Chemistry)

This department will give instructions in a composite courses of basic and industrial chemistry and sugar cellulose and oils. At present there are various courses at different centres in India which give instructions only in sugar chemistry, cellulose chemistry or oil chemistry. These centres produce chemists and technologists of a high calibre who are normally employed by big concerns and are not available for small units especially in rural areas for obvious reasons.

Marathwada is an extremely fertile region especially in the valleys of Godavari and its tributaries. It produces, in addition to jowar, wheat etc. cash crops like cotton, varieties of oil seeds and sugar-cane. This region, though industrially underdeveloped is at present developing very fast in the field of industries too. Since Marathwada is not known to have mineral deposits of any kind, its intrinsic industrial development will have to be based upon the raw materials it produces like cotton, oil seeds and sugar-cane. The sugar industry is developing very fast and the industries based on oil and cotton are gradually following suit.

It is now the declared policy of the central Government to have small scale industries not centred at one place but located preferentially in rural areas. The Union Industries Minister the other day has said that the Foreign Companies are producing soaps worth Rs.110/- crores every year. He has also said that this is one of the fields in which small scale industries can prosper in rural areas. There will be number of avenue like this in the field of oil, cotton and sugar industries.

These small industries will have to be based upon the basic agricultural products as also on their waste products produced in this region. Soap, glycerine, oil cake, cattle feed, protein, fibre, chemicals, from the husk and shells, organic acids from oils, chemicals from ethyl alcohol, and esters of cellulose, moulding powders from cellulose ester, liquors from cellulose ester. Cardboard and paper are some of the products which can be produced through small units based in rural areas.

.....2.....



It is with this background that composite course in Industrial Chemistry in oils, sugar and cellulose is proposed to be started at the Nanded Centre. The qualified students will get employment in the sugar, textile and oil industries springing up this region or they themselves can start small units to process the basic agricultural raw materials or their waste products.

In the first year, basic chemistry of oils and carbohydrates will be taught. Appropriate experiments will also be given. In the second year, Industrial Chemistry in Oils, Sugar and Cellulose will be taught. The practical work in the second year will be based upon their industrial aspects.

The intake will be 12 students every year.

#### FACULTY OF SOCIAL SCIENCES

(M.S.W. Course)

##### 1) Job potential:-

The master of social work course is recognised by the Government. These students who pass this course have good scope for employment in the field of social welfare administration, Z.P. Revenue Services, Medical Socialworks, Family Planning Urban Welfare, Industrial Welfare, Youth Welfare, Extension, Education, Rural Welfare and Agriculture Extension work, Correctional Administration, Child Welfare, Municipal Administration Community (Rural and Urban) Development etc.

##### 2) Aim of the Course.

The Master of Social work course is an inter-disciplinary approach to problem solving. Such problems may include those affecting individuals families, groups or society in general. The magnitude of the problems affecting rural society are numerous for which it is essential to acquire skills in solving them. Further more, there are many problems that hinder the economic, social and cultural advancement of the rural Society

To identify problems affecting Society or impediments, to economic and Social development, to seek solutions for removing them and to organize society to help themselves in solving them, requires considerable knowledge of human behaviour, Socio-economic structures and processes of development and change in a given Society.

The aim of the M.S.W. course is, therefore, to provide such insights and skills that will help in problem solving in any field. It also aims at developing leadership which can generate socio-economic growth in our Society through the process of community Development and Extension. The M.S.W. course offered by the Centre is unique in the sense that it specializes in Education for Rural Development and Welfare providing skills and techniques in community Development and Extension.

##### 3) Special Features of the courses:

1. Marathwada, the most backward area of Maharashtra,
2. Social and economic reformers are required in large number in this region to change the attitude of the rural population.
3. It would be the only one Dept. to imbibe the education of socio-economic reformers to encompass 80 lakhs of population covering 6 districts of Marathwada.
4. Main livelihood of this population is agriculture and it is well known as the store of agriculture production for Maharashtra.
5. Agriculture of this region is extensive and no intensive.

6. Intensity of employment would be reduced as the trained students of M.S.W. would not only serve Marathwada, but they would be absorbed in the entire Maharashtra.
7. The set up of the region facilities the theoretical training on account of the brilliant brains in this region and the practical training with the help of Marathwada Agriculture University, Parbhani.

#### Faculty of Management : (M.B.A.)

It is a well known fact that Marathwada is a backward region Both the Central Government and the State Government are therefore devising plans to develop this region. Process of Industrialisation has been started in the region. This has created a demand for manpower with various technical and managerial skill.

The centre has been conducting the M.B.A. course for last six years now. The graduates from the centre have taken up job in the managerial cadre both within the region and outside it. Yet, industries in the region have had to call in for the managerial talents from outside Marathwada, This is a clear indication of the need for such training financial assistance.

Without any grant from the Government, the affiliated colleges have not been able to start such courses. Also selected admissions to the course make for a feeble income by way of fee. Inter-disciplinary character of the course makes heavy demands on variety of specialised teaching staff. This takes the course further away from the scope of the colleges.

With this background in view, it is proposed to institute a separate faculty of Management studies at the Centre. This would ensure all round development of the course. The objectives of the programmes would be two fold:-

- i) To produce specialised personnel in the various management areas e.g. Marketing Production, Finance, Personnel operation Research etc. as required by the industries coming up in the region.
- ii) to impart training for self employment so that the graduates themselves could think of establishing their own units.

Nanded already has an experienced staff to handle the courses comprising of teachers in the post-graduate department of the affiliated colleges and executives from the local industrial units. Besides control, location of Nanded makes it easily accessible to students from all over the region. Part of the training and placement need of the course can also be met by the local industrial units

The course is proposed to be designed to produce professional managers equipped with modern techniques of decision making. Necessary training in the human behaviour would also be included. Above all the courses would try to inculcate the need for the managers to strive for optimal resource utilisation in the interest of the society.

#### Faculty of Humanities:

##### The Department of Fine Arts and Applied Arts:

Marathwada region has fostered the fine arts since ancient times. The sculptures of Ellora and Paintings of Ajantha are world known for their grandeur. This region has had talents in Music, Drama and dance too. There fore for imparting scientific instructions in the sphere of music, drawing and Painting, applied arts (commercial art), dance and drama a Department of Fine Arts and Applied arts is proposed at Nanded Sub-Centre. This will help to bring new talented artists in the field of fine and applied arts. Considering the historical background of Marathwada region, this faculty would flourish and add to the basic values of human culture. It is proposed to start M.A.(Music) and M.A.(Applied Arts - Commercial Arts) degree courses.

### M.Sc. Polymer Chemistry

Polymer industry is fast developing in this country. It may be one largest chemical industry which will absorb the largest number of chemists during the next 35 years. But it is found that the training of chemists in this particular branch is not keeping pace with the rate of development of this industry. It is, therefore, proposed to start post-graduation course in polymer chemistry. The students offering this course will study all the papers as they are doing at present in M.Sc. Part-I. But in the second year of this course they shall have papers and practicals only in Polymer Chemistry.

All the Post-graduate Diploma courses will be housed in one building and it is proposed to have a separate building for Polymer Science.

### P.G. Diploma course in Science:

It is proposed to start post-graduate Diploma courses in Analytical Chemistry, Environmental Chemistry, Pharmaceutical Chemistry and Fine Chemicals, Textile Chemistry, Fermentation on petrochemicals. These Diploma courses will be after graduation in Science and will be of duration of  $1\frac{1}{2}$  years to 2 years. The intake capacity will be 12 students for each of these course.

### Analytical Chemistry:

Analytical Chemists are required in all possible industries like Dairy, Pharmaceutical, Metal, Sugar, etc. Many industries belonging to these categories are coming up in this region during the last decade and an increasing need is felt by all industries for persons who will be useful for quality test control either of raw material or finished goods.

### Environmental Chemistry (Pollution)

This is a new branch of science which is gaining unique importance in the present age when in our country big cities are being highly industrialised and water by the industrial plants. This course, is, therefore, being proposed to train the students in the modern techniques used to prevent pollution due to industrialization.

### Pharmaceutical Chemistry and Fine Chemicals:

A number of pharmaceutical industries are coming up in this region and trained chemists in this branch are required by them in increasing number.

It is therefore, proposed that a course in Pharmaceutical Chemistry and Fine Chemicals will be of great help to this region.

### Textile Chemistry

Marathwada is a region growing cotton on a large scale. There are some textile industries of long standing in this region, and it is visualized that a number of new units established in the Co-operative Sector will be established in this region very soon. These industries will require technicians having basic knowledge of textile chemistry.

### Diploma in Fermentation:

Fermentation industry has not developed in this area and also in our country in general to the extent it should have grown. If Fermentation industry is given a boost and developed on proper lines it will be a great help to the agriculture in general and especially to agricultural waste products. This course will be an endeavour to give a new direction to agricultural based industries.

### Diploma in Petrochemicals:

With the advent of Bombay High, the Government is contemplating to start a very big complex for the development of petrochemicals. It is visualized that by making use of the chemical compounds that will be coming out from this complex a number of new industries small and big will spring up in the state to prepare intermediates and chemicals required for a number of other industries. It is in order to provide chemicals technicians to these industries that post-graduate diploma course is proposed to be started.

ABSTRACT

<u>1) Staff</u>	<u>No. of posts.</u>	<u>Total</u>	<u>U.G.C. Share</u>	<u>State Govt. Share</u>
i) Professors	9	9.90	9.90	...
ii) Readers	20	18.60	18.60	..
iii) Lecturers	25	13.75	13.75	..
iv) Tech. Asstt.	8	4.40	4.40	..
v) Lab. Asstt.	8	1.44	1.44	..
vi) Lab. Atttdt.	16	1.92	1.92	..
vii) Instrumentation Players.	4	2.20	2.20	..
viii) Studio Artists	4	2.20	2.20	
ix) Tablists	4	2.20	2.20	
	Total:	<u>56.61</u>	<u>56.61</u>	
2. Equipments	48	48.40	48.40	..
3. Books & Journals.		16.75	16.75	..
4. Buildings		175.27	87.63	87.64
5. Chemicals		11.75	.	11.75
	Total:	<u>308.78</u>	<u>209.39</u>	<u>99.39</u>

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# Courses provided in the University Teaching Depths and affiliated Colleges of Marathwada University 1982-83.

~~Degrees, Diplomas, Certificates and other Academic Titles~~

( Under Section 53 of the Act )

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On the recommendation of the Senate, under the provisions of Section 22(1)(iv), Section 24(1)(iv) and Section 54 of the Act, the Council shall institute and confer the following Degrees, Diplomas and Certificates at a Convocation to be held in accordance with provisions of Section 53 of the Act :-

(1) In the Faculty of Arts.

1. Bachelor of Arts (B.A.)
2. Bachelor of Arts (B.A. Special)
3. Master of Arts (M.A.)
4. Doctor of Philosophy (Ph.D.)
5. Doctor of Letters (D.Litt.)
6. Advanced Diploma in Russian (A. Dip. Russ.)
7. Diploma in Russian (Dip. Russ.)
8. Certificate of Proficiency in Russian (C. Prof. Russ.)
9. Diploma in Teaching of English (D.T.E.)
10. Diploma in German (Dip. Ger.)
11. Diploma in French.

(2) In the Faculty of Social Sciences:

1. Bachelor of Arts (B.A.)
2. Bachelor of Arts (B.A. Special)
3. Bachelor of Journalism (B.J.)
4. Master of Arts (M.A.)
5. Doctor of Philosophy (Ph.D.)
6. Doctor of Letters (D.Litt.)
7. Diploma in Co-operative Management (D. Co-op Mgmt)
8. Diploma in Tourism (Dip. Tour)
9. Bachelor of Library Science (B.Lib. Sci.)
10. Bachelor of Dramatics (B.D.)

(3) In the Faculty of Science.

1. Bachelor of Science (B.Sc.)
2. Bachelor of Science (B.Sc. Special)
3. Master of Science (M.Sc.)
4. Doctor of Philosophy (Ph.D.)
5. Doctor of Science (D.Sc.)
6. Diploma in Bio-Chemistry (Dip. Bio. Chem.)
7. Diploma in Applied Statistics (Dip. A. Stat.)

(4) In the Faculty of Commerce.

1. Bachelor of Commerce (B.Com.)
2. Master of Commerce (M.Com.)
3. Master of Commerce (M.Com.) (Hons.)
4. Doctor of Philosophy (Ph.D.)
5. Doctor of Letters (D.Litt.)
6. Master of Business Administration (M.B.A.)
7. Diploma in Business Management (D.B.M.)
8. Diploma in Production Management (D.P.M.)
9. Diploma in Labour Management (D.L.M.)
10. Diploma in Marketing Management (D.M.M.)
11. Diploma in Office Administration (D.O.A.)

5. In the Faculty of Medicine.

1. Bachelor of Medicine and Bachelor of Surgery (M.B.B.S.)
2. Doctor of Medicine (M.D.)
3. Master of Surgery (M.S.)
4. Doctor of Philosophy (Ph.D.)
5. Bachelor of Nursing (B.Nurs.)
6. Master of Science (M.Sc.)
7. Doctor of Science (D.Sc.)
8. Diploma in Medical Laboratory Technology (D.M.L.T.)
9. Diploma in Ophthalmologic Medicine and Surgery (D.O.M.S.)
10. Diploma in Child Health (D.C.H.)
11. Diploma in Anaesthesiology (D.A.)
12. Diploma in Gynecology and Obstetrics (D.G.O.)
13. Diploma in Public Health (D.P.H.)
14. Diploma in Medical Radiology Diagnostics (D.M.R.D.)
15. Diploma in Clinical Pathology (D.C.P.)

(6) In the Faculty of Engineering.

1. Bachelor of Engineering (B.E.)
2. Master of Engineering (M.E.)
3. Doctor of Science (D.Sc.)

(7) In the Faculty of Law.

1. Bachelor of Laws (LL.B. General)
2. Bachelor of Laws (LL.B.)
3. Master of Laws (LL.M.)
4. Doctor of Philosophy (Ph.D.)
5. Doctor of Laws (L.L. D.)
6. Diploma in Labour Laws (D.L.L.)
7. Diploma in Taxation Laws (D.T.L.)

(8) In the Faculty of Education.

1. Bachelor of Education (B.Ed.)
2. Master of Education (M.Ed.)
3. Doctor of Philosophy (Ph.D.)
4. Bachelor of Sports and Recreation (B.S.R.)
5. Bachelor of Physical Education (B.P.Ed.)
6. Master of Physical Education (M.P.Ed.)
7. Diploma in Education Evaluation and Programmed Learning (D.E.E.L.)
8. Diploma in Education Research and Statistical Methods (D.E.R.S.M.)
9. Diploma in Pre-Primary and Primary Education (D.P.P.E.)
10. Diploma in Educational Administration and Supervision (D.E.A.S.)
11. Diploma in Work Experience (D.W.E.)
12. Diploma in Higher Education (D.H.E.)
13. Diploma in Programme Learning (D.P.L.)

## ANNEXURE-IV

Statistics of constituent affiliated colleges under the University for last five years.

Item	Years					R 36
	1976-77	1977-78	1978-79	1979-80	1980-81	
1) No. of affiliated colleges.	63	84	84	87	92	
a) B.A., B.Sc., B.Com.	66	67	67	68	73	
b) M.A., M.Sc., M.Com.	20	18	20	23	36	
2) Enrolment in affiliated colleges (University teaching Departments.						
a) affiliated colleges						
i) B.A.	16343	12328	4256	6349	6445	
ii) B.Sc.	3092	2670	2117	2436	3320	
iii) B.Com.	6992	6404	6065	6522	8173	
iv) M.A.	2158	1576	2314	2563	3723	
v) M.Sc.	264	463	258	697	605	
vi) M.Com.	01162	964	1396	1486	1767	
b) University teaching Departments						
i) B.A., B.Sc., B.Com.	-	-	-	-	-	
ii) M.A.	908	996	600	629	473	
iii) M.Sc.,	387	323	331	361	365	
iv) M.Com.	85	77	93	84	90	

8. Existing Post-graduate facilities under the University  
for the last five years.

Institutions and subjects.		Years					Remarks
		1977-78	1978-79	1979-80	1980-81	1981-82	
<b>1) UNIVERSITY BELONGING DEPARTMENTS</b>							
1) Department of Marathi	E	55	61	67	49	36	
	T	7	7	6	7	7	
	O	73%	76%	97%	87%	95%	
	RO	--	1	--	10	4	
2) Dept. of English	E	107	95	106	102	80	
	T	9	9	9	8	8	
	O	37%	77%	83%	83%	72%	
	RO	1	2	--	5	3	
3) Dept. of Hindi.	E	69	75	83	60	55	
	T	6	6	6	6	6	
	O	76%	62%	96%	84%	88%	
	RO	1	--	3	3	2	
4) Dept. of Foreign Languages	E	74	26	125	141	174	
	T	2	3	6	6	6	
	O	60%	88%	97%	85%	98%	
	RO	--	--	--	--	--	
5) Dept. of Economics	E	114	118	102	112	134	
	T	8	8	8	8	8	
	O	18%	26%	74%	70%	53%	
	RO	1	1	1	3	--	
6) Dept. of History & Ancient Indian Culture.	E	72	70	70	73	30	
	T	4	4	4	6	6	
	O	66%	70%	95%	80%	77%	
	RO	--	4	--	1	--	
7) Dept. of Pol. Sc. & Pub. Adm.	E	120	111	128	104	70	
	T	7	7	7	7	7	
	O	77%	62%	65%	86%	75%	
	RO	1	--	--	4	2	
8) Dept. of Sociology.	E	133	106	103	98	91	
	T	6	6	6	6	5	
	O	86%	87%	97%	96%	98%	
	RO	1	--	--	3	--	
9) Dept. of Dramatics.	E	16	32	19	71	60	
	T	Centri- tatory (7)	Centri- tatory (7)	Centri- tatory (7)	5	5	
	O	--	100%	100%	94%	97%	
	RO	--	--	--	--	--	



(1)	(2)	(3)	(3)	(4)	(5)	(6)	(7)
	Dept. of Journalism	E T O RO	20 Contributory (6)	20 Contributory (6) 95%	36 2 100%	34 2 100%	75 2 96%
11)	Dept. of Commerce M.Com., M.B.A.	E T O RO	116 48% & 89%	116 5 48%	134 6 79%	135 7 89%	185 7 77%
12)	Dept. of Library Science.	E T O RO	41 Contributory 61%	40 Contributory 72%	39 Contributory 70%	41 Contributory 81%	41 Contributory 58%
13)	Dept. of Physics.	E T O RO	52 10 85%	41 10 65%	41 11 97%	45 11 90%	56 12 87%
14)	Dept. of Chemistry	E T O RO	99 15 97%	96 17 85%	105 18 93%	106 16 99%	111 15 98%
15)	Dept. of Botany	E T O RO	48 10 75%	38 11 70%	45 12 94%	40 12 93%	34 12 100%
16)	Dept. of Zoology.	E T O RO	68 13 93%	50 14 92%	63 16 95%	72 21 100%	85 22 100%
17)	Dept. of Mathematics & Statistics.	E T O RO	84 13 25%	84 13 50%	98 13 67%	102 13 66%	70 12 80%

2. Associated Colleges.

Name of the College	Years	Years				
		1977-78	1978-79	1979-80	1980-81	1981-82
2.		3.	4.	5.	6.	7.
1. Dr. Babasaheb Ambedkar College of Arts and Commerce, Aurangabad.	E	256	121	272	235	350
	T	30	19	31	31	31
	O	40.46%	48%	79%	88%	77%
2. Milind College of Arts, Aurangabad.	E	480	383	347	361	361
	T	25	25	28	31	31
	O	Nil	27%	94%	88%	85%
	RO	62.50%	65%	17%	96%	98%
3. S.B. College of Arts and Commerce, Aurangabad.	E	132	188	282	286	285
	T	34	36	48	46	48
	O	40.46%	48%	79%	78%	77%
4. Vivekanand Arts & Sarfar Dalipsingh Commerce College, Aurangabad.	E	---	---	---	---	267
	T	22	22	24	24	23
5. Institute of Science, Aurangabad.	O					53%
	RO					
6. IES, RGB Arts, SEL Commerce & R. Benzonji Science College, Jalna.	E	24	29	31	28	24
	T	10	10	13	13	10
	O	---	100%	100%	100%	16.66%
		25%	26%	24%	20%	25%
	RO	16.16%	100%	100%	100%	---
7. College of Social Works, Aurangabad.	E	29	31	31	36	43
	T	45	45	51	52	53
	O	80%	65%	97%	90%	85%
8. M.S.W.	RO					
	E					79
	T					7
9. College of Social Works, Aurangabad.	O					80%
	RO					

		3.	4.	5.	6.	7.
8. Abhinav Arts & Science College, Bel.	E	291	88	68	52	52
	T	37	45	42	44	46
	O	76.31%	62%	96%	84%	87%
	RO	-	-	-	-	-
9. Vaidyanath College of Arts, Science & Commerce, Parli- Wajinath.	E	---	---	---	---	41
	T	37	37	40	40	41
	O					77%
	RO					
10. Yogeshwari Mahavi- dyalana, Ambajogai, Dist. Beed.	E	---	---	---	25	41
	T	20	23	23	20	20
	O	4.25%	6%	67%	66%	80%
	OR					
11. Swami Ramanand Tirth Mahavidyalaya, Ambajogai, Dist. Beed.	E	304	356	402	411	456
	T	33	20	26	28	30
	O	40.46%	48%	79%	88%	77%
		62.50%	65%	17%	86%	75%
		76.71%	62%	96%	84%	78%
	RO					
12. Sauri Shivaji College, Parbhani.	E	---	---	129	255	163
	T	49	52	41	42	44
	O			79%	88%	77%
	OR					
13. People's College, Nanded.	E	823	626	651	773	685
	T	49	33	39	59	59
	O	73.80%	76%	97%	87%	95%
		76.71%	62%	96%	84%	88%
		50.37%	37%	83%	82%	72%
		62.50%	65%	17%	86%	75%
		40.46%	48%	74%	88%	77%
RO						
14. Meshwant Mahavidyalaya, Nanded.	E	267	275	279	217	337
	T	53	55	59	56	56
	O	66.50%	70%	95%	80%	77%
		18%	26%	74%	70%	53%
		75.30%	65%	93%	99%	98%
		93.55%	92%	95%	100%	100%
	OR					

		3.	4.	5.	6.	7.
Science College Nanded.	E	114	59	60	71	42
	T	29	29	33	33	33
1. M.Sc. Botany.	O	93.55%	79%	94%	98%	100%
2. M.Sc. Maths.	O	4.25%	6%	67%	66%	80%
	OR					
Shri Shivaji College of Arts, Science and Commerce, Randhar. Dist. Nanded.	E	34	24	41	41	
	T	25	24	29	27	27
1. M.A. History.	O	66.50%	70%	95%	80%	77%
	OR					
7. Ramkrishna Paramhansa Mahavidyalaya, Osmanabad.	E	---	---	---	---	64
	T	21	25	29	28	29
1. M.A. Economics	O					53%
	OR					
Dayanand Commerce College, Latur.	E	101	149	162	152	166
	T	12	12	13	13	13
1. M.Com.	O	40.46%	48%	79%	95%	77%
	RO					
9. Dayanand Arts College, Latur.	E	252	266	286	230	169
	T	25	25	27	27	27
1. M.A. Marathi	O	73.80%	76%	97%	87%	95%
2. M.A. Hindi	O	76.71%	62%	96%	84%	85%
3. M.A. English	O	37%	37%	95%	82%	72%
	RO					
Shri Mahatma Baswe- swar Mahavidyalaya, Latur.	E	218	236	270	143	203
	T	44	53	66	66	66
1. M.Sc. Mathematics	O	25%	6%	67%	66%	80%
2. M.A. History.	O	66.50%	50%	95%	80%	77%
	OR					
Najarshi Shahu Mahavidyalaya, Latur.	E	---	---	---	156	76
	T	25	25	25	32	36
1. M.A. English	O				82%	72%
	OR					

2.		3.	4.	5.	6.	7.
Maharashtra Udaya- giri Mahavidyalaya, Gir.	E	161	142	169	133	157
	T	49	52	52	52	51
	O	62.50%	65%	17%	70%	75%
	OR	76.71%	62%	96%	84%	88%
Mahatma Gandhi Mahavidyalaya, Ahmedpur. Dist. Latur.	E	55	111	142	81	
	T	39	39	39	42	39
	O	18%	26%	74%	70%	18%
	OR					
Degloor College, Degloor.	E	6	7			
	T	30	36	46	35	37
	O	76%	76%			
	OR					
1. M.A. Marathi.	O					
	OR					

M A R T H W N D A U N I V E R S I T Y

ANNEXURE VI

Statement showing the details of enrolment and number of teachers in the  
University Teaching Department and Affiliated colleges - 1982-83.

1. No.	2. District	3. Number of colleges teaching post-graduate courses	4. Number of colleges			5. Number of teacher		6. Number of student's	
			7. Professional Colleges	8. Non-Professional Colleges.	9. Total	10. University Teaching Deptts.	11. Affiliated Colleges	12. University teaching Deptts.	13. Affiliated Colleges
1.	Aurangabad	18+	8	23	31	147	869	1881	11437
		9*							
		2@							
2.	Jalna	1*	1	2	3	-	72	-	1020
3.	Beed	5*	3	12	15	-	418	-	3994
4.	Parbhani	1@ 3*	1	6	7	-	192	-	2546
5.	Nanded	7*	4	12	16	-	435	-	6753
6.	Dsmnabad	3*	1	6	7	-	148	-	1861
7.	Latur	8*	1	12	13	-	365	-	4696
Total		58	19	73	92	147	2499	1881	32215

+ University teaching departments including Nanded centre.

@ Colleges conducting postgraduate courses in education (M.Ed. 21, NP.Ed.20)

\* Colleges conducting postgraduate courses (MA, M.Sc., M.Com, LL.M.)

Includes postgraduate students in affiliated colleges.

(MA-2155, M.Sc. 194, M.Com. 2425, LL.M. 115

DBM 529, DMM 149, DLM 142, DTL 979

DLL 309, DTF 45, ADAO 120)

MARATHWADA UNIVERSITY

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List of Colleges in Nanded District.

1. Peoples College, Nanded.
2. Yeshwant Mahavidyalaya, Nanded.
3. Science College, Nanded.
4. Netaji Subhash Chandra Bose, Arts, Science and Commerce College, Nanded.
5. Pratibha Niketan Mahavidyalaya, Nanded.
6. Government College of Education, Nanded.
7. Law College, Nanded.
8. Government Ayurved College, Nanded.
9. Guru Govind Singhji Engineering College, Nanded.
10. Chita Kala Mahavidyalaya, Nanded.
11. Degloor College, Degloor.
12. Shivaji Arts, Science and Commerce College, Kandhar.
13. Lal Bahadur Shastri Mahavidyalaya, Bharmabad.
14. Mahatma Jyotibe Phule Arts and Commerce College, Mukhad.
15. Shri Baliram Patil College, Kinwat.
16. Panuara Mahavidyalaya, Arjapur.

Statement showing the detailed information regarding the recognised teacher for P.G. Teachers in the Colleges of Nanded District.

.....

Sr. Name of the College		Teaching staff recognised for P.G. Teaching			
		Subject	No. of teachers	No. of teachers with research qualification	Research work No. of Books/Research paper Articals Ph.D. published.
1.	2.	3	4	5	6
1.	Yashwant Mahavidyalaya Nanded.	English	2	1(M.Phil)	-
		Marathi	1	-	-
		Hindi	1	-	-
		Economics	4	-	-
		Sociology	1	-	-
		Public Admn.	1	-	-
		Zoology	6	6	34
		Botany	2	1	5
		Chemistry	4	3	46
		Mathematics	1	1	-
		History	2	1	6
		Commerce	4	1	1
2.	People's College, Nanded	Commerce	1	-	-
		Hindi	3	3	-
		English	2	-	-
		History	-	-	-
		Economics	1	-	-
3.	Science College, Nanded	Botany	7	4	-
		Chemistry	3	1	-
		Mathematics	7	2	-
		Physics	1	-	-
		Zoology	1	1	-
4.	Netaji Subhash Chandra Bose College, Nanded.	Chemistry	1	1	3
		Marathi	1	-	-
		Botany	1	1	14
5.	Pratibha Niketan Mahavidyalaya, Nanded.	English	1	1	-
		Pub. Admn.	1	-	-
		Managerial Economics	1	-	-
		Mod. Bio.	1	1	-
		Drug. Chemi.	1	-	-
		Sociology	2	-	-
		Physics	1	-	-
			<u>66</u>	<u>29</u>	<u>109</u>



CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

...

Meeting:

Dated: 8th February, 1984

Item No. 2.05

To consider the report of the Sixth Plan Visiting Committee to Calcutta University.

...

The sub-committee appointed by the Commission to consider the VI Plan report of Visiting Committees considered the report of the 6th Plan Visiting Committee to Calcutta University at its meeting held on 20th January, 1984. It was observed that the Visiting Committee had recommended Rs. 127.45 lakhs against the allocation of Rs. 100.00 lakhs, and desired that the report of the Visiting Committee may be placed before the Commission for consideration. A copy of the report is enclosed as Annexure-I.

The financial implications recommended by the Committee are as follows:-

1. Basic grants and an advance grant already sanctioned.	Rs. 31.15 lakhs
2. Buildings	Rs. 31.10 lakhs
3. Equipment	Rs. 29.96 lakhs
4. Books & Journals	Rs. 13.50 lakhs
5. Staff	Rs. 20.49 lakhs
6. Miscellaneous	<u>Rs. 1.25 lakhs</u>
	Rs. 127.45 lakhs

The allocation for Calcutta University was 100 lakhs.

At the meeting of the sub-committee it was pointed out that a special grant of Rs. 100.00 lakhs was approved by the Commission for establishing a second campus in Salt Lake area in Calcutta and a grant of Rs. 46.15 lakhs was paid to the university in 1978 for this purpose. It was noted that the university has not been able to utilize the grant for which it was sanctioned. The Audit has also made some observations on this account. The university was requested to inform the Commission about the whole position. The university in its

letter dated 31.10.1983 (copy enclosed -Annexure-II) has informed that at the request of the Chancellor, Calcutta University (Governor of West Bengal), 15 acres of land have been agreed to be released for the proposed National Institute which the department of Science and Technology of the Union Government wishes to establish in Calcutta to commemorate the memory of late Professor S.N.Bose in the field of Theoretical and Advanced Science. The remaining 4.07 acres of land is to be retained by the university for building up a housing complex. As the grant was meant for establishing a second campus and not for building a housing complex, the Calcutta University has been requested to refund the grant alongwith interest earned on it. The matter is put up for the consideration of the Commission about the likely steps to be taken in ~~this~~ regard and whether the University may be requested to adjust Rs.31.10 lakhs being recommended for the building component in the Vith Plan period.

The matter is placed before the Commission for consideration.

EO(E.I)/DS(E)

F.2-1/80(E.I.)

UNIVERSITY GRANTS COMMISSION

Report of the Visiting Committee  
Constituted by the University Grants  
Commission to assess the needs and  
requirements of the Calcutta Univer-  
sity for the Sixth Plan Period.

.....

The University Grants Commission constituted a Committee consisting of the following Members to assess the needs and requirements of the Calcutta University for the Sixth Five Year Plan period:-

- |     |  |          |
|-----|--|----------|
| .   | Prof. V.C. Ramkrishnan,<br>Department of Bio-Chemistry,<br>M.S. University of Baroda,<br>Baroda.                   | Convenor |
| *2. | Dr. T.N. Kushoo,<br>Department of Environment,<br>Govt. of India,<br>Bikaner House,<br>Shahjehan Road, New Delhi.  | Member   |
| *3. | Dr. Hari Narain,<br>Director,<br>Physical Research Institute,<br>Hyderabad.  | "        |
| 4.  | Prof. K.C. Joshi,<br>Department of Chemistry,<br>Rajasthan University,<br>Jaipur.                                  | "        |
| 5.  | Prof. C.L. Anand,<br>Department of Education,<br>NEHU, Shillong.   | "        |
| *6. | Prof. Gautam Mathur,<br>Director General,<br>Institute of Applied Manpower<br>Research,<br>I.P. Estate, New Delhi. | "        |
| 7.  | Prof. Satchidananda Murthy,<br>Department of Philosophy,<br>Andhra University,<br>Waltair.                         | "        |
| 8.  | Prof. J. Birje Patil,<br>Department of English,<br>M.S. University of Baroda,<br>Baroda.                           | "        |

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9. Prof. Gyan Mohan,  
Department of Physics,  
I.I.T. Kanpur. Member
- \*10. Prof. G. Ram Reddy,  
Vice-Chancellor,  
Andhra Pradesh Open University,  
Magarjuna Nagar. "
11. Prof. K.G. Adiyadi,  
Department of Zoology,  
Calicut University,  
Calicut. "
- \*12. Prof. G.C. Pandey,  
Department of History,  
Allahabad University,  
Allahabad. "
13. Prof. Kirpal Singh Chhabra,  
Department of Law,  
Guru Nanak Dev University,  
Amritsar. "
14. Shri S. Ghosh,  
Deputy Secretary,  
Education Department (West Bengal),  
Calcutta. Representative of  
the State Govt.
15. Shri R.P. Gangurde,  
Deputy Secretary,  
UGC, New Delhi. Member-Secretary
16. Dr. L.S. Mehra,  
Education Officer,  
UGC, New Delhi.

2. The Committee visited the University from 25th to 28th April, 1983. It had preliminary discussions with the Vice-Chancellor, Dean of faculties and officers of the University on 25th April, 1983. Thereafter, the members of the Committee discussed the Vth Plan proposals of the various Departments with the Heads of the Departments and the staff of the concerned Departments. The Committee met the Teachers' Association, Representatives of Students' Union, Representatives of Research Scholars and Representatives of Karamcharies' Union and Officers' Association. The Committee also visited the buildings constructed with the assistance of the Commission during the Vth and earlier Plans. In the final round of discussions with the Vice-Chancellor, the Committee had an overall picture of the continuing schemes and the priorities indicated by the University in its Vth Plan proposals. The Report of the Committee follows.

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\* could not attend the Committee.

3. Basic facts and figures:

3.1 The Calcutta University was established in 1857 as examining university. It was in 1914 that the university had set up postgraduate teaching departments for the Humanities, Social Sciences and Sciences. It is now a teaching and affiliating University with its jurisdiction extending over the State of West Bengal (excluding the territorial areas of Burdwan, Jadavpur, Kalyani, North Bengal & Visva Bharati) and Tripura.

3.2 The Calcutta University is spread over different parts of city having 9 Campuses and postgraduate teaching is imparted in these Campuses. The Calcutta University's different Departments are located in different areas of the City- the old Science College at 92, A.P.C.Road, the new Science College at 35, Ballygunge Circular Road, the Economics Department at 56A, B.T. Road, Institute of Basic Medical Science at 244, Acharyya J.C. Bose Road, Calcutta-20, the University Press at 48, Hazra Road, Calcutta-19.

3.3 The total enrolment of the regular students in the postgraduate departments of the university during the year 1982-83 is as follows:

Arts	3,096
Science	1,259
Commerce	1,627

The number of students involved in research are as follows:

Arts	134
Science	256
Commerce & others	15

The position regarding academic staff is as follows: Professors-85, Readers-164 & Lecturers-511. In addition to these, there are 225 members of supporting technical staff, 431 members of non-technical staff, 885 members of University administrative staff and 892 in class IV staff.

3.4 The University provides hostel accommodation for 1,418 students in 16 hostels out of which 11 hostels are for men and 5 for women. There are only 32 flats provided by the University for the teachers.

3.5 The University has provided 10 storeyed building with a built up area of 84,000 sq.ft. for the Central Library.

3.6 The facilities like canteen, medical centre, NRSC, Gymnasium facilities for indoor games, Guest House etc. are available in the University.

3.7 In 1982-83 the University has the following faculties, Arts, Science, Agriculture, Commerce, Education, Engineering, Fine Arts and Music, Journalism, Law, Medicine, Technology & Veterinary Sciences. There are 7 university Colleges namely- College of Arts, College of Commerce, College of Law, College of Agriculture, College of Technology, College of Science and College of Medicine.

3.8 Affiliated College:

The University has at present more than 200 Colleges.

More facts and figures are given in Annexure-I.

4. Progress of Vth Plan Schemes:

The Commission during 5th Plan assisted Calcutta University towards the establishment of New departments of Sociology, Foods and Nutrition, Home Science. Besides, the Commission also provided assistance for the construction of extension of 2nd and 3rd floor of Eastern Science Block, Extension of Science building at 92, A.P.C. Road, construction of GreenHouse, a four storied building at Hazara Road for Humanities Departments, Staff Quarters, a building in the university Campus for providing common facilities, workshop shed, furnishing the Guest House and for the improvement of Hostel facilities and a Multi-storeyed building at S.P. Mukherjee Road. Calcutta University could not undertake the construction work on the Multi-Storeyed building at S.P. Mukherjee Road due to digging of the site for Metro Railway. The building projects undertaken by the University could not be completed during 5th plan period.

The Commission also provided a grant of Rs. 46,45,000/- to Calcutta University for acquiring land in the Salt Lake area for a second Campus. The University has, however, changed its mind and now decided to have a compact campus at Alipore Jail Site.

Assistance was also provided for conducting post M.Sc programme at S.N. Bose Institute of Physical Sciences.

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The institute could not run smoothly due to internal squabbles in the University. An assistance of Rs.13.20 lakhs was provided for the development of computer Centre, purchase of an ultracentrifuge for the department of Bio-physics was approved.

Assistance was also provided for the operation of Electrone Microscope which was purchased during IVth plan period.

The overall progress during the Vth plan has not been satisfactory, as the University could spend Rs. 2.42 crore out of Rs. 3.42 crore approved by the Commission.

A statement giving details of the schemes approved and grants released upto 31st March, 1980 is enclosed as Annexure-II.

5. Sixth Plan proposals:

5.1 The University sent its sixth Plan proposals amounting to Rs. 707.03 against the UCC allocation of Rs. 100 lakhs. The University while preparing plan for Sixth Plan development felt that the amount of Rs. 100 lakhs allocated to Calcutta University is insufficient in view of large number of Departments and multi-purpose research activities. The summary of the proposals is as follows:

a) <u>Humanities &amp; Sciences</u>	<u>Recurring</u>	<u>Non-recurring</u>	<u>Total</u>
	(Rs. in lakhs)		
1) Books & Journals		68.42	68.42
2) Equipment		80.00	80.00
3) Building		150.00	150.00
4) Staff: (P-13; R-36; L-62; TP-24)	130.35 (Appx.)		130.35
5) Fellowships	25.20		25.20
	<u>155.55</u>	<u>298.42</u>	<u>453.97</u>
b) <u>Technology</u>			
1) Staff: (P-7; R-10; L-11; TP-6)	34.85 (Appx.)		34.85
2) Equipment		46.00	46.00
3) Books & Journals		10.00	10.00
	<u>34.85</u>	<u>56.00</u>	<u>90.85</u>

c) Proposals for two New Departments:

(Deptt. of Microbiology, Genetics & Biophysics & Deptt. of Computer Science and Control Engineering)

1) Staff: (P-5;R-10;L-14;TP-6)	34.85(Appx)		34.85
2) Equipment		12.00	12.00
3) Books & Journals		1.50	1.50
	<u>34.85</u>	<u>13.50</u>	<u>48.35</u>
d) University Service & Instrumentation Centre 'USIC'			49.46
a) <u>Miscellaneous Schemes:</u>			
1) Printing Press Facilities			20.00
2) Transport for Inter-campus communication			3.00
3) Excavation & Exploration for the Deptt. of Archaeology.			0.50
4) Animal House			2.00
5) Correspondence Course			9.00
6) New proposal for Introduction of Refresher Course for College Teachers and Child Guidance Clinic	0.97 <u>2.98</u>		3.95
7) Centre for the Study of Regional & Local Politics			3.00
8) School for Urban Studies & Research			14.45
9) Centre for South East Asian Studies			8.50
			<u>64.40</u>

Grand Total (a+b+c+d+e) = Rs. 707.03 lakhs

5.2 The justification given by the University for its Sixth Plan proposal is as follows:

A. FACULTY REQUIREMENTS:

(i) Humanities and Sciences:

The provisional allocation suggested by the Planning and Development Committee is mainly related to qualitative improvement of teaching and research. This can only be done through proper man power planning, providing useful course, materials and making available necessary equipments. While preparing the plan for different departments the minimum needs have been kept in view and even then the amount (Rs. 278.17) lakhs exceeded the Sixth Plan allocation due to the large number of Departments.

(ii) Technology:

Though the UGC has not earmarked any amount for the development of the technological Departments, the planning and Development Committee has prepared the plan taking into consideration the limited resource position and bare necessities of the three technological Departments have been pin-pointed Rs. 90.85 lakhs will be required for consolidation and improvement of the existing facilities in these Departments.

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B. Proposals to create New Departments:

The Planning and Development Committee has decided to open two New departments, namely; (a) Microbiology, Genetics & Bio-physics and (b) Computer Science and Control Engineering for the purpose of Inter-disciplinary integration of the newly emerging areas in the Science and Technology Faculty respectively. Total amount that will be required at the initial stage is Rs. 48.35 lakhs.

C. Special Needs:

i) Space:

Inadequate space is the most serious problem for most of the Department of this University. The planning and development Committee has decided to construct a floor area of 1.5 lakhs sq.ft through vertical extension of the existing buildings in the different campus of the University. For this Rs. 1.5 crore may be sanctioned. This is in addition to the UGC's commitment for meeting the construction cost of the second campus in the Salt Lake area of Calcutta. The University has decided to start correspondence Courses from the next session and for this Rs. 9.00 lakhs will be required for furniture and renovation of our existing buildings.

ii) Printing Facilities:

The University printing Press in addition to other printing work has to print examination materials for three hundred and fifty examinations which are conducted throughout the year. The University Press is unable to cope with the tremendous pressure of work because of its old and dilapidated condition of the machines. The University, therefore, urgently needs new printing machines and replacement of worn out components of the existing machines for which an amount of Rs. 20.00 lakhs may be provided.

iii) Transport for Inter-Campus Communication:

The Calcutta University's different Departments are located in different areas of the City the old Science College at 92, A.P.C. Road, the New Science College at 35, Ballygunge Circular Road, the Economics Department at 56A, B.T. Road, Institute of Basic Medical Science at 244, Acharyya J.C. Bose Road, Calcutta-20, the University Press at 48, Hazara Road, Calcutta -19 and the proposed second campus at the Salt Lake of the City. This has created a problem of communication with the

main administrative buildings at the College Street. The P.D.C. therefore has decided to request the Commission to sanction Rs. 3.00 lakhs to purchase vehicles for Inter-campus communication.

D. Special Programmes for Research and Development:

- (i) For the students offering subjects like Zoology, Bio-Chemistry, Psychology and Home Science the UGC sanctioned Rs. 1.00 lakhs during the Fifth Plan period for establishment of Animal House for experimentation and study of animal behaviour. But due to certain difficulties the programme could not be implemented. The University wants to take up the project during the Sixth Plan period and for this Rs. 200 lakhs will be necessary.
- (ii) The Education Department of the University has decided to run refresher course for College teachers and a Child Guidance Clinic. This type of action oriented programmes will help interaction with other levels of educational system. The total financial requirement for these two projects will be Rs. 3.17 lakhs. p.a.
- (iii) The department of Political Science proposes to establish Centre for the study of Regional and Local Politics within the department. The Planning and Development Committee of the University has accepted the proposal to encourage research which has got a social relevance.
- (iv) The Sociology Department has forwarded a scheme to set up a School of Urban Studies and Researches. This proposal may be considered for necessary financial aid. Such research activities will be useful for solving the local problems.
- (v) University service and Instrumentation Centre.
- (vi) South East Asian Studies.
- (vii) During the Fifth Plan period 50 Junior Research Fellowship were allotted to the University. But this is inadequate for development of research facilities in the different departments of the University. During the Sixth Plan period at least 100 JRFs may be allotted. For this Rs. 25.20 lakhs will be necessary.

### 5.3 Preliminary discussions with the Vice-Chancellor.

The members of the Visiting Committee met the Vice-Chancellor, pro-Vice-Chancellor and the Deans of the Faculty.

The Vice-Chancellor informed the Committee that the State Government has given 80 acres of land near Alipore Jails area to develop a single University Campus so that all faculties can be built at one place. Once the buildings come up in the new Campus the existing buildings in different parts of the city can be sold for a great price and the amount received will be more than what will be spent on new buildings. The amount spent on acquisition of land at Salt Lake Campus will also be adjusted. The Vice-Chancellor showed the major plan of the New Campus. The University has also got plans to build students hostels and arrange regular bus service between the hostels and the Campus.

The Vice-Chancellor felt that the amount of one crore allotted for Vith Plan is just 1/7th of what the University has asked for and this would not be sufficient to start new departments like Molecular Biology, Biophysics, Marine Fisheries as well as for additional support to small departments which are doing good work but not pushing enough to publicise their work and get special assistance from other programmes of UGC or other funding agencies. He also wanted a certain per centage of equipment grant to be earmarked for spares and repairs. He further pointed out that as the cost of equipment goes on increasing, any increase in cost of equipment should be borne by the UGC as they normally do in the case of increase in cost of buildings.

He requested the Committee to visit Law Faculty which is now run mainly by part time teachers and would like to be properly staffed with full time teachers. He further wanted, the Committee to spend sufficient time in each department and identify the potentialities of individual as well as group of teachers to develop new lines of research, innovations in teaching etc.

The members wanted from him whether they have to visit S.N. Bose Institute which is likely to become an autonomous Institute.

The Vice-Chancellor informed the Committee that a Committee is appointed to explore the possibility and as the University is not very keen in running the Institution, there is no need for the committee to consider the institute for grant in aid at the present juncture. He also felt that there is no need now to visit

Basic

~~Base~~ Institute of Medical Sciences as they are also now thinking of reorganising it. Regarding Marine Fisheries department the Vice-Chancellor has no objection in grant being allotted only for ~~that~~ remaining two years of the plan so that the remaining grant can be taken over for VIIth plan.

The members told the Vice-Chancellor that due to economical conditions the UGC wants them to recommend proposals for one crore only but they would try to identify department which can be considered for ~~college promotion programme, Department Development Programme, Special Assistance Programme,~~ as well as special programmes of DST etc. so that they may be encouraged to apply for these programmes. Regarding grant for spares and repairs the Committee suggested that the University could ask money for these items under Central Instrumentation facilities programme of the UGC. The members felt that vertical buildings can be built in the new Campus so that all faculties, teachers staff club, Canteen, Health Centre, Library, Staff quarters etc. can be in the same Campus. If the university wants to build a students hostel in another campus, that campus should accommodate all students coming from outside Calcutta and should have canteen Gymnasium, sports facilities and there should be regular bus service between the two campuses.

Since the existing buildings and the land in Salt Lake Area will fetch a high price the University can request the State Govt. to loan money first to build students' hostel and staff quarters and construct academic buildings in phases so that the existing buildings can be sold and the loan repaid.

The members thanked the Vice-Chancellor and promise to meet him again after visiting the faculties, and Central facilities.

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5.4 Discussions/with Education Minister of West Bengal Prof. Nirmal Bose.

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The members of the Visiting Committee met the Minister for Higher Education and spent an hour with him. The education Secretary, Deputy Secretary of Education Department and Director of Public Instruction also attended this meeting.

The Committee gave a gist of its discussion with the Vice-Chancellor on the first day. The members of the Committee expressed their appreciation regarding the interest the Government is taking to give the Alipore

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Jail Area to the University so that a single Campus can be built and all departments can be moved to the new Campus. The Committee suggested that vertical structures can be built in the new campus not only to accommodate all faculties, General facilities like Library, Computer Centre, Health Centre etc. but also to provide staff quarters and students hostels. The Committee felt that a master plan can be prepared providing all facilities including canteen, shopping and play centres and a beginning can be made by starting the buildings for new departments such as marine biology for which the building grant will be provided by the University Grants Commission

The Committee suggested that the Govt. can loan the money needed to shift departments from one building in the city so that once these departments are shifted that building can be sold and one more structure can be built to shift departments from the next building. This way with the help of initial loan from his Govt. the new campus can be built by going on selling existing buildings which will fetch a high price.

The Minister appreciated the idea and agreed with the committee that hostel, staff quarters, faculties and all other facilities should be situated at the same campus

The Committee informed the minister that it will recommend grants only for books and back volumes of journals and copying machine but the Government should give recurring grant for subscribing journals required by the departments which will come to Rs. 2 lakhs per year. The Minister expressed his willingness to consider this proposal favourably.

The Committee mentioned to the Minister that it will be nice if the Govt. forms a committee consisting of Vic-Chancellor and Government nominee to process the proposals of different affiliated colleges to the UGC for development of undergraduate or postgraduate colleges so that the application can be quickly forwarded to the UGC for their consideration. This would help colleges to get benefit under these programmes within the next two years of the plan. In this connection, it was mentioned that UGC gives basic grants on 100% basis and there is no commitment of the State Govt. regarding basic grant, application for basic grants can be processed and sent as early as possible.

When the Minister was told that about one crore is allotted for Vith Plan he raised the question why the State Universities are allotted an amount different from that of Central Universities even though many State Universities have developed atleast as good as Central Universities

if not better. He felt that all Universities should be treated alike and money allotted according to their performance and developmental needs. He said when 3.4 crores were given in Vth plan how can one crore be given for VIth plan when cost of all commodities have increased at least by 100%. The members agreed with the Minister and requested the UGC to consider genuine requirements of each university and see that the amount given for VIth plan is atleast double the amount given for Vth Plan.

The members informed the Minister that many posts in several departments are not yet filled up and it would be difficult to recommend new posts for the VIth plan. The Minister said due to delay in election of various academic bodies these were delayed and they would be filled up very soon.

The Committee on behalf of UGC requested that audited accounts for various grants are sent as early as possible to enable the UGC to release the remaining grants. The Minister requested the Deputy Secretary of the Department of Education to do the needful.

The members informed the Minister that though the ceiling is fixed as one Crore the departments doing excellent work can apply for grants under different separate schemes of UGC like (i) Centre of Advanced Study (CAS), (ii) Department of Special Assistance (DSA) (iii) Departmental Research Support (DRS) & (iv) University leadership programme (ULP).

The Minister appreciated the eagerness of the Committee to help the university and promised to approve matching grants and undertake the responsibility for recurring grants for all items recommended by the Committee and approved by the UGC. He said the Govt. is anxious not only to promote primary education which have to be strong enough to accommodate and train a larger number of inflow expected in coming years, *but also colleges and University* edu

The meeting ended with a cordial invitation for dinner next day by the Minister in which other ministers and Vice-Chancellors of other universities were invited so that the members could get a chance to discuss with them common interests in the field of higher education.

6. General Observations & recommendations:

- 6.1 The 5th plan Visiting Committee had observed that the buildings of the University were not being maintained properly. The 6th Plan Visiting

Committee also ~~confirmed this and~~ observed that the buildings of the University departments, students hostels are not kept properly. The Committee therefore suggests that the authorities may take measures ~~to maintain~~ the buildings and attention should be paid to the cleanliness of the buildings.

- 6.2 The Committee observed that the inadequate space is a major problem for almost all the Science departments. The Committee therefore suggests that it would be better if one floor is allotted to each department which would avoid movement of students and teachers from one floor to another. The authorities may consider re-allocation of the rooms in the various departments on these lines.
- 6.3 The Committee noted that appointment of the teaching posts are made by the University without holding any interview. This was discussed with the Vice-Chancellor and the committee suggested that appointments to the post of lecturer and readers should be made after the interview by the selection committee. ~~Only increase of Professor the procedure for interview need not be followed in all cases but the interview would be helpful.~~
- 6.4 The Committee noted that a large number of teaching posts sanctioned during the 5th plan period are lying vacant. The university should take immediate steps to fill the present vacant posts.
- 6.5 The Committee noted with concern that most of the heads of the departments in the Humanities and Social Sciences did not know the amount approved for books and equipment during the 5th plan period. The Committee therefore suggests that a copy of the report of the Visiting Committee may be sent to all the Heads of the Departments for information.
- 6.6. The Committee felt that the university should restrict admissions in postgraduate courses specially in the Arts subjects. The number of students for admission to postgraduate classes should be limited in order to keep the quality. This will also strengthen the standard of teaching at postgraduate level.
- 6.7 For special assistance programme the UGC has sent a directive recently that seniormost Professor, in the thrust area chosen for the programme, should be the Co-ordinator and he should be given independent power to run the project with the help of advisory Committee. It is observed that this is not being followed in the university. It is suggested that this directive should be followed to see the

programme is well conducted. The equipments purchased under the programme should be used by all the departments.

- 6.8 The Committee felt that performance of the University in implementing the schemes approved by the UGC during the 5th plan period is not satisfactory and some of the schemes could not be implemented.
- 6.9 The Committee observed that the proper coordination between the administration and the departments is lacking. The committee suggests that there should be greater coordination between the administration and the departments and the university should provide proper office facility, staff and equipment; such as typewriter etc to the departments.
- 6.10 It was found that departmental library in most of the cases are not functioning effectively due to lack of sufficient staff, space and books. The Committee suggests that each department should have departmental library and should have sufficient books and space and staff.
- 6.11 The teaching posts which are being recommended by the visiting Committee for the Sixth Plan period and which are earmarked for specialization should not be transferred to any other specialization or areas or converted into general posts.
- 6.12 The Committee observed that there is communication gap between the students and teachers. It is suggested that students-teachers advisory Committees may be formed in the departments and this committee should meet every month and the decision taken may be put on the notice Board. This will help in bringing the gap between the students and teachers.
- 6.13 The Committee observed that instead of developing huge departments it would be desirable to develop small cells to give number of new courses to strengthen the background of postgraduate students so that he can carry out inter-disciplinary research. From this point of view it is desirable to start cells in the fields of Biophysics Molecular Biology, Microbiology and genetics with a Coordinator.
- 6.14 The Committee desired that postgraduate courses are re-structured so that the students have to take certain number of units from the faculty to complete the course and there is a wide option of courses



which can become unit contents. This way slowly the departments can be dispensed with and replaced by cells or units giving varieties of courses and conducting inter-disciplinary research.

It is also desirable that Ph.D. course is also re-structured so that the students has to take certain number of courses alongwith research work and there is a time limit of 3 years to finish Ph.D. course after M.Sc.

- 6.15 Representatives of academic & non academic staff placed their demands for staff quarters. The University should request the Govt. to give 75 months salary as loan for each staff members and the University should build multi-storied self-owned flats in Lake City land. When they move to the new campus they can sell the Lake City flats and build flats in the new campus. It is necessary that attention is given to build staff quarters and hostel in one campus especially in a city like Calcutta which has acute housing problem.
- 6.16 The University should see that State Govt. gives recurring grant for subscription of journals as well as salary of technical assistants and clerks required for manning campus libraries and campus instrumentation division.
- 6.17 It is natural and desirable that more than one thrust area develop in some of the larger departments. Certain amount of autonomy in the development of each thrust area may be conducive to growth. However, alignment of students programme of studies along such autonomy is undesirable. For various reasons including historical, some of the traditional departments have been split up into more than one departments. This may have administrative advantages. However, more often than not a logical, coherent and modern programme of studies cuts across such divisions. University may consider ensuring that such programme undistorted by accidental alignments or proliferation of departments, flourish. In fact modern trends support inter-disciplinary programmes cutting across even traditional departments of physics, Mathematics, Geology, Chemistry etc. They seem to provide a more wholesome education.

7.1 Department of English:

The Department of English was established in 1911. The students enrolment in postgraduate classes is 300. 50 students are working for their Ph.D. degree. The strength of the department is 13 ( Professor-1, Readers-4, and Lecturers-8). One post of Professor is lying vacant. The department has awarded 50 Ph.D. degrees during the last five years. The department has organised 4 orientation courses and one summer institute.

The department of English is fairly large with a wide range of research interest reflected in the work of middle level Junior Staff. The department seems to be keen in conducting research in renaissance study translation and English languages study. The Committee recommends that the following facilities may be provided to the department:-

Recommendations:

1. Books & Journals Rs. 30,000/-
2. Staff:  
Lecturers-2

7.2 Department of Urdu:

The Department of Urdu was established in 1982. The students enrolment in the PG courses during the year 1980-81 was 22 and 3 full time students are working for Ph.D. The total number of posts in the department is 6 ( Professor-1, Reader-1 & Lecturers-4). The post of Professor is at present lying vacant. The number of doctorate degree awarded so far is 9. The department has organised an All India Iqbal Seminar in 1979 to focus various aspects of Iqbal philosophy and poetry. The following are the areas of specialization in the departments:

- (i) Panel School of Urdu Literature
- (ii) Iqbal : Philosophy and poetry

The Department proposes to introduce the following areas of the specialisation from the session 1982-83, 1983-84 (i) Modern Urdu poetry (ii) Modern Urdu criticism (iii) Modern fiction.

The Committee recommends the following assistance to the department for the sixth plan period:

Recommendations:

- |    |                  |              |
|----|------------------|--------------|
| 1. | Books & Journals | Rs. 20,000/- |
| 2. | Staff:           |              |
|    | Reader-1         |              |

7.3 Department of Bengali:

The Department of Bengali has an enrolment of 600 students in their P.G. Courses. It maintains a handsome departmental library containing 17,000 books and 9,000 manuscripts. It has published more than 35 books so far.

The department proposes to strengthen its programme of teaching and research with special reference to comparative literature. It has also planned a programme of preservation of manuscripts. The department has asked for some posts of lecturers to strengthen its teaching programme and funds for purchase of photocopier Machine & equipment for preservation of manuscripts.

The Committee recommends that the vacant posts (2 Professors and 2 Readers) be immediately filled up.

The committee recommends that the following assistance may be provided to the department:

Recommendations:

- |    |                              |              |
|----|------------------------------|--------------|
| 1. | Books & journals             | Rs. 15,000/- |
| 2. | Equipment<br>(Zerox machine) | Rs. 25,000/- |

7.4 Department of Hindi:

The department of Hindi was established in 1918. There are 50 students enrolled in P.G. Courses. 55 students are working for the Ph.D. degree. The department comprises, Professor-1, Readers-3 & Lecturers-2. 48 Ph.Ds have been awarded so far by the department and 2 D.Lit. have been submitted. The department has organised annual seminars and it has translated 4 books. The department is subscribing 10 journals. There are 12,000 books on the subject available in the Central Library and 2,000 books in the departmental library. The areas of specialisation of the department are -(i) Jai Shankar Prasad (ii) Bhakti Sahitya, (iii) Comparative literature. The department proposes to introduce 'language oriented course.'

The department has been teaching traditional papers in Hindi Literature and has been conducting research in mysticism and literature of Bhakti Cult. Now the department has plans to include, among its courses, the study of comparative literature. It is observed that one of the three lecturers is likely to be promoted under the scheme of merit promotion scheme. The Commission has already approved a post of Professor in the name of Munshi Prem Chand.

The Committee recommends that the following assistance may be provided to the department:-

Recommendations:

1. Books & journals Rs. 20,000/-
2. Staff:  
Reader- 1  
Lecturer-1

7.5 Department of Arabic & Persian:

The department of Arabic & Persian was established in 1912. 26 students are enrolled for postgraduate courses and 14 students are working for their Ph.D. degree. The department has 7 sanctioned teaching posts (Professor-1, Readers-2 & Lecturers-4) and one post of Reader is lying vacant for the last 4 years. The department has produced 11 Ph.Ds so far. The department is subscribing two journals. The departmental library is having 100 books.

The department of Arabic and Persian has been offering a standard paper in Arabic and Persian in order to assess the department in its diploma courses in Arabic and Persian.

The Committee recommends that the following facilities may be provided to the department:-

Recommendations:

1. Books & Journals Rs. 20,000/-
2. Staff:  
Lecturer-1

7.6 Department of Sanskrit:

The department of Sanskrit was established in 1907. The students enrolment for P.G. Courses is 100, per year. 50 students are working for their Ph.D. degree. The sanctioned strength of the teaching staff is 8, (Professors-3 & Readers-5) and two posts of Professors & one post of Reader are lying vacant for the last two years. The department has produced 100 Ph.D. so far. 12 D.Litt. thesis have been submitted. The department has been organising dramas annually. There are 350 books in the departmental library.

The department of Sanskrit seems to be engaged in its traditional study of Vedic Scriptural work. They want to extend the research activities to diverse fields. It is recommended that existing vacant posts may be filled up immediately.

The committee recommends that the following facilities may be provided to the department:-

Recommendations:

1. Books & journals Rs. 15,000/-
2. Staff:  
Lecturer-1

7.7 Department of Pali:

The department of Pali was established in 1907. The student enrolment in P.G. Courses is 20 per year. 21 students are working for their Ph.D. degree. The sanctioned strength of teaching staff is 5 ( Professor-1, Readers-2 & Lecturers-2) and one post of lecturer is lying vacant which should be filled up immediately. The department has awarded 39 Ph.D. degrees so far and 1 scholar has submitted his D. Litt. thesis. The department has one ongoing project. There are 100 books in the departmental library. The department has been subscribing 31 journals out of which 15 are foreign journals.

The department is engaged in the study of comparative religion and literature of Far Eastern Buddhist people. This discipline has an important role to play in the programme of national integration.

The committee recommends that the following assistance may be provided to the department:-

...20/-

Recommendations:

1. Staff:  
Reader-1  
Lecturer-1
2. To complete the encyclopaedia  
in Buddhism and Bengali. Rs.10,000/-

7.8 Department of Comparative Philosophy & Linguistics:

The department of Comparative Philosophy and Linguistics was established in 1910. The philosophy department of this university is the one with the most glorious history among Indian University Philosophy departments. It has produced some of the ablest philosophers of this country and outstanding scholars were its members in the past. Even now it has a couple of distinguished scholars of high reputation. It has the University leadership programme of the UGC.

The department is having 3 Professors, 6 Readers, 7 Lecturers and 8 part time Lecturers. It takes in 200 students per year for the P.G. course. In the last five years 10 persons have got their Ph.D. degree and one D.Litt. Recently under ULP programme it has organised 2 seminars and one workshop and with ICPR aid a seminar. It proposes to start M. Phil course. The department is subscribing 8 journals.

The main thrust of the department so far has been in the area of historical linguistics and Philosophy. Now the department wants to diversify its research and teaching programme by offering courses in Socio-linguistics, Psycholinguistics and the study of dialects.

The Committee recommends that the following assistance may be provided to the department:-

Recommendations:

1. Books & journals Rs. 30,000/-
2. Staff:  
Reader-1 ( Kautian or Hegelian Philosophy  
with a mastery of the German  
originals) Dialectical materialism.  
Lecturer-1

7.9 Department of Languages:

The Department of languages was established in 1932. The students enrolment for postgraduate courses is 244. The department is having One Lecturer and 2 Lecturers are under exchange programme as visiting lecturers. Three post of lecturers are lying vacant and out of these two posts were not even advertised for once. The department is imparting the teaching of 12 languages ( 7 foreign languages and 5 Indian languages ) The department is proposed to start certificate and diploma courses at the M.A. level in Russian language.

The Committee feels that the department needs to be strengthened by filling up the existing vacancies. The Department proposes to introduce advance diploma course in languages which should be encouraged to develop special courses in the literature of these languages and therefore committee recommends that the following facilities may be provided to the department during the Sixth Plan period:-

Recommendations:

1. Books & Journals                      Rs. 40,000/-
2. Staff:  
    Reader-1  
    Lecturers -3 ( for Russian, German & French)  
    Lecturers-5 ( for Chinese, Tibetan, Spanish,  
                    Japanese and Italian)

7.10 Department of French:

The department was established in 1939. The students enrolment for P.G. courses is 12. One student is working full time for Ph.D. degree and the department has awarded only one Ph.D. degree so far. One Professor of French Government is working under the Cultural Exchange Programme. One lecturer full time and two part time are imparting the teaching.

It is recommended that the postgraduate department of french may be merged with the French Section of the department of Foreign Languages. The Committee feels that the interest of faculty will be based on collaborative teaching programme formulated and implemented with the help of department of languages. The department of postgraduate courses may be modified suitably with the general schemes of the department of Foreign Languages.

7.11 Department of Library Science.

The Department of Library Science was established in 1944, started giving B. Library course from that year and M. Lib. course from 1973. It admits 100 students to the bachelor's and 10 to the Master's course. It has yet to introduce a doctoral programme. The departmental library has about 500 books, in the Central Library, there are 300 books. The department has one Reader and 5 Lecturers. The department is subscribing 9 journals, out of which 7 journals are foreign.

The department seems to be quite competent in conducting conventional courses in library sciences. It is recommended that recognising the needs of the date that the department should develop a programme of research leading to doctorate in Library Sciences.

The Committee recommends that the following facilities may be provided to the department:-

Recommendations:

- |    |                  |            |
|----|------------------|------------|
| 1. | Books & Journals | Rs. 30,000 |
| 2. | Equipment        | Rs. 30,000 |
| 3. | Staff:           |            |
|    | Readers- 2       |            |
|    | Lecturers-3      |            |

7.12 Department of Education

The Department of Education was established in 1949 and has been offering a two year programme leading to the degree of M.A. in Education from its inception. In addition, it offers one year B.Ed. programme. It admits 70 students in M.A. (Education) and 250 students for the B.Ed. programme each year. Twenty scholars are working for their doctorates. The department has one Professor, three Readers and five lecturers in addition to eight part time lecturers. One post of Reader and five posts of lecturers are lying vacant. The departmental library has over 7,000 volumes.

The department has proposed to start M.Phil & M.Ed. programmes for which financial assistance has been requested. Additional equipments especially the laboratory equipments has been requested though no details for such equipments were furnished.



It was reported that the University could not fill up the vacant posts inspite of repeated requests from the department. It is felt that this should be done immediately.

The Committee recommends that the following assistance may be provided to the Department:-

Recommendations:

1. Books & Journals                      Rs. 0.60 lakh  
equipment.
2. Staff:  
Reader- 3 ( for starting M.Phil/M.Ed.)

7.13 Department of Economics.

In the department of Economics teaching capacity is for an intake of 60 per year for two year M.A. course but at present there is a temporary under utilisation by 25% due to adjustments in course regulations. There are 6 Professors, 8 Readers and 5 Lecturers with two part time and 6 guest lecturers. There is provision of atleast two lecturers & two Readers to be promoted to the next higher post by personal/merit promotions. The department gives instruction in Advance Theory including Political Economy, Econometrics and Operational Research Monetary Theory and Practices, labour Economics, International Economics, Agriculture Planning and Public Economics as also Economic History at the M.A. & M. Phil stages. There are five projects in development with special reference to agriculture and other projects in other fields. There is a UGC Special Assistance Programme in operation dealing where research upon Urban Rural interactions in growth is being undertaken under the supervision of a well known Economist.

The department has a number of eminent economists at the Professor and Readers level who have rendered great service to the economic community through research in Political Economy, Employment Policy, Econometric Demand Analysis, Linkage of Education with production, Agricultural Technology etc. Their work needs to be strengthened in three directions.

One is the need to apply modern tools analysis (especially the snaffa-Neumann input -out put and representing suitable capital theory) to the field of Political Economy. In this field the younger teachers

need assistance of experts from various other universities and constantly bring fresh modes of thought. For this reason, instead of a post to be filled on the basis of tenure till superannuation, it is strongly felt that a Professorship in Political Economy be set aside as a post with short term tenure for various renowned scholars to visit and interact with staff and students for a number of years. The scholar invited should be holding a Professorship in some other university. Secondly, employment studies are important from the point of view of beneficial linkages between education and the manpower requirements for the productive Sector. For this purpose, to further research into the manpower forecasting, manpower planning, the methodology of framing syllabi and training programmes for development needs etc. a cell may be set up for employment policy research under the supervision of existing Professor. It may be provided with additional post of a Reader and one Technical Assistant.

Thirdly, some scholars in the department have been undertaking the responsibility of dissemination of important types of existing knowledge among a wider body of economists. This may be made more purposive by concentrating upon those schools of thought which are for great relevance to a equity oriented growth-paths and the instruments of implementation. The materials cell to work under the guidance of an existing Professor who has experience in wider dissemination of relevant knowledge may be provided with a Technical Assistant and reprographic equipment worth Rs. 25,000/-, contingencies for purchase of reprographic material Rs.25,000/-.

The Department may be provided a Statistical Calculator to be used primarily by the econometric wings under the supervision of Professor of Econometrics. The calculator may cost upto Rs. 8 thousand. In addition, to it two electronics desk calculator worth Rs. 1,000/- each to be supplemented by a Statistical-cum-Mathematical typewriter worth Rs. 6,000/- may be purchased.

The Committee recommends that the following assistance may be provided to the department during the VI plan period:-

Recommendations:

1. Equipment Rs. 41,000  
(Reprographic, Statistical Calculator, 2 Electronic Desk Calculators, Statistical-cum-mathematical Typewriter)
2. Staff:  
Reader -1  
Tech.Asstt. -1

3. Contingencies Rs. 25,000

7.14 Department of History:

The Department of History was established in 1919. The number of students in P.G. Classes is 272. At present 17 students are working for Ph.D. degree, 12 are from Bangladesh. Total number of approved posts in the Department are 9 (Professor-3, Readers-3 and Lecturers-3) Besides there are three technical posts in the department.

The department is dynamic and looking forward with large number of young and highly qualified and enthusiastic research workers and can easily evolve area-studies projects.

The Committee recommends that the following facilities may be provided to the department:-

Recommendations:

1. Books & Journals Rs. 30,000
2. Staff:  
Readers - 2  
Lecturers-2

7.15 Department of Ancient History.

The Department of Ancient History was established in 1918. The sanctioned strength of the department is 10 teachers (Professors-2, Readers-4 & Lecturers-4). One post of Professor is lying vacant for the last 5 years.

The department appears to be well staffed with highly qualified research workers and teachers and this is reflected in the variety of research schemes by different agencies. The department has organised a number of seminars since 1978. The department is trying to diversify courses to bring them up to date so as to include such areas as history of science and technology and that of the history of neighbouring countries. The Committee noted that one post of Professor is lying vacant since long and it should be filled up at an early date.

The Committee recommends that the following assistance be provided to the department:-

Recommendations:

1. Books & Journals Rs. 30,000
2. Staff:  
Readers-1  
Lecturer-1

7.16 Department of Islamic History & Culture

The department of Islamic History & Culture was established in 1941. 50 students have been enrolled for postgraduate courses and 13 students are working for their Ph.D. degrees. The department is having 7 sanctioned posts of teachers ( Professor-1, Readers-2 & Lecturers-4) and 3 part time teachers are also employed for the teaching job. The department has awarded 8 Ph.D. degrees so far.

The department seems to have necessary potential for developing into a fulfilled research and teaching department. It is introducing tutorial seminars in the postgraduate classes. The department is very well placed, academically, for collecting and editing valuable manuscripts of the medieval period and funds should be made available for the acquisition of such manuscripts from private collection and other sources.

The Committee recommends that the following facilities may be provided to the department:-

Recommendations:

1. Books & journals Rs. 20,000  
& manuscripts.

7.17 Department of Archaeology.

The department of Archaeology was established in 1960. The departments of Archaeology has an annual intake of 32 students in the M.A. programme. Four Ph.Ds have been awarded so far, and 7 research scholars are working for their Ph.Ds. degree. The department seems to be well Coordinating in its work of teaching and research. Preliminary work of excavation, classification and identification of archaeological funds undertaken during the fifth plan period has been completed.

The department has proposed to purchase a jeep, laboratory equipment and additional books to strengthen their teaching and research programmes.

One post of Reader and two posts of Lecturers have remained unfilled for two years. These posts need to be filled up immediately. The Committee recommends the following assistance to the department:-

Recommendations:

1. Books & Journals                      Rs. 1.00 lakh
2. Equipment                                Rs. 0.75 lakh  
    ( for purchase of Jeep)

7.18 Department of Museology.

The total enrolment for P.G. courses is 16. 12 students are working for their Ph.D. degree. The department comprises Readers-3, Lecturer-1, Demonstrator-1 & Office Assistant-1. Some posts are lying vacant ( Professor-1, Lecturer-1 & Tech. Assistants -2). Three Ph.D. degree have been awarded so far by the department.

The department seems to be doing excellent work in the Museology and Arts and Science by offering M.A. & M.Sc degrees and they also propose to develop a course in tribal Arts and natural Sciences.

The Committee recommends that the following facilities may be provided to the department:

Recommendations:-

1. Books & Journals                      Rs. 50,000/-
2. Teaching Staff:  
    Readers-2  
    Lecturer-1

7.19 Department of Journalism.

The department of journalism was established in 1950. It admits 50 students per year. 10 Research scholars are working for their Ph.D. degree and three have submitted their theses so far. There is only one full time lecturer, while 4 part time and 3 guest Lecturers are there. The departmental library has

200-300 books. The department has asked for a post of Professor but it is difficult to obtain a competent person for Professorship in this field.

The Committee recommends that the following assistance may be provided to the department:

Recommendations:

1. Books & Journals Rs. 5,000/-
2. For obtaining latest News bulletin from different News Agencies Rs. 15,000/-
3. Staff:  
Readers-2 ( Specialised in theoretical & practical knowledge of journalism)  
Lecturers-2

7.20 Department of Philosophy:

The department of Philosophy is one of the oldest department in the University. The number of students in Postgraduate classes during 1983-84 is 237. There are about 50 students registered for Ph.D. There have been 10 D.Litts in this department and about 70 Ph.D's so far. At present there are 3 Professors, 6 Readers and 7 Lecturers in the department. Besides the department has 8 part time lecturers.

The Committee recommends that the following assistance may be provided to the department during the VI plan period:

Recommendations:

1. Books & Journals Rs. 20,000/-
2. Staff:  
Professor-1  
Readers- 2

7.21 Department of Political Science

The department of Political Science was established in 1948. The student enrolment for postgraduate courses is 300. 165 students are working for their Ph.D. degree. The department has 17 sanctioned posts of teaching - (Professors-2, Readers-5 & Lecturers-10). Out of which

.....29/-

1 post of Professor and 3 posts of lecturers are lying vacant. The department is subscribing 15 journals and most of these are Indian. The department has been awarding 6 Ph.D. degree every year. The department has undertaken 11 projects. There are 30,560 books in the departmental library.

- The department seems to be engaged in variety of research programmes related to regional and International Politics. The Committee recommends that these vacant posts may be filled up immediately. With the promotion of 2 Readers to the post of Professor through the merit promotion scheme, the department should be able to undertake research of regional and International Politics and research methodology.

This committee recommends the proposal to establish a Centre for study of the politics of Eastern India (West Bengal, Assam & North Eastern States), and suggests that financial support for it may be sought from the State Govt., UGC and ICSSR, etc.

The Committee recommends that the following assistance may be provided to the Department:

Recommendations:

1. Books & Journals Rs. 30,000/-

7.22 Department of Commerce & Management:

The department of Commerce and Management was established in 1922. 1600 students have enrolled for P.G. courses. 250 Research Scholars have been working full time for their Ph.D. degree. The strength of teaching staff in the department is 26 (Professor-3 Readers-9 & Lecturers-17) and 34 teachers are working on part time basis. But 2 posts of Professors are lying vacant. 29 Ph.Ds. have been awarded so far by the department and 2 D. Litt. thesis have been submitted. The department has organised 20 seminars out of which 3 are of national level. The department is subscribing 55 journals. Out of this 35 journals are foreign. There are 1000 text books in the departmental library but in the Central Library there are about 5,000.

The department of Commerce and Business Management is offering two degrees namely M.Com. and Master of

Business Management. It is one of the largest department of the university offering wide range of courses. It is recommended that 2 vacant posts of Professor be filled.

In view of its proposed research programme, it is, therefore recommended that the following assistance may be provided to the department:

Recommendations:

1. Staff:  
Professor-1  
Readers- 2  
Lecturers-4

In the light of these recommendations it is felt that the department should no more depend on the services of the part time teachers.

7.23 Department of Law

The University Law College is actually a department of Calcutta University and it was established in 1924. It is functioning at two Centres one in Darbhanga Buildings University Campus and second in Hazra Road, Calcutta. There is big library with 33,800 text-books and 3393 back volumes of different Indian and foreign journals. The department is subscribing 60 journals on regular basis.

There are 2200 students for all the three years course of LL.B in the said two Centres and 960 students are admitted annually to the 1st year of this course. Teaching staff strength for the two Centres is one Professor, 4 Readers and 2 Lecturers besides a contingent of 83 part time teachers.

The Bar Council of India has directed that this 3 year degree course should be replaced by 5 years integrated course, giving admission to those who have passed higher secondary examination under 10+2 years system. This 5 years course has necessarily to be introduced from the session starting in 1984-85 otherwise the Bar Council of India will de-recognise LL.B. degree of the University. Since teaching load for 2 years more is to be taken over by the Law Deptt./



Law colleges the University Law College, Calcutta asked for additional staff of 27 lecturers. This is the minimum requirement for introducing the new schemes of studies and the Committee recommends that these costs may be sanctioned by the UGC. As already stated the College has 83 part time teachers. Direction of the Bar Council of India is that the strength of part time teachers should not be more than 25% of the Faculty strength. The Committee recommends that the University should implement the directives of the Bar Council of India in this respect by converting the part time posts to whole time posts.

There is no regular teaching LL.M. course in any institution of West Bengal, The Committee suggests that the LL.M teaching should be introduced in the Law College and recommends 1 Professor, 1 Reader and 4 Lecturers. On the whole the Committee recommends that the following assistance may be provided to the Department:

Recommendations:

1. Staff:  
Professor-1  
Reader - 1  
Lecturers-~~3~~ 4

7.24 Department of Sociology:

The department of Sociology was established in 1977. The students intake for the postgraduate courses is 80 per year. 21 students are working for their Ph.D. degree. The department comprises 5 teaching staff ( Professor-1, Readers-2 & Lecturers-2). The department has produced 6 Ph.D. degrees so far. The department has organised 3 seminars during the last five years. There are 100 books in the departmental library.

The department of Sociology is small but the staff is enterprising and it has been conducting considerable research with its meagre resources. It is, therefore, recommended that the following assistance may be provided to the Department to strengthen it:

Recommendations:

1. Books & Journals                      Rs. 50,000/-
2. Staff:  
Professor-1  
Readers-2  
Lecturers-3

8. SCIENCE FACULTY:

8.1 Department of Botany:

The Department of Botany was established in 1918. The Department conducts P.G. courses for 60 students. There are 120 Ph.D. students and 60 post doctoral students. This department is also an Advanced Centre in Botany. It has 5 Professors, 13 Readers & 6 Lecturers. The area of specialization in the department are - Cytogenetics, Mycology, Plant Pathology, Plant Physiology, Taxonomy, Palaeo-botany, Pharmacognosy and Micro-biology. The department has 20 research projects and conducts atleast one national seminar every year. The department wants to develop experimental Ecology for which it needs extra staff of One Professor.

The Committee recommends that the following facilities may be provided to the department during the Sixth Plan:

Recommendations:

1. Books & Journals                      Rs. 0.50 lakhs
2. Equipment                                Rs. 2.65 lakhs  
(Spectrofluorometer,  
Refrigerator Centrifuge  
& Micro-scope)
3. Staff:  
    Professor-1 ( Experimental Ecology )

8.2 Department of Zoology:

The Department of Zoology is one of the oldest department ( established in 1919) and one of the best Zoology department of the country. The students enrolment for P.G. courses is 110 and number of full time students working for Ph.D. is 71. The department has 19 sanctioned teaching posts ( Professor-4, Readers -9 & Lecturers-6) out of which one post of each of Professor, Reader and Lecturer are lying vacant. The department awarded 55 Ph.Ds and 2 D.Sc's. The department has undertaken 21 projects and conducted 5 seminars. There are 2,000 books in the department and it subscribes 17 journals ( 6 from abroad and 11 from India). The department produced 923 publications. The department

has 4 thrust areas Antomology, Genetics & Cytology, Endocrinology and Fisheries research. All of these areas have been supported by the UGC under the Special Assistance Programme from 1978. The department has also produced work of a good standard in Malacology, Animal Phsiology, Comparative Anatomy and Parasitology. The department desires to develop teaching and research in areas such as Immunobiology, Ecology and Animal Behaviour. There are currently 4 professors specialized in Malacology and Animal Physiology, Cytology and Genetics Histology, Endocrinology, Parasitology, Marine Biology and one post of Professor with specialization in Anátomology is lying vacant and it is to be filled up soon. Fields required to be strengthened at senior level are Immunobiology, Ecology, Animal Behaviour, Comparative Anatomy and Neurobiology. The research in all the 4 thrust areas carried out under the Special Assistance Programme has reached an advanced stage of merit. The department made an approach to the UGC separately for increased support under the Centre of Advanced Study Programme.

The Committee recommends the creation of chair (Professor) in Immunobiology or Ecology and Animal Behaviour for the all round development of the department.

The department does not face at present any problem of space but many equipments necessary for research and advanced teaching are not available. Aphid research unit and Drosophila stock Centre are to be equipped and strengthened with more collections.

The Committee recommends that the following facilities may be provided to the department during the Sixth Plan:

Recommendations:

1. Books & Journals Rs. 0.5 lakh
2. Equipment Rs. 2.65 lakhs  
(Fraction Collector,  
-40<sup>o</sup> C. Freezer, U.V.  
spectrophotometer,  
fluoresene microscope  
and one Air-Conditioner  
+ Rs. 20,000/- for Aphid  
research unit and  
Rs. 20,000/- for Drosophila  
Stock) Centre.
3. Staff:  
Professor-1 (Immunobiology/Ecology/Animal  
Behaviour)

### 8.3 Department of Physics.

The department was established in 1916. The students enrolment for P.G. Courses is 180 and number of full time students working for Ph.D. is 20. The total number of sanctioned teaching posts in the department is 24 (Professor-7, Readers-12 & Lecturers-5) Out of which 2 posts of Lecturers are lying vacant. The department has produced 60 Ph.Ds and 2 D.Sc's. The department has undertaken 19 projects. There are 10,000 books in the department & it is subscribing 18 journals (15 from abroad and 3 from India ). There is a impressive tradition of good physics in this department, both teaching and research is being pursued with fervour and dedication. There is a broad spectrum of research topics covered. Neuclear Physics, Solid State Physics, Biophysics, Particle Physics are areas of interest of one or the other of the teachers. This provides for a wholesome physics education of the students.

Neuclear physics group has a large membership, Fairly good research is represented. It has good potential. Calcutta provides Unique facility in India in this area through the National facility of the variable energy cyclotron. The members of this group have themselves constructed an one me V. Van de Graaff. Neuclear physics is a thrust area which should be assessed for department of Special Assistance.

A broad base department like this which is free from the pulls of the applied and the technology orientation cannot de-emphasise the area of Particle Physics. Naturally the department seeks augmentation of teachers strength in this area within the overall financial constraint, it certainly deserves support. Right now what they require is leadership for their efforts in Particle Physics research consequently a Professor post would be appropriate.

The biophysics component in physics departments has lent a special character. This character might be lost if all the teachers in this group migrate to a possible programme in life Science. In that event some efforts ought to be made to retain biophysics component in the physics department.

The enthusiasm for teaching is commendable. They have given top priority to upgrading of teaching laboratories. However, the financial implications of the request goes beyond the existing financial constraints consequently severe pruning has to be done. It is hoped that the department will be able to marshall up other resources for the remainder.

An apparatus for study in dielectric properties for Solids and macromolecular solutions, an I.R. double-beam spectrophotometer with recorder, a vacuum unit a Key punch machine may be provided. Besides an appropriately air conditioned room for the sensitive instruments may be given. The key punching machine should be freely available also for other departments like the department of applied Mathematics.

Looking at the personnel of this department there is a special dis-appointment with its long history of pioneering in physics in India one would have expected that it would out grow regional outlook in recruitment of lecturers, readers and professors and attain an All India Character. This is not reflected in the list of members of the faculty.

The committee recommends that the following facilities may be provided to the department during the sixth plan:

Recommendations:

1. Books & Journals                      Rs. 0.5 lakh
2. Equipments                              Rs. 2.00 lakhs
3. Staff:  
    Professor-1 ( Theoretical physics)

8.4 Department of Pure Mathematics.

The department was established in 1912. The students enrolment for postgraduate courses is 36. The number of full time students working for Ph.D. is 12. The total number of sanction teaching posts in the department is 15 ( Professor-2, Readers-5 & Lecturers-8). Out of which 2 posts of Lecturers are lying vacant. The department has undertaken 5 projects. The areas of specialization in the department are differential Equation, Algebra, Functional analysis, Complex analysis and Geometry. It was noted that the department is not receiving any journal. The Committee desired that while considering the proposal of the department for starting a new course in mathematics, a co-operation from the department of Applied Mathematics and Statistics may be obtained.

The Committee recommends that the following facilities may be provided to the department for the sixth plan period:

Recommendations:

1. Books & Journals                      Rs. 0.25 lakh

### 8.5 Department of Applied Mathematics

The department was established in 1936. The students enrolment for P.G. courses is 72. A number of full time students working for Ph.D. is 8. The total sanction teaching post in the department is 25. (Professors-4, Readers-15 & Lecturers-6) Out of which 3 posts of Professors and 1 post of Reader are lying vacant.

The department has awarded 11 Ph.Ds so far. The department has undertaken 5 projects. There are 7,500 books in the department and it subscribes 31 journals. The areas of specialization in the department are Elasticity and Plasticity, Geodesy and Geophysics, Quantum mechanics and advanced optimisation & operations research and advanced computer Science and Cybernetics, quite a good number of papers have been published by the department during the last 5 years in these branches. It is a large active department with a wide range of interest there is much to be said in support of such a character for a wholesome progress of studies for the students and for a width of appreciation across the sub-disciplines amongst the teachers. An idea of coming together under a programme of earth science is arising from this department and looking out to Physics and Geology. It is welcome but needs to be nourished academically to mature financial assistance. The department is capable of attracting funds from other sources also. They should intensify efforts along such lines.

The Committee recommends that the following facilities may be provided to the department during the sixth plan:

#### Recommendations:

1. Books & Journals Rs. 0.25 lakh

Computer punching machine may be shared with the Physics department.

### 8.6 Department of Statistics.

The department was established in 1941. The students enrolment for postgraduate course is 40 and 3 students are working for Ph.D. The total number of sanction teaching post in the department is 12 (Professors-2, Readers-3 & lecturers-7) Out of which one post of Reader and 2 Lecturers are lying vacant.

The department awarded 10 Ph.Ds. The department has undertaken 2 projects and conducted 2 seminars. There are 4,500 books in the department and it is subscribing 20 journals ( 17 from abroad and 3 from India). It is an active department entrusted various areas of research like design and analysis of experiments, Statistical inference operation research etc. They wish to expand their activity particularly in Demography or Econometric, they also wish to introduce M.Phil programme in the department for both the purposes a post of Reader in Demography is quite deserving. Their request for upgrading the computer facilities is in order. The UGC may seriously consider a new computer to replace the existing IBM, 1130. The requests for mathematical typewriters well appreciated and may be granted.

The Committee recommends that the following facilities may be provided to the department during the sixth plan:

Recommendations:

1. Books & Journals Rs. 0.25 lakh
2. Equipment Rs. 0.25 lakh  
(Mathematical typewriter)
3. Staff:  
Reader-1 ( Demography )

8.7 Department of Chemistry

The Department was established in 1916. The students enrolment for P.G. courses is 140 and a number of full time students working for Ph.D. is 40. The department has awarded 180 Ph.D degrees so far. There are 3,700 books in the department and it subscribes 29 journals. Since its inception in the year 1916 the department of Chemistry has all along maintained a good tradition of research in inorganic, organic Physical and analytical Chemistry which continued to be four broad areas of teaching and research. The department in the past was headed by an International known Chemist like Acharya P.C. Roy, Professor J.N. Mukherjee, P. Ray, J.C. Ghosh, B.N. Ghosh and Mrs. A. Chatterjee etc. & continues to be active in many areas. The major thrust area at present are -

1. Chemistry of Natural products:

This is perhaps the major field in which the department has earned International reputation under the able guidance of Prof. Mrs. A. Chatterjee and has a UGC special Assistance Programme. Work has been carried out in areas of Alkaloids, Terpenoids, Polyphenolics, Heterocyclic Chemistry, Organo-metallic Chemistry, <sup>13</sup>C NMR Spectroscopy, Agricultural Chemicals, Photo Chemistry etc. This project also receives UNDP assistance;

2. Inorganic reaction mechanism: particularly of fast reaction;

3. Quantum chemistry of Molecules;

4. Co-ordination Chemistry:

Particularly synthesis of new ligands and Metal Complexes and investigation of their properties. The total number of sanctioned teaching posts are 32. The present academic position are as follows:

Analytical Chemistry: Professor-1  
Readers- 3 (2 by Personal promotion)  
Lecturer-1

Inorganic Chemistry: Professor-1  
Readers-3 ( One by personal promotion)  
Lecturers-3

Physical Chemistry: Professors-2  
Readers-4 (through by personal promotion)  
Lecturer-1

One post is vacant.

Organic Chemistry: Professor -Vacant since 1.10.82  
Readers-3( 2 by personal promotion)

S.P.A.Programme: Professor-1 ( vacant)  
Readers-3 ( vacant)  
(one by personal promotion)  
Lecturer-1



The Committee was surprised to note that the senior most post (one Professor and 3 Readers) under the Special Assistance Programme have not been filled up and causing the set back to the programme. The University should take steps immediately to fill up these posts in consultation with the coordinator of the programme. The department has received a large number of projects from different funding agencies which infact has assisted the research activities. The normal annual grant ( Rs. 1.30 lakhs ) is totally inadequate. This also applies to the library grant it is creditable ~~but~~ instead of several constraints, the department has been able to put up a good performance. The laboratories do not have sufficient space. The instrumentation facility is very limited. The department has been able to provide some service under the S.P.A. Programme.

In addition to the main thrust areas in the field of organic chemistry of natural project which should continue to get major support. The department now plans to develop the following areas :

- (i) Environmental Chemistry - particularly chemical pollution and pollution control;
- (ii) Bio-inorganic, Bio-organic and Bio-Physical Chemistry;
- (iii) Fast reactions, particularly of natural and Mode systems;
- (iv) Organo-metallic Chemistry;
- (v) Solid State Chemistry;
- (vi) Photo Chemistry.

The Committee recommends that the following assistance may be provided to the department during the sixth plan:

Recommendations:

- 1. Books & Journals                      Rs. 0.50 lakh
- 2. Equipments                                Rs. 2.5 lakhs
- 3. Staff:

Professor-1 ( in the above areas)  
The post of Prof. vacated by Mrs. A. Chatterjee is to be filled up by a organic currents)

Reader-1

Tech.Assts/Mechanics - 2

.....4/-

8.8 Department of Bio-chemistry.

The department was established in 1956. This department has got an intake of 60 students in M.Sc course in the last 5 years. It has ~~trained~~ 20 Ph.Ds and 2 D.Sc's. It has got a approved staff of 17 members. (Professors-3, Readers-9 & lecturers-5). Out of which 3 posts of Lecturers are lying vacant. The University should take action to see that these posts are filled up as early as possible. The department is conducting at least one national seminar every year and has a number of research projects supported by various agencies. During the discussion the staff members have agreed that the intake of M.Sc students are very much/large and they would be happy if the number is reduced. The Committee feels the number should be reduced to 20. It is desirable that the department starts 2 years evening M. Phil course for teachers working in the colleges and also get involved in conducting courses in Life Sciences, environmental Sciences etc as it is well staffed from qualitative and quantitative point of view.

The Committee recommends that the following facilities may be provided to the department during the sixth plan:

Recommendations:

1. Books & Journals Rs. 0.50 lakh  
(including back volumes)
2. Equipments Rs. 3.2 lakhs  
(Refrigerator, Centrifuge, Spectrophotometer, Spare rotor for ultra-Centrifuge and Accessory existing animal room)

8.9 Department of Geology.

The department was established in 1917. This department has got intake of 60 students for P.G. courses and also conducts Ph.D. programme. The total number of sanctioned teaching staff in the department is 15 (Professors-2, Readers-9 & Lecturers-4). Out of which 2 posts of Readers are lying vacant. The major areas of research are following:

- i) Ore-geology and Geo-chemistry
- ii) Igneous and Metamorphic petrology
- iii) Palaeontology
- iv) Structural Geology.

The department had good work in the past but that pace has not been maintained. The 5th plan Visiting Committee made specific recommendation of this aspect but it appears that no serious attempt had been made to cover the gap. The existing equipments have not been put to good use even though the listed equipments worth Rs. 12 lakhs.

The Committee recommends that the following facilities may be provided to the department during the sixth plan:

Recommendations:

- |    |                  |                |
|----|------------------|----------------|
| 1. | Books & Journals | Rs. 0.20 lakh  |
| 2. | Equipments       | Rs. 0.50 lakhs |

8.10 Department of Applied Psychology.

The department was established in 1960. It takes 20 students for M.Sc and 20 students for 1 year certificate course after B.Sc. (Hons). It has got a staff composition of Professor-1, Readers-5 and Lecturers-7. The post of Professor is vacant from 1981. 9 students have got Ph.D. in the last 5 years and 4 students are working at present for Ph.D. They have three research projects. The departmental library has got 2,000 books and it subscribes 18 journals. They are interested in developing courses in Psychometry and in the construction of Psychological test. The 5th plan visiting Committee recommended that there is no academic justification for running the two separate departments. The ideal academic arrangement would be completely integrated both the departments so that the quality of teachers and research may improve. The university could not implement the recommendations of the 5th plan Visiting Committee.

The department proposes to introduce Special Intensive in service short training courses (Evening) to meet the local needs in the following areas (i) Managements Psychology for middle managers and administrators; (ii) Rehabilitational Psychology for the training personnel in the rehabilitation centres and residential institutions (iii) Forensic Psychology and Correctional Psychology for the Junior Executives in the courts, prison and police. The Committee felt that such courses could only be started if there is a demand for such courses from the agencies which could provide the financial assistance for training of their employees. The Committee suggested that the department

could explore the possibilities for financial assistance by sending the proposals/projects to various appropriate agencies.

The Committee recommends that the following facilities may be provided to the department during the sixth plan:

Recommendations:

1. Books & Journals Rs. 0.20 lakh
2. Equipments Rs. 0.10 lakh  
(Psychological testing material)

8.11 Department of Psychology.

The department was established in 1915. The intake of student for P.G. course is 30 per year. The three year undergraduate course is given and intake per year is 12. There are 10 P.G. students working in the department. The department has ~~trained~~ 40 Ph.Ds and 2 D.Sc's in the last 5 years. They have three research projects sponsored by ICMR, ICSSR, & 2 by UGC. The total number of sanctioned teaching posts in the department is 14 ( Professor-1, Readers-3 & Lecturers-10). Out of which 3 posts of Lecturers are lying vacant. They have 4,000 books and 12 journals. Their specializations are experimental Psychology, Developmental Psychology, Social Psychology & Abnormal Psychology.

The 5th Plan Visiting Committee felt that there is a duplication of research work and other activities in the Pure & Applied Psychology departments. They should merge together as one department. Since so many revision have come now relating to the running of the department, such as rotation of head departmental Committee to run the department etc. there should be serious attempt now to merge two departments so that facilities could be utilised upto maximum extent; for example applied Psychology wanted colorograph and Oscilograph and they are available in Psychology department.

The Committee recommends that the following facilities may be provided to the the department during the sixth plan:

Recommendations:

1. Books & Journals Rs. 0.20 lakh

2. Equipments Rs. 0.06 lakh  
( for purchase of  
Air Conditioner for  
Polorograph room)
3. Memory drums Rs. 0.10 lakh
4. Staff:  
Technician-1 (Polorograph provided allow  
the Applied Psychology Deptt)  
to use instrument all the  
time.

#### 8.12 Department of Physiology

The department was established in 1900. They have 120 students in P.G. courses and 19 undergraduate courses in the last 5 years. The department has awarded 45 Ph.D. and 2 D.Sc's. The total number of sanctioned teaching posts in the department is 15 ( Professors-2, Readers-8 & Lecturers-5). They have 36 projects supported by different agencies and conducted summer schools intensive courses in applied Psychology, organomics. It has 2,800 books and gets 12 journals. They felt that many basic equipments are old and needs replacement.

The committee recommends that the following facilities may be provided to the department during the sixth plan:

#### Recommendations:

1. Books & Journals Rs. 0.20 lakh
2. Equipments Rs. 2.00 lakhs  
(Spectoohotometer  
Gas anlyser etc.)
3. Staff:  
Lecturers-2

#### 8.13 Department of Anthropology.

The department was established in 1920. The students enrolment for P.G. courses is 44. The number of full time students working for Ph.Ds is 25. The total number of sanctioned teaching posts in the department is 10 ( Professor-2, Readers-6 & lecturers-2) Out of which 2 posts of Readers are lying vacant.

The department awarded 30 Ph.Ds and 9 D.Sc's. It has 6 projects and conducts weekly and quarterly seminars. There are 12,000 books in the department. It subscribes 12 journals. The main areas of research are - Physical, Social Cultural Pre-historic (Palaeo) and demographic Anthropology. The pioneering study of this department of population and quantitative genetics, Palaeo Anthropology and Forensic deserves Special mention. The department has good experts for research and development of human genetics in pre-history and palaeo-Anthropology. To strengthen these areas with more substantial support the committee recommends consideration under the Special Assistance Programme. The Committee is in agreement with the proposal put forward by the department for supporting a integrated postgraduate courses in Bio-social Anthropology. The department is under staffed particularly at the Lecturers level. The Committee therefore recommends that 3 posts of lecturer be created during the sixth plan period. The department wants to strengthen the Human genetics group, and wants to start course work in Bio-social Anthropology, wants to strengthen research in pre-history Palaeo Anthropology.

The Committee recommended that the following facilities may be provided to the department during the sixth plan:

Recommendations:

- |    |   |               |
|----|---|---------------|
| 1. | Books & Journals  | Rs. 0.25 lakh |
| 2. | Equipments  | Rs. 0.50 lakh |
| 3. | Staff:  |               |
|    | Lecturers-3 ( One each for Human Genetics, Bio-Social Anthropology & pre-history Palaeo Anthropology) |               |

8.14 Department of Geography.

The department was established in 1939. The students enrolment for P.G. courses is 140., and the number of full time students working for Ph.D. is 25. The total number of sanctioned teaching staff in the department is 15 (Professor-2, Readers-9 & Lecturers-4). The department has completed 4 research projects financed by Govt. of West Bengal/UGC and 2 projects are in progress. 10 workshops/seminars organised by the department during the period 1968 to 1982 and 8 proceedings had been published. The department has 4 main areas of specialization - Geomorphology, Pedology, Cartography, Social Geography. The depart-



ment has done some very useful work in all the 4 thrust areas of Geography. The research programmes are of considerable theoretical and applied value and deserves to be encouraged and supported. The department has plans to develop in a big way studies of regional and environmental Geography which committee recommends to be considered for more than substantial support under the Special Assistance Programme.

The Committee recommends that the following facilities may be provided to the department during the sixth plan:

Recommendations:

1. Books & Journals Rs. 0.25 lakh
2. Equipments Rs. 0.75 lakh  
(for Air photograph of India, imagery at Eastern India Rs. 25,000/-for maps etc.)

8.15 Department of Food Nutrition.

The department was started in 1974. This department conducts M.Sc course in Home Science & Food and Nutrition. It has intake of 20 students per year. One student has submitted thesis for Ph.D. and 3 are working for Ph.Ds. The staff consists of Reader-1 and Lecturers-4. Out of which 2 posts of lecturers are not yet filled up.

It will be desirable for this Department to be shifted to Ballygunge Science College, and courses are conducted in the Bio-Chemistry department which has got experts in the fields of Nutrition, Bio-Chemistry and Physiology. This department will grow if the staff as well as assets can be transferred to Bio-chemistry department and is asked to take responsibility of conducting courses.

The Committee recommended that the following assistance may be provided to the department during the sixth plan:

Recommendations:

1. Books & Journals Rs. 0.20 lakh
2. Equipments Rs. 0.50 lakh
3. Staff:  
Lecturer-1
4. Laboratory space Rs. 2.00 lakhs

...46/-

8.16 Department of Marine Science.

The starting of this department has already been approved by the UGC. The Coordinator wanted Rs. 5.2 lakhs for the next 2 years to buy boat, jeep and other equipment and books. As construction of building etc. will take time. The Committee recommended that this much amount can be released in the 6th plan and remaining can be released in the 7th plan.

9. Starting of New Cells in Bio-physics and Molecular Biology, Micro-biology and Genetics.

.....

The different Life Science departments ~~now~~ joined together and created a Centre of Life Science in 1968 to organise multi-disciplinary teaching research and seminars. ~~with the help of grants, they have organised symposia and seminars.~~ The Visiting Committee felt that creation of cells in Bio-physics and Molecular Biology, Micro-Biology and Genetics, will not only ~~help~~ the university to develop the teaching and research in these fields but also strengthen the Life Science Centre activities. The Committee met the members of existing Life Science departments and they felt that this is a good idea as already individuals ~~under~~ different departments are carrying out research in these fields and independent divisions in these fields will not only help in initiating P.G. Courses but also in initiating Inter-disciplinary research. The Committee therefore feel that these three cells should be created with a coordinator to organise teaching and research. This cell can start M.Sc course and keep life Science Centre in its activities. The following grants can be given:

Recommendations:

one Coordinator for all the three cells.

1. Books & Journals                      Rs. 0.60 lakh  
(Rs. 20,000/- for each cell)
2. Equipments                              Rs. 6.00 lakhs  
(Rs. 2.00 lakhs for each cell)
3. Staff for each cell:  
    Professor - 1  
    Lecturer - 1
4. Building                                  Rs. 6.00 lakhs  
(Rs. 2.00 lakhs for each cell)



4.	Building (Rs. 2.2 lakhs for each cell)	Rs. 6.6 lakhs
		<u>Rs. 15.5 lakhs</u>

10. CENTRAL FACILITIES.

10.1 Central Libraries:

Central Library is housed in a 10 storeyed building with a floor area of 80,000 sq. feet (distributed on 10 floors). There are above 3,00,000 books in the Central Library and have been stacked in 50,000 sq. feet of shelves in 5 stack floors covering an area about 36,000 sq. feet. The Library has three reading halls for 700 students which occupy an area of 22,000 sq. feet. The library remains open for 13 hours (7.00 A.M to 10 P.M.) on working days and 6 hours (11 A.M. to 5 P.M.) on Sun days. The library is subscribing 780 journals. The Committee noted that no separate fund for purchasing books and journals are allotted for each departments. It was also noted that the teachers of different departments were not aware of the allocation made for purchase of books and journals for their departments.

It is desirable that for each Campus there should be a Central Library and all copies of volumes and journals are kept in each of these libraries. This can be managed by one Library technician. The Committee recommends 2 Library Technicians for the two campuses if the university agrees to centralize the library facilities in each of the Campuses. Zerox machine can be kept under the charge of these librarians and a nominal amount be charged for copying and amount collected can be used for the maintenance.

The Committee recommends that the following facilities may be provided to the Central Library during the sixth plan:

Recommendations:

1. Books & Journals Rs. 2.00 lakhs
2. Equipments Rs. 2.00 lakhs  
(2 Zerox machine for  
2 campuses)
3. Staff:  
Zerox Machine Operator/Technicians-2

10.2 University Service and Instrumentation Centre.

The Commission approved USIC level II to the University during the fifth plan period on the recommendation of the standing Committee on USIC. The Visiting Committee noted that many of the posts are not yet filled up. The facilities are not utilized even upto minimal level. There is a complaint that the centre charges for analysing the sample. As the equipments are given for use by Research Scholars, no amount should be charged. Further the students want the Centre to be kept open upto 10 P.M. The Committee therefore recommends one technician who can work from 4 to 10 P.M.

Recommendations:

Staff:

Technician- 1

10.3 Centre for Electron Microscope.

The Commission provided assistance amounting to Rs. 3.3 lakhs/purchase and installation of an Electron Microscope in the department of Pure Physics. In addition to this, the assistance was also provided for the operation of Electron Microscope during the Vth plan period. The university should have taken the responsibility of maintenance of this electron microscope but it seems that the university is not in a position to provide funds for purchase of spare parts etc.

The Committee recommends that the following assistance may be provided to the Centre during the sixth plan period:-

Recommendations

Maintenance & purchase  
of spare parts

Rs. 0.25 lakh

#### 10.4 Animal House:

The Committee observed that the existing facility of animal house is inadequate and not in a position to meet the requirements of different developments like Zoology, Bio-chemistry, Nutrition etc. The Committee therefore, suggested that a Common Rat House to supply rats to these departments will be helpful, if the University is willing to build a common rat house. The Committee recommends that the following assistance may be provided to the animal house during the sixth plan:

##### Recommendations:

1. Building Rs. 5.00 lakhs
2. Cages Rs. 1.00 lakh
3. Air conditioners Rs. 2.00 lakhs
4. Staff :  
Incharge - 1  
keeper-4

#### 10.4 Hostels

There are 16 hostels in the University. Out of which 11 hostels are for boys in which 1118 seats are available and 5 hostels are for girls in which 362 seats are available. The Committee visited some of these hostels and observed that the maintenance of these hostels are not satisfactory. The basic facilities like furniture, fans etc are not adequate. The Committee suggested that the University may take necessary steps to improve the general conditions of hostels and provide basic amenities to students residing in these hostels.

The Committee noted that there is no separate hostel for Research Scholars and only 362 female students are at present accommodated in the hostels. There is a need for providing accommodations to more girl students.

The Committee, therefore, recommended that the following hostel facilities may be provided in the sixth plan period:

##### Recommendations:

1. Research Scholars  
Hostel for 50 scholars Rs. 10.00 lakhs  
( UGC share)
2. Girl's hostel for  
50 students Rs. 7.5 lakhs  
(UGC share )

11.

FINANCIAL IMPLICATIONS

1. Total Sixth Plan allocation		Rs. 100.00 lakhs
2. Basic grants and Advance grants already sanctioned (Annexure-III)		Rs. 31.15 lakhs
3. Grants now recommended: (Annexure-IV)		
i) Books & Journals	Rs. 13.50	} Rs. 96.30 lakhs
ii) Equipment	Rs. 29.96	
iii) Misc.	Rs. 1.25	
iv) Buildings	Rs. 31.10	
v) Staff:	Rs. 20.49	
Professors- 12		
Readers - 27		
Lecturers - 71		
Others - 12		
		----- Total: Rs. 127.45 lakhs -----

The Committee wishes to put on record its sincere thanks to the Vice-Chancellor, members of the staff and students for their help and Co-operation in the work of the Committee.

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ANNEXURE - I

VI STUDENTS STAFF AND ADMINISTRATION

1. Students: Total enrolment of regular students, in  
University Departments: Level wise/faculty wise:  
As on 15.8.1982.

i)		<u>Faculty</u>	<u>Men</u>	<u>Women</u>
i)	Undergraduate:			
ii)	Post-graduate:-	Arts	883	2213
		Science	650	609
		Commerce	1545	82
		Medicine	284	44
iii)	Research:-	Arts	70	64
iv)	Students Enrolled in non-degree courses, if any, please give details	Science	249	207
		Commerce	5	X
		& Others	7	3
v)	Students enrolled in Correspondance courses, if any offered. Please give details		X	X
Total students enrolled: University: <u>Total</u>		<u>ST</u>	<u>&amp;</u>	<u>SC</u>

2. Staff: (i) Academic Staff: Prof. 85  
(as on 1.4.1982)

Readers: 164

Lecturers: 511

Others : 6

- ii) Supporting Technical Staff No. 225
- iii) Non-Technical Staff: No. 431
- iv) Univ. Admn. Staff: Total: 885 (C1-1-1, C1-2-14  
(C1-3-22, Supdt.: -42  
Office Asstts: -803
- v) Class IV Staff Total: 892

- vi) **Physical** Facilities Staff:  
Education,  
Sports & Games: There is arrangement for 1 (Physical  
sports and games. instructor)  
The University has a fine  
playground at Calcutta Maidan.  
There also very good arrange-  
ment for rowing at Rabindra  
Sarabar and a swimming pool at  
Baliaghata.

-: 2 :-

	Professors:	Readers	: Lecturers:	Others
i) No. of positions approved in V Plan by the UGC	14	29	29	16
ii) No. of positions effectively filled on 1.4.1982	18	45	45	8

Reasons for vacant posts: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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## SECTION II - BUILDINGS

Area: Vide Annexure I

Carpet Area

Building Area

### GENERAL

- i) Administrative Buildings : No.5.
- ii) Hostel Buildings (a) No.16 for Men 11 For Women 5  
(b) Total No. of Seats 1480  
Men 1118 Women 362.
- iii) Staff Quarters: No.32 Flats Type - Vide Annexure I  
\_\_\_\_\_
- iv) Canteen - Yes \_\_\_\_\_
- v) Medical Centre - Yes Capacity \_\_\_\_\_
- vi) NRSC - Yes No. of Beds 142 beds in  
different, if any \_\_\_\_\_
- vii) Student Union - Yes Hospital of the City
- viii) Instadiummes - No
- ix) Indoor Games - Yes
- x) Gymnasia, etc. - Yes
- xi) Maintenance/ Services - Yes
- xii) Guest House/ Faculty House - Yes No. of Rooms 3
- xiii) Others (Please specify) - Vide Annexure I

...../-

UNIVERSITY OF CALCUTTA

Details of University Campus (Academic & Administration) with land areas and built up areas.

S. No.	Name of the Campus	Name of Bldgs./ Blocks	No. of Floors	Plinth area sft.	Built up area sft.	Departments in Occupation	
1.	College Street Campus. Total land area: 8 B. 8 K. 9Ch. Six Buildings	i)	Asutosh Bldg.	4	25,706	69,372	University Colleges of Arts & Commerce
		ii)	Hardinge Bldg.	5	14,400	50,259	-do-
		iii)	Darbhanga Bldg.	5	24,532	90,440	University college of Law & Administrative Offices
		iv)	Centenary Bldg.	6	23,292	72,700	Accounts & Administra- tive Offices.
		v)	Central Library Bldg.	10	9,198	84,000	Central Library
		vi)	Students' Common Facilities	3	24,000	6,100	Students services
2.	Hazra Road Campus Total land area: 8B. 4K. four Building	i)	Law College Bldg.	7	11,859	32,373	University college of Law & Department of Education
		ii)	Archaeology Bldg.	4	6,797	25,960	Deptt. of Archaeology and A.I.H.C. Deptt.
		iii)	History Bldg.	4	4,250	15,064	History (Modern and Islamic) Deptt.
		iv)	Press Building	2	22,723	26,804	Calcutta University Printing Press and Publication

S. No.	Name of the Campus	Name of Bldgs/ Blocks.	No. of floors	Plinth area	Built up area	Departments in Occupation
1.	2.	3.	4.	5.	6.	7.
				sft.	sft.	
3.	Colleges of Science & Technology Campus, 92, Acharya Prafulla Ch. Road, Calcutta-9 Land area: 16 B. 7K. 9	i) Main Building ii) Hydrodynamical Lab. Bldg. iii) Administrative Bldg. iv) Appd. Chemistry Bldg. v) Appd. Physics Bldg. vi) Radio Physics & Electronics Bldg. vii) Computer Centre viii) Animal House ix) USIC Bldg.	4 5 2 3 3 4 2 2 1	33,800 4,800 3,400 18,250 13,450 8,740 2,350 1,597 2,550	1,23,400 24,000 6,400 51,050 37,650 32,290 6,665 3,703 2,300	Chemistry, Physiology, Physics, Appd. Math & Psychology. Chemistry, Appd. Math Office of the Secy., UCST., Physiology, Appd. Math. Appd. chemistry, Plastic & Rubber Tech., Chemical Engineering Appd. Physics Deptt. Radio Physics and Electronics. Computer Centre Building Deptt. of Physiology & Chemistry University Service and Instrumentation Centre

...../-



1.	2.	3.	4.	5.	6.	7.
				sft.	sft.	
4.	University colleges of Science & Tech. 1, Girish Vidyarthi Lane, Cal. Total land area: 7 K. One Building	Centre of Advance study in Radio Physics & Elec.	7	3,360	21,190	CAS Centre
5.	University College of Sc., 35, Ballyrunga Cir. Road, Campus. Land area: 26 B. 18K. 9 Ch. eight buildings	i) Main Bldg. Eastern Block ii) -do- Western Block iii) -do- Central Block iv) Plant Culture Lab. of Avriculture Deptt. v) Tissue Culture Lab. Deptt. of Botany vi) Animal House vii) Guest House	4 8 9 2 3 in two blocks 1 1	18,750 18,750 12,000 2,100 1,000 1,950 4,168	68,000 1,36,000 99,000 3,700 3,360 1,755 3,750	Agriculture, Botany, Zoology, Geology. Anthropology, Botany, Zoology, Geology, Bio-Chemistry, Statistics, Math. -do- -do- Agriculture Deptt. Botany Department Zoology & Bio-Chemistry Deptt. Guest House
6.	Department of Economics, 55 & 56A, B.T. Road, Cal.-50. Land area: 4 B. 13 K. 2 Ch. Three buildings.	i) Main Building ii) L.S. Staff Qr. iii) Garange with Outhouse.	3 1 2	9,915 583 475	25,002 449 759	Economics Deptt. Quarter Garage and Quarter

1.	2.	3.	4.	5.	6.	7.
				sft.	sft.	
7.	University college of Medicine. Land area: 12 K. 8 Ch. Two buildings	i) Main Building ii) Animal House	6 1	10,500 960	56,700 864	P.G. college of Medicine -do-
8.	Viharilal College of Home & Social Sciences C.U. 20E, Judges Court Road, Ca.-27. Land area: 3 B. Two buildings	i) Main Building ii) Production-cum- training Centre	4 4	6,306 4,132	22,700 12,547	College Building College Building
9.	C.U. Staff (Teachers) Qrs. Land area: 5 B. 17 K. 11 Ch. Four Buildings	i) Type - I One Block ii) Type - II Three Blocks	4 12	2,720 6,120	38,028 26,340	Teachers' Qrs. (8 Flats) Teachers' Qrs. (24 Flats)

ANNEXURE-II

Statement of grants allocated and grants paid to  
Calcutta University under Development schemes  
and other specific programmes.

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1.	2.	3.	4.	5.
S. No.	Sanction letter No. and date	Name of the project	Approved allocation as UGC share	Grants paid upto 31.3.1980
1.	F.2-6/75(D-3a) dated 17.6.1976	Purchase of Library books & journals	62,40,000	60,40,000
2.	F.2-6/75(d-3a) dt. 17.6.1976	Purchase of Equipment	66,65,000	66,45,000
3.	F.2-6/75(D-3a) dated 17.6.1976	Salary of staff	34,00,000	8,50,000
4.	F.2-10/74(D-3a) dated 5.4.1975	Purchase of Back volumes	36,000	--
<u>5. BUILDING PROJECTS</u>				
i)	F.2-5/76(D-3a) dated 31.10.1977	Extension of II & III floor of Eastern Science Block	11,14,700	9,45,000
ii)	F.5-14/77(D-3a) dated 25.11.77	Extension of Science building at 92, Acharya Prafulla Chandra Road	6,97,771	5,00,000
iii)	F.5-6/78(D-3a) dated 28.9.1978	Construction of Green House	2,00,000	50,000
iv)	F.5-15/77(D-3a) dated 18.7.1978	Construction of four storied building at 51/2 Hazara Road Humanities	13,00,000	4,00,000
v)	F.2-16/77(D-3a) dated 4.10.1977	Multi Storied building at 95, S.P. Mukherjee Road	19,69,100	3,00,000

(The University did not undertake the project. The grant adjusted vide No. F.9-1/79(T) dated 17.11.1982.)

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1.	2.	3.	4.	5.
vi)	F.5-16/77(D-3a) dated 2.1.1978	Construction of staff Quarters.	11,68,046	8,00,000
vii)	F.5-3/79(E-I)	Construction of build- ing in the University campus for providing common facilities	12,02,279	-
viii)	F.2-6/75(D-3a) dated 17.6.76	Furnishing the Guest House	1,00,000	-
ix)	F.2-6/76(D-3a) dated 24-9-77	Workshop shed	1,00,000	-
x)	F.5-11/77(D-3a) dt. 24.9.1977	Improvement of hostel facilities	3,00,000	80,000
<b>6. MISCELLANEOUS PROJECTS</b>				
i)	F.5-7/77(D-3a) dated 17.6.1976	Holding of Seminars in the Department of Applied Mathematics	50,000	10,000
ii)	F.5-3/77(D-3a) dated 8.7.1977	Excavation and field trips in the Deptt. of Archeology	75,000	25,000
iii)	F.5-19/77(D-3a) dated 17.6.1976	Fieldwork & Scholarships in the Museology Deptt.	75,000	26,000
iv)	F.5-5/78(D-3a) dated 30.8.1978	Purchase of Training boats	49,500	-
v)	F.5-8/78(D-3a) dated 17.6.1976	Holding of Seminars in the Deptt. of English	25,000	20,000
vi)	F.5-20/77(D-3a) dated 7.7.1978	To perpetuate the Memory of Mahamahapadhyaya Gopinath Kaviraj	19,980	15,000
<b>7. SPECIFIC PROGRAMMES</b>				
i)	F.5-8/77(D-3a) dated 9.1.1978	Salt lake campus Acquisition of land	46,45,000	46,14,940
ii)	F.2-5/74(D-3a) dated 31.1.1978	Post M.Sc. Programme at S.N. Bose Instt. of Physical Sciences	4,95,000	2,11,000
iii)	F.7-56/77(D-3a) dated 8.3.1977	Appointment of visiting Faculty	1,00,000	50,000

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1.	2.	3.	4.	5.
iv)	F.27-8/72(Se.I/D-3a) dated 6.6.73	Development of Computer centre	13,20,185	10,15,123
v)	F.2-3/74(D-3a) dated 28.9.1976	Purchase of an Ultracentrifuge for Bio-Physics	3,02,842	3,02,842
vi)	F.22-51/66(Sc.I/ D-3a) dated 24.3.1975	Operating of Electrone Microscope	3,15,000	1,99,000
8. <u>CONTINUING SCHEMES FROM IVTH PLAN &amp; EARLIER</u>				
<u>BUILDING PROJECTS</u>				
i)	F.11-19/69(Sc.II/ D-3a) dated 19.1.1959	Construction of Multi- storied science building (Western and Central Block)	15,781	-
ii)	F.21-4/67(Sc. ) dated 27.4.67	Construction of animal House for the Dept. of Bio- Chemistry	15,000	-
iii)	F.11-8/70(Sc.II) dated 25.7.70	Construction of Animal House for the Deptt. of Zoology	10,000	5,000
iv)	F.21-26/71(Sc.I) dated 24.3.1972	Construction of Glass House and extension of Pot Culture House	64,183	20,000
v)	F.22-33/61(S/T) dated 5.2.72	Construction of two additional floors in Institute of Basic Medical Science	7,50,000	5,00,000
vi)	F.22-62/54(H) dated 4.7.60	Construction of Library Building	3,69,000	-
vii)	F.60-17/60(CU I) dated 24.7.62	Construction of Women's hostel	70,070	-
viii)	F.14-13/69(SA-I) dated 12.6.69	Improvement of exist- ing hostel facilities	1,000	-
ix)	F.1-6/61(H) dated 6.6.62	Printing Press	48,333	-

1.	2.	3.	4.	5.
x)	F.22-6/54(H) dated 31.8.55	Strengthening of Deptt. of Economics	9,269	9,269
xi)	F.42-55/61(C-III) dated 20.3.53	Construction of Post graduate students Hostel	25,331 Grant adjusted	
xii)	F.22-62/54(H) dated 29.6.66	Purchase of Library furniture	11,773	-
xiii)	F.11-6/67(Sc.I) dated 26.7.68	Research scheme in the field of Human Cancer	40,000(NR) 90,000(R)	- -
xiv)	F.11-21/68(Sc.I) D-3a) dated 3.10.68	Purchase of furniture for the deptt. of Pure Mathematics	5,000	-
xv)	F.11-18/69(ScII) dated 5.11.69	Field work in the Deptt. Anthropology and Geography	30,000	-
xvi)	F.52-2/61(CUP) dated 16.6.62	Construction of students Hall	5,124	5,124
xvii)	F.21/66(S/D-3a) dated 29.8.66	Construction of Multy Storeyed Science Bldg. (Eastern Block)	20,000	20,000
xviii)	F.11-19/69(S) dated 23.9.72	Addition & allternation in the deptt. of Botnay	5,000	-
xix)	F.17-1/67(CDN) dated 27.4.67	Guest House	1,00,000	-
xx)	F.2-30/67(H) dated 7.6.73	Phonetics Laboratory for the Deptt. of Philology	23,000	20,000
xxi)	F.2-30/67(H.I) dated 5.2.74	Purchase of equipment for Deptt. of Economics	1,944	1,944
xxii)	F.2-3/67(H.I) dated 12.10.73	Purchase of Moscal 1400 Electronic Desk Calculator Deptt. of Commerce	1,473	1,473

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-: 4 :-

1.	2.	3.	4.	5.
xxiii)	2-30/67(H.I) dated 30.1.71	Salary of staff in Humanities Deptt.	19,142	19,142
xxiv)	F.2-30/67(H.I) dated 30.1.71	Salary of staff of for Central Library	5,495	5,495
xxv)	F.11-20/69(Sc.II) dated 30.1.71	Salary of staff for Science Deptt.	4,57,811	4,57,811
xxvi)	F.20-22/69(CDN) dated 21.2.70	Salary of development officer	2,652	2,652
xxvii)	F.27-8/70(Sc.I) dated 15.7.71	Life Science Centre	9,922	9,922
xxviii)	F.4-23/68(HII) dated 20.3.70	Community Development and Panchyati Raj	2,700	-
xxix)	F.7-15/70(H-2) dated 18.2.74	Purchase of Photocoper for the Central Library	15,563	15,563
G. Total			<u>3,41,89,969</u>	<u>2,41,92,300</u>

Annexure III

Basic grants and Advance grants already  
sanctioned - Calcutta University.

Tentative allocation: 100.00 lakhs

S. No.	Sanction letter No. and date	Subject	Grants approved as UGC scheme
1.	F.2-3/80(E-I) dated 6.11.80	Purchase of Library books and Journals	3,00,000
2.	F.2-3/81(E-I) dated 11.8.1981	Purchase of Scientific equipment	6,00,000
3.	F.2-1/80(E-I) dated 3.3.82	Books & Journals	5,00,000
4.	G.2-1/80(E-1) dated 3.3.1982	Equipment	10,00,000
5.	F.10-1/78(Sc.I/ D-3a/E-I)	Establishment of a department of Marine Science Centre	5,20,000
6.	F.2-1/79(E-I) dated 27.1.83	Purchase of equipment for Centre Instrumentation Laboratory	1,20,196
7.	F.2-4/82(E-I) dated 17.2.1983	Creation of a post of Professor in Hindi in the name of Prem Chand	75,000
			<u>30,95,196</u>

or say Rs.31.15 lakhs



ANNEXURE IV

SUMMARY OF FINANCIAL IMPLICATIONS

H U M A N I T I E S

S. No.	Subject	Books	Journals	Misc.	Equipment	Staff				Bldg.	Remarks
						P	R	L	O		
1.	English	0.30	-	-	-	2	-	-	-	-	-
2.	Urdu	0.20	-	-	-	-	1	-	-	-	-
3.	Bengali	0.15	-	-	0.25	-	-	-	-	*	-
4.	Hindi	0.20	-	-	-	-	1	1	-	-	-
5.	Arabic & Persian	0.20	-	-	-	-	-	1	-	-	-
6.	Sanskrit	0.15	-	-	-	-	-	1	-	-	-
7.	Farsi	-	-	0.10**	-	-	1	1	-	-	-
8.	Comparative Philosophy & Linguistics	0.30	-	-	-	-	1	1	-	-	-
9.	Languages	0.40	-	-	-	-	1	8	-	-	-
10.	Library Science	0.30	-	-	0.30	-	2	3	-	-	-
11.	Education	0.60	-	-	-	-	3	-	-	-	-
12.	Economics	-	-	-	0.65	-	1	-	1	-	-
13.	History	0.30	-	-	-	-	2	2	-	-	-
14.	Ancient History	0.30	-	-	-	-	1	1	-	-	-
15.	Islamic History & Culture	0.20	-	-	-	-	-	-	-	-	-
16.	Archeology	1.00	-	0.75 (Jeep)	-	-	-	-	-	-	-
17.	Museology	0.50	-	-	-	-	2	1	-	-	-
18.	Journalism	0.08	-	0.15 (for Bulletians) News	-	-	2	2	-	-	-
19.	Political Science	0.30	-	-	-	-	-	-	-	-	-
20.	Commerce & Management	-	-	-	-	1	2	4	-	-	-
21.	Law	-	-	-	-	1	1	<del>5</del> <sup>4</sup>	-	-	-
22.	Sociology	0.50	-	-	-	1	2	3	-	-	-
23.	Philosophy	0.20	-	-	-	1	2	-	-	-	-
		<u>6.15</u>		<u>1.00</u>	<u>1.20</u>	<u>4</u>	<u>25</u>	<u>62</u>	<u>1</u>		

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\*\* To Complete the encyclopaedia in Buddhism and Bengali

S C I E N C E

S. No.	Subject/Department	Books & Journals	Misc. Equipment	Staff				Bldg.	Remarks
				P	R	L	O		
1.	Botany	0.50	2.65	1	-	-	-	-	-
2.	Zoology	0.50	-	2.65	1	-	-	-	-
3.	Physics	0.50	-	2.00	1	-	-	-	-
4.	Pure Mathematics	0.25	-	-	-	-	-	-	-
5.	Applied Mathematics	0.25	-	-	-	-	-	-	-
6.	Statistics	0.25	-	0.25	-	1	-	-	-
7.	Chemistry	0.50	-	2.50	1	1	-	2	-
8.	Biochemistry	0.50	-	3.20	-	-	-	-	-
9.	Geology	0.20	-	0.50	-	-	-	-	-
10.	Applied Psychology	0.20	-	0.10	-	-	-	-	-
11.	Psychology	0.20	-	0.16	-	-	-	1	-
12.	Physiology	0.20	-	2.00	-	-	2	-	-
13.	Anthropology	0.25	-	0.50	-	-	3	-	-
14.	Geography	0.25	-	0.75	-	-	-	-	-
15.	Food and Nutrition	0.20	-	0.50	-	-	1	-	2.00 -
<u>NEW DEPARTMENTS/CELLS</u>									
16.	Marine Science	Already approved as 1st charge on Sixth Plan							
17.	<u>For three cells</u>				1				coordinator
i)	Bio-physics	0.20	-	2.00	1	-	1	-	2.2
ii)	Molecular Biology	0.20	-	2.00	1	-	1	-	2.2
iii)	Microbiology & Genetics	0.20	-	2.00	1	-	1	-	2.2
		<u>5.35</u>	-	<u>23.76</u>	<u>8</u>	<u>2</u>	<u>9</u>	<u>3</u>	<u>8.60</u>

C E N T R A L F A C I L I T I E S

S. No.	Subject	Books	Equipment	Misc.	Staff P R L O	Bldg.	Remarks
1.	Central Library	2.00	2.00	-	- - - 2	-	-
2.	USIC	-	-	-	- - - 1	-	-
3.	Electron Microscope	-	-	0.25 for maintenance and spare parts	- - - -	-	-
4.	Animal House	-	3.00	-	- - - 5	5.00	-
5.	Research scholar's Hostel (for 50 scholars)	-	-	-	- - - -	10.00	-
6.	Girl's Hostel	-	-	-	- - - -	7.50	-
		<u>2.00</u>	<u>5.00</u>	<u>0.25</u>	<u>- - - 8</u>	<u>22.50</u>	<u><del>0.25</del></u>
Grand Total		13.50	29.96	1.25	12 27 <del>7</del>	12 31.10	<del>0.25</del>

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Annexure II to item No.2.05

Copy of letter No.UGC/2633/Salt Lake dated 31st October, 1983 received from Registrar, Calcutta University to Secretary, UGC

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Sub: Utilization of land in Salt Lake Area

...

With reference to the correspondence resting with your letter No.F.5-8/77(D.3a/E.I) dated 23.2.1983 and subsequent letter of even number dated 7.5.1983 on the subject mentioned above, I have to inform you that on being requested by the Chancellor, Calcutta University and Governor of West Bengal to provide some land at Salt Lake area for the proposed National Institution which the department of Science and Technology of the Union Government wishes to establish in Calcutta to commemorate the memory of Late Professor S.N.Bose in the field of Theoretical and Advance Science, the Syndicate of the Calcutta University has agreed to release 15 acres of land out of its 19.07 acres of land at Salt Lake area for the purpose stated above and the remaining 4.07 acres will be retained by the University for building up a Housing Complex.

## SECTION 3

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 8th February, 1984

- Item No. 3.01 : To consider a reference received from the Government of India, Ministry of Education and Culture (Department of Education) regarding the comments of the U.G.C. on the proposal of the Association of Indian Universities for being entrusted with the work of payment of travel grants to teachers in the universities and colleges for attending International Conferences held abroad and provision of grants therefor from the Government of India.

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The University Grants Commission places at the disposal of the Universities every year funds under "Unassigned grant" to support among other things, international travel by teachers/Scientific and Technical Officers working in a scale of not less than Rs.700-1300 per month for participation in International Conferences/Seminars/Symposia held abroad to present their papers at these conferences etc.

The guidelines for unassigned grant for 1983-84 and onwards have since been revised and according to the revised guidelines the amount of unassigned grant would be determined on the following basis :-

- a) Rs.30,000/- for a university having upto 100 teachers.
- b) Rs.45,000/- for a university having between 101 and 200 teachers.
- c) Allocation for a university having 201 teachers and above would be determined on the basis of Rs.150/- per teacher and Rs.50/- per full time research scholar in the university teaching departments subject to a maximum of Rs.2.25 lakhs.

Expenditure on providing assistance to teachers/scientific officers/technical officers for participation in International Conferences held abroad should not be less than 40% and should not exceed 60% of the unassigned grant allocated for the year 1983-84 and onwards. The University may meet 50% of the admissible Travel, Airport tax, maintenance and registration charges in respect of persons selected by it for assistance out of the unassigned grant, provided the remaining 50% of the expenses are met by the University from its own funds

.....2/-

or by the State Government/I.N.S.A., D.S.T./U.N.D.P. or from other sources recognised by the university. The decision of the university to agree or not to provide 50% of the expenditure involved should be based upon referee's evaluation comments on the paper to be presented regarding its quality and suitability. Personal contribution from the teacher will not be treated as matching share towards travel expenses and airport tax but could be counted towards maintenance and Registration charges.

The Commission also provides financial assistance to the extent of 50% to the college teachers for attending International Academic Conferences held abroad for presenting papers resulting from their research work. The decision of the UGC to agree or not to provide 50% of the expenditure involved, would be based upon referee's evaluation comments, on the paper to be presented with regard to its quality standard and suitability. The College/State Govt. University/INSA/DST/U.N.D.P. or any recognised association or organisation may meet 50% of the travel expenses and airport tax while 50% of maintenance and registration charges could be met by them or by the teacher himself.

Besides the above two scheme, the Commission also provides financial assistance on a 100% basis to enable a few Post-doctoral Fellows and Research Associates to participate in international conferences to present the results of their research work. Such awards would be limited to 10 in a year for all the universities.

The Government of India, Ministry of Education and Culture have forwarded a copy of the letter dated 5th August, 1983 received from the Association of Indian Universities (copy enclosed as Annexure) for being entrusted by the Govt. of India, to award travel grants to such teachers from the universities and colleges for attending inter-national conferences abroad to present their research papers, give keynote lectures or act as Chairman/general reporters of Conference sessions. The Association of Indian Universities have proposed that initially, a sum of Rs. 10 lakhs may be placed at their disposal by the Ministry of Education which could be utilised for assisting about 100 teachers annually. A sub-committee of the A.I.U. Standing Committee, (which includes 19 Vice-Chancellors) could be constituted to administer this programme. This sub-committee could meet once in every quarter to consider the applications received from all over the country. Representatives of the Ministry of Education and University Grants Commission and a few experts in specialised areas may also be coopted on this sub-committee. It has also been mentioned that the INSA is financially assisting the scientists for attending International Conferences, Seminars and Symposia in a

similar fashion, with grants from the Deptt. of Science and Technology. The A.I.U. has therefore suggested that a similar procedure can be considered by the Ministry of Education through the Association of Indian Universities.

The matter is placed before the Commission for consideration.

No.F.13-1/83 (CP)

US(CP)/DS(CP)

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Annexure to item No. 3.01

Copy of letter No. 27072.73 dated August 5, 1983 received from Dr. Jagdish Narain, Secretary, Association of Indian Universities, addressed to Sh. Manmohan Singh, Financial Adviser, Ministry of Education and Culture,

...

Every year a large number of teachers of our universities/ colleges receive invitations to attend International Conferences, Seminars and Symposia. There are invited to present their research papers, give keynote lectures or act as Chairman/general reporters of Conference sessions.

The University Grants Commission places at the disposal of the universities some funds as "Unassigned grant" to support among other things, international travel of teachers also. Invariably in all universities, this amount has been found to be inadequate to meet the requirements of the faculty members. The result is that only few teachers get financial support for international travel and many deserving cases are left out due to limitation of funds. Many such teachers go through a long and sometimes fruitless exercise of seeking financial assistance from other funding agencies. I understand that the Ministry of Education also receives a large number of such requests.

It is suggested that the Association of Indian Universities, may be entrusted by the Ministry of Education to award travel grants to such teachers from the universities/colleges. Initially, a sum of Rs. 10 lakhs may be placed at the disposal of the Association by the Ministry of Education which could be utilised for assisting about 100 teachers annually. A sub-committee of the AIU Standing Committee (which includes 19 Vice-Chancellors) could be constituted to administer this programme. This sub-committee could meet once in every quarter to consider the applications received from all over the country. Representatives of the Ministry of Education and University Grants Commission and a few experts in specialised areas may also be co-opted on this sub-committee.

It may also be mentioned that the Indian National Science Academy is financially assisting the scientists for attending International Conferences, Seminars and Symposia in a similar fashion, with grants from the Deptt. of Science and Technology. A similar procedure can be considered by the Ministry of Education through the Association of Indian Universities. The proposed travel grants may be available for teachers of all disciplines including social sciences where other funding sources are few.

With kind regards,

Yours sincerely,

Sd/-

(Jagdish Narain)

UNIVERSITY GRANTS COMMISSION

.....

Meeting:

Dated: 8th February, 1984

Item No. 3.02 : : To consider the recommendations made by the Standing Committee on New Universities and universities Post-graduate Centre on the proposal received from the Government of Maharashtra, Education and Employment Department, Bombay through the Government of India, Ministry of Education and Culture regarding the establishment of a Buddhist University in the State.

.....

The Government of India, Ministry of Education and Culture have forwarded a proposal from the Government of Maharashtra, Education and Employment Department, Bombay alongwith a petition from the Buddhist International Centre for establishment of a Buddhist University in the State. A copy of the letter of Government of Maharashtra along with a copy of the petition is enclosed (Annexure). The Government of India have requested for the comments of the UGC on the proposal.

The object of the University is to endeavour to promote the study of Principles and programmes for which Dr. Ambedkar Worked during his lifetime for the Scheduled Castes, Scheduled Tribes, the Non-Buddhists etc. viz.

- (1) The uplift of the neglected humanity in India.
- (2) Social Justice.
- (3) Economic equality.
- (4) Parliamentary democracy.
- (5) State Socialism,
- (6) International and internal cooperation through the new interpretation of Buddhist philosophy.

The University will thus be of a national level and will cater to the needs of people all over the country, and would have to be a Central University. It would, therefore, be appropriate if the proposal of the establishment of Buddhist University is considered on the lines of the Banaras Hindu University or Aligarh Muslim University by an Act of Parliament.

The matter was placed before the Standing Committee on New Universities and University Post-graduate centres at its meeting held on the 17th December, 1983. The Committee was not in favour of Establishment of a Central University for Buddhist studies as proposed. However, the State Govt. may consider setting up a Research Institute for Buddhist studies in the State.

The matter is placed before the Commission for consideration.

No.F. 5-15/83(CP)

US(CP)/DS(CP)

.....

Annexure to Item No. 3.02

A copy of letter No.F.13-5/83-Desk (U) dated 14th July, 1983 received from Shri C.R.Pillai Deputy Secretary to the Government of India, Ministry of Education & Culture (Deptt. of Education) addressed to the Secretary, University Grants Commission.

.....

This Ministry has received a proposal from the Government of Maharashtra, Education and Employment Department, Bombay forwarding therewith a petition from Buddhist International Centre for establishment of a Buddhist University in the State. A copy of the letter of the Government of Maharashtra along with a copy of the petition is being enclosed with the request that the Commission may kindly let this Ministry have their comments on the proposal in the light of the justification given in the petition. An early reply is solicited so that the State Government of Maharashtra could be informed accordingly.

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A copy of letter No.USG 4981/(4420)/UNI.3 dated 23rd May, 1983 received from Shri B.K.Garge Deputy Secretary to Government of Maharashtra, Education and Employment Department, Mantralaya Annexe, Bombay-400032 addressed to the Secretary to the Govt. of India, Ministry of Education and Social Welfare (Deptt. of Education), New Delhi.

.....

I am directed to state that this State Government has received a petition from Buddhist International Centre, Bombay for establishment of a Buddhist University in the State. Copies of the letter dated 14th October, 1981 from Bhikku Sivali Bodhi, Chairman, Governing Body of the Centre and of the scheme referred of there in are enclosed for perusal.

2. It will be seen therefrom that the object of the University is to endeavour to promote the study of principles and programmes for which Dr. Ambedkar worked during his lifetime for the Scheduled Castes, Scheduled Tribes, the Non-Buddhists etc. viz.

- (1) The uplift of the neglected humanity in India.
- (2) Social Justice.
- (3) Economic equality
- (4) Parliamentary democracy
- (5) State Socialism.
- (6) International internal cooperation through the new interpretation of Buddhist philosophy.

The University will thus be of a national level and will cater to the needs of people all over the country, and would have to be a Central University. It would, therefore, be appropriate if the proposal of the establishment of Buddhist University is considered on the lines of the Banaras Hindu University or Aligarh Muslim University by an Act of Parliament.

3. I am to request you to move the Government of India to consider the proposal of establishment of the Buddhist University on the above lines. The decision taken in the matter may kindly be communicated to this Department in due course of time.

-----

BOMBAY. DATED 14.10.1981

From: Bhikku Sivali Bodhi, M.A., LL.B.,  
Chairman, Governing Body,  
Buddhist International Centre,  
11/30, Deonar Municipal Colony,  
Govindi Shivaji Nagar,  
Bombay- 400043.

To : Br. A.R. Antule, Bar-at-Law,  
The Hon. the Chief Minister,  
The State and Government of Maharashtra,  
6th Floor, Mantralaya, Bombay.

Subject: Establishment of Dr. Ambedkar Buddhist  
University.

Reference : Our decision on the subject on 8.10.1981  
at Deeksha Maidan, Nagpur where you  
delivered a validictory address in  
Silver Jubilee Celebration of Mass  
Conversion.

Your Excellency,

CONGRATULATIONS:

Permit me to revive that on 8.10.1981 in the evening on Deeksha Maidan in witness of the mammoth meeting, I congratulated you on your delivering an address which amounted to a revolution in life of minority communities in India and in Maharashtra.

PROPOSAL (2)  
OF ESTABLISHMENT  
OF DR. AMBEDKAR  
UNIVERSITY

Permit me also to revive that on the same occasion when you were about to depart from the platform I opened with you the subject of Establishment of Dr. Ambedkar Buddhist Technical University. Your requested blessings from the Buddhist Monks and the blessings were prayed for you from the Highest Influences. You were on that occasion in a mood to effect the welfare of the down-trodden guaranteed in the Directive principles of the State Policy of the Constitution of India along with an additional instalment of welfare proceeding from your exclusive jurisdiction. Your Excellency acquiesced and invited me to meet you at Bombay to articulate the details of the concept of Dr. Ambedkar Buddhist Technical University. On that occasion you told me that you know me.

HISTORY OF (3)  
THE CONCEPT

Permit to revive in brief the History of this concept of Dr. Ambedkar University. While Morarji Desai was the Prime Minister of India, I gave him, on this subject, a petition. He referred the matter to Dr. Chunder the then Central Minister

.....2/-

for Education in Janati Party Government. After Janati Party Government was substituted by the Congress(I) Govt. I met Hon. Mr. B. Shankaranand, the then Central Education Minister in Mrs. Gandhi Government and requested him to take some action on this project of Dr. Ambedkar University. He agreed. But as the Ministry of Education was transferred to Hon. Mr. S. B. Chauhan from him, he directed all papers to you as soon as you became the Chief Minister of Maharashtra with the hope that instinctively you will do better justice to the concept and make it a working institution. - On Deeksha Maidan Nagpur, I revived this picture to you and your Excellency was so convinced of the urgency of the establishment of this University that we decided to meet at Bombay as soon as we reach Bombay. Hon. Mr. Ram. Rao Adik, the Minister for Finance and Urban Welfare was there seated by your side listening to our exchange of words, who happens to be my senior while we were both practising Law in Bombay High Court in about 1964-65.

- (4) In fine, I opened the subject of Establishment of Dr. Ambedkar University both at the level of Central Government and at the level of Maharashtra Government, while Vasant Dada Patil was the Chief Minister, Mr. Nasikrao Tirpude (who asked and received from me the Constitution of Dr. Ambedkar Buddhist University) was the Deputy Chief Minister and the Home Minister, and Mr. D. T. Rupawate was the Minister for Social Welfare, under instructions from the Chief Minister Mr. Patil, Mr. Rupawate visited various Universities e.g. the Aligarh Muslim University, the Banaras Hindu University, Guru Nanak Dev University and submitted a report to the Government where he concluded that the establishment of Dr. Ambedkar University was financially feasible and educationally necessary, these papers were and must be in the custody of the Secretary, responsible for Higher and University Education, Maharashtra Government, 4th floor, Mantralaya, Bombay. On this eve, when the Central Government asked me to run 30 Centres, in Bombay City under National Adult Education Programme, and when we were running them, I had the occasion to bring to your Excellency's notice how Bombay Riots started by anti-social elements were bringing to a standstill of our 30 Centres and how Buddhist Temple in Crewford Market was ruined and you came to our rescue.

In connection with N.A.E.P. and Dr. Ambedkar University, we have to hit while the iron is hot. At this critical stage, in the process of establishing Dr. Ambedkar Buddhist University, I am sure, you are the master of and you know the procedure, the hostile elements and the way to success. Moreover, you enjoy the jurisdiction and powers.

(5) It is, therefore, prayed that:-

- (a) Your will grant from the Government the financial sanction for establishing the University;
- (b) Call the papers from the Education Department in the custody of the Secretary responsible.
- (c) Appoint a Committee for deliberating on all details of this novel Dr. A. B. University of Educationists and Administrators (including me) and give us an appointment.
- (d) Bring into being this University and revive the Buddhist Temple in Crawford Market Bombay while you continue as the Chief Minister and
- (e) Add your own thought to this Project and take such action immediately as you deem fit and necessary. Provoking the auspicious blessings of the Triple Gem.

Yours in the Dhamma,

sd/-

(Bhikku Sivali Bodhi)  
Chairman, Governing Body

Copy to:-

- 1) Rt. Hon. Mrs. Indira Gandhi  
The Prime Minister of India  
New Delhi.
- 2) Hon. Mr. Ram Rao Adik  
The Minister for Finance and Urban  
Welfare.  
  
State and Government of Maharashtra  
Bombay.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

.....

Meeting :

Dated : 8th February, 1984.

Item No. 3.03 : To receive a letter from the Ministry of Education and Culture regarding the establishment of a Nuclear Science Centre.

.....

The University Grants Commission has received a letter from the Ministry of Education wherein the Ministry has informed that since the Sixth Five-Year Plan is coming to an end and that no allocation has been provided in the Ministry budget by the Planning Commission for starting the Nuclear Science Centre during 1984-85. A copy of the letter from Ministry is enclosed as Annexure -I.

In this connection, it may be noted that the Commission at its meeting held on 28-29th November, 1983 vide its item No. 4.08 accepted in principle for the establishment of a Nuclear Science Centre (Annexure II). Earlier the Commission at its meeting held on 29th August vide its item No. 4.04 considered the Project report and the covering note for the establishment of Nuclear Science Centre and agreed to the setting up of the Centre. It was also agreed that it may be located in JNU Campus. (A copy of the item is enclosed as Annexure III).

The matter is placed before the Commission for consideration.

EO (SR II) / JS (SR)



ANNEXURE-I TO ITEM NO. 3.03

Copy of D.O. letter No. F.10-6/84-Desk(U) dated January, 27, 1984 from Shri Kiran Joshi, Special Secretary, Ministry of Education & Culture, Government of India, New Delhi addressed to Dr. (Mrs.) Madhuri R. Shah, Chairman, UGC.

.....

During the course of discussion of the Annual Plan for 1984-85 of this Ministry in the Planning Commission, a reference was made to the proposal of the UGC for establishment of the Centre for Nuclear Research for which a provision of Rs. 2.00 crores was proposed. It was pointed out to us that in the last year of the Plan our objective should be to consolidate the existing achievements and to ensure that the Sixth Five-Year Plan objectives are achieved rather than to initiate new proposals and enter into new commitments which might pre-empt the resources of the next Plan.

As a follow-up of these discussions, the Secretary, Planning Commission has written to us suggesting that since the policies, strategies and programmes of the Seventh Five-Year Plan are already under consideration by the various working groups, it might not be advisable at this stage to initiate new programmes. According to him, the Centre for Nuclear Research is one such new programme which could be properly examined as part of the Seventh Five-Year Plan.

In view of the foregoing position, the Planning Commission has pointed out that the allocation approved by them for this Ministry for 1984-85 does not include any allocation for the Centre for Nuclear Research and that this should be brought to the notice of the Commission. You may kindly have this matter considered and let us know your reaction to the same.

With warmest regards,

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

.....

Meeting

*Annexure II to G.O. No 3*

Dated: 28-29th Nov., 1983

Item No. 4.08 : To consider the minutes of the first meeting of the Project Steering Committee for the Nuclear Science Centre held on 9th November, 1983.

.....

The Commission at its meeting held on October, 1982 accepted in principle for the establishment of a Nuclear Science Centre. As per decision of the Commission, the Project Report was prepared by Dr. N.K. Ganguly, Convenor, BARC, Prof. G.K. Mehta, I.I.T. Kanpur and Dr. Arvind Jain, BARC and this report was considered by the Commission at its meeting held on August 29, 1983. While considering this report the Commission agreed that the Nuclear Science Centre may be located in the Jawaharlal Nehru University Campus if the University agreed to the proposition .

A Project Steering Committee was also constituted for the implementation of the project, whose members for the present will be : Chairman, UGC; Vice-Chairman, UGC; Vice Chancellors of the 8 Centres of Nuclear Research (1) AMU, (2) Panjab University, (3) Kurukshetra University, (4) Punjabi University, Patiala (5) BHU, (6) Andhra University, Waltair, Directors of IITs Kanpur and Bombay) and 5 Nuclear Scientists to be nominated by the UGC . The Vice-Chancellor, JNU will be a member.

The first meeting of the Project Steering Committee was held on 9th November, 1983 and the minutes of the meeting are (at annexure). Placed before the Commission for information.

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Annexure to item No. 4.08

Minutes of the First Meeting of the Project Steering Committee for the Nuclear Science Centre held on 9th November, 1983

...

The meeting was attended by the following:-

1. Dr. (Mrs.) Madhuri R. Shah Chairman  
Chairman  
University Grants Commission  
New Delhi.
2. Professor Rais Ahmed  
Vice-Chairman,  
University Grants Commission  
New Delhi.
3. Professor P.N. Srivastava  
Vice-Chancellor  
Jawaharlal Nehru University  
New Delhi
4. Professor R.C. Paul  
Vice-Chancellor  
Panjab University  
Chandigarh.
5. Professor M.S. Gore,  
Vice-Chancellor,  
Bombay University  
Bombay.
6. Professor M.K. Pal,  
Director,  
Saha Institute of Nuclear Physics,  
Calcutta.
7. Professor B.D. Nagchaudhry,  
Calcutta.
8. Professor A.N. Mitra,  
Professor of Physics,  
University of Delhi,  
Delhi.

1. The background of the development of the proposal to establish a Nuclear Science Centre was explained and discussed. It was noted that the letter of the Chairman, UGC, to the Vice-Chancellor, JNU, had raised certain specific points for the

p.t.o.

consideration of the Executive Council of the JNU. The background note provided by the JNU for members of its Executive Council also mentioned those specific points. Since the centre will be in the Jawaharlal Nehru University, the University was requested under Statute 14(xiv) to entrust full powers to manage and implement the project to the Project Steering Committee, and further to agree to transfer all assets and facilities of the Centre to the autonomous organisation for the Centre as and when it is set up by the UGC. The resolution passed by the Executive Council does not specifically mention this. It was agreed that the Jawaharlal Nehru University Executive Council may be requested to include this specific feature in its resolution when the minutes are confirmed. The Project Steering Committee understands that the Executive Council of the Jawaharlal Nehru University had actually implied the same.

2. In the course of the discussion Professor P.N. Srivastava raised the question of this Centre, being utilised not only by Nuclear Physicists, but also by Chemists, Biologists and Medical Researchers. He also desired that when the School of Physical Sciences is set up at the Jawaharlal Nehru University, there should be close cooperation between the Nuclear Science Centre and the School. Both these points were accepted as natural flowing out of the whole concept. In fact, linkages and cooperation will be built amongst all University Centres of Nuclear Science and other disciplines, and the NSC University. These Centres would be strengthened. Professor Nag Chaudhry and Professor M.K. Pal welcomed the initiative of the University Grants Commission in this direction and desired it to be understood that there was commitment of the UGC not only for the Pelletron, but also for the Super-conducting Cyclotron. The question of the time frame of the completion of the project and all possible costs was also raised. It was explained that the UGC's commitment is to provide facilities for advance research in this field, and, therefore, there is a long-term commitment; costs are bound to change with time and further development of the facilities would also involve additional expenditures in future. However, the present indications are that the changes will be within the framework of support which is visualised.

Professor A.N. Mitra wanted the training programmes and the interaction with the University system to be further developed so that the capacity to

utilise the research facility in all related disciplines is ensured, and the universities would be developed to utilise the new facility. There should be exchange of scientists between the universities and the Centres in both directions. He mentioned that for the first time universities will have equal opportunities with others in the use of high quality research facilities. The Committee was in full agreement with these views.

Professor R.C. Paul raised the question of 25 acres of land being perhaps too small for the needs of the Centre. It was felt that if need be, the JNU could be approached for some more land.

3. Great stress was laid on the autonomy of the Centre and flexibility in the approach to appointments and incentives for good work in the form of advance increments and possible promotions. This was generally appreciated by the Committee.

4. The following posts were created:

- a. Director in the grade of Rs. 2500-3000 1
- b. Scientist/Technologist in the grade of Rs. 1500-2000 And/Or Rs. 2000-2500 . 6
- c. Project Engineer (Supdt. Engineer Scale in CPWD). 1

The appointments as Scientists and Technologists will be made in accordance with needs and good work could be recognised by grant of advance increments or promotion.

5. It was agreed that the appointment of the Director should be made as early as possible, and in the first place it should be on contract of not more than five year. The Nuclear Scientists on the Project Steering Committee and the Vice-Chancellor, JNU, together with Vice-Chairman and Chairman, UGC, will act as a Search Committee for selecting a Director. The Chairman was authorised to make the appointment to the post.

6. It was agreed that the posts of Scientists/Technologists will be filled by advertisement, and also by obtaining names from members of the

Selection Committee or others. The Selection Committee will be nominated by the Chairman, the Director of the NSC would be a member of the Selection Committee, and the process of selection may be started on his joining the post.

7. It was agreed that the CPWD may be asked to provide a suitable person on deputation for appointment as project Engineer. The Chief Architect of the CPWD should be consulted before a decision is taken on the question of appointment of an architect and of the agency to undertake construction for the Centre.

8. It was agreed that four Reader/Professor level houses may be constructed on the JNU campus with assistance from the UGC, since JNU already has the process of construction of houses in hand. If in the meantime any suitable houses fall vacant in the JNU, the same could be provided to the Centre's staff. Authority was given to rent houses for the staff in the beginning. The VC, JNU agreed that office accommodation could be provided in the new library. Until then some office accommodation could also be rented, if necessary.

9. For the provision of funds required for ministerial and other staff, the Committee agreed that a sum of Rs. 2 lakhs per year should be made available to the Centre. It was felt that as far as possible service contracts should be given for work relating to security or horticulture and similar activities, in preference to directly employing staff. It was also felt that the Class IV staff should be kept to the very minimum.

10. The Centre would need funds towards contingencies, postal and telephone connections, travel, training programmes, purchase of a Jeep and a Car and expenses of unforeseen kind. The Committee agreed that a sum of Rs. 5 lakhs should be made available for this purpose per year for the present.

11. The question of delegation of powers to the Director was discussed, both in respect of administrative and financial matters. It was the unanimous opinion of the Committee that the Director should have adequate freedom to take decisions and to incur expenditure so that project activity is not held up for lack of authority. However, it was felt that when the Director joins, he may come forward with the specific suggestions in this regard.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 29th August, 1983

*Annexure III*  
*Item No 3-03*

Item No. 4.04 : To consider the project report on the establishment of a Nuclear Science Centre

...

The need for a Nuclear Science Centre in the University sector has been felt for a very long time by the academic community in the country. Frontline scientific work in this field, like in other fields, would not only be individually satisfying for the creative scientists in the university system, but it would also raise the prestige of the country in the international community and thus attract the best minds to these fields. A Nuclear Science Centre would contribute to a number of other fields of research particularly Atomic Physics and the inter-phase area of Atomic-Nuclear and Solid State Physics. The application of Nuclear Accelerator in various areas such as Materials Science, Medical treatment and diagnoses, Agricultural Research, Environmental and Public health are well known.

It is in view of this that the present project has a history of being considered by a large number of scientific groups and accepted at every stage.

- (i) Nuclear physicists first made the proposal which was examined and approved by the Physics Panel of the UGC in January, 1981.
- (ii) The proposal was referred to the Variable Energy Cyclotron User's Committee, where it was endorsed in February, 1981.
- (iii) A detailed proposal was submitted by a Committee established by the above User's Committee of the VEC for consideration of the UGC. The Commission accepted the proposal in principle in October, 1982 and set up a fresh committee to look into the entire proposal from the point of view of its feasibility and for indicating the type of Accelerator which is most suited for the purpose and to make other suggestions in this regard.

p.t.o.

- (iv) The above Committee, consisting of Dr.B.M. Udgaonkar, TIFR, Prof. AN Mitra, Delhi University, Dr.MK Mehta, BARC and the Vice-Chairman, UGC met in December, 1982 and made detailed studies of the proposition and submitted its strong recommendations to the UGC.
- (v) This recommendation was placed before the Commission in February, 1983 and the Commission's decision was "----- accepted the recommendations made by the Expert Committee and desired that steps may be taken urgently to get the project report prepared and to work out a proper management system.....".

The Commission appointed a Committee consisting of Dr.N.K.Ganguly, Convener, BARC, Professor G.K.Mehta, IIT, Kanpur and Dr. Arvind Jain, BARC to draw up a project report within 3 months. The project report, now in hand, is for consideration of the Commission. (Annexure.)

The project report consists of 11 chapters of which several are devoted to the working out of the exact details of the accelerator and associated research facilities, building and services, and expansion of the accelerator facilities subsequently.

Chapter 10 of the report deals with cost estimates and time schedule. Once the Commission has accepted the setting up of this facility, the financial burden within the Sixth Plan period is approximately Rs.2.66 crores, and that in the early part of the Seventh Plan period is Rs.11.3 crores. Therefore, at the present it is suggested that the Commission while accepting the report might approve incurring the expenditure indicated above. Further expenditure after 1988 will depend on the choice of the upgradation of the facility.

In regard to organisational structure indicated in Chapter VII, it is suggested that the Commission may agree to set up an autonomous organization for the maintenance and development of this unique facility, but its details may still be examined later on. The best manner of giving a start to the project is to set up a Steering Committee for the project with the Chairman, UGC/Vice-Chairman and Vice-Chancellors of the universities where the largest group for research



in Nuclear Physics exists. These are the universities at Aligarh, Chandigarh, Kurukshetra, IIT Kanpur, Patiala Varanasi and Waltair. The Steering Committee should act as the apex decision making committee regarding the Nuclear Science Centre. Furthermore one of the universities concerned will appoint a project director who will be a member of the Steering Committee.

The University concerned would have to agree that a Project Steering Committee would be set up for the implementation of the project upto the point of making it ready for research, and that as an Apex body the university would entrust the management of the facilities to the Project Steering Committee with full powers to implement the Project. The University would also have to agree that when the UGC sets up an autonomous organisation of the assets and facilities created will be transferred by the UGC.

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## SECTION 4

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

...

Meeting:  
Dated: **8th February, 1984**

Item No.4.01 : To consider the report of the Expert Committee for Special Assistance Programme for the Department of Zoology, Panjab University.

...

In accordance with the decision of the Commission while accepting the recommendation of the Standing Committee for CAS/DSA in its meeting held on 2nd August, 1982 (item No.4.08), a Committee of experts constituted to examine the present status of development of teaching and research in the Department of Zoology, Panjab University and its suitability for participation in one of the Special Assistance Programme in the thrust area(s) of importance visited the department on 8th October, 1983. The Committee consisted of the following:

1. Prof. Asok Ghosh  
Deptt. of Zoology,  
Calcutta University.
2. Prof. S. Krishnaswamy  
School of Biological Sciences  
Madurai Kamraj University.
3. Prof. P. C. Kesavan,  
Department of Life Sciences,  
Jawaharlal Nehru University  
New Delhi.
4. Dr. Gurbaksh Singh  
Education Officer  
University Grants Commission.

After reviewing the present activities of the department the Committee has recommended that the department may be supported as Department of Special Assistance (DSA).

The financial support recommended by the Committee

p.t.o.

to the Department of Zoology, Panjab University, Chandigarh for 5 years is indicated below:

Recurring

1. Staff

- i. Readers 2  
(1 for Proto Zoology and one for Cell Biology)
- ii. Driver 1
- iii. Research Associates 4  
(one in each of the thrust area)
- iv. Junior Research Fellows 4  
(one in each of the thrust area)

Estimated  
Rs. 1.5 lakhs p.a.

2. Working Expenses

- i. Contingency including chemicals, glass-ware, Diesels etc. Rs. 40,000/-p.a.
  - ii. Instruments repair/maintenance/spares, etc. Rs. 10,000/-p.a.
  - iii. Seminars - One Rs. 25,000/- for 5 years
  - iv. Training for young teachers in other labs/Visiting Professors including travel, etc. Rs. 10,000/-p.a.
- Total Rs. 2,10,000/-p.a.

Total Recurring for 5 years = Rs. 10,75,000/- approx.

Non-Recurring

A. Common Requirements of the Deptt.

- 1. Books & Journals Rs. 3,00,000/-
- 2. Jeep with Trailer Rs. 1,50,000/-
- 3. C.T. Room Rs. 1,00,000/-
- 4. Cold Room Rs. 1,00,000/-

p.t.o.

5.	Voltage Stabilizer	Rs. 25,000/-
6.	Green House	Rs. 95,000/-
7.	Ultracentrifuge	Rs. 3,25,000/-
8.	Spectronic 2000	Rs. 1,50,000/-
	Total	Rs. 12,45,000/-

B. Aquatic Biology

1.	C <sup>14</sup> Apparatus	Rs. 50,000/-
2.	Bomb Calorimeter	Rs. 30,000/-
		Rs. 80,000/-

C. Cell Biology

1.	Microphotodensitometer	Rs. 5,00,000/-
2.	Laser scan	Rs. 3,50,000/-
3.	Gamma Counter	Rs. 3,00,000/-
		Rs. 11,50,000/-

D. Entomology

1.	Insect rearing lab.	Rs. 50,000/-
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E. Parasitology

1.	Carl Zeiss Amplival microscopes	Rs. 75,000/-
2.	Ultrasonic tissue disintegrator	Rs. 50,000/-
3.	Magnetic tube stirrer	Rs. 50,000/-
4.	Multievent recorder	Rs. 10,000/-
5.	Clean Air Bench	Rs. 20,000/-
	Total	Rs. 2,05,000/-

Total NR = Rs. 27.30 lakhs

Grand Total of R + NR = Rs. 38.05 lakhs. (Rs. 38.05 lakhs)

The report of the Expert Committee is attached as Annexure.

The matter is placed before the Commission for consideration.

EO(SR.II)/JS(SR)

Annexure to item No.4.01

Report of the UGC Committee constituted to assess the requirements of the Department of Zoology, Panjab University, Chandigarh for its participation under Special Assistance Programme.

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The Commission at its meeting held in August, 1982 vide item No.4.08 accepted the recommendations of the Standing Committee on Centres of Advance Studies/Department of Special Assistance and constituted an Expert Committee to assess the requirements of the Department of Zoology, Panjab University and to make suitable recommendations for its participation under Special Assistance Programme in the thrust areas of the Department. The following Committee visited the Department of Zoology, Panjab University on 8th October, 1983:

1. Prof. Asok Ghosh  
Department of Zoology  
Calcutta University.
2. Prof. S. Krishnaswamy  
Department of Biosciences,  
Madurai Kamraj University.
3. Prof. P.C. Kesavan  
Department of Life Sciences,  
Jawaharlal Nehru University  
New Delhi.
4. Dr. Gurbaksh Singh,  
Education Officer,  
UGC.

The Committee held discussions with Prof. H.S. Vasisht, Head of the Department, Prof. G.P. Sharma and other colleagues. The Committee also visited all the laboratories to see the physical facilities available in the Department. The Committee also discussed various research activities of the Department with the students and senior research scholars.

About the Department:

The Department of Zoology, Panjab University has its origin in 1902 in Govt. College, Lahore. Since then it has made steady progress under the leadership of Prof. J. Stephenson, G.M. Methai, Diwan Anand Kumar, and S. Khera. After partition of Panjab, the Department

started functioning in the Govt. College, Hoshiarpur and moved to this new Campus of the Panjab University at Chandigarh in 1960.

The department imparts undergraduate education in General Organisation and functional morphology of invertebrates and vertebrates, Animal Behaviour, Cell Biology, Cytogenetics, Developmental Biology, Ecology, Endocrinology, Palaeontology, Taxonomy, etc. At postgraduate level it offers advance courses in Cell Biology, Endocrinology, Entomology, Environmental Biology, Fish and Fisheries, Fresh Water Biology, Parasitology, Plant and Nematology, Physiology and Wild Life.

The staff strength of the Department is 3 Professors, 6 Readers, and 11 Lecturers. The enrolment of the students is 51 for B.Sc. (Hons), 23 for M.Sc. (Hons), 15 for M.Phil. There are 3 Teacher Fellows and 25 Research Scholars doing research in the Department.

Apart from doing teaching and research the Department has organising Summer Institutes in Biology for College/ School teachers from time to time to familiarize the teachers with new methods of teaching and to acquaint with recent development and basic concept in the subject.

The Department organized a six months special training programme in Wild Life studies sponsored by the UGC from 2nd September, 1981 to 28th February, 1982, for preparing sufficient number of personnel for starting Wild Life courses at the undergraduate and postgraduate levels.

Dr. Vasisht has fabricated a Water Sampler, used for collecting the water samples and Dr. S. Chaudhary has also fabricated two units of self propagating automatic breeding cages for mosquitoes. The Department has so far published more than 800 papers in the national and international journals of repute. The Department is subscribing 45 journals for its library and also proposes to subscribe 42 more journals.

#### Observations of the Committee

1. The Committee noted that the thrust areas of the Department are : (i) Aquatic Biology (Limnology and Ichthyology); (ii) Cell Biology (Cytogenetics and

Cytoph isiology); (iii) Entomology; (iv) Parasitology out of three Professors one is in the area of Parasitology and two in Aquatic Biology., 4 of the Six Readers have specialization in Cell Biology and six out of 11 Lecturers have specialization in Cell Biology. It indicates that there is no position of Professor in Cell Biology and Entomology and there is no Reader in Aquatic Biology.

2. The Committee noted that during 5th Plan, UGC Visiting Committee recommended one Reader in Animal Physiology, one Reader in Experimental Embriology and one Lecturer in Biochemistry/Ecology for the Department. But all the positions were filled up in Cell Biology. The Committee is of the strong view that it must be ensured in future that the recommendations of the committee are implemented.

3. The Committee noted that one post of Professor with specialization in Entomology/Cell Biology and one position of Reader with specialization in Fish Biology/Protozoology have been provided by the Sixth Plan Visiting Committee.

4. Regarding equipment, the Committee noted that the Department urgently needs assistance for repair, maintenances and for spares.

5. It was noted that the Sixth Plan Visiting Committee has also recommended that the Department may avail of all the central facilities for establishing aquaria for Pisciculture and Bioassay studies.

6. The Department was recommended for DSA by earlier Committee in 1977 but the recommendations were not accepted by the Commission for reasons best known to the university.

#### Recommendations

The Committee discussed in detail the proposed plan of work in different thrust areas and after satisfying itself the Committee strongly recommends that Department of Zoology, Panjab University, Chandigarh may be considered for Department of Special Assistance for over a period of five years. However, the detailed plan of work, phased over five years, may be submitted by the Department to enable effective monitoring in the due course. The Department may constitute an Advisory Committee as per guidelines laid down by the Commission for this purpose.



The Committee strongly recommends that the post of Professor given by the Sixth Plan Visiting Committee be filled up in the area of Cell Biology, as a first priority. If one of the Reader in Cell Biology is promoted to Professor under the Promotion Policy, then the post of Professor may be filled up in the area of Entomology. The position of Professors in the areas are urgently needed for the overall growth of the Department.

The Committee strongly recommends that one position of Reader already provided by the Sixth Plan Visiting Committee may be filled up in the area of Fish Biology. In addition to this the Committee strongly recommends two positions of Readers in the following areas:

- i. One Reader in Protozoology;
- ii. One Reader in Cell Biology with orientation towards Molecular Biology/Molecular Cytogenetic/Cancer Biology.

The Committee recommends the following inputs for the Department of Zoology, Panjab University under Department of Special Assistance Programme for over a period of five years.

Recurring

1. Staff

Readers 2  
(1 for Protozoology and one for Cell Biology)

2. Driver 1

3. Research Fellows

i. Research Associates 4  
(one in each of the thrust areas)

ii. Junior Research Fellow 4  
(one in each of the thrust areas)

Rs. 1.5 lakhs p.a.

Working Expenses

1. Contingency including Chemicals and Glass-wares, Diesels etc. Rs. 40,000/- p.a.

- ii. Instruments repair/maintenance/spares etc. Rs. 10,000/-p.a.
- iii. Seminars-one- Rs.25,000/-for 5 years.
- iv. Training for young teachers in other labs/Visiting Professors including travel etc. Rs. 10,000/- p.a.

Non-Recurring

A. Common Requirements of the Department

Books & Journals	Rs. 3,00,000/-
Jep with Traylor	Rs. 1,50,000/-
C.T.Room	Rs. 1,00,000/-
Cold Room	Rs. 1,00,000/-
Voltage Stabilizer	Rs. 25,000/-
Green House	Rs. 95,000/-
Ultracent rifuge	Rs. 3,25,000/-
Spectronic 2000	Rs. 1,50,000/-
Total	<u>Rs. 12,45,000/-</u>

B. Aquatic Biology

C <sup>14</sup> Apparatus	Rs. 50,000/-
Bomb Calorimeter	Rs. 30,000/-
	<u>Rs. 80,000/-</u>

C. Cell Biology

Microphotodensitometer	Rs. 5,00,000/-
Interoscan	Rs. 3,50,000/-
Gamma Counter	Rs. 3,00,000/-
	<u>Rs. 11,50,000/-</u>

D. Entomology

Insect rearing lab.	Rs. 50,000/-
	<u>Rs. 50,000/-</u>

E. Parasitology

Carl Zeiss Amplival microscope	Rs. 75,000/-
Ultrasonic tissue disintegrator	Rs. 50,000/-
Magnetic tube stirrer	Rs. 50,000/-
Multievent recorder	Rs. 10,000/-
Clean Air Bench	Rs. 20,000/-
	.....
	Rs. 2,05,000/-
	.....

The Committee records its thanks to the Vice-Chancellor, Prof. R.C. Paul, Prof. H.S. Vasisht, Head of the Department and his colleagues for the cooperation extended to the Committee during the visit.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 8th February, 1984

Item No. 4.02 : To consider the report of the Expert Committee for Special Assistance Programme for the Department of Mathematics, Roorkee University.

...

The University Grants Commission on the recommendations of the Mathematics Panel and an Expert Committee, agreed to provide financial support to the Departmental Research Project, over a period of 3 years beginning from 13.12.1979, for the Department of Mathematics, Roorkee University. The initial tenure of the project was extended by another period of 6 months i.e. upto 12.6.1983.

An expert committee consisting of the following was constituted by the Commission to evaluate the work done by the Department under the Departmental Research Support (DRS) and to examine the proposals for further support:

1. Prof. S. I. Hussain,  
Department of Mathematics,  
Aligarh Muslim University.
2. Prof. M. P. Singh,  
Department of Mathematics,  
Indian Institute of Technology,  
New Delhi.
3. Prof. D. K. Sinha,  
Department of Mathematics,  
Jadavpur University.
4. Dr. C. P. Srivastava,  
Education Officer,  
UGC.

After reviewing the present activities of the Department, the Committee, which visited the department on 30th November, 1983 has recommended that the Departmental Research Support Programme be further extended for a period of two years in order to give an opportunity to interact with the other departments in a more concrete and purposeful way. The Committee,

suggested that the programme may be reviewed after two years with the help of an Expert Committee, but the annual progress may be reviewed with the help of an Advisory Committee as per UGC rules. A copy of the report of the Expert Committee is attached as Annexure.

The financial support recommended by the Committee for the Department of Mathematics, Roorkee University for two years is indicated below:-

Non-Recurring

Equipment (Computer Terminal & other needs) Rs. 1,00,000/-

Recurring

1.	Visiting Faculty @Rs. 30,000/-p.a.	Rs. 60,000/-
2.	Books & Journals@Rs. 40,000/-p.a.	Rs. 80,000/-
3.	Contingency @Rs. 15,000/-p.a.	Rs. 30,000/-
4.	Computation @Rs. 5,000/-p.a.	Rs. 10,000/-
5.	Computer Stationary@Rs. 15,000/-p.a.	Rs. 30,000/-
6.	Staff- 6 JRFs	Rs. 26,400/-

Total (NR +R) Rs. 3,96,400/-

The matter is placed before the Commission for consideration.

EO(SR.I)/JS(SR)

Annexure to item No.4.02

To consider the Assessment Report of the Expert Committee on Departmental Research Support Programme of the Department of Mathematics, Roorkee University, Roorkee

...

The University Grants Commission supported the Department of Mathematics, Roorkee University, Roorkee under Departmental Research Support Programme on the basis of the recommendations made by an Expert Committee which visited the Department on October, 7, 1978. The Committee consisted of Prof. R.P. Bambah, Panjab University, Chandigarh, Prof. J.N. Kapur, Indian Institute of Technology, Kanpur, and Prof. D.K. Sinha, Jadavpur University. On the basis of the recommendations the Commission approved grants on 14.6.1979 (at annexure) for a period of three years. The programmes commenced from 13.12.1979 and continued for a period of 3½ years i.e. upto 12.6.1983.

The UGC constituted a Committee to assess the progress and the impact made by the Department under the Departmental Research Support Programme. The Committee consisted of the following members:-

1. Prof. S.I. Hussain,  
Department of Mathematics,  
Aligarh Muslim University.
2. Prof. M.P. Singh,  
Indian Institute of Technology,  
Hauz Khas, New Delhi.
3. Prof. D.K. Sinha,  
Jadavpur University,  
Jadavpur, Calcutta.
4. Dr. C.P. Srivastava,  
Education Officer,  
UGC.

The Committee visited the Department of Mathematics, Roorkee University, Roorkee on November, 30, 1983 and held discussions with Prof. S.N. Pandey, Head of the Department and his colleagues. The Committee also met the Vice-Chancellor and had discussions on some of the important issues. The Committee while discussion with the staff members tried to ascertain their specific needs, common requirements, and practical problems in implementing the programme. The Committee visited the Department and examined the infrastructural facilities available in the Department.

teaching of engineering, Mathematics for B.E., B.Arch.

The Department of Mathematics, Roorkee University Roorkee was established in 1949. Initially the Department was teaching Mathematics courses for engineering students only. Postgraduate M.Sc. courses in Applied Mathematics was started in 1960. The Postgraduate Diploma Course in Automatic Computation has been started in 1978 and a two semester M.Phil course in Mathematics started in 1982. Apart from these courses the teaching activities of the Department include M.E.M.Arch. and Mathematics for M.Sc. Physics, Geology, Geo-physics and Chemistry. The major areas of research activities of the Department are (1) Solid Mechanics and Vibrations; (2) Fluid Mechanics and Hydro Dynamics; (3) Astro-Physics and Cosmology; (4) Analysis and (5) Numerical Analysis.

Under the Departmental Research Support Programme, the Department proposed to carry out:

1. Vibration of plates and shells of (i) variable thickness; (ii) composite materials.
2. Bonding, Buckling and Vibration of Beams, Plates and shells of composite materials.
3. Stress Analysis of the Casing of a Turbo-Generator.
4. Analysis of stress under Creep conditions for a Rotational Design of Pressure Vessels, Tubes, Columns etc. Operating of High Temperature.
5. To calculate the strength of material containing a crack (or cracks) and inhomogeneity (or inhomogeneities).
6. The Study of Flow problems in Hydromagnetics.
7. Hydrodynamic and Hydromagnetic Stability of Industrially oriented systems.
8. Pulsation and Stability of Stars.
9. The Oscillations of rotationally and tidally distorted stellar models.
10. Numerical and approximate solution of moving boundary problems arising in heat flow and diffusion.

The Department is actively engaged in traditional research and has published about 30 research papers in the journals of international repute. The present

staff strength is 3 Professors, 13 Readers, 17 Lecturers. At present 30 Junior Research Fellows are working in the Department for Ph.D. degrees. The number of Ph.D. produced during the last five years is 26. The Department has the opportunity of utilizing the association of Prof. Chandrika Prasad (CSIR, Emeritus Scientist and Dr. M.N. Mahanta, Pool Officer, CSIR). The Department has organised VII Annual Meeting of the Astronomical Society of India in 1981.

The Committee after discussing and reviewing the whole situation made the following observations:-

1. The earlier Visiting Committee made a specific recommendation that the Department should take effective steps to develop interaction with the staff members of the other faculties on the problems of Engineering and industry based as the department is being located in an engineering university and therefore, it should not have any implementation of the Departmental Research Programme for a period of 3½ years. The Committee noted that no effective interaction has been established with the other faculty members. The explanation put forth by the Head of the Department and the staff members was that the members of the other faculties are not much interested as they have got adequate financial support from various agencies and whenever they need our help they bank upon us and seek our cooperation for short time for tackling the problems, secondly, the earlier Head Prof. Chandrika Prasad retired and later on the Headship was taken over by Prof. M.M. Srivastava who after continuing about a year or so left for Germany. The present Head of the Department Prof. S.N. Pandey has taken over charge about a year and a half ago. This frequent change in Headship is also responsible for not having interaction with the other faculties. However, in some cases the staff members have got personal links with other departments. The Committee was of the feeling that this interaction can be developed effectively by enrolling the students for Ph.D. under joint supervision.
2. The Committee noted with distress that many of the faculty members are stagnating for the last many years which has created a good deal of frustration among the faculty members.

practical problems.  
However, after the



The university should impress upon the State Govt. for the implementation of the Merit Promotion Scheme in the university or to give a separate status to the university as being the premier university of the State.

3. The Committee appreciated with the quality of research work, though traditional, carried out and the number of papers published in international journals in the last three years. This quantity and quality could have been further improved if there had been a continuity in the leadership.
4. The Department has started M.Phil course but they do not have scholarships to offer them. Obviously, it is difficult to attract the talented students. The Committee felt that some of the fellowships could be utilised for those students, who are enrolled for Ph.D. degrees.
5. The Department has been sanctioned with one post of Professor and one post of Reader under Sixth Plan. The posts are to be filled up in the areas of Applied Mechanics, Astro-Physics, Numerical Analysis, Pure Mathematics or Plasma Physics, Hydro Dynamics, Theory of relativity.
6. The grants allocated under the Departmental Research Programme could not be fully utilised specially "Visiting Fellowship", partly due to some misunderstanding and partly due to rapid change in Headship.
7. The Committee realised the genuine need of a Computer terminal in the department which could enhance the research output, as the main Computer Centre remains very busy.
8. The Department has got about 7000 books and has been subscribing 64 journals (10 Indian and 54 International).
9. The Committee has invited 13-14 persons for lecturers but could have invited some more persons from other disciplines in order to have a closer interdisciplinary interactions and the visiting fellowships money could have been utilised for this for larger duration.
10. Solid Mechanics Group is engaged in (i) studies on creep of pressure vessels, plates, disks and tubes; (ii) Static and dynamic problems of

plates and shells and (iii) strength of material when material contains static, dynamic or propagation cracks in presence of inhomogeneities. Now this group has intended to interact with Engineers and designers and to tackle their problems. The fluid mechanics, MHD and Plasma Physics group is working on boundary layer theory, second order fluids, heat transfer, stability of flows, MHD flows and plasma flows. But this group has now decided to continue investigations further on the applications oriented problems. Such problems have direct application to chemical process industries, power generation, flowmetry and bioscientific applications. Now the research work in Bio-Mathematics has been initiated with active interest in Physiological fluid dynamics and study of migrating system of population dynamics. Theoretical Astrophysics group has intended to work in the field of space dynamics with special reference to problems of earth's artificial satellites. The operational research and statistics group are planning to collaborate with Engineering departments, Structural research centre and National Institute of hydrology. The Approximation Theory, Functional Analysis, Complex Analysis and Special Functions group has proposed to select the problems of practical nature which have applications in the field of computers and the solution of Engineering problems.

Keeping above facts in view, the Committee was of the opinion that the Department has certainly made achievements academically in terms of quality and quantity despite some weaknesses and felt that the Departmental Research Support programme be further extended for a period of two years in order to give an opportunity to interact with the other departments in a more concrete and purposeful way. The programme may be reviewed after two years with the help of an Expert Committee, but the annual progress may be reviewed with the help of an Advisory Committee as per rules of the UGC. The Committee recommended the following inputs :-

Non-Recurring

Equipment

(Computer Terminal and other needs

Rs. 1,00,000/-

p. t. o.

Recurring

1. Visiting Faculty	Rs. 30,000/- p.a.
2. Books & Journals	Rs. 40,000/- p.a.
3. Contingency	Rs. 15,000/- p.a.
4. Computation	Rs. 5,000/- p.a.
5. Computer Stationery	Rs. 15,000/- p.a.
	<hr/>
	Rs. 1,05,000/- p.a.
	<hr/>

Rs. 1,05,000/- x 2 = Rs. 2,10,000 ( for 2 years)

6. Staff

Junior Research Fellows -6 Rs. 86,400/-

Total :- 1,00,000/- + 2,10,000/- + 86,400/-  
= Rs. 3,96,400/-

The Committee noted that a number of departments of the University have been identified and supported under the Special Assistance Programme of the Commission and felt that the University should constitute an inter-departmental committee in order to have a closer interaction.

The Committee records its thanks to the Vice-Chancellor, Prof. S.N. Pandey, Head of the Department and his colleagues for the cooperation extended to the Committee during its visit.

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ANNEXURE

Items

Approved

Non-Recurring

1. Books & Journals

1,00,000/-

2. Equipment

30,000/-

Recurring

1. Research Associates - 4 X

Actuals

2. Junior Research Fellows-4 X

3. Visiting RFellows

30,000/- p.a.

4. Books & Journals

40,000/- p.a.

5. Contingency

10,000/- p.a.

6. Computation

5,000/- p.a.

7. Computer Stationery

12,000/- p.a.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 0th February, 1984

Item No.4.03 : To consider the report of the Expert Committee for Special Assistance Programme for the Department of Botany, Rajasthan University, Jaipur.

...

In accordance with the decision of the Commission while accepting the recommendations of the Standing Committee for CAS/DSA in its meeting held on 2nd August, 1982 (item No.4.08), a Committee of experts constituted to examine the present status of development of teaching and research in the Department of Botany, Rajasthan University and its suitability for participation in one of the Special Assistance Programme in the thrust area(s) of importance visited the department on 15.9.1983. The committee consisted of the following:-

1. Prof. J.J. Shah,  
Department of Botany,  
Sardar Patel University.
2. Prof. A. Gnanam,  
School of Biological Sciences,  
Madurai Kamraj University,  
Madurai.
3. Prof. (Mrs.) Sipra Guha Mukherjee,  
School of Life Sciences,  
Jawaharlal Nehru University,  
New Delhi.
4. Dr. C.P. Srivastava  
Education Officer,  
UGC.

After reviewing the present activities of the department the Committee has recommended that the department may be considered for Departmental Research Support (DRS) Programme of the Commission for a period of three years. A copy of the report of the Expert Committee is attached as Annexure.

p.t.o.

The financial support recommended by the committee to the Deptt. of Botany, Rajasthan University for 3 years is indicated below:-

NON RECURRING

1.	Refrigerated Centrifuge (20,000 rpm)	Rs. 1,50,000/-
2.	High Pressure Liquid Chromatography	Rs. 2,50,000/-
3.	Photomicroscope, Zeiss	Rs. 3,00,000/-
4.	Electrophoretic apparatus with Scanner (Biorad) or ISCO	Rs. 1,50,000/-
5.	Stereoscopic microscope (two) Leits or Zeiss	Rs. 1,00,000/-
6.	Laminar flow Chamber-Two	Rs. 75,000/-
7.	One inverted Microscope (Leits/olympus)	Rs. 1,00,000/-
8.	Central Air-Conditioning and furnishing of Culture Rooms (underground chambers) and centralised instrumentation room	Rs. 3,00,000/-
	Total NR	Rs. 14,25,000/-

RECURRING

1.	Books & Journals @Rs. 30,000/-p.a.	Rs. 90,000/-
2.	Chemicals & Glasswares @Rs. 50,000/-p.a.	Rs. 1,50,000/-
3.	Contingency & Working expenses @Rs. 20,000/-p.a.	Rs. 60,000/-
4.	Field work @Rs. 20,000/-p.a.	Rs. 60,000/-
	Total Recurring	Rs. 3,60,000/-
	Grant Total (NR+R)	Rs. 17,85,000/-

The matter is placed before the Commission for consideration.

EO(SR.I)/JS(SR)

Annexure to item No.4.03

To consider the report of the Expert Committee on Special Assistance Programme of the Department of Botany, Rajasthan University, Jaipur.

...

The UGC constituted a Committee to examine the proposal of the Department of Botany, Rajasthan University, Jaipur under the Special Assistance Programme of the Commission. The Committee consisted of the following persons :

1. Prof. J.J. Shah  
Sardar Patel University  
Vallabh Vidyanagar.
2. Prof. A.Gnanam  
School of Biological Sciences,  
Madurai Kamraj University  
Madurai.
3. Prof. (Mrs.) Sipra Guha Mukherjee  
School of Life Sciences  
Jawaharlal Nehru University  
New Delhi.
4. Dr. C.P. Srivastava  
Education Officer  
UGC.

The Committee visited the Department of Botany on September 15, 1983 and held discussions with Prof. Dalbir Singh, Head of the Department and his colleagues. The Committee also discussed with all the staff members and research students in groups and individually in order to ascertain their common requirements as well as the specific needs which could help in strengthening the infrastructural facilities of the Department and giving a new dimension to their existing research activities. The Committee visited the laboratories, library and examined the other basic infrastructural facilities available in the department.

The Department of Botany was established as a postgraduate department in July, 1960 at Jaswant College, Jodhpur. It shifted to Jaipur in July, 1963 and was housed in the University Rajasthan College until 1974. The Department shifted to the present building in August, 1974. The Department originally had five staff,

members on the teaching faculty (one Professor + 2 Readers + 2 Lecturers). The strength and academic activities over the year have gone up and at present there are 3 Professors, 6 Associate Professors and 36 Assistant Professors. The university has got two constituent colleges i.e. Maharaja College and Maharani College at Jaipur and the teaching of Botany in these colleges is the responsibility of the staff members of the University.

This department offers M.Sc. degree in Botany. The Department is very active in research and has published about 174 research papers in the national and international journals and has produced 63 Ph.D. degrees in the last five years. The major areas of the active research in the Department are (A) Developmental Morphology and Anatomy: (i) Embryology including fruit and seed anatomy; (ii) Root and shoot apices; (iii) Bryophytes of Rajasthan; (iv) Penetration and Location of fungal pathogens in seeds; (v) Structure and development of fungal, nematode and insect induced galls; abnormalities caused by mycoplasma. (B) Plant Physiology and Biochemistry: (i) Primary and secondary products in some economically important plants - in vivo and in vitro studies; (ii) Photosynthesis; (C) Mycology and Plant Pathology: (i) Fungal flora of Rajasthan; (ii) Seed Pathology; (iii) Post-harvest diseases; and (iv) Host-parasite relationship. Besides these areas some work is also being carried out on Plant Ecology, Taxonomy, Phycology, Microbiology and Chemical Mutagenesis.

/(vi) experi-  
mental morph-  
ogenesis,

The Committee appreciated the quality and quantity of research work carried out by the Department and was greatly impressed with the enthusiasm of the workers inspite of many constrain of space and facilities. There is really acute shortage of space in the department due to which 3 to 4 persons alongwith research scholars are squeezed in a single room. The Department does not have even the cold room. The Department lacks a centralised airconditioned equipment room in which all equipments can be kept for the optimal use of all. The committee is of the opinion that the Department can contribute more than what they are presently doing with additional inputs in terms of air-conditioning facility for the Culture rooms.

The Department intends to undertake the major research activities in the areas of Plant Pathology, Physiology and Bio-chemistry. The Plant Pathology studies will be related mainly with (a) Seed Pathology



special survey of Seed Borne Myco-flora of cereals and Leguminous crops of Rajasthan, Penetration, location and transmission of important Pathogens and their control, (b) Survey, Histopathology and Biochemical studies on galls induced by mites (using tissue culture techniques). Tumours on Mangifera indica, Diospyros Indonaxylon and Acacia catechu are proposed to be studied; (c) Phytotherapy and witches broom diseases of some medicinal and ornamental plants; (d) studies on galls induced by Nematodes.

Under Physiology and Biochemistry the studies proposed are related with the study of Cell Protoplast Cultures in some cereals and legumes; (b) Primary and secondary products in some economically important plants in vivo and in vitro (c) Photosynthesis and production of hydrocarbons in plants.

The Committee noted that 13 members of the staff have been abroad in connection with the post doctoral research work or doctorate degrees. The members of the staff have been interacting with many other institutions in order to avail their research facilities, like IITs. At present 3 research associates, 4 Post-doctoral fellows, 12 teacher fellows and 49 research scholars are working in the department. The Committee observed that the present practice of including the teachers engaged in teaching in the constituent colleges as university department faculty is unusual and unwidely. This results into large number of faculty members requiring research support within the limited level of working arrangement to distinguish the research oriented university faculty from the teaching oriented college faculty should be practised. The Committee feels that UGC assistance may not become very effective if the Department remains very unweildy in number because of this peculiar arrangement of associating teachers of the constituent colleges or the vice-versa. The Committee also noted that the huge number of research associates, post-doctoral fellows and junior research fellows are already working in the department and it would be virtually impossible to accommodate any more research students, specially in view of the inadequate space available. Therefore, the Committee felt that the Department should carry out the proposed research plan with the existing research fellows and with the regular fresh intake of fellows every year on a rotation to offer the existing ones fall vacant.

ANNEXURE

Non-Recurring

1. Refrigerated Centrifuge (20,000 rpm)	Rs. 1.50 lakhs
2. High Pressure Liquid Chromatography	Rs. 2.50 lakhs
3. Photomicroscope, Zeiss	Rs. 3.00 lakhs
4. Electrophoretic apparatus with Scanner (Biorad) or ISCO.	Rs. 1.50 lakhs
5. Stereoscopic microscope (two) Leits or Zeiss	Rs. 1.00 lakhs
6. Laminar flow Chamber - Two	Rs. 0.75 lakhs
7. One inverted Microscope (leitz/olympus)	Rs. 1.00 lakhs
8. Central Airconditioning and furnishing of Culture rooms (underground chambers) and centralised instrumentation room.	Rs. 3.00 lakhs
Total	<hr/> Rs. 14.25 lakhs <hr/>

Recurring

1. Books & Journals (Rs. 30,000/- p.m.)	Rs. 0.90 lakh
2. Chemicals & Glasswares (Rs. 50,000/- p.a.)	Rs. 1.50 lakh
3. Contingency & Working expenses (Rs. 20,000/- p.a.)	Rs. 0.60 lakh
4. Field work (Rs. 20,000/- p.a.)	Rs. 0.60 lakh
Total	<hr/> Rs. 3.60 lakhs <hr/>

Grant Total - Recurring + Non-recurring =  
3.60 lakhs + 14.25 lakhs = 17.85 lakhs.

.....

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting:

Dated : 6th February, 1984

Item No. 04 : To consider the report of the UGC Review Committee on the C.A.S. in Marine Biology, Annamalai University (2nd December, 1983)

..

The UGC constituted a committee to review the comprehensive performance of the C.A.S. in Marine Biology, Annamalai University. The Committee consisted of the following:

1. Dr. S.Z. Qasin,  
Secretary,  
Department of Ocean Development,  
Government of India,  
New Delhi.
2. Prof. C.V. Kurian,  
Emeritus Scientist,  
Palagic Fisheries Laboratory,  
MFRI, Cochin.
3. Prof. S. Dutt,  
Department of Marine Living Resources,  
Andhra University,  
Visakhapatnam.
4. Shri T.C. Menon,  
Joint Secretary,  
U.G.C., New Delhi.

The Committee visited Annamalai University on 2nd December, 1983 and held discussions with the Vice-Chancellor, Head of the Centre and his colleagues, research fellows and also went round the laboratories. Report of the Committee is at annexure I.

Dr. Qasin could not join the Committee on 2nd December, 1983.

The Commission at its meeting held on 11th December, 1978 considered the question of further assistance to the Centres of Advanced Study which have already been assisted for a period of 15 years ending March, 1979. It was also agreed to provide basic grant (NR) of Rs.1 lakh for equipment and Rs.1 lakh for books & journals.

The Centre of Advanced Study in Marine Biology, Annamalai University was recognised by the Commission in October, 1963.

.....2/-

The Centre has brought out 456 publications in leading national and International journals, has produced 65 Ph.Ds during the last 20 years, and has made significant contributions in various fields of marine biology, estuarine ecology and backwaters.

The Committee has recommended assistance for a period of 5 years to strengthen the research activities of the Centre on modern lines.

The financial implications of the recommendations are :-

<u>Non-Recurring (5 years)</u>	<u>Rs. in lakhs</u>
1. Equipment (as in appendix I)	12.50
2. Reprographic facilities	0.75
3. 43.5' Boat with cabin and navigational facilities for 6 working scientists on board for 2 to 3 days cruises off shore	5.0
4. Experimental tanks and ponds with circulating sea-water supply	1.0
5. Dark room/photographic equipments	0.50
6. Publication of monographs/seed money	1.0
7. Laboratory-cum-seminar room 2000 sq.ft. with fittings	3.0
8. Boat Jetty	2.0
9. Guest house accommodation	1.5
10. Books, Journals & Back volumes	5.0
11. Working expenses/field work/travel seminars	5.0
12. Vehicle/fuel charges (driver to be provided by the university)	1.50 1.0
13. Stand-by Generator	1.0
14. Desktop type computer	0.50
15. Visiting Faculty	1.0
Total : N.R.	41.25

Recurring:

Academic staff

- 1 Professor (marine physiology/biochemistry/microbiology)
- 1 Scientific Officer

Research Staff

- 6 JRF (P.A.)
- 4 Research associates

Total IR + R = Rs.49.25 lakhs

8.00  
estimated

The matter is placed before the Commission for consideration.

Annexure to Item No. 4.04

Report of the Review Committee on the C.S in Marine Biology,  
Annamalai University ( 2nd December, 1983)

.....

The UGC constituted a Committee to review the comprehensive performance of the C.S in Marine Biology, Annamalai University. The Committee consisted of the following:

1. Dr. S.Z. Qasin,  
Secretary,  
Deptt. of Ocean Development,  
Government of India,  
New Delhi.
2. Prof. C.V. Kurian,  
Emeritus Scientist,  
Palgic Fisheries Laboratory,  
CMFRI, Cochin.
3. Prof. S. Dutt,  
Deptt. of Marine Living Resources,  
Andhra University,  
Visakhapatnam.
4. Shri I.C. Menon,  
Jt. Secretary,  
UGC, New Delhi.

The Committee visited Annamalai University on 2nd December, 1983 and held discussions with the Vice-Chancellor, Head of the Centre and his colleagues, research fellows and also went round the laboratories.

Dr. Qasin could not join the Committee on 2nd December, 1983.

The Commission at its meeting held on December 11th, 1978 considered the question of further assistance to Centres of Advanced Study which have been already assisted for a period of 15 years ending March 1979. It was agreed that in the case of such Centres of Advanced Study, the type of assistance to be given for future activities may be related to specific, well-defined projects which can be implemented within the specified periods and these proposals could be considered on merit. It was also pointed out that the question of providing further assistance to these departments after the Commission's assistance ceases would also be explored keeping in view the suggestions of the Review Committee to these Centres. Pending the review, the Commission agreed to provide basic grant (NR) of Rs.1 lakh for equipment and Rs.1 lakh for books and journals during 1980-81.

.....2/-

### Background

The Department of Marine Biology, Annamalai University which is located on the foreshore at Portonovo close to Vellar estuary with access to the sea was recognised by the University Grants Commission as a Centre of Advanced Study in October 1963. Portonovo is situated about 24 km from the university headquarters. This marine biological station of Annamalai University which started its work in 1951 had developed distinctive line of work in several fields of marine biology and had made significant contributions under the leadership of late Prof. R.V. Seshaiya to the understanding of marine biological problems of this area. This station is located in a place of high strategic significance for investigations on various aspects of marine biology, estuarine ecology and also backwaters. The recognition of this department as a CAS and substantive financial support from the UGC during the last 20 years provided the necessary impetus for the development of the department into a wellknit marine biological station in India with its specialised laboratory, hostel a few staff quarters and also some facilities for investigations in inshore waters. The Centre also received support under the UGC's sponsored programme of assistance from U.K.

The Centre has 17 members on its faculty: 4 Professors, 6 Readers, 1 Sr. Research Officer, 5 Research Associates and 1 Jr. Research Officer, 14 Administrative staff and 6 technical staff.

The annual intake for M.Sc. is 50. At present, 100 students are undergoing the 2 year M.Sc. courses in Oceanography and marine biology. The course contents have been restructured to train students in sea water analysis, microbiology pollution monitoring, and oceanographic instrumentation in addition to fishery biology, brackish water aquaculture and other biological aspects.

Seven candidates were awarded the M.Sc. degree in 1963-64. The number was raised to 38 in 1982-83. The annual intake of 50 students for M.Sc. from 1983-84 by doubling the enrolment is not conducive to maintenance of high standards. The university discontinued undergraduate enrolment in the various departments from last year (1982-83) without reducing the staff and decided to double the postgraduate enrolment in all departments. The decision was applied to the Centre of Marine Biology also, although the Centre did not enrol and is not enrolling undergraduate students. There is no justification for the university on academic grounds to double the annual intake in the Centre of Advanced Study in marine biology. The facilities available cater to 25 students and, therefore, annual admission should be frozen at this level. Further there is no need for such large output of M.Sc.s in this field. Unregulated enrolment beside lowering standards results in unemployment of the products who then seek employment as teachers in schools or clerical jobs in banks etc.

An M.Phil. programme was started in 1979. Sixteen candidates have been awarded the M.Phil. degree so far. During the first 3 phases 15 Ph.Ds were awarded. Between 1978-8 and 1983 the output of Ph.Ds rose to 50.

At present there are 12 students working for M.Phil. There are 49 research fellows registered for Ph.D. of whom 7 are teacher fellows under Faculty Improvement Programme and 20 working in various research schemes. A total number of 13 research projects have been undertaken by the Centre with assistance from UGC, OST, ICAR, DAE, D.O.En.etc. 10 have been completed successfully.

During the three phases of U.G.C. assistance. 4 posts of Professor, 8 posts of Reader and 7 Research Associateships were created. Two posts of Reader and 2 posts of Research Associate are vacant. Research Associates are in the same grade as lecturers but the terminology is a hangover from the past. Six administrative staff positions were created of which 1 is vacant. Of the 7 posts of technical staff 1 is vacant (laboratory technician). Class IV staff positions created were 12 of which only 1 is vacant (driver).

UGC assistance

The cumulative expenditure from UGC grants is given below:-

	<u>Recurring</u>	<u>Non-Recurring</u>	<u>Total R + NR</u>
	<u>Rs. in lakhs</u>		
1st phase	2.84	2.15	4.99
2nd phase	18.47	11.23	29.70
3rd phase	3.94	13.43	17.37
		Grand total:	<u>52.06</u>

Six junior research fellows p.a. and four National Scholars p.a. are also available, besides 3 postdoctoral fellows (Research Associates) at a time.

The recurring items have been taken over by the University. The amount provided during 1982-83 was

- 1) Rs.10,000/- for publications and journals
- 2) Rs.15,000/- for books and journals and
- 3) Rs.35,000/- for contingencies.

There is no provision available to the Centre for conduct of seminars.

The Centre has brought out 456 publications in leading national and international journals during the last 20 years in the major research areas:

1. Fishery Biology	235
2. Biological Oceanography	80
3. Marine Chemistry	39
4. Marine Microbiology	43
5. Marine Acology	42
6. Marine Pollution	17
Total	456

Of these, 82 papers have been published during the last 3 years.

The Centre has 4375 books in the library, 50 journals are being received of which 15 are being subscribed and the others are being obtained on exchange basis.

The thrust areas in the centre are a. Marine Biology, b. Estuarine Biology, c. Pollution and toxicology, d. Fishery biology, e. Plankton and productivity, f. Micro-biology, and ecology. The research programmes are geared towards

1. Coastal water quality assessment, pollution monitoring, environmental inventory and toxicological studies.
2. Microbial biodegradation and decomposition in the marine environment.
3. Ecosystem analysis with special reference to mangroves estuaries and swamps along Tamilnadu coast.
4. Systematics, ecology, breeding biology and laboratory culture of coastal fish and shellfish and investigations on their larvae.

The location of the CAS affords a wide range of excellent opportunities for estuarine and marine biological studies. The estuary, backwater, neritic zone and fresh water head of the estuary are all easily accessible from the laboratories.

The region is also interesting on account of the extensive mangrove swamps in the neighbourhood of Pichavaram, and the submarine canyons about 24 km. from the laboratory. The biological potential of the locality is rich and varied and available for study practically throughout the year. The plankton and intertidal fauna particularly are rich.

The Comprehensive assessment of the coastal zone ecosystem together with its biotic and abiotic resources from the angle of long-term resource conservation through a well-coordinated



and cooperative team effort by scientists from different disciplines is being attempted. Investigation of the complex web of inter-relations between the marine organisms and between them and the medium in which they live is a major part of ecological research. The monitoring of pollution as a result of the extensive use of insecticides is proposed to be undertaken. This necessitates standardisation of techniques for measuring various pollutants, to study their effect on the biology and life cycle of marine organisms.

Under coastal wet land ecosystem studies the flow of energy and material through various trophic levels in both pelagic and benthic communities needs to be evaluated to gain an understanding of the productivity characteristics of herbivores and small carnivores that are commercially harvestable.

In fishery biology, the processes of concentration and enrichment involved in primary and secondary production in coastal waters needs investigation with a view to establishing the basis for development of coastal aquaculture, to identify potential coastal areas for aquaculture and to select suitable species of fish and shell fish, for optimum utilisation of living resources.

The study of metabolites from tropical marine environments which could serve as antibiotic and anticancer compounds holds promise in marine biomedical research. Another area of relevance and national importance is microbial leaching of minerals and ores through the removal of impurities by selected strains of marine bacteria and fungi. This is another area of research of great promise and is a virgin field which deserves encouragement. Another important line of work proposed in the field of marine microbiology is on fish diseases (bacterial, viral and fungal) alongwith studies on their control.

The staff of the Department have been sent abroad for training in various laboratories and also for participation in a number national and international conferences and seminars.

#### Visitors

The Centre attracts a number of eminent scientists both Indian and foreign every year. More than 50 scientists visited the Centre and interacted with staff and students during the last 3 years.

#### Comments and Observations

The Centre has utilised UGC assistance in the 3 phases (1963-78) and also the developmental assistance under the 5th Plan schemes. The Centre is active in relevant and emerging areas of research which play crucial roles in strengthening activities on various aspects of ocean sciences.

The activities of the Department have to be organised in 5 sections or units in keeping with the thrust areas and specialisations of the research staff. They are:

1. Physical and Chemical Oceanography-1P; 2 R.A.	=	3
2. Biological Oceanography and Marine Botany	-1 P, 1 R, 1 RA	= 3
3. Fishery Science and Coastal Aquaculture	1 P; 3 R; 1 L	= 5
4. Marine Microbiology, Physiology and Biochemistry	-3 R; 1RA	= 4
5. Marine Ecology	1 P; 1 RA	= 2
	Total	17

There are two unfilled posts of Readers and two of Research Associate.

The Committee is of the view that the 2 unfilled posts of Reader, one should be in Chemical Oceanography and one in Marine Ecology, candidates who have M.Sc. in marine biology with doctorates in the above two areas are to be recruited.

The Committee recommends that the Research Associates who are virtually lecturers in terms of pay scale, qualifications and functions be redesignated as lecturers. The two vacancies of Research Associates may be filled up with one Lecturer in Physiology and one lecturer in Biostatistics. It would be better if a marine biologist is trained in statistics. This could be done at the Indian Statistical Institute.

The Committee also recommends 1 professorship in marine physiology/ biochemistry/microbiology. For visiting faculty Rs.20,000/-p.a. is recommended. Thus the centre will have 5 professors, 9 readers and 8 lecturers which is the optimum strength. One post of Scientific Officer (electronics/instrumentation) to maintain and service equipment is recommended. The present strength of 6 JRF p.a. should be maintained and as per UGC norms not less than 3 p.a. should be selected from outside the State. Four Research Associates at a time (Rs.900/-or Rs.1100/- or Rs.1300/- or Rs.1500/-) are also recommended.

Presently, there are 7 Teacher Fellows from colleges working for Ph.D. The Committee is of the view that Teacher Fellows from the colleges needs not be enrolled in the centre since the colleges do not offer courses in marine biology. This is an unnecessary burden on the centre.

Due to cost escalation, the centre has reduced the number of journals being subscribed from 30 to 15. The present annual allocation from the university is Rs.15,000/-. This is grossly,

inadequate. The Committee recommend Rs.5 lakhs for books, journals and back volumes for a period of 5 years.

The university allocation for contingency is Rs.35,000/-p.a. both for teaching and research needs. Taking into account the cost of Chemicals, supplies etc., and also the need for travel seminars etc., the Committee recommends Rs. 5 lakhs for a period of 5 years. Since there are 5 areas of specialisation one seminar in each area may be conducted every year with participation of scientists in the concerned area from the 4 or 5 universities in the country, NIO and related laboratories under ICAR.

With the increasing flow of visiting scientists to portonovo the present guest house with 2 single rooms cannot cope with the demand. Two single-room apartments with kitchenette at an estimated cost of Rs. 1.5 lakhs may be provided.

The Centre actually needs a hostel for married research scholars. Six single-room apartments with kitchenette and 4 two-roomed apartments for teachers may be provided by the university from the Golden Jubilee grant.

The Committee observed that almost all the teachers stay at Chidambaram 24 km. away, use one cycle from their home to Chidambaram bust stand and also keep a cycles near the bus stop at the other end from where the centre is about 1 km. away.

There is no protected water supply to the centre and a 3 km supply line is required. The university may provide this facility without delay. Under the Vith Plan Development Grant, UGC has sanctioned a men's hostel and women's hostel, for P.G. students. If water is not made available this will create a serious problem. At present the water is carried from a village by bullock carts.

The financial implications of the recommendations are:-

<u>NR(for 5 years)</u>	<u>Rs. in lakhs</u>
I. 1. Equipment (as in appendix)	12.50
2. Reprographic facilities	0.75
3. 43.5' Boat with cabin and navigational facilities for 6 working scientist on bread for 2 to 3 day cruises off shore.	5.00
4. Experimental tanks and ponds with circulating sea water supply	1.00

p.t.o.

5. Dark room/photographic equipment	0.50
6. Publication of monographs/ seed money (to be recycled)	1.00
7. Laboratory cum seminar room 2000sq.ft.with fittings	3.00
8. Boat Jetty	2.00
9. Guest house accommodation	1.50
10. Books, Journals & back volumes	5.00
11. Working expenses/field work/travel seminars	5.00
12. Vehicle/fuel charges (Driver to be provided by the University)	1.50
13. Stand by-Generator	1.00
14. Desktop type computer	0.50
15. Visting Faculty	1.00
Total NR	<u>41.25 lakhs</u>

Recurring

Academic Staff

1. 1 Professor (marine physiology/ biochemistry/microbiology).
2. 1 Scientific Officer

estimated at  
Rs. 8.00 lakhs.

Research Staff

5 JRF (p.a.)

4 Research Associates at a time

Total NR + R = Rs. 49.25 lakhs.

The committee record its thanks to the Vice-Chancellor, Head of the Centre and his colleagues for the cooperation extended to the Committee during its visit to the department.

Appendix I

List of Equipment (CAS in Marine Biology)

Total Rs. 12.50 lakhs

1. IR- Spectrophotometer- Hitachi or Perkin Elmer
2. UV-VIS Spectrophotomer- Hitachi
3. Spectrofluorometer- Turner
4. Lyophiliser
5. Deep Freezer 2 Nos.
6. Digital meter
7. Salinometer bench type or in situ typee
8. Water sampler (PVC) type
9. Digital dissolved O<sub>2</sub> analyser
10. Good Lux meter
11. Luminometer
12. Digital conductivity meter
13. Thin-film evaporator (Bucchi type)
14. Millipore filtration units(glass) 6 Nos.with flasks
15. Vacum pumps 3 Nos.
16. Good glassware drier (not oven)
17. Water baths electrically heated, multibole type (Copper)
18. S.S.distilled water stills 3 Nos.
19. All glass distilled water still's- 3 Nos.
20. Small compressors (with trolly)- 3 Nos.
21. Small gas generator (for laboratory work)- 1 No.
22. Semimicro Bomb calorimeter (Pan)
23. PH meter-digital
24. Refrigerators- 5 Nos.
25. Autamatic Kavl fisher Titrator- 2 Nos.
26. Amino acid analyser
27. Mullipore-glass fibre- Filter papers (12 boxes 0.4 um porosity of 100 filter paper in each category). ( to be imported ) 2 Nos.
28. Oxygen meter with probe in situ type
29. Current meter
30. Horizontal water sampler- PVC type- 3 Nos.
31. Technicon Autoanalyser

32. Automatic titrator
33. Binocular Microscopes- 2 Nos.
34. Autoclave Portable (2 Nos.)
35. Petersen grab (3 Nos.)
36. Mc Intyre grab (3 Nos.)
37. Core sampler copper/brass tubes ( 1 No.)
38. Sieve shaker (motor driven) (2 Nos.)
39. 2-mm-60mm sieves (15 Nos. 2 sets)
40. Trawl net 1 No.
41. Shore seine - 1 No.
42. Outboard motor 20 HP
43. Scuba divers (3 Nos)
44. Echo sounder
45. C.H.N. analyser
46. Muffle furnace 2 Nos.
47. Oven- 2 Nos.
48. Event Recorder (20 Channels) Esterline Angus Mate-1-
49. A Ktographs (Different types and sizes to suit the dimensions of the experimental animals to be fabricated (with Reed Switch- magnetic activator etc.) 20
50. Electronic Oxygen- analyser- with 5 nos Platinum-Silver electrodes 1.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

...

Meeting:  
Dated: **06h February, 1984**

Item No. 4.05

To consider the recommendations made by the Chemistry Panel at its meeting held on 1-2 September, 1983 regarding Major Research Projects

...

The Chemistry Panel at its meeting held on 1st and 2nd September, 1983 inter alia considered 98 Major Research Projects and recommended 53 Projects only for UGC Assistance. Total expenditure on these Projects is estimated to be Rs. 36.60 lakhs. These recommendations have been accepted. However, of these research projects, the expenditure on the **following** project exceeds rupees two lakhs.

Professor Arun K. Dey  
Allahabad University

Project : " Model metal  
Chelates and related  
complexes of Biological  
interest"

Recurring

Research Associate - One  
Jr. Research Fellow - Three  
Contingency -Rs. 20,000/-  
Honorarium -Rs. 900/- p.a.  
p.m.

Non-Recurring

Equipment -Rs. 80,000/-

The matter is placed before the Commission.

EO(SR.I)/JS(SR)

F.1-4/83(SR.III)

UNIVERSITY GRANTS COMMISSION

.....

Meeting:

Date: 30th February, 1984

Item No. 4.06 : To consider the report of the expert committee constituted for evaluating the Biological Education Extension Programme at Madurai Kamraj University.

.....

The University Grants Commission constituted an expert committee consisting of the following to evaluate the Biological Education Extension Programme at the Department of Biological Sciences, Madurai Kamraj University:

1. Prof. S.P. Modak,  
Poona University
2. Prof. R. Nagabhushnam,  
Marathwada University.
3. Dr. D. Shankar Narayan,

The Committee visited Madurai Kamraj University on 3rd December, 1983. A copy of the report made by the Committee is attached as Annexure-I.

The Committee felt that the results obtained so far under the programme have led to curriculum reforms, modernisation of curricula and courses of study, preparation of learning-teaching materials including texts, lecture notes, manuals, laboratory guides and enrichments programmes, teacher orientation activities etc. The committee recommended that in the light of results obtained under the programme, the Commission may approve the establishment of a National Centre for development of curricula in Biological Sciences at Madurai Kamraj University.

A total assistance of Rs. 60,07,200. (N.R. Rs. 33,00,000. and Recurring Rs. 27,07,200.) over a three year period beginning from 1984-85 has been recommended for the proposed Centre. The details of assistance recommended are as follows:

Non-Recurring:

Building with furniture	...	10,00,000.
Housing	...	10,00,000
Equipment	...	<u>10,00,000</u>
Library initial	...	<u>3,00,000</u>
	Rs.	<u>33,00,000</u>

.....2/-



Recurring

Executive Director	1 P	
Subject specialists	3 R	
Subject specialists	3 L	
Technical staff (STA)	3	
Technical staff(JTA)	3	
Librarian	1 @ 1000	
Reprographic staff	2	
Office Superintendent	1	
Stenographer	2	
Typist	2	
Office Assistants	3	
Visiting faculty	2 Man years	
		Rs. 3,97,400 p.a.(Estimated)
Teacher Training Programme	1,00,000 p.a.	
Stationary and Working expenses.	1,00,000 p.a.	
Supplies and Materials	50,000 p.a.	
Back services and Maintenance	30,000 p.a.	
Library & Journals	1,00,000 p.a.	
Publications	1,00,000 p.a.	
	<u>4,80,000</u>	
Overheads to university.	25,000	Revenues 1st, 2 years none Subsequent years should be self supporting.
Total Recurring p.a.	Rs. 9,02,400	
for 3 years.	Rs. 27,07,200	
Grand Total: (NR + R)	Rs. <u>60,07,200</u>	

The matter is placed before the Commission.

No.F. 20-1/79(SR-IV)

EO(SR-II)/JS(SR)

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Supplementary note to Item No.4.06 regarding report of Expert Committee constituted for evaluating the Biological Education Extension Programme at Madurai Kamraj University.

.....

In pursuance of the recommendations of the expert committee, the estimated expenditure for the proposed Biological Curriculum Development Centre has since been reduced to Rs.48,754/- lakhs over a three year period. The details are as follows :-

REVISED BUDGET FOR BCDC

NON RECURRING :

Building with furniture		Rs. 10,00,000
Housing		Rs. 8,00,000
Equipments (Infn.storage/ Audiovisual workshop machines including vehicle)		Rs. 10,00,000
Library (initial)		Rs. 2,00,000
Publications (seed money)		Rs. 1,00,000
	Total NR	Rs. 31,00,000

RECURRING PER ANNUM :

(a) Personnel

Executive Director	1	Professor level	36,000
Subject specialists	3	Reader level	72,000
Technical Staff	2	Senior	28,800
Technical Staff	2	Junior	24,000
Librarian	1		12,000
Reprographic Staff	1		9,600
Stenographer	1		12,000
Typist	2		19,200
Office Assistants and Driver	3		25,200
Visiting faculty	2	Man years	48,000
		Sub Total <u>A</u>	2,86,800

(b) Others

Teacher Training Programme	90,000 p.a.
Working expenses including Supplies and Materials, Stationary etc.	1,25,000 p.a.
Vehicle maintenance	30,000 p.a.
Library & Journals	60,000 p.a.
	Sub Total <u>B</u> 3,05,000

Total Recurring per annum (Sub Total a +Sub Total b)	= 5,91,800
Recurring for 3 years	17,75,400
Grand Total (NR+R) =	48,75,400

The matter is placed before the Commission

Annexure-I to Item No.4.06

Report of the Expert Committee for  
evaluation of the Biological Education  
Extension Programme, Madurai Kamraj  
University.

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The University Grants Commission appointed a Committee consisting of the following persons to evaluate the Biological Education Extension Programme at the Department of Biological Sciences, Madurai Kamraj University and to consider the need for setting up of a curriculum Development Centre in Biological Sciences:-

1. Professor S.P. Modak,  
University of Poona.
2. Professor R.Nagabhushanam,  
Marathwada University.
3. Dr.D.Shankar Narayan,  
Secretary,  
U.G.C.

The Committee visited the Madurai Kamraj University on 3rd December, 1983. Professor Nagabhushanam could not join the Committee. The Committee had detailed discussions on the outcome and also the impact of the Biological Education Extension Programme implemented since 1979.

The Biological Education Extension Programme was initiated in 1979 as a follow up of the earlier University Leadership Project under the College Science Improvement Programme implemented by this Department during the past 10 years. As is well known, the Department of Biological Sciences, Madurai Kamraj University has been a pioneer in not only developing integrated programmes in Biological Sciences within the University, but also has taken up a variety of activities related to overall curriculum development and improvement of undergraduate instruction in Biological Sciences in the Colleges affiliated to the Madurai Kamraj University as well as in other universities in the country. The evaluation reports made by the Expert Committees at the end of the Phase-I and Phase-II of the University Leadership Programme, prior to the initiation of the Biological Education Extension Programme had clearly brought out the outstanding contributions made by this group for improvement of Biological Science Education and its significant impact and also the need for continuation of these efforts initially in the form of the Biological Education Extension Programme and subsequently to establish a National Centre for Curriculum Development in Biological Sciences. The major contributions

made by the Department under the COSIP-UJP included (a) Organisation of refresher courses (b) equipping the Undergraduate Laboratories (c) development of the College libraries (d) development of experimental materials including Biological materials supply centres (e) In-service teachers research participation (f) development of laboratory equipment and (g) production of text material, Laboratory manuals and other reading materials. Of these various activities the contributions made by the Department in organising curriculum reforms throughout the University and production of reading materials and demonstration equipment for use of College departments has been most outstanding.

On the basis of the assessment of these activities and the significant impact in bringing about both qualitative changes and desirable reforms in Biological Sciences instructions, the Department was supported to take up during the past three years, a programme of the BEEP. The major activities identified were (a) development of instructional modules and related curricular development activities and (b) development of teaching-aids and the associated R & D work. The Department was also free to take up any other activity which would have a bearing upon these two core activities. The Commission also provided for this purpose a sum of Rs.5 lakhs during the three-year period for purposes indicated below:-

i. Development of Instructional modules & reading material (seed money)	Rs. 1,00,000
ii. Development of teaching aids & related R & D including basic infrastructure, tools etc.	Rs. 1,50,000
iii. Biological Material Supply Centre (Rs.50,000 p.a.)	Rs. 1,50,000
iv. Working expenses including project staff (Rs.30,000 pa.)	Rs. 90,000
v. Any other miscellaneous expenses	Rs. 10,000
	<hr/> <u>Rs. 5,00,000</u>

The objectives set by the Department of Biological Sciences under the BEEP were (1) To develop suitable audio tutorial materials to continuously supplement the efforts of teacher training, and curriculum development (2) To prepare laboratory manuals (3) To fabricate simple equipments and (4) To continue the three major "Supply centres" which were to develop live specimen for experimental use in the area of plant, animal and microsciences.

During the initial phase of BEEP, necessary infrastructure were developed, in establishing a photographic facility, work shop collection of audio tutorial material etc. In the subsequent years, a refresher programme on environmental education was organised involving over 50 teachers from the various colleges affiliated to the University. The course programme was conducted for 3 weeks covering the rural, urban and industrial problems.

Another successful effort during the BEEP tenure was the service facility extended to the various colleges in repairing the instruments supplied earlier under COSIP-ULP and the minor equipments procured by the colleges with their own resources. A team comprising a faculty and two service technicians were sent to various departments to set right the equipments.

An account of the other activities of BEEP are briefly described in the following pages.

## I Audiotutorial systems

Single topic themes from various subject areas were prepared and appropriate audio visual aids were prepared both in the form of 2"x 2" slides and overhead transparencies with screen printing.

The titles include :

1. Photosynthesis
2. Principles of genetic engineering
3. Biomass productivity
4. **Immunology**
5. Membrane Transport
6. Electron microscopy-Principle & application
7. Environmental pollution

Multiple copies of the slides were prepared for distribution to the selected groups along with explanatory teacher guides. A few self explanatory lecture themes with synchronized audio tapes to go with the slides were also attempted with success although the equality can be improved with adequate infrastructure and technical expertise.

## II Publications

### (a) Laboratory Manuals :

Several Laboratory manuals, glossaries and Laboratory Aids were published under BEEP. These

covered a range of topics including

- (a) Developmental Botany
  - (b) Selected reprints on genetic engineering
  - (c) Glossary of Terms for genetic engineering
  - (d) Plant physiology manual
  - (e) Microbiology Lab manual
  - (f) Photosynthesis and Productivity Lab manual
  - (g) Human chromosomal abnormalities
  - (h) Rates of Evolution.
- (b) Single Topic Articles:

Leading experts in specific area were requested to contribute a review article and they were published as single topic outlines of basic information suitable for under-graduate students. The following articles have been published so far under this category.

(c) Charts

Besides a number of charts depicting various topical themes were prepared and distributed. They include:

- (a) Intermediary metabolism
  - (b) Cell division cycle
  - (c) Fundamentals of Immunology
  - (d)  $C_3-C_4$  Carbon pathway
  - (e) Biological Applications of solar energy.
- (d) Biology

The BEEP has been publishing a quarterly journals "Biology" for several years. Though the regularity of the publication could not be maintained for several reasons, it has proved to be one of the popular journals amongst the college teachers and students wherein new articles dealing with current events in Biology Research. Laboratory innovations and Science cartoons were routinely published besides the research papers of University and College teachers.

### III Fabrication of Equipment :

Several items of equipment that are expensive in commercial channels can be fabricated inexpensively. The workshop and electric/electronic stores built under the programme have been utilized to fabricate prototype

of the following equipments. Some of them were course tested and the details were given to the small scientific companies for commercial production. A few others were under developmental stages.

1. Oxygen Electrode (Portable)
2. Three in one-meter
3. Disc electrophoresis
4. Flash unit
5. Timer
6. Inverter

Plant Breeding Centre :

The Plant Breeding Centre is involved in developing and maintaining germplasm stocks that are useful for demonstrating basic principles in plant genetics and physiology. The selection of plant species were made on the basis of their amenability to respond in the short time, at most within a week. Major difficulty in planning plant genetic laboratory (classical genetics) is the availability of phenotypically identifiable characters that can be traced through successive generations. The time involved in raising the plants is too long, for successful completion within the academic year/semester. The plant breeding centre has evolved plant materials that are representatives as parents and used them to produce  $F_1$  and  $F_2$  hybrid seeds for direct demonstration of the principles of segregation at the seedling stages. As the seeds lose their viability soon there was a need for annual production of these seeds in experimental seed farms.

Chlorophyll mutants of nuclear origin which behaves in a simple Mendelian segregation patterns for single trait (monohybrid) in tomato and Tobacco are being maintained and supplied to the various colleges throughout the country on request.

Basic experiments in plant physiology, though some of them can be demonstrated with equipments such as respirometers, Auxographs and porometers, certain basic plant responses such as the phytochrome effect, phytochrome effects are not easily demonstrated unless suitable plant materials are selected.

For example for demonstrating the effect of kinetin, certain specific strains of cucumber are more responsive than the others. The department has in its collection such seeds which are being propagated continuously.

Source materials were either collected or developed to explain basic genetic concepts like.

- (a) Simple Mendelian segregation
- (b) Chloroplast genetics (organelle) - Cytoplasmic inheritance
- (c) Male sterility
- (d) Linkage

Likewise the most responding plant germplasm to various physiological phenomena as listed are collected and distributed.

They include:

- Cucumbers cultivars - For phyto-hormone responses
- Paddy varieties - For phytohormons responses
- Guayuls seeds - Chemical Dormancy
- Amaranthus - Photo control of Dormancy
- Zenia cultivar - Long day plants
- Tobacco cultivar - Day neutral
- Notonia -  $C_3$ ,  $C_4$  and Intermediates
- Cyperus - Bundle sheath cells

The above said collections were distributed on request to various under graduate Biology/Botany departments throughout the country, though such requests were received maximally within the University area. Adequate stocks of the seed materials of all the above plant species are produced in the Botanic garden every year and stocks are maintained for supply.

#### The Drosophila Centre

Stock cultures of Drosophila were sent on request to various colleges and institutions for experimental purpose- to 15 colleges within the Madurai University area and 16 others in different parts of the country, on request. Strains of Drosophila available at the Centre include: (1) Oregon-K; (2) Muller-5; (3) Vestigial Wing; (4) Vestigial ebony; (5) White eye; (6) Yellow body; (7) obw.st.; (8) bw.st.; (9) Dumpy black cinnabar; These strains are being maintained throughout the year and the stock cultures made available for the colleges.



III. Teaching courses were conducted for M.Phil. students and M.Sc. (Private- B.Sc. upgraded to M.Sc.) candidates on the preparation of medium, transfer of files and the maintenance of the *Drosophila* culture.

In addition, the college teachers who would like to have training in handling *Drosophila* for classroom experiments visited the centre for necessary instructions. Dr. A.B. Sapre- Reader and Dr. Papdiwal- Lecturer from Marathwada University, Aurangabad have undergone training in *Drosophila* culture, maintenance and crossing experiments, paper chromatography- Biochemical separation of eye pigments and polytene chromosomes during May 1981.

From the above account it is quite obvious that the Department of Biological Sciences has devoted considerable effort, time and resources available to it towards improvement of Biological Sciences education in the Colleges and the universities in the India University system. The achievements so far and the experience gained in implementing a total spectrum of activities leading to curriculum reforms and including, modernisation of curricula and courses of study, preparation of learning-teaching materials including texts, lecture notes, manuals, laboratory guides and enrichment programmes, teacher orientation activities etc. for effective classroom and laboratory instructions, preparation of new experiments and related laboratory equipment fabrication, development of appropriate teaching aids and more important of all setting up of a network of effective communication within the higher education system. The results obtained so far in all these activities and the present situation where COSIP-WLP in Biological Sciences is being implemented in several universities and their affiliated colleges lead the Committee to recommend to the University Grants Commission, the establishment of a National Centre for development of curricula in Biological Sciences and also that the Department of Biological Sciences, Madurai Kamaraj University as the location for setting up such a Centre.

The Committee discussed at a widely attended meeting of all the faculty members and research scholars in the Department the activities, the structure and management of such a Curriculum Development Centre (CDC) in which not only the Department of Biological Sciences, Madurai Kamaraj University but all others interested in the Biological Sciences Education at the University level could interact and contribute to the improvement of Biological Sciences Education and its reforms on continuous basis. A schematic outline for such a

Curriculum Development Centre discussed at the meeting is enclosed as Appendix-I. The outline provides for an activity-subgroup matrix in core areas of Biological Sciences, an organizational structure and infrastructural facilities required, channels of decision-making, monitoring and evaluation and also a proposed budget for non-recurring and recurring purposes. Detailed discussions were held on all these aspects of the Curriculum Development Centre and certain suggestions have been made by the Committee. The Department has agreed to reformulate its proposal for the Curriculum Development Centre along these lines and to involve an expenditure of about Rs.50 lakhs over a three-year period and to be extended further for two years on the basis of an evaluation of the outcome of the programme in the end of the third year. It is also expected that the Curriculum Development Centre would generate some financial resources at the end of the initial two year period through sale of books and other materials developed by it for use by the colleges system and this could be taken into account in determining the recurring assistance beyond the initial three-year period. The Committee would like to strongly recommend acceptance of such a proposal so that the Curriculum Development Centre can begin its activities from 1984-85 and develop the infrastructural facilities required for the purpose. The Committee has no doubt that based upon the achievements so far and the expertise available within the Department and also the level of motivation and commitment of all faculty members for curriculum development activities, the proposed Centre would make a significant contribution to the Biological Sciences Education in this country.

Curriculum Development Centre in Biological  
Sciences Madurai Kamaraj University.

Subject Groups	Activity	Curriculum Development Teaching Module	Teacher Training	Texts/ Lab Manual/ Teacher Manual/ Question banks/	Teaching Aids (Audio- Visual)	Develop- ment of equip. and materials	Prod- uction and Distri- bution	Library and Reprogra- phic service
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Core-Areas

Botany

Zoology

Inter Desci-  
plinary Newer  
Areas

Biochemistry

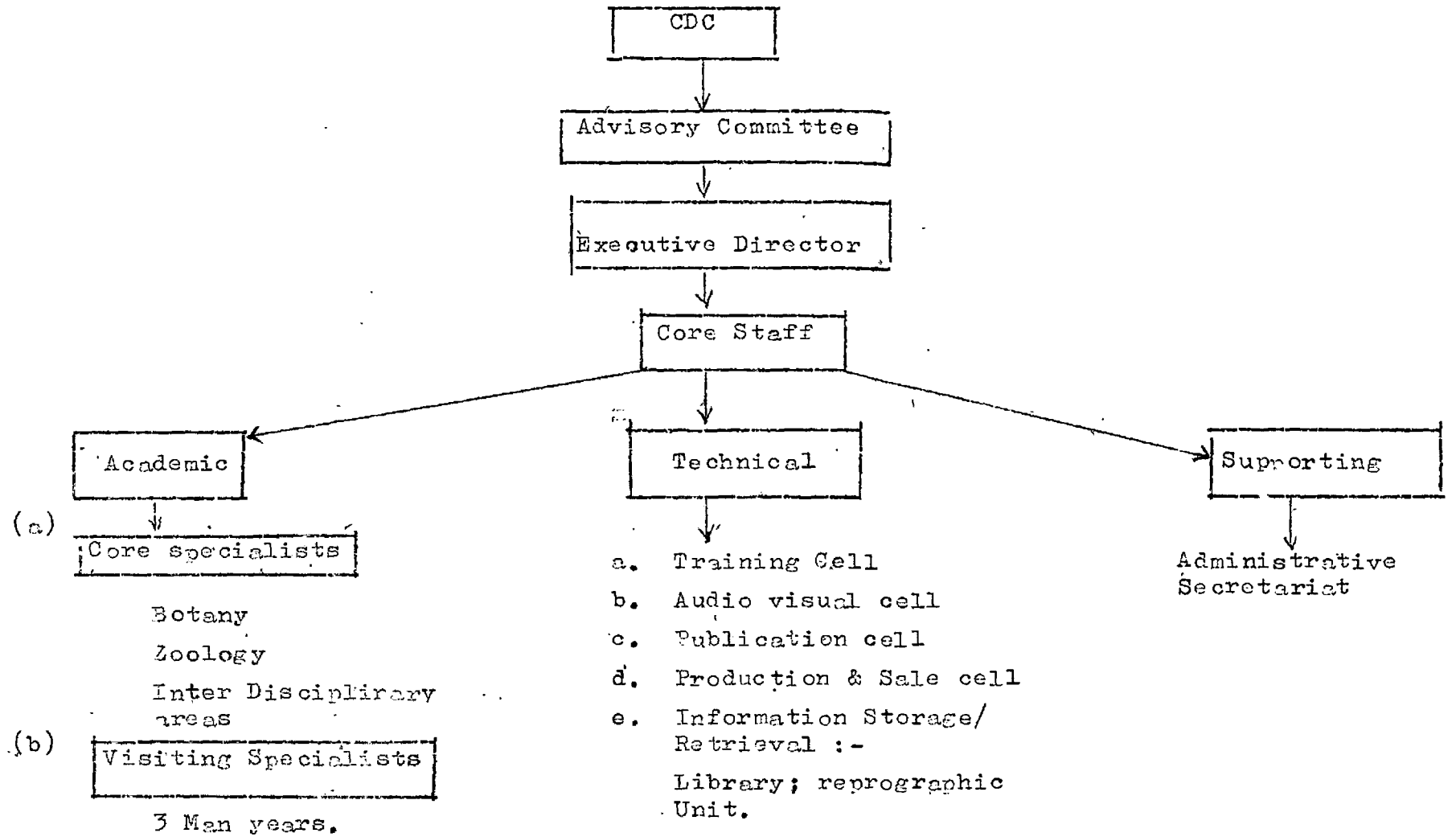
Microbiology

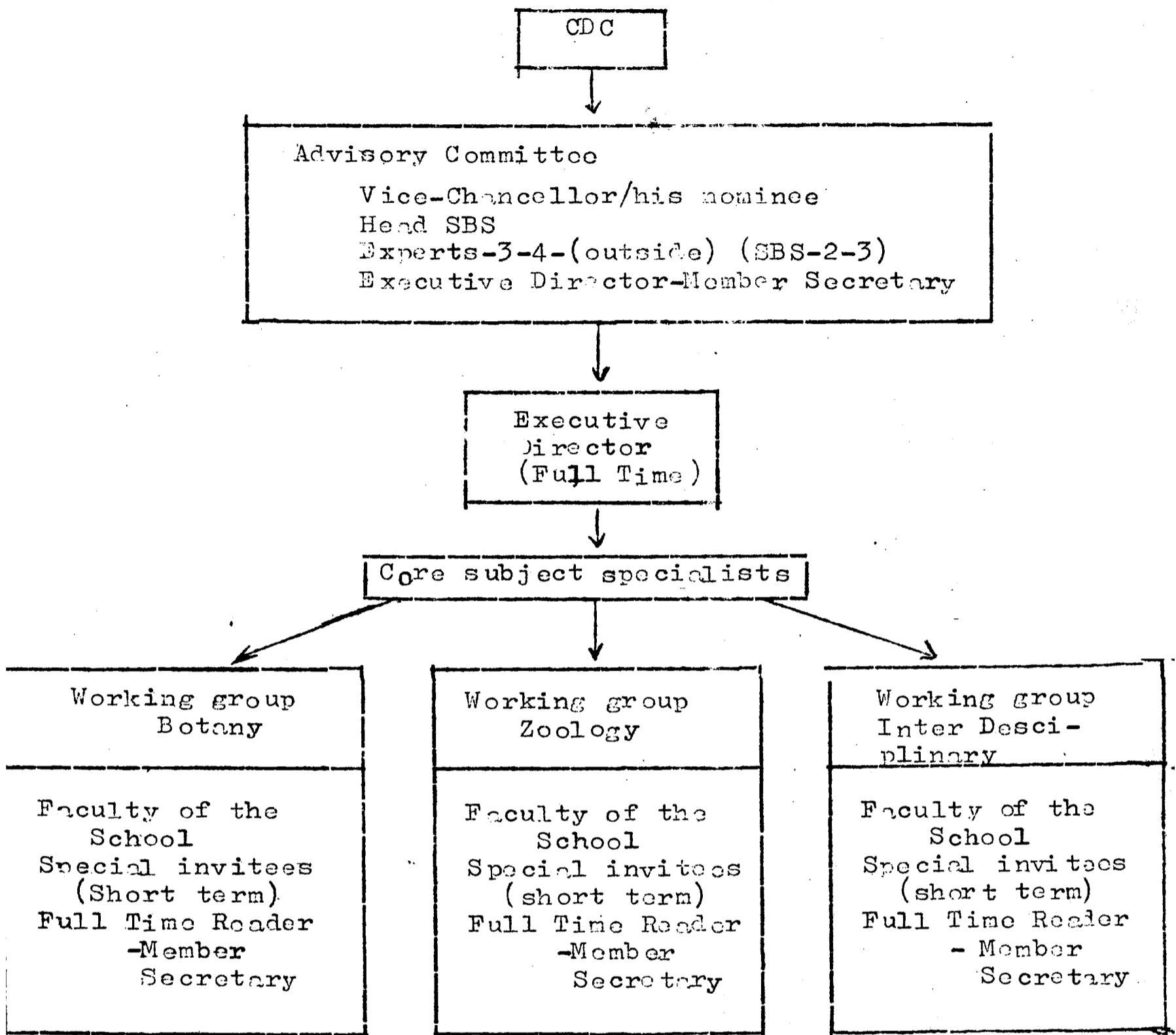
Environmental  
Biology

Biophysics

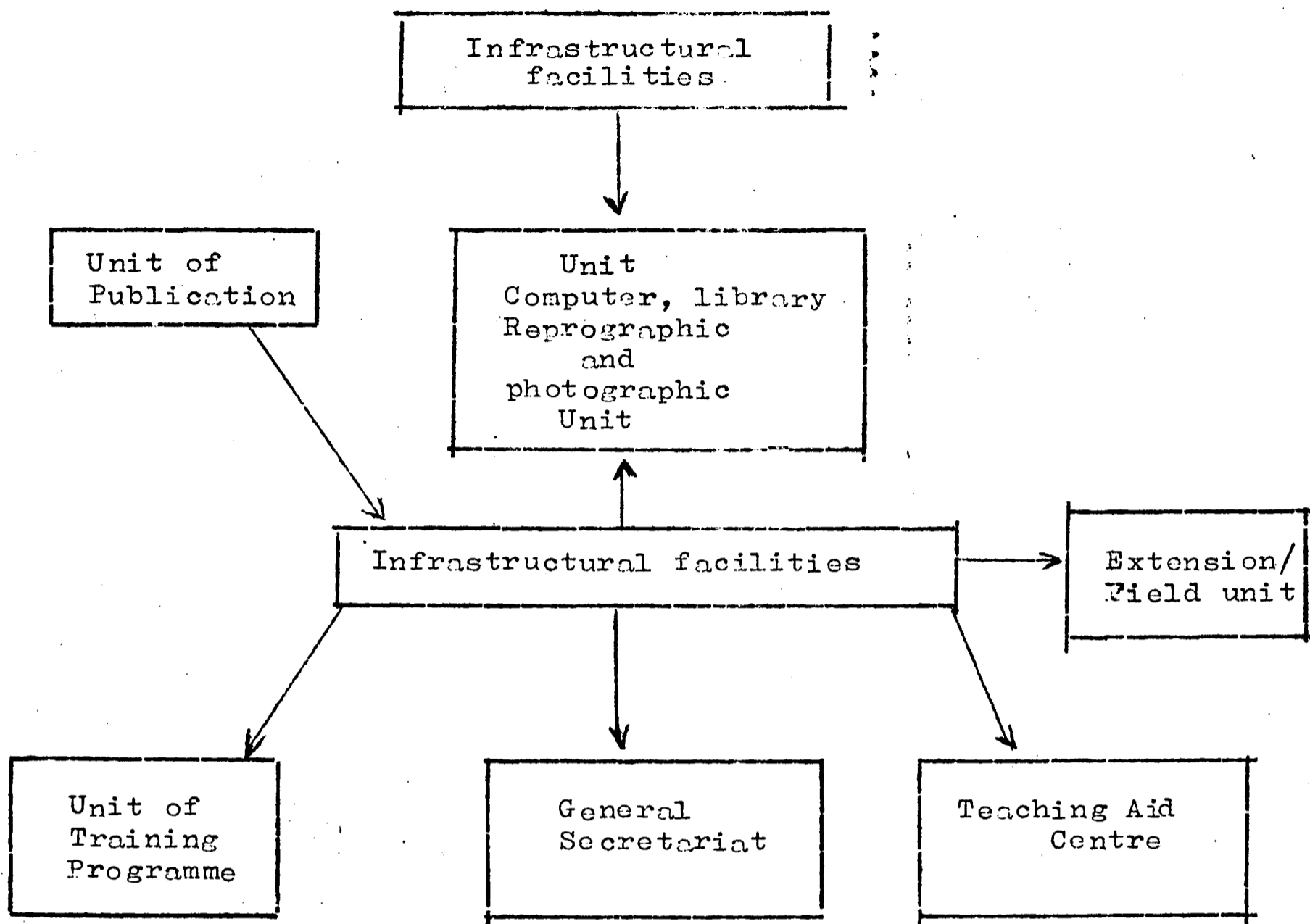
Biostatistic

Biotechnology.





Each working group will develop curriculum modules, Modular Texts, Laboratory Manuals for each Modular Text, Teaching Aids, Laboratory Kits and Instruments and Run Training courses with the help of the supporting staff of the centre and the infrastructure facilities.



These infrastructural units will be headed by Reader/Lecturer level personnel who with the supporting staff will coordinate with the subject specialist Groups in developing the soft and hardware of teaching technology for each of the curriculum module prepared. Each unit will be equipped with the requisite facilities.

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Budget

Non-Recurring:

Building with furniture	...	10,00,000
Housing	...	10,00,000
Equipment	...	10,00,000
Library initial	...	3,00,000
		<hr/>
		33,00,000

Recurring :

Executive Director	1 P @ 3000	-	36,000
Subject specialists	3 R @ 2000	-	72,000
Subject specialists	3 L @ 1500	-	54,000
Technical Staff	3 Sen. @ 1200	-	42,200
Technical Staff	3 Jun. @ 1000	-	36,000
Librarian	1 Jun. @ 1000	-	12,000
Renographic Staff	2 (600x2)	-	14,400
Office Superintendent	1 @ 1200	-	14,400
Stenographer	2 @ 1000	-	24,000
Typist	2 @ 800	-	19,200
Office Assistants	3 @ 700	-	25,200
Visiting faculty	2 Man years	-	48,000

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3,97,400

Teacher Training Programme	1,00,000	p.a.
Stationary and Working Expenses	1,00,000	p.a.
Supplies and Materials	50,000	p.a.
Back services and Maintenance	30,000	p.a.
Library & Journals	1,00,000	p.a.
Publications	1,00,000	p.a.
	<hr/>	
	4,80,000	
Overheads to University	25,000	

Revenues  
1st, 2 years none  
Subsequent years should  
be self supporting.

Total Recurring (p.a.)	9,02,400
for 3 years.	27,07,200
Grand Total (NR + R)	<hr/> <u>60,07,200</u>

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 6th February, 1984

Item No.4.07 : To consider the report of the Committee on the development of the Centre for Theoretical Studies (CTS) Indian Institute of Science, Bangalore.

...

The University Grants Commission constituted an expert committee consisting of the following to examine a proposal received from the Centre of Theoretical Studies, Indian Institute of Science, Bangalore for development support:

1. Prof. A.N.Mitra  
Delhi University.
2. Prof. S.K.Joshi,  
Roorkee University.
3. Prof. C.K.Majumdar,  
Indian Association for Cultivation  
of Science,  
Calcutta.

The Committee visited Indian Institute of Science, Bangalore on 19th November, 1983. A copy of the report made by the Committee is attached as Annexure. The Committee observed that the CTS has made outstanding contributions in various areas viz., Theoretical and Mathematical Physics, Evolutionary and Developmental Biology, Fluid Mechanics and Physics of the Atmospheres and Oceans. The Committee felt that this is a National Centre in the university system and has to be further strengthened.

The Committee has accordingly recommended following assistance over a five year period for the development of the Centre of Theoretical Studies, Indian Institute of Science, Bangalore.

p.t.o.



NON RECURRING

1. <u>Building</u>	Rs. 27,00,000/-
<u>Hostels/apartments</u>	Rs. 8,00,000/-
<u>Typewriters/Reprographic facilities</u>	Rs. 2,00,000/-
	<u>Rs. 37,00,000/-</u>

RECURRING (for 5 years)

Academic Staff

1. Senior Faculty Positions	Three	Professors/Associate Professors/Asstt. Professors.
2. Visiting Professors	Two	
3. Fellowships	Two	

Supporting Staff

1. Asstt. Registrar	One	Estimated at Rs. 16 lakhs
2. Assistants	Two	
3. Stenographer	One	
4. Steno/typist	One	
5. Technical Assistant	One	

Other Expenditure

Visiting Programmes, Instructional Conferences, Summer/Winter Schools etc. Rs. 3 lakhs p.a.	Rs. 15,00,000/-
Contingencies/Working expenses	Rs. 3,00,000/-
Total NR & Recurring	Rs. 71,00,000/-

The matter is placed before the Commission.

JS(SR)

F.6-20/83(SR. III)/(SR. IV)

Annexure to item No. 4.07

Report of the UGC Committee on the development of the Centre for Theoretical Studies (CTS) Indian Institute of Science, Bangalore (18-19th November, 1983).

...

The UGC constituted a committee to examine the proposal of development of the Centre of Theoretical Studies, Indian Institute of Science, Bangalore. The Committee consisted of :

1. Prof. A.N. Mitra  
Delhi University.
2. Prof. S.K. Joshi  
Roorkee University.
3. Prof. C.K. Majumdar,  
Indian Association for  
Cultivation of Science,  
Calcutta.
4. Shri I.C. Menon  
Jt. Secretary,  
UGC.

The Committee visited Indian Institute of Science, Bangalore on 19th November, 1983 and held discussions with the acting Director of the Institute Prof. P.S. Narayanan, Professor K.P. Sinha, Chairman for Theoretical Studies and all his colleagues at the Centre.

Background

Activities in theoretical research were invigorated at the Indian Institute of Science towards the end of 1970 with the appointment of a few theoreticians in the Department of Physics. Research in Theoretical Sciences was provided a real impetus by the creation of the Centre for Theoretical Studies, for which background negotiations were going on between the Director of the Indian Institute of Science, Chairman of the University Grants Commission (Professor D.S. Kothari) and Professor E.C.G. Sudarshan. After some deliberations, it was decided that the Centre for Theoretical Studies should have other disciplines, e.g. mathematical, biological and engineering sciences within its purview. Formally the CTS came into being on 17th July, 1972 with a conference on 'Unsolved Problems in Physics' in which outstanding theorists of India

took part. The aims of the CTS envisaged at that time were (1) promotion of research in theoretical sciences and interdisciplinary research work with other departments of the institute, (2) organisation of seminar, symposia, summer/winter schools, workshops on modern and developing topics in mathematical and theoretical sciences (3) the provision for a constant stream of visiting scientists to both enrich and benefit from the various activities of the CTS and the institute.

From the beginning, steps were taken to choose outstanding people in the faculty. The initial staff consisted of some persons drawn from sister departments and a few were appointed directly to CTS as the hard-core staff. Accordingly, the first founding members were Professors N. Mukunda, R. Narasimha, K. P. Sinha, E. C. G. Sudarshan who joined the CTS in December, 1972. In June, 1973, the CTS was strengthened by the appointment of Professors Madhav Gadgil and Sulochana Gadgil, Dr. A. K. Rajagopal who had joined during this period as a CTS core staff left after a year. Professor H. Sharat Chandra joined in 1973. Thus a good beginning was made with the staff in theoretical and mathematical physics, physics of the atmosphere and oceans, and evolutionary and developmental biology. The research activity of the CTS proved to be a great success and extremely high quality of research publications followed from the work of the scientists noted above. However, a need was felt to strengthen some more areas in theoretical physics. Accordingly, the following important appointments were made. Professor R. Rajaraman, came from the University of Delhi and Professor J. Pasupathy from the Tata Institute of Fundamental Research, Bombay. In theoretical biology, Dr. V. Nanjudiah joined CTS in 1975. It was realised that certain important developments have taken place in the area of theoretical physics, e.g. development of supersymmetry. Accordingly, Dr. Ramesh K. Kaul/ appointed as Assistant Professor from July, 1981. CTS has a competent programme, Dr. N. V. Joshi, Dr. Rajgopal and Dr. Nan-jun-diah left/short stays at CTS. Thus, the CTS now has a staff of 11 members and a supporting staff of one office supervisor and two stenographers.

was

after

Presently, the major areas of research are (1) theoretical and mathematical physics (Ramesh Kaul, N. Mukunda, J. Pasupathy, R. Rajaraman, K. P. Sinha, and E. C. G. Sudarshan), 2. evolutionary and developmental biology (Madhav Gadgil, Sulochana Gadgil and H. Sharat Chandra), (3) fluid mechanics, physics of the atmospheres and oceans (Sulochana Gadgil and R. Narasimha).

The Scientists

In the area of mathematical and theoretical physics, the activities have been praise worthy and since the creation of the Centre, there have published over 175 papers. Some outstanding contributions are the following:

The idea of non-empty superfluid vacuum state pervading the universe has been developed. This is finding application in the interpretation of some recent experiments connected with quantum theory of measurement. In a series of paper modifications in the laws of gravity at extreme densities has been worked out. This has led to the theories of super strong gravity which appears at extreme matter density. A unified gauge theory of weak and strong gravity has been completed. In condensed matter areas, the exciting developments involve the formulation of the superconducting pairing mechanism in non-equilibrium conditions and the co-existence of different kinds of orders. These researches by Professor K.P. Sinha, and the group have resulted in publication of 76 research papers, a few review articles and one monograph entitled "Interactions in Magnetic Solids" published by the Oxford University Press.

The research of Professor N. Mukunda started (some of them in collaboration with Professor E.C.G. Sudarshan) first started with the completion of the book on "Classical Dynamics" in 1974. Professors Mukunda and Sudarshan launched on very productive research activities in classical dynamics, development of relations between classical and quantum dynamics, operator problems in quantum mechanics, theoretical optics, relativistic particles with internal structure, monopoles in non-abelian gauge theory etc. These researches have led to 47 papers including some review articles.

Prof. R. Rajaraman's book "Solitons and Instantons in Quantum Field Theory" published by North Holland Company in 1982 gives a pedagogical account at research level of some very important developments in non-linear quantum field theory. His researches in the area of quantum field theory, particle physics and statistical mechanics have involved the calculation of the forces between solitons and instantons, relationships between renormalizable and non-renormalizable field theory, exact soliton solutions of coupled non-linear relativistic field equations and the calculations of quarkonium bound states and restoration of symmetry by certain kind of fluctuation in field theory and, most importantly, the study of fractional charges in condensed matter and field theory area. He also

collaborated with Dr. Ramesh Kaul on supersymmetry field theory. Professor Rajaraman is involved in the organisation of the Institute Theoretical Physics Programme in which young students are trained in various field of theoretical physics to pursue research work. He has published over 20 research papers. Dr. Ramesh Kaul has also written a review article for Revs Modern Physics.

Prof. J. Pasupathy's work has been mainly in particle physics, involving decay of measons, quark confinement, neutron-antineutron transition, non-simple Lie group and duality between resonances and free quark-antiquark pairs. He has published about 20 research papers during this period.

In the area of Geophysical Fluid Dynamics, which has been developed by Professor R. Narasimha and Sulochanan Gadgil, significant inter-disciplinary work has been carried out on the dynamics of the tropical atmospheres and oceans. This piece of work is valuable for understanding and hence predicting the behaviour of complex systems such as the monsoon and identifying the mechanisms responsible for generating the variability of the monsoon. This has been done by an in-depth study of the variability of the monsoon cloud band. Further, valuable contributions have been made in conducting the first observational experiment on monsoonal boundary layer and developing theoretical models for various phenomena such as the effect of topography on the monsoon.

[/type of work

Realizing the importance of this/the Ministry of Education, Government of India, has given support grant for development of a centre for Atmospheric Sciences. The above research has resulted in publication of about 20 research papers.

Professor Madhav Gadgil and his team have done work in the field of ecology and sociobiology, made predictions about the behaviour of the living systems which have been verified by field studies. Some of these studies involve analysis of (a) runaway sexual selection, (b) demonstration that spiteful behaviour can result from group selection (c) an analysis of conjoint evolution of dispersal and social behaviour, (d) empirical investigation of big-bag-flowering in bamboos, investigation of Hindu caste systems and social behaviour of the insects. This group published about 51 research papers. The Department of Environment, Government of India has recognised these activities and given a grant for setting up a centre for Ecological Sciences.

Finally, the area of theoretical biology in which CTS has provided an appropriate seeding and encouraged interactive admixture of ideas from physics, mathematics and biology. This resulted in developing a general approach to chromosome imprinting in relation to differential regulation of homologous chromosomes, dynamics of mammalian X-chromosome inactivation and 8 publications. Prof. Sudarshan, by his visit twice a year, provides the stimulus and the cementing force to the CTS activities.

The CTS staff members have published over 250 research papers and four well recognised books.

CTS has a small library containing books in physics, mathematics, biology, meteorology etc. There are about 360 books in the library at present. Recently CTS has started collection of theoretical physics re/preprints from different agencies.

Through the Physics Department some of the CTS faculty supervise students and some staff members are also concurrently professors in other departments and are in a position to take research students in more departments.

The CTS staff have been given various awards by different agencies.

#### VISITING SCHOLARS AND SCIENTISTS PROGRAMME

This Programme has been running since 1973. Distinguished scholars and scientists from universities and research institutions in the country (and some from abroad) are invited to spend periods ranging from a few days to a few months at the CTS, carrying on their research work and giving seminars. Young and motivated scientists often located in scientifically isolated places take time off from routine duties and come to spend short periods at the Centre. Such visitors invariably find that the access to a well equipped library and the opportunity to discuss their ideas with others are great stimulants to their research efforts. Some visitors have collaborated with the faculty of the CTS or of other departments in research work. While the majority of visitors to date have been from the natural sciences, the Centre has invited scholars and experts in areas like philosophy, history, psychiatry and music. To a large extent the choice of visitors reflects the fields of research represented at the CTS.

With spreading awareness of this programme, increasing number of requests are being received from scientists wishing to visit and work at the Centre. The number of UGC National Associates planning to spend two to three months at the Centre is also steadily going up.

A conscious attempt is made to maintain a very informal atmosphere at the Centre. This helps to make a visitor feel at home very quickly and provide him with plenty of opportunities for interaction with the faculty of the Centre. While several visitors have written research papers during their stay at the Centre, they are not required to write research papers during their stay. Rather, the emphasis is on discussions and study. Every visitor is assured of a ~~critical~~ and ~~sympathetic~~ audience to listen to his ideas and work. Several fields being represented their underone roof is also of great value as it encourages a visitor to learn about fields alien to his or her own speciality.

Visits are spread throughout the year, though the summer months are the busier ones. Practically all visitors are housed on the institute campus, with great difficulty due to shortage of residential facilities. The Centre normally pays round trip travel within India and honoraria according to the Institute norms.

Since the start of this programme about 400 visitors have come to the CTS. The budget for this programme in 1983-84 is Rs. 1,20,000/- and the average number of visitors per year has been between 50 and 60.

During the last 10 years 15 seminars and symposia have been organised. The list is given in Appendix-I.

#### Future Plan of Work

The Centre will strengthen its activity in mathematical and theoretical physics, evolutionary biology, ecology and dynamics of the atmosphere and the oceans. The activities like summer and winter college programmes orientation, refresher courses, seminars, symposia are planned to be strengthened. The CTS would like to initiate a viable programme in mathematical sciences in order to train young mathematicians in modern mathematical developments which may also find applications in physics, biology, engineering and other sciences. It is a matter of concern that we are not able to nurture good mathematics in the country.

## Observations and Recommendations

Since the inception of CTS in 1972 the CTS Faculty has made outstanding contribution in various areas and this has been recognized by faculty members winning many awards and honours. Their activities have nucleated new centre. They have published about over 200 papers and have written a few books which have received international acclaim. The summer and winter schools at an advanced level organised by CTS have maintained very high standards and have attracted participants from all over the country.

This is a National Centre in the university system which has progressed very well and is credited with remarkable performance. This centre has to be strengthened further in several directions so that it becomes a centre of excellence to cater to the needs of bright young people from less developed universities and colleges and provide a invigorating sojourn to them for work and study whenever they find time to come.

### 1. Fostering Mathematics

The CTS can also play a crucial role in developing high quality research in mathematical **sciences**. For developing such a programme it is necessary to recruit an outstanding expert to the CTS faculty.

### 2. Building

The Centre is presently housed in a small old building (Gymkhana). The office accomodation is totally inadequate for the proper functioning of the Centre. The Committee recommends provision of a building with 15,000 sq.ft. comprising rooms for office, academic staff, visiting faculty, a conference hall (for about 100 persons) a seminar room, a small library, with toilet and other accessory facilities be accommodated within 15,000 sq.ft. This will cost Rs.27 lakhs with furniture and fittings.

The participants in the various programmes at the Institute coming from the universities find it extremely difficult to obtain accommodation. The Committee, therefore, recommends 15 single rooms and six flat lots (2 roomed apartments) at an estimated cost of Rs. 8 lakhs. The facilities of conference/seminar rooms as well as the hostel accommodation of flatlots/rooms may be intensively used not only by the CTS but by other departments too as a common facility by suitably scheduling their programmes through a consultative machinery.



3. New Faculty Research Permanent & Temporary positions

The Committee recommends 3 permanent academic positions at senior levels( professors/Associates Professors/Asstt. Professors) of these 2 should be in mathematical and physical sciences and 1 Biosciences. Besides, 2 visiting professorships are recommended as floating positions so that eminent scientists could be appointed according to availability of scientists and needs of the Centre. 2 Research Associates at Rs.1,500/- p.m. salary(grade 'D') be also provided. In addition the Committee recommends 2 fellowships at a higher level with a view to obtaining the services of capable young scientists of proven merit. These may be called CTS fellowships and should carry emoluments at Rs.2,000/- or Rs.2,500/-p.m. The research associateships and CTS fellowships may be offered for 2 to 3 years at a time.

4. Administration Staff

The Committee recommends administrative staff:

1 Assistant Registrar, 1 Office Assistant, 1 Account Assistant, 1 Stenographer, 1 Steno-typist and 1 Technical Assistant.

5. Financial Implementations

Financial implications of the above recommendations are:

<u>N.R.</u> (for 5 years)	<u>Rs. in lakhs</u>
1. Academic Building	27
2. Hostel/Apartments	8
3. Typewriter/reprographic facilities	2
Total N.R.	<u>Rs.37 lakhs.</u>

Recurring( 5 years)

3 Sr. faculty positions	)	
2.Visiting faculty	)	
2 Research Associates	)	
2 CTS fellowships	)	
<u>Supporting Staff</u>	)	
Assistant Registrar 1	)	Estimated at
Assistants 2	)	Rs.16 lakhs
Stenographer 1	)	
Steno-typist 1	)	
Technical Asstt. 1	)	

Visitor Programmes	)	
Instructional conferences.	)	
summer/winter schools	)	15 lakhs
seminars etc. (Rs. 3 lakhs p.a.)	)	
Contingencies/working expenses		3 lakhs
(Rs. 60,000/-p.a.)		
Total Recurring		<u>Rs. 34 lakhs.</u>

Total = NR + R = Rs. 71 lakhs.

The Committee is of the view that with the above assistance the CTS will be able to function as an excellent National Centre in the field of Theoretical Studies not only serving as a meeting ground for eminent scientists in diverse disciplines but also as a training centre for teachers, and research workers from the universities who needs facilities and guidance for raising standards in teaching and research.

The Committee also recommend that programmes may be developed in advance and reviewed at the end of every year with the help of an Advisory Committee to be constituted by UGC.

The Committee record its thanks to the Director, the Head of the Centre and his colleagues for the cooperation extended to the Committee during its visit.

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Appendix I to Annexure to item No.4.07

SEMINARS AND SYMPOSIA

To date, the following seminars and symposia have been held at the Centre.

- 1972-73 Unsolved Problems in Physics  
July 1972.
- 1973-74 Science and Society  
June 1973.
- 1974-75 National Symposium on Statistical Physics  
July 1974
- The Mind: Pathways to its understanding  
August 1974.
- Mammalian Ecology and Behaviour  
December 1974.
- 1975-76 Mathematical Models in Genetics and Ecology  
June 1975
- 1976-77 Workshop on Geophysical Fluid Dynamics  
July 1975.
- 1976-77 Genetics and Social Organization  
June 1976
- 1977-78 Recent Developments in Quantum Field  
Theory and Functional Integration  
July 1977
- Ecology and Conservation of Birds and  
Mammals in India  
November 1977
- Special Training Programme in Wild Life  
Biology  
January to June 1978
- Probability Theory and Quantum Mechanics  
March 1978
- 1979-80 Evolution of Social Behaviour  
October 1979
- 1980-81 On the Implications of Hydro-electric  
Project in Uttar Kannaḍa  
January, 1981.
- 1982-83 25 years of Weck Interaction and the  
Current Status of Gauge Theories  
December 1982.
- Frontiers of Evolutionary Biology  
June-July 1983.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

...

Meeting:

Dated: 8th February, 1984

Item No.4.08 : To consider the report of the University Grants Commission Review Committee on the Department of Crystallography and Biophysics, University of Madras (3rd December, 1983).

...

The Commission constituted a committee to review the comprehensive performance of the Department of Crystallography and Biophysics, University of Madras. The Committee consisted of the following:-

1. Prof. R.K. Poddar  
Vice-Chancellor,  
Calcutta University.
2. Prof. K.Venkatesan,  
Indian Institute of Science,  
Bangalore.
3. Prof. A.K.Bhatnagar,  
University of Hyderabad,  
Hyderabad.
4. Shri I.C.Menon,  
Joint Secretary,  
UGC.

The Committee visited the Madras University on 3rd December, 1983 and held discussions with the Vice-Chancellor, Head of the Department and his colleagues. The report of the Committee is at Annexure-I.

The University Grants Commission recognised the Department of Physics, University of Madras as a Centre of Advanced Study in 1963-64. The assistance was discontinued during the third phase. The UGC assistance was withdrawn during 1974 on the basis of Assessment Committee Report. The Department has improved its performance during the last 7 years and requested the Commission for a review of the present position. The above Committee was constituted accordingly.

The Department has 627 research publications to its credit in leading national and international journals. 59 Ph.Ds have been awarded so far. 17 research fellows are presently working in the Department for Ph.D.

During the last 7 years 130 distinguished foreign Scientists have visited the department and 3 national seminars were held during the last 10 years.

The Review Committee has recommended UGC assistance for a period of 5 years.

The financial implications of the recommendations of the Committee are as under:-

<u>N.R. (for 5 years)</u>	<u>Rs. in lakhs</u>
1. Single Crystal X-ray Diffractometer for X-ray Crystallographic Research.	25.0
2. Computer graphics/system development and Microelectronic Applications.	4.0
3. Protein Crystallographic Project Cold Room facilities etc.	2.0
4. Solid State and Spectroscopy	1.0
5. 2 X-ray Diffraction Unit	4.0
6. Reprographic facilities/Duplicating machines, typewriters/furniture etc.	2.0
Total NR	38.0 (A)
<u>Recurring (for 5 years)</u>	
1. Computation charges (@Rs. 50,000/-p.a.)	2.50
2. Books & Journals (@Rs. 30,000/-p.a.)	1.50
3. Working expenses/contingencies (Rs. 40,000/-p.a.)	2.00
4. Travel/visiting fellows (Rs. 20,000/- p.a.)	1.00
Total R	7.00 (B)

One National Seminar in the course of 5 years  
Rs. 30,000/- (C)

Research Staff

JRF	4 p.a.	)	
(8 in the first year, 4 in the		)	
2nd year and 4 in the 3rd year)		)	
Total positions of 16 will be		)	
maintained thereafter		)	estimated at
		)	Rs. 4.50 lakhs (D)
Research Associates 2 (any grade)		)	
at any time		)	

Total : A + B + C + D = Rs.49.80 lakhs

The matter is placed before the Commission for consideration.

EO (SR.I) / JS (SR)

No.F. 9-10/73 (SR.I)

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Annexure I to item No.4.08

Report of the Review Committee on the Department of Crystallography and Biophysics, Madras University (3rd December, 1983)

---

The UGC constituted a Committee to review the comprehensive performance of the Department of Crystallography and Biophysics, Madras University. The Committee consisted of the following:-

1. Prof. R.K. Poddar,  
Vice-Chancellor,  
Calcutta University.
2. Prof. K. Venkatesan,  
Indian Institute of Science,  
Bangalore.
3. Prof. A.K. Bhatnagar,  
University of Hyderabad.
4. Shri I.C. Menon  
Joint Secretary,  
UGC.

The Committee visited Madras University on 3rd December, 1983 and held discussions with the Vice-Chancellor, Head of the Department and his colleagues. The Committee also went round the laboratories.

The University Grants Commission recognised the Department of Physics, University of Madras as a Centre of Advanced Study in 1963-64 in recognition of the outstanding work done by it in the fields of crystallography and Molecular Biophysics under the leadership of Prof. G.N. Ramchandran. Consequently, the UGC provided substantial assistance for the development of this Centre by way of building, sophisticated instruments, books and journals, computer and facility and appointment of academic and other research staff as well as supporting technical and administrative staff. It also provided annual grants for various recurring purposes such as working expenses seminars, travel, visiting fellow etc. Besides the UGC assistance, the Centre received support from the UNESCO and also U.K. under collaborative programme. The details of assistance are given in Appendix-I.

p.t.o.

BACKGROUND

During 1974 an Assessment Committee of the Commission visited the department. At the time of the visit of the Assessment Committee, the staff strength was 1 Professor, 2 Readers, 1 Lecturers and 1 Research Assistant who were in position. 11 positions were vacant ( 1 Professor, 5 Readers, 5 Lecturers). The Assessment Committee was concerned that the university did not take steps to recruit persons for the several vacant positions in the Centre. One of the chief causes for this decline in strength was the migration of several staff members consequent upon Prof. G.N.Ramachandran's departure from this department in 1969 to join the Indian Institute of Science, Bangalore. Prof. Ramachandran left because of friction that had developed between the Centre and the administration.

2. The Assessment Committee (1974) also observed that many of the items of equipment were lying idle because adequate staff was not in position. At that time the Crystallography Group had 1 Professor, 1 Reader and 1 Lecturer and the Biophysics had only 1 Reader.

3. The Assessment Committee (1974) had recommended that the vacancies of staff should be filled up without delay by the university "with a balanced distribution in Crystallography and Biophysics and related areas to enable the Centre to regain fully its training and research activities and its earlier standing and make full use of the excellent laboratory facilities available to the department".

4. The Assessment Committee also recommended that the UGC may subsequently arrange for a review of the work of the Centre after a lapse of 3 years to see if the Centre would have been able to function in full strength and re-establish itself as a viable school in the areas of Crystallography and Biophysics before further assistance is given under UGC grants.

The Committee also observed that the Centre would otherwise continue to receive the normal plan assistance.

5. The Assessment Committee 1974 was also concerned about the existing situation of fragmentation of the physics department into 3 separate entities i.e. the branches of theoretical physics, nuclear physics and biophysics and crystallography. The Committee had suggested integration of the departments with a view to ensuring better utilisation of facilities and assuming necessary responsibilities for Masters' degree programmes and providing guidance to the affiliated colleges in curriculum development faculty improvement etc. In the light of the above the Commission did not provide further assistance to the Centre in the third phase w.e.f. 1.4.74.



6. The Present Review Committee examined these issues and its observations and recommendations are given in the following paragraphs:

7. While there was a depletion of senior staff during the early 70s steps were taken by the university subsequently, to fill up the positions and the current staff strength is almost full. There are 2 Professors at present one each in Crystallography and Biophysics, 7 Readers (1 post vacant) 7 Lecturers (1 post vacant) Research Assistant 1 (1 post vacant), out of 5 administrative staff, only one is vacant (Chair Superintendant), out of 18 technical posts only 2 are vacant (Punch Operator) in the Class IV category, all the 9 post are filled.

8. The University, however, continued to maintain the level of assistance to the department from the State Government funds for all items other than fellowships and national scholarships. The funds available for recurring items are as follows:-

	<u>Rs. (per annum)</u>
1. Apparatus/equipment	45,000/-
2. Books & Journals	1,13,000/-
3. Contingencies	58,000/-
4. Computation Grant	1,00,000/-
5. Seminar/publications/ visiting fellows/travel	26,500/-
Total	<u>Rs. 3,42,500/-</u>

9. With the complement of staff (15) from 1978, the academic activities have picked up well. The Department has 627 research publications to its credit in leading national and international journals of which 248 have been brought out since 1975, essentially in the fields of Crystallography and Biophysics.

10. 59 Ph.Ds have been awarded so far, of which 19 refers to the period since 1975. High standards are maintained.

11. 17 research fellows are presently working in the department for Ph.D.

The Department is conducting M.Sc. course in Biophysics from 1982-83 with an annual intake of 12 students. Earlier from 1976-77 a two year M.Sc. course

was in operation where Biophysics was offered as a special subject. The Department had also classes for Biophysics of the M.Sc.(Zoology) students of the university.

12. M.Phil course was conducted under the School of Physics jointly with the departments of Theoretical Physics and Nuclear Physics. This Department gave special papers on Biophysics and Crystallography. This was started during 1976-77. But from 1977-78 to 1980-81 M.Phil course in Biophysics was started separately in this department. This was discontinued in 1981-1982 and 1982-83 but was again taken up from 1983-84.

13. The Department organised a summer institute in molecular biophysics (1979), a winter school on "Current Trends in Biomolecular Structure (1978), an International Symposium as a part of the Silver Jubilee Celebrations of the department during 1977-78 in which more than 120 scientists from outside India participated. This was presided over by Prof. D.C. Hodgkin, F.R.S., N.L. 3 national seminars were held during the last 10 years.

14. Two volumes of the proceedings of the International Symposium and one of the Winter School Lectures have been published, the former by Pergamon Press and the latter by Macmillan & Co.

15. Collaborative efforts at personal level exist between scientists of this department and institutions like Indian Institute of Chemical Society, Calcutta, Indian Institute of Science, Bangalore, IIT, Madras, Cancer Institute, Madras, Hindustan Antibiotics etc.

During the last 7 years the Department has undertaken 10 projects supported by UGC, DST, CSIR.

16. During the last 7 years 130 distinguished foreign scientists have visited the department including the participants at the International Symposium.

A National Crystallographic Data Centre was established in 1978 funded by Department of Science & Technology, which has been successfully functioning during the last past 3 to 4 years in the Department. Recently it has come under the wing of NISSAT of DST with a new name NICRYS (National Information Centre for Crystallography). It is the main Centre in the whole of India dealing with hard data of global nature in the area of Chemical Sciences. Recently a national

level workshop on "X-ray Crystallographic Data Storage, Retrieval and Dissemination" was organised from 28-30 November, 1983.

The main area of study is the three dimensional structure and conformation of biomolecules using X-ray Crystallography and theoretical methods. Basic advance in diffraction methods of structure analysis were made and Crystallography got firmly established as a strong school both in theory and practice. The Department has produced the largest number of Crystallographic titles from any single department in India. 50% of the publication from the Department since 1963 are in the topics of Crystallography. However, the present Crystallography work is ~~related~~ to Biomolecules only. Hardly any other type of Crystallography work is done at present, nor there seems to be a desire to renew interest in non-biophysics Crystallography.

The Department also has the largest concentration of crystallographers and the combined research output is about 100 crystal structures solved and well over 300 publications dealing with theory and applications in particular to biomolecules.

17. Biophysics was pioneered during the 50 and 60s. With the exodus of some senior staff the activity in this field dipped for a while in the early 70s and has picked up again during the last 70s.

18. Structure and conformation of biomolecules by theoretical methods and other computer based methods found the major thrust here.

#### Crystallography

1. X-ray analysis of small biomolecules continued. Apart from scores of structures solved a few important findings were:
  - a. A thorough study of proline ring conformation from crystal structures was made including a rigorous approach to its conformation using pseudorotation.
  - b. Plant growth hormonal activity has been proposed (auxin activity) based on crystal structure and charge calculations.
  - c. Polyamines like agmatine and arcain have the right geometry in the solid state to bridge the DNA double helix contributing to the stability.

- d. The structure of collagen got substantiated at the atomic level through the crystal structure of a tripeptide.
2. Theoretical studies in crystallography continued and major findings were:
  - a. More detailed and thorough study of anomalous scattering redoubled our confidence in the use of anomalous scattering method in protein structure determination, which is particularly relevant in the light of synchrotron radiation application in crystallography.
  - b. The effect of data truncation on reliability indices as well as Bijvoet differences have been investigated which will aid in the use of these techniques in structure analysis.
3. Protein Crystallography:
  - a. Several new methods of analysis of protein structural data from available x-ray coordinates have been proposed and systematically used and their utility demonstrated.
  - b. Powerful tools have been developed particularly for the analysis of helical segments in proteins. As a consequence the following findings have been made.
    - i. The best helical parameters for the alpha-helix was arrived at for x-ray crystallography data.
    - ii. Powerful method of analysis on helical region show clearly even systematic distortions.
    - iii. The alpha helix, in single stranded form in globular protein, show superhelical tendency which is probably the first such finding in globular proteins.
    - iv. New methods yeild powerful and simple approach to characterisation of bend regions in proteins.
4. It has been shown that anomalous scattering can be used in principle, to distinguish between right and left helical structures through fibre diffraction under certain favourable circumstances. The possibilities with synchrotron radiation are particularly attractive.

5. Theoretical and Molecular Biophysics

5. Theoretical and Computer Studies on Biomolecules

Powerful algorithms have been developed for the realistic simulation of molecular assemblies of reasonable complexity. These can be rightfully called 'State of the Art' by international standards and span energetics as well as visualisation through graphics.

6. Stereochemical and Conformational Studies on Nucleic Acids

i. In another major line of enquiry namely conformational studies on nucleic acids the concepts of 'dinucleotide' as a helical repeat was proposed in 1977 from this laboratory and has been validated experimentally both in solid state and solution.

ii. A few poly(dinucleotide) conformations have been proposed including "alternating B-DNA" and left handed Z-DNA.

iii. A more systematic and thorough analysis of nucleic acid conformations have led to (a) the recognition of a conformational equivalence/repeat; (b) methods have been developed for the identification and characterisation of substructures in tRNA, leading to interesting possible correlation between tRNA domain structure and exon pattern of tRNA gene; (c) A striking observation has been the dipeptide backbone virtually mimicking the backbone of a nucleotide.

between two hominucleotides of nucleotide

7. Origin of Life and Evolution

Another line of study that has been initiated is the origin of life and evolution at the biomolecular level. A molecular interaction theory involving pentanucleotides and amino acids has been proposed for the genesis of nucleic acid-directed synthesis of protein which may be rightfully described as the link between chemical and biological evolution.

The topics of thrust for future are as follows:-

a. Application of the several theoretical ideas developed here in structure solution using anomalous scattering, statistics etc.; in the solution of biomolecular structure. Also a systematic analysis of "peptides" at the small molecular level of relevance to biomolecules will be undertaken.

- b. Protein crystallographic work will be intensified at the experimental level by an x-ray crystallographer in the Department who is experienced in this field.
- c. Aspects of synchrotron radiation to diffraction and crystallographic problem will receive special attention.
- d. With the experience available at the Centre, computer simulation and graphics will be used extensively for studies on biomolecular interactions.
- e. Stereochemical and conformational approaches to large biomolecules in particular nucleic acids and polynucleotides will continue heavily aided by computer and spectroscopic applications.
- f. Origin of life and evolutionary studies will continue.
- g. At a more general level the existing NICRYS at the department will aid the research activities as well as continue to function as service facility at the National level. Scope for enlargement of the 'service' component drawing upon the strong team of crystallographers exists here.

The DST has recently approved research projects in the area of molecular biophysics and theoretical biology on biological molecules. The Deptt. has a strong team of theoretical & experimental crystallographers and Bio-physicists.

#### Observations & Recommendations

The Department of Crystallography and Biophysics has a great history with Prof. G.N. Ramachandran as the main force in the course of its events. Under him, it attracted the attention of scientists abroad. For some unfortunate reasons, the department faced some crisis. However, it has now picked up again with the appointment of a good number of talented scientists in Crystallography and Biophysics. With financial support put in by the UGC, the Department is sure to make more contributions in the two areas.

The Committee recommends UGC support under the Special Assistance Programme for a period of 5 years.

N.R.(for 5 years) Rs. in lakhs

1. Single Crystal X-ray Diffractometer for X-ray Crystallographic Research.	25.0
2. Computer graphics/system developed and Microelectronic Applications.	4.0
3. Protein Crystallographic Project-Cold Room facilities etc.	2.0
4. Solid State and Spectroscopy	1.0
5. 2 X-ray Diffraction Unit	4.0
6. Reprographic facilities/Duplicating machines, typewriters/furniture etc.	2.0
Total NR	38.0 (A)

Recurring (for 5 years) Rs. in lakhs

1. Computation Charges (@Rs.50,000/-p.a.)	2.50
2. Books & Journals (@Rs.30,000/-p.a.)	1.50
3. Working expenses/contingencies (Rs.40,000/-p.a.)	2.00
4. Travel/visiting fellows (Rs.20,000/-p.a.)	1.00
Total R	7.00 (B)

One National Seminar in the course of 5 years Rs.30,000/-(C)

Research Staff

JRF 4 p.a.		
(8 in the first year, 4 in the 2nd year and 4 in the 3rd year	)	
Total positions of 16 will be maintained thereafter.	)	Estimated at Rs.4.50 lakhs(D)
Research Associates (2) at any grade at a time	)	

Total : A + B + C + D = Rs. 49.80 lakhs.

The department has an old computer IBM 1130 system. This cannot cope with the present requirements. The department has made a request for a computer. The computational needs of the department are enormous as both fields-X-ray Crystallography as well as theoretical studies of molecular conformation of biomolecules are highly computer dependent for making significant progress. From our discussions with the Vice-Chancellor it was clear that the university is not thinking in terms of a computer for the use of basic research activity. It is most essential the Department has a dedicated computer of its own.

The staff and the research scholars of the Deptt. do really need the facility of a microcomputer (Rs. 14 lakh) exclusively for their own use, and, therefore, may be allowed to utilise some funds of the equipment grant, at least partially for the purchase of this equipment. This may be obtained by augmenting the resources under NICRYS-DST grant and COSIST support.

Although the main thrust of the research activities of the department is the study of biomolecules through crystallographic methods there are a few staff members who are doing good work in other fields, such as theoretical study on evolution of biomolecules. It should be recommended that a small committee of a staff members should oversee the disbursements of the grants so that minority groups are not totally neglected.

The department could reduce inbreeding by selecting research staff on a national basis as per UGC norms under SAP (not less than 50% to be selected from outside the State).

The Committee recommends that UGC may consider support to the three Departments under SCOSSIST (Theoretical, Physics, Nuclear Physics, Crystallography and Biophysics) under the umbrella of the School of Physics. The School can have a Chairman, for a period of 3 years as rotation who is appointed from among the professors from the groups in Theoretical Physics, Nuclear Physics, Biophysics and Crystallography.

Such support will be useful for development of teaching and research particularly in microelectronics and VLSI Design for preparation of algorithm, implementation at the circuit level which is essential to keep pace with the frontiers of research in molecular biophysics.

The Committee felt that it would be useful to start a new pattern at the B.Sc. level in a few good colleges



offering Physics, Chemistry and Biology so that the graduates can opt for specialisation in biophysics at the M.Sc. stage. There are 2 or 3 lecturers in the department working in the area of Solid State Physics. It will be useful if this group establishes link with the Nuclear Physics Department. Under the school concept of this/become easier. The Committee was told that in the appointment of these lecturers, the Head of the Department was not consulted. In the view of the Committee it would be prudent to select staff who belong to the thrust areas to form a homogenous group rather than introduce staff in different areas of specialisation. Proper rapport between the administration and the department is an essential prerequisite for academic development.

As regards designation of the Department as CAS or DSA, the matter is left to the Commission. The Committee would, however, request the Commission to reconsider this issue in all its aspects. In doing so, the Committee would like to record its appreciation of the general support being provided by the Commission to identify the "developed" department within a ceiling of Rs. 50 lakhs for a period of 5 years. But the Committee is not sure whether it is necessary to give a label to a department either as CAS or DSA. What is material is the assistance given for a period of 5 years and further assistance considered after assessment. But once a label is given it creates an image for good or bad for all time at least for a significantly long time- during which period there are chances of dipping to lower levels of achievements for whatever reasons. It is also true that there are other developed departments which are not identified for some reasons as CAS/DSA and this not only leads to heart-burning among the staff of such departments but also acts as a serious disincentive to worthy and dedicated workers who are outside the pale of CAS and DSAs. This is, however, for the consideration of the University Grants Commission.

The Committee records its thanks to the Vice-Chancellor, the Head of the Department and his colleagues for the cooperation extended to the Committee during its visit to the department.

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Appendix I to Annexure to item No.4.08

DETAILS OF ASSISTANCE (1963-1982)

<u>Non-Recurring</u>	<u>Rs. in lakhs</u>
Building	8.88
Equipment	7.50
Books & Journals	19.20
Computation	3.00
Total	<u>Rs.38.58</u>
 <u>Recurring</u>	
B & J Seminars, publications, visiting fellows, Travel/contingencies	8.40
Total	Rs.46.98 lakhs
Unesco (rouble grant)	1.50 lakhs
Equipment	4.50 lakhs
Exchange of Scientists with UK & USSR	13

- 
- |   |                  |
|---|------------------|
| 1. NICRYS (DST) Rs.10 lakhs since 1979                          | } Rs.21.25 lakhs |
| 2. Origin and Evolution of Life(DST)<br>Rs.3 lakhs since 1981   |                  |
| 3. Computer Graphes in Biomedicine<br>since 1979 Rs. 4.25 lakhs |                  |
| 4. Projects for UGC,CSIR since<br>1974 Rs. 4.50 lakhs           |                  |

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

Meeting :

Dated: 8th February, 1984.

Item No. 4.09: To consider the report of the University Grants Commission Review Committee on the C.A.S. in Physics, University of Delhi (27th-28th December, 1983)

....

The Commission constituted a Committee to Review the comprehensive performance of the C.A.S. in Physics, University of Delhi. The Committee consisted of the following:-

1. Professor S. Ramaseshan,  
Director,  
Indian Institute of Science,  
Bangalore.
2. Professor B.V. Srikantan,  
Director,  
Tata Institute of Fundamental Research,  
Bombay.
3. Professor B.R. Nag,  
Indian Institute of Radiophysics,  
& Electronics,  
Calcutta.
4. Shri I.C. Menon,  
Joint Secretary  
UGC New Delhi.

The Committee visited Delhi University on 27th and 28th December, 1983 and held discussions with the Vice-Chancellor, Head of the Department of Physics and his Colleagues. The Committee held general discussions with the members of the academic staff, Theoretical Group, Experimental Group and visited the 16 laboratories and talked to the research scholars and individual teachers in the laboratories. The report of the Committee is at Annexure-I.

The Commission at its meeting held on December, 4th, 1978 considered the question of further assistance to the C.A.S. which have already been assisted for a period of 15 years ending March, 1979. It was agreed that in the case of such Centres of Advanced Study the type of assistance to be given for further activities

may be related to specific well-defined project which can be implemented within the specified periods and these proposals could be considered on merit. Pending the review the Commission agreed to provide basic grant (NR) of Rs.1 lakh for equipment and Rs.1 lakh for books and journals during 1980-81.

The major areas of research are:-

1. Mathematical Physics
2. Condensed State Physics,
3. Materials & Devices.
4. Nuclear Physics.
5. Space Physics & Physics of Plasma.
6. Reactor and Neutron Physics. (Theory)
7. High Energy Physics & Particle Physics.
8. Microwave Physics.
9. Atomic and Molecular Physics.
10. Relativity, Cosmology & Astrophysics.
11. Physics of Non-linear system
12. Biophysics.

The Department has 50 staff members and 8 posts of Lecturers are vacant.

100 Journals are being subscribed. The department has undertaken 14 research projects supported by various agencies like UGC/DST/CSIR/DDE and INSA with an outlay of Rs.1,500 crores.

It is observed by the Committee that most outstanding group and perhaps one of the best in the country-recognised also internationally is the Theoretical Physics Group. This group requires much of support and following facilities are recommended for the group:

1. Good "X-erox" machine
- 2 X 1 WORD PROCESSOR  
with mathematical symbols
- 1 small computer
- 2 typists, both trained in word processing,
- 1 computer operator (programmer)

It is felt that the work done by the Medical Physics Groups looks extremely interesting and must be assessed by an Expert Committee of the U.G.C.

The financial implications of the recommendations of the Committee are as under:-

<u>Non-recurring</u> ( for 5 years)	<u>Rs. in lakhs</u>
1. Test Equipment	2.0
2. Liquid Helium Plant (maintenance expenses/ conveyance etc.)	2.0
3. Ionospheres Research Centre (Maintenance of Laboratory/ equipment/staff etc.)	4.0
4. Books & Journals (Special needs)	3.0
5. Visiting fellows/travel	1.0
6. Contingencies/working expenses etc., for experimental research programmes	15.0
7. X-erox, word processor with numerical symbols, and mini- computer (for theoretical group)	6.25
8. Common facilities (1 X-erox machine and 1 electric typewriter with mathematical symbols.	1.65
<u>Total NR Rs.</u>	<u>34.90 lakhs</u>

Recurring ( for 5 years)

i. JRF 6 p.a. (2 for theoretical group p.a.)	} estimated at Rs.6.0 lakhs
ii. Typist -2	
iii. Computer programmer/ 1 operator.	
iv. X-erox operator 1	
v. Teachers/research/contingencies (including travel/postage cum stationary/books/publications etc. (Rs.3,000/- per head p.a.)	7.50
<u>Total R</u>	<u>Rs.13.50</u>

52  
1/10/81  
32/10/81

Total NR + R = Rs.48.40 lakhs

The matter is placed before the Commission for consideration

E.O (SR-I/JS(SR))

File No.F.9-1/81 (SR-I)

Report of the Review Committee on the CAS in Physics,  
Delhi University. (27-28th December, 1983)

.....

The UGC constituted a Committee to review the comprehensive performance of the CAS in Physics, Delhi University. The Committee consisted of the following:

1. Professor S.Ramaseshan,  
Director,  
Indian Institute of Science,  
Bangalore.
2. Professor B.V.Srikantan,  
Director,  
Tata Institute of Fundamental Research,  
Bombay.
3. Professor B.R.Nag,  
Indian Institute of Radiophysics,  
& Electronics,  
Calcutta.
4. Shri I.C.Menon  
Joint Secretary,  
UGC, New Delhi

(Prof. B.R.Nag could not join the Committee).

/discussions  
with the  
Vice-Chan-  
cellor, Head  
of the  
Department  
and

The Committee visited Delhi University on 27th and 28th December, 1983 and held discussions with his colleagues. The Committee held general discussions with the members of the academic staff and also separate discussions with the Theoretical Group and Experimental group and visited the 16 laboratories and talked to the research scholars and individual teachers in the laboratories.

The Commission at its meeting held on December 11th, 1978 considered the question of further assistance to Centres of Advanced Study which have been already assisted for a period of 15 years ending March 1979. It was agreed that in the case of such Centres of Advanced Study the type of assistance to be given for future activities may be related to specific, well-defined projects which can be implemented within the specified periods and these proposals could be considered on merit. It was also pointed out that the question of providing further assistance to these departments after the Commission's assistance ceases would also be explored keeping in view the suggestions of the Review Committee to these Centres. Pending the review, the Commission agreed to provide basic grant (NR) of Rs.1 lakh for equipment and Rs.1 lakh for books and journals during 1980-81.

### Background

The Department of Physics was established in 1942 by Prof. D.S.Kothari a distinguished scientist in Astrophysics and Statistical Mechanics. Prof. R.C.Majumdar established the Field Theory and Partial Physics Group. Prof. F.C.Auluck developed a distinguished group in several areas of theoretical and mathematical physics.

The Department has a distinguished faculty well known nationally and internationally in various areas of theoretical physics such as particle physics, astrophysics and field theory and statistical mechanics.

In recognition of the important research contributions of the Department, the UGC recognised it as a Centre of Advanced Study in 1963. This resulted in the enlargement of the scope of activities to include experimental physics. Since then the Department has witnessed rapid growth in experimental research activity. The major research laboratories are: Semiconductor Devices, Microwave Physics, Ionospheric Physics, Low Temperature Physics, High pressure Physics, High Energy Physics, Nuclear Physics, Crystallography, Geophysics, and Medical Physics,

The major areas of research are:

1. Mathematical Physics.  
(Inclusive of quantum theory of fields, quantum Theory, Group Theory, Many Body Theory, Statistical Mechanics)
2. Condensed State Physics:  
(including solid state Physics, Physics of Liquids, Low Temperature Physics, Thin Films, Solar Cell, High Pressure Physics; Semiconductor Physics, X-ray-Crystallography, superconductivity)
3. Materials & Devices:  
(including semi-conductor materials & devices).
4. Nuclear Physics:  
(including Nuclear Theory, Few Body problem, Nuclear Perturbed Angular Correlation and Hyperfine interactions, positron annihilation, Nuclear Structure, Mossbauer Spectroscopy).

5. Space Physics & Physics of Plasma:  
(including Astrophysics, Astronomy, Solar Physics, Ionosphere Physics, Geophysics Atmospheric Physics, Magnetosphere Physics, - Laboratory Plasma).
6. Reactor and Neutron Physics (Theory)
7. High Energy Physics & Particle Physics.
8. Microwave Physics.
9. Atomic and Molecular Physics  
( including spectroscopy and collision phenomena)
10. Relativity, Cosmology & Astrophysics
11. Physics of Non-linear system  
(including Laser Physics and Quantum optics)
12. Biophysics  
(including Medical Physics, Immunophysics & Mathematical Biology)

The Department has 50 staff members (10 professors, 30 readers and 10 lecturers) 8 posts of lecturers are vacant. The university has recently introduced the merit promotion scheme under which 1/3rd of the lecturers and 1/3rd of the readers are being promoted to the next cadre. There are 21 people in the Theory Group and 29 in the experimental group.

In 1963 there were 40 teachers. The Department was conducting honours classes which continued upto 1971 when this was transferred to the constituent colleges of the university. Meanwhile, the annual intake which was 50 in 1962 went on increasing and has reached 210. The staff was unanimous in their views that both these measures have adversely affected standards of the M.Sc.

For M.Sc. theoretical stream a student can pick two suitable combinations for special papers in 2 semesters: They are:-

- i. Particle physics, ii. Foundations of Quantum Mechanics,
- iii. Field Theory and Quantum Electrodynamics,
- iv. Nuclear Theory, v. Advanced Solid State Theory.
- vi. Quantum Theory of Many Particle systems,
- vii. Plasma Physics, viii. Astrophysics
- ix. Reactor Physics, x. Group Theory, xi. Space physics,
- xii. General Theory of Relativity and Cosmology.



For M.Sc. experimental stream a student can choose any one of the special papers (2 semesters)

- i. Solid State Physics,
- ii. Electronics,
- iii. Nuclear Physics,
- iv. High Energy Physics and Data Processing
- v. Spectra and Structure Molecules,
- vi. High Pressure Physics.

M.Phil. course was started recently with an annual intake of 30. A student can select any 3 courses in the first semester from the following list:

- i. Methods of Mathematical Physics,
- ii. Experimental Techniques
- iii. Condensed State Physics,
- iv. Quantum field Theory
- v. Plasma Physics,
- vi. Astrophysics,
- vii. Low-Temperature & Metal Physics,
- viii. Semiconductors, Dielectrics & Thin Films,
- ix. Physics of Crystalline & Amorphous Materials,
- x. Nuclear & Energy Physics,
- xi. Space Physics
- xii. Microwave Physics,
- xiii. Semiconductor Devices & Applications,
- xiv. Practical Quantum Mechanics,
- xv. Chemical Physics.

#### M.Tech.(Microwaves)

This is a two-year course. The entrants to this course must have successfully completed M.Sc. (Physics) B.E.(Electrical). The first year of the course consists of two semesters having following papers:-

- i. Net work and Circuit Theory - ( for post M.Sc.)
- ii. Radio and Line Communication -(for post M.Sc.)
- iii. Applied Mathematics - (for post- B.E.)
- iv. Solid State & Quantum Physics(for post B.E.)
- v. Communication Theory.
- vi. Microwave propagation.
- vii. Microwave Circuits.I.
- viii. Microwave Circuits II
- ix. Microwave and Millimeter
- x. Microwave Devices and Material,
- xi. Microwave Filters.
- xii. Microwave Antenna and Measurements.
- xiii. Computer Aided Design.
- xiv. Radar and Radio aids to Navigation, &
- xv. Microwave Communications.

During the summer vacation, the students are sent for industrial training in any industrial organisation/ research institution. The second year of the course is entirely devoted to the project work.

100 journals are being subscribed for. The Central Library is well stocked with books and journals during the last 5 years, the department has undertaken =14 research projects supported by various agencies like UGC/DST/CSIR/DOE and INSA with the an outlay of Rs.1.50 crores.

#### Research Fellowships

The Centre has 12 junior research fellowships 4 research associateships, and 12 National scholarships, 36 fellowships are provided under the various projects. About 50 research scholars have registered for Ph.D. without any fellowship.

In such a situation the drop out rate is fairly high. Many research scholars are on the look out for jobs. Those with commitment to Physics are not many. The large enrolment in M.Sc. and discontinuance of the B.Sc.(Hons) programme in the Department are responsible for this.

The number of Ph.Ds awarded during the last 20 years is given below:-

Year

1963-68 (Phase I)	49
1968-73 (Phase II)	60
1973-78 (Phase III)	101
1978-83	87

The number of publications during the last 20 years in leading journals are:

1st phase	296
2nd phase	294
3rd phase	380
1978-83	553

The assistance to the department during the above period is given in appendix.I

This is of the order of Rs.60.11 lakh + \$ 5,08,582

...6/-

Observations and Recommendations:

of the Physics  
Deptt. Delhi  
University.

1. The most outstanding group and perhaps one of the best in the country - recognised also internationally is the Theoretical Physics Group. It was a bit pathetic to see men of such status mildly complaining that they had difficulties in getting their manuscripts typed, calculations made and papers posted, etc. This group requires much of support so that their enthusiasm for research is not dampened. It is a pity that the administration of a Central University cannot recognise the needs of their top academics. UGC should take note of this.

The following facilities are recommended for this Group:

- 1 Good "Xerox" machine
- 2 X 1 WORD PROCESSOR  
with mathematical symbols
- 1 small computer
- 2 typists, both trained in word processing
- 1 computer Operator (Programmer)

The country must make use of their unique capability for training bright young men in this field. It is suggested that this group should seriously consider reviving the honours course in theoretical physics, for which Delhi University had a great reputation, with about 10 students each year who are selected on a national basis most carefully after an interview.

The Committee suggests that special scholars/orientation course be supported by UGC so that the young teachers from the university departments in the country can be benefitted in updating their knowledge periodically in different areas of theoretical physics. These programmes could be organised at appropriate locations, not necessarily in Delhi.

The faculty has grown considerably to about 50 in number. (40% is the theoretical group, 60% the Experimental group) They undertake a fair amount of teaching and research. It seems unfortunate that each staff member does not get any allotment for contingent expenditure-typing of papers, postage, buying some essential spare parts, going to conferences etc. A research fellow gets a contingency grant, it seems fair that such an allotment be made for staff also.

It is suggested that each member of the faculty be sanctioned between Rs.2000-3000 p.a. for these purposes stated above.

3. The department has expanded enormously and many staff members seem to be doing/tackling so many problems that they are just increasing their publications. Very little impact is made by their researches. The faculty seems to be tackling so many problems that there is considerable danger of the work descending to very pedestrian levels.

Time has come for the department itself to review the activities and see some pruning and planning is necessary. Some limitations have to be imposed by concentrating efforts in certain areas in which the department has strength and established reputation rather than dissipate energy and resources in the pursuit of individual interests unrelated to the main thrust areas. Only such a self assessment can save the department which as once outstanding.

4. The ionospheric group which is involved in the middle atmospheric programme is doing good work. But how to encourage it and how to have what the future should be is a problem requires some thought. Its continuity has to be ensured by inducting young staff. We understand a Reader has been recruited and is likely to join. One of the lecturerships may be allotted to this group.

5. The work done by the Materials & Devices group in the hardware and development and transparent films and of primary materials (for IR detectors etc.) and thick films is impressive.

The microwave group is doing a good job in teaching & testing but its research quality can be improved considerably. Encouragement of these two group may pay academic dividends.

The Committee suggests that the groups on Materials devices & microwaves etc., could be separated out as a Department of Electronics & Electronic Materials and devices. This may be in a sense strengthen all the activities undertaken now by the Physics Department and hasten acquisition of more funds from other agencies. The Committee feels that this will improve the quality of research and teaching of this group.

6. It is a pity that the investments made in ultra low temperature laboratory/liquid helium (collaboration between India and USSR) may dwindle to nought with the retirement of Prof. K.D.Choudhury.

One notices that a dilution refrigerators has been purchased (one of the very few in the country) but it has not yet been set up. This is extremely unfourtunate. It is suggested that this group could be managed by the Electronics and Electromes materials and devices group and rejuvenated.

7. Medical Physics. It is difficult for the Review Committee to make an assessment of the work done by the group although it looks extremely interesting. This must be assessed by an Expert Committee of UGC. If it is found good a method of supporting it has to be found.

8. The intake at the M.Sc.level seems to be too large that the quality has been diluted considerably. (This is as per statement of the staff). It is suggested that the intake be cut by half. Only the best and those really interested in physics be taken in. This should be without prejudice to the present staff strength.

9. The average age of the faculty is rather high (45 years). It is necessary to induct some younger ones. Simultaneously with the excercise suggested above the 8 lecturerships position temporarily frozen may be released, 4 in the 1st year, 2 in the 2nd year, 2 in the 3rd year in the fields which have to be decided to be retained and allowed to grow. Of these about 2 or 3 should be in theoretical physics and 1 in ionospheric field. Only the most outstanding and talented young researchers/teachers must be chosen.

10. Many senior faculty members are due for retirement. In the excercise suggested above one must carefully analyse whether the activities they have started should continue or be stopped.

When professors retire the post can be filled by readers or lecturers, in order to induct fresh blood and strengthen the base, if deemed necessary. Many of the Experimental section of the department have been running on "gifts" from the Ford Foundation, Unesco, etc., etc. Many of these equipments are breaking down for want of money for maintenance.

Here again during the exercise (self assessment) suggested earlier a critical view should be taken whether many of the researches should be continued or not. However, it is suggested that about Rs.1 lakh p.a. be allotted for maintenance and spare parts. This must used with discretion not to keep alive the ancient and useless equipment but to keep running some of the better equipment which are producing results.

activities  
on the basis  
of self-  
assessment

11. The Centre has a good record to its credit despit the low inputs for development during the last five years and several extraneous adverse circumstances. With the discarding of non-essential / suggested earlier, the Centre will make further headway through the process of renewal if the required resources are provided.

The Committee, therefore, recommend that assistance may be continues for a period of 5 years.

The financial implications of the recommendations are:-

<u>Non-recurring ( for 5 years)</u>	<u>Rs.in lakhs</u>
1 Test equipment	2.0
2 Liquid Helium Plant (mainteance expenses/ conveyance etc.)	2.0
3 A modern computer has been approved with many terminals.	
4 Ionosphere Research Centre (Maintenance of laboratory/ equipment/staff etc.)	4.0
5 Books & Journals (special needs)	3.00
6 Visiting fellows/travel	1.0
7 Contingencies/working expenses etc., for experimental research programmes	15.0
8 X-erox, word processor with numerical symbols, and mini- computer (for theoretical group)	6.25
9 Common facilitics (1 X-rox machine and 1 electric typewriter with mathematical symbols.	1.65

Total NR Rs. 34.90 lakh

...10/-

Recurring (for 5 years)

i. JRF -6 p.a. (2 for theoretical group p.a.)	}	estimated at Rs.6.0 lakhs
ii. typist 2		
iii. Computer programmer/ operator 1		
iv. X-erox operator 1		
v. Teachers/research/ contingencies (including travel/postage cur stationery/books/ publications etc. (Rs.3000 per head p.a.)		Rs.7.50

Total R = Rs.13.50

Total NR + R = Rs.48.40 lakhs

The Committee record its thanks to the Vice-Chancellor, Head of the Department and his colleagues for the cooperation extended to the Committee during its visit to the Department.

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Appendix I to the xura to item No.4.09

UGC ASSISTANCE FOR THE PERIOD (1963-1983)

Recurring

	I Phase (Rs. In Rupees)	II Phase	III Phase	1978-83
1. Books & Journals	34283	46176	50560	5268
2. Travel, Publication	29710	24586	55244	41218
3. Seminars	<b>22050</b>	<b>85457</b>	<b>20207</b>	<b>62527</b>
4. Visits	61128	50908	20676	36938
5. Contingencies	100062	239705	70048	146299
	<u>2,47,233</u>	<u>4,45,832</u>	<u>2,16,735</u>	<u>2,92,220</u>

Total for 20 years = 12.02 lakhs

a. Staff Salaries 26.55 lakhs

b. Fellowships and National scholarships 10.93 lakhs

Total R 49.50 lakhs

Non-Recurring

1. Equipment	1,28,810	2,96,986	3,56,867	29373
2. Books	1,08,115	23,990	1,11,824	5268
	<u>2,36,925</u>	<u>3,20,976</u>	<u>4,68,691</u>	<u>34,641</u>

Total NR = Rs.10.61 lakhs

Total NR+R = Rs.49.50 + Rs.10.61 =Rs.60.11 lakhs

Foreign Assistance(Unesco and Ford Foundation)\$5,08,582.



UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 8th February, 1984

Item No. 4.10 : To consider the report of the Expert Committee for Special Assistance Programme for the Department of Chemistry M.S. University of Baroda, Baroda.

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In accordance with the decision of the Commission while accepting the recommendation of the Standing Committee for CAS/DSA in its meeting held on 2nd August, 1982 (Item No.4.08), a Committee of experts constituted to examine the present status of development of teaching and research in the Department of Chemistry, M.S. University of Baroda and its suitability for participation in one of the Special Assistance Programme in the trust area(s) of importance, visited the department on 24th December, 1983. The Committee consisted of the following:-

1. Prof. P.T. Narasimhan,  
Deptt. of Chemistry  
Indian Institute of Technology,  
Kanpur.
2. Prof. A.C. Jain  
Deptt. of Chemistry,  
Delhi University.
3. Dr. C.V. Suryanarayanan  
Central Electro-chemical Research Institute  
Karaikudi.
4. Sh. I.C. Menon  
Joint Secretary,  
U.G.C.

After reviewing the present activities of the department the Committee has recommended that the department may be supported as Departmental Research Support (DRS). A copy of the report of the Expert Committee is attached herewith as Annexure.

The financial support recommended by the Committee to the Department of Chemistry, M.S. University of Baroda,

Baroda for 3 years is indicated below :-

NON-RECURRING

1. Equipment (Variable temperature magnetic balance, Cyclic voltameter Vacuum line, BET Surface area apparatus UV visible spectro-photometer IR Spectrophotometer, HPLC, Mini computer, DTA, Air conditioner (2) Specific ion electrodes and specific ion meter, Punching machine for computer cards.	Rs. 14,00,000/-
2. Books in special areas & Journals	Rs. 1,25,000/-
3. One Seminar (in the course of 3 years)	Rs. 25,000/-
Total: (Non-Recurring):	<u>Rs. 15,50,000/-</u>

RECURRING

1. Chemicals (Rs. 50,000/- for Organic Rs. 50,000/- for Inorganic, Rs. 25,000/- for Physical Chemistry) Rs. 1.25 lakhs per annum	Rs. 3,75,000/-
2. Contingencies/spares/repairing/ service charges for equipment @ Rs. 50,000/- per annum	Rs. 1,50,000/-
3. Staff: JRF-6 (Organic-2, Inorganic-2 & Physical Chemistry-2 STA-1	Es- Rs. 1,60,000/- timated at
Total: Recurring:	<u>Rs. 6,85,000/-</u>

Grand Total: (NR + RECURRING): Rs. 22,35,000/-

The matter is placed before the Commission for consideration.

E.O. (SR-I)/JS(SR)

.....

Annexure-I to Item No. 4.10

Report of the UGC Committee on the Department  
of Chemistry, M.S. University of Baroda for  
support under Special Assistance Programmes.

(24.12.83)

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The UGC constituted a Committee to examine  
the proposal of the Department of Chemistry M.S. University  
of Baroda under the Special Assistance Programmes.

The Committee consisted of the following:

1. Prof. P.T. Narasimhan,  
I.I.T.,  
Kanpur.
2. Prof. A.C. Jain  
Delhi University.
3. Dr. C.V. Suryanarayana,  
Central Electro-chemical Research Institute  
Karaikudi
4. Shri I.C. Menon,  
Joint Secretary,  
U.G.C.

Dr. Suryanarayana could not join the Committee.  
The Committee visited the Chemistry Department on 24th  
December, 1983 and had discussions with the Vice-Chancellor  
the Head of the Department, his colleagues and research  
scholars. The Committee also went round the laboratories.

Background

M.S. University of Baroda was set up in 1949 as  
a unitary university. The Department of Chemistry enroll  
students for B.Sc. and M.Sc. There are 286 students in  
B.Sc. classes. First year 138; 2nd year 81; 3rd year 67.  
After 1st year B.Sc. many students go to the professional  
courses, hence the significant fall in enrolment in the  
2nd year. In B.Sc. the student has to study one principal  
and 2 subsidiary subjects. During 3rd year only Chemistry  
is taught. 30 per cent is internal assessment based on  
performance in two tests during the whole year.

The annual intake for M.Sc. is 30. There are  
28 students in M.Sc.(Prev) and 26 in M.Sc.(Final).

The M.Sc. students at present have three papers  
each year, second year being denoted to the branch of  
specialisation, Organic, Inorganic or Physical.

.....2/

In the new syllabus, to be introduced in June, 1984, there will be 4 papers each year. At present there is 30% internal assessment based on performance in 3 tests and 3 tutorial tests. Besides lectures, there are tutorial classes for each paper, where problems are solved and objective questions discussed. There are weekly seminars for students. Guest lecturers are invited to deliver lectures on topics of their interest in the syllabus. Under the auspices of Chemical Colloquium and Chemical Society, lectures by eminent chemists and also by faculty members are arranged.

There are 25 research scholars registered for Ph.D. 12 in Organic Chemistry, 12 in Inorganic Chemistry and 7 in Physical Chemistry. 84 Ph.Ds have been awarded during the last 30 years. The average outturn of Ph.D. is 3 per annum. One of the examiners is an expert from abroad.

During the last 10 years the Department has published 150 papers in leading journals. They are more or less equally distributed in the areas of Organic Chemistry and Inorganic Chemistry.

There are 30 teachers in the Department. 2 Professors, 4 Readers and 24 Lecturers. One post of Professor has been recently sanctioned under the Vth Plan development. All teachers except 4 have Ph.Ds. The Central Library has 4000 titles of books in Chemistry. 23 research journals are being subscribed for.

The main areas of research are:-

1. Synthetic organic chemistry
2. Coordination chemistry
3. Ion exchange
4. Liquid crystals

Synthesis and study of the preparation and reaction of metal complexes of biochemically important ligands have already been carried out and models for biochemical processes have been proposed. Further research in the field of Bio-Inorganic Chemistry is to be advanced.

In view of the fact that there are polymer based industries in Baroda, research work in polymer has been initiated. Collaboration with the industries could be sought and research on fundamental and applied aspects of polymers carried out.

.....3/-

A nucleus has already been built up in the department for research in homogeneous catalysis. Heterogenised homogeneous catalysis by metal ions, supported on polymers, silica and alumina, is being attempted. This will be further extended to homogeneous catalysis by complexes and solid supported metal complex catalysts. Organic and inorganic ion exchangers will be synthesised and used as catalyst supports. Use of mono and bi-metallic alk-oxides as catalysts will also be attempted. In this field also, collaboration will be sought with IPCL, and GSFC, Baroda.

In the field of organic chemistry, research in natural products and bioactive molecules has been proposed. Research work on photochemistry of the organic molecules is in progress. Research work in this field is to be strengthened and further extended to photochemistry of metal complexes. Research in Drugs and pharmaceuticals will be attempted in collaboration with the drug industries.

Research work in the field of organo metallic compounds and their fluorination has been started. It is to be further advanced.

Observations and recommendations :

The staff have heavy teaching load as a result of integrated enrolment. The Department have completed 8 research projects during the last 10 years. 5 projects supported by CSIR and the University are in progress. The Department has UV, I.R. and N.M.R. spectro-meters C.H. Analysar, magnetic balance and glass blowing unit in the workshop. Many of them are quite old.

The Inorganic Section has 9 staff members. 1 professor, 1 reader and 7 lecturers. The Organic Section has 13 (1 p, 2 R & 10 L) Physical Chemistry Section has 8 teachers (1 R, 7 L) The post of professor recently sanctioned may be filled in Physical Chemistry with polymer science or theoretical or solid state Chemistry as specialisation.

The proximity to a number of chemical industries and drug industries in the region is at once a challenge and an opportunity for the Department to utilise their expertise for meaningful interaction.

One of the thrust areas for research should be synthesis of Bio-active Molecules, Bio-inorganic Chemistry and catalysis in which all the three groups can participate.

The Committee recommend UGC assistance at the level of Departmental Research Support (DRS) for a period of 3 years.

The financial implications of the recommendations are:-

NON-RECURRING (for 3 years)

	<u>Rs in Lakhs</u>
1. Equipment	14.00
Variable temperature magnetic balance, Cyclic voltameter, Vacuum line, BET Surface area apparatus, UV visible spectrophotometer IR spectrophotometer, HPLC, Mini computer, DTA, Air conditioner.	
(2) Specific ion electrodes and specific ion meter, Punching machine for computer cards.	
2. Books in special areas and Journals	1.25
3. One seminar (in the course of 3 years)	0.25
Total N.R. =	15.50

RECURRING

i. Chemicals (Rs. 50,000 for Organic Rs. 50,000 for Inorganic Rs. 25,000 for Physical Chemistry Rs. 1.25 lakhs p.a.)	3.75
ii. Contingencies/spares/ repairing/service charges for equipment (Rs. 50,000 pa.)	1.50
iii. <u>Staff</u> JR <sup>W</sup> 6 (Organic 2, Inorganic 2 & Physical 2) S.T.A. 1	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">} estimated } at</div> <div style="text-align: right;">1.60</div> </div>
Total R =	6.85

Total N.R. + R = 22.35 lakhs

The Committee record its thanks to the Vice-Chancellor, the Head of the Department and his colleagues for the cooperation extended to the Committee during its visit to the Department.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:  
Dated: 8th February, 1984

Item No.4.11 : To consider the report of the Expert Committee on the participation of the Economics Department, M.S.University of Baroda under the Special Assistance Programme.

...

The University Grants Commission at its meeting held on 23rd December, 1983 considered the position with regard to the proposal for participation of the Department of Economics, M.S.University of Baroda under Special Assistance Programme to selected departments and desired that an Expert Committee may be appointed to assess the suitability of this department and make necessary recommendations in this regard. (Resolution No.4.08 dated 23.12.1983). Accordingly, a Committee was appointed consisting of the following members:-

1. Prof. Anita Banerji,  
Professor of Economics,  
Jadavpur University,  
Calcutta.  
  
and Member, UGC and Convener  
of the Economics Panel.
2. Prof. V.V.Borkar,  
Professor of Economics,  
Marathwada University,  
Aurangabad.
3. Prof. H.K.Manmohan Singh,  
Professor of Economics,  
Punjabi University,  
Patiala.
4. Dr. S.C.Goel,  
Joint Secretary,  
University Grants Commission,  
New Delhi.

(Professor H.K.Manmohan Singh could not visit the University owing to unavoidable circumstances).

p.t.o.

2. The Committee visited the M.S. University of Baroda on January 9 & 10, 1984 and held discussion with Prof. B.C. Parekh, the Vice-Chancellor of the University, Prof. S.R. Hashim, Head of the Economics Department, Prof. V.N. Kothari and other members of the teaching staff of the department. The Committee also met a group of research scholars and postgraduate students in economics. The Committee also visited the Smt. Hansa Mehta Library, which is the central library of the university.

3. The report of the Committee is attached (Annexure). The main observations and recommendations of the Committee are summarized below:-

a. It is considered opinion of the Committee that the department of economics, M.S. University of Baroda has, since its inception, done outstanding work in regard to both teaching and research and also has a clear perspective of its thrust areas, programmes, priorities and directions of growth. The members of the teaching staff have by way of professional attainments, publications, research output and involvement in curricular, co-curricular and extra-curricular activities, contributed significantly to the growth of the discipline and the standing of the department.

b. It is also the view of the Committee that the department has the potentiality to develop as a centre of excellence particularly in view of several advantages with which it started and which have now become a part of its academic tradition. Firstly, the M.S. University of Baroda is a unitary university and as such it does not carry those burdens which often become a limiting factor in the growth of universities of the affiliating types. Secondly, the university and consequently the department of economics uses English as an exclusive medium of instruction at both the undergraduate and postgraduate levels. It is, therefore, possible for the department to draw its undergraduate and postgraduate students as well as research scholars from different parts of the country. Thirdly, the department has an innovative approach and methods which enables it to experiment with new ideas and techniques. This is reflected in the way in which both the undergraduate and postgraduate syllabi have been modernized and updated from time to time and new ideas such as the development of book banks, preparation of reading materials to fill the existing gaps, seminars conducted by students and classes taken by them once in each academic session have been tried out.



Fourthly, the department has, in keeping with modern trends, placed emphasis on quantitative methods, which have been incorporated in the syllabi in respect of both undergraduate and postgraduate courses. Fifthly, there is complete involvement and identification of the faculty with the department and it seems that in regard to intra-departmental as well as inter-departmental matters, the department is well placed. Finally it seems that the department has had good academic inputs and a good collection of books, journals and back numbers and also basic infra-structural facilities for its present strength.

c. The Committee noted that the department had earlier been identified for the teacher fellowship programme and has through its broad-based policy fulfilled the expectations of the Commission in this regard.

d. It was also noted that the department had been identified for departmental research support which could not be implemented. In this connection, the members of the faculty averred that with the present commitments in regard to teaching, research and consultancy on the part of the faculty members, it was just not possible for them to take up any additional responsibility without adequate strengthening of staff, equipment and basic infra-structural facilities. It was also pointed out that the time factor and other strategic considerations underline the need for inducing more teachers to the department at both the senior and junior levels.

e. The Committee recommends that in view of the various considerations outlined above and its overall assessment of the potentialities of the department, the department should be given the status of a department of special assistance. Further, the Committee is in agreement with the approach of the department to develop its resources and expertise around the following thrust areas:

- i. Economics of education and human resources
- ii. Growth processes of Indian economy.

4. The Committee has recommended the following assistance to the department of economics, M.S. University of Baroda on 100% basis for a period of five years on the usual terms and conditions:

			Estimated Expenditure Rs
I. <u>Recurring</u> (Total for five years)			
1. Professor	} (Economics of Education and Human Resources/ Growth process of Indian Economy)	One	2,25,000/-
2. Reader		One	1,50,000/-
3. Lecturer		Two	2,00,000/-
4. Research Associate	(Rs. 1500/-)	One	1,00,000/-
5. Statistical Assistant	(Rs. 550-900)	One	75,000/-
6. Word Processor Operator-cum-Technical Assistant	(Rs. 475-800)	One	75,000/-
7. Junior Research Fellow		Three	1,20,000/-
8. Visiting Professor/ Visiting Fellows (Rs. 10,000 per year)		One	50,000/-
9. Typing and clerical assistance			50,000/-
10. Field work/investigations (Rs. 10,000/-per annum)			50,000/-
11. Contingencies (Rs. 15,000/-per annum)			75,000/-
12. Library books & Journals (Rs. 10,000/-per annum)			50,000/-
13. Seminars			30,000/-
14. Publications			1,00,000/-
Total			Rs. 13,50,000/-

II. Non-Recurring

Rs

1. Building 3,000 sq.ft. (including furniture)	5,00,000/-
2. Equipment (Word Processor)	2,00,000/-
3. Library (Books & Journals)	1,50,000/-
	-----
Total	Rs. 8,50,000/-
Grand Total	Rs. 22,00,000/-
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The matter is placed before the Commission for its consideration.

JS(HR)

UNIVERSITY GRANTS COMMISSION

Report of the Expert Committee on the participation of the Economics Department, M.S. University of Baroda under the Special Assistance Programme.

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In November, 1981 the University Grants Commission accepted the recommendations of the Visiting Committee to the Department of Economics, M.S. University of Baroda for assistance under the scheme of Departmental Research Support. The Commission desired that the department may be requested to send detailed research projects to be undertaken and the same may be referred to the committee which considered the original report viz. Prof. P.R. Brahmananda, Bombay University and Prof. G. Parthasarathi, Andhra University. The programmes drawn up by the university were accepted but the same could not be implemented by the department owing to a variety of reasons and constraints.

Later, the department requested the Commission to reconsider the question of its status under the special assistance programme. The Commission considered the matter at its meeting held on 23rd December, 1983 and desired that an expert committee may be appointed to assess the suitability of the department regarding its participation under the special assistance programme and to make necessary recommendations in this regard. Accordingly, a committee was appointed consisting of the following members:

1. Prof. Anita Banerji  
Professor of Economics  
Jadavpur University  
Calcutta  
  
and Member, UGC and Convenor  
of the Economics Panel.
2. Prof. V.V. Borkar  
Professor of Economics  
Marathwada University  
Aurangabad
3. Prof. H.K. Manmohan Singh  
Professor of Economics  
Punjabi University  
Patiala
4. Dr. S.C. Goel  
Joint Secretary  
University Grants Commission  
New Delhi

(Professor H.K.Mannmohan Singh could not visit the university owing to unavoidable circumstances).

The Committee visited the M.S.University of Baroda on January 9 & 10, 1984 and held discussion with Prof. B.C.Parekh, the Vice-chancellor of the university, Prof. S.R.Hashim, head of the economics department, Prof. V.N.Kothari and other members of the teaching staff of the department. The Committee also met a group of research scholars and postgraduate students in economics. The Committee also visited the Smt. Hansa Mehta Library, which is the central library of the university.

The report of the Committee, which follows, is in two parts. Part I gives basic facts and figures about the department and Part II the observations and recommendations of the Committee.

#### (Basic Facts & Figures)

1.01 The teaching of economics (political economy as it was then called) started in the year 1889 under the auspices of the Baroda College which was established in the year 1881. Prof. P.B.Naik was the first professor of history and political economy. The department of economics came into existence in 1949 with the establishment of the M.S.University. Dr. I.G.Patel (now Director, London School of Economics) was the first university professor of economics. As the department grew, separate departments of agricultural economics and business economics were established in 1960 and 1970 respectively; the former under the faculty of arts and the latter in the faculty of commerce.

1.02 The department was further strengthened when on the occasion of the silver jubilee celebrations of the university, the India-Petro-Chemicals Ltd., donated Rs.6 lakhs for establishing a centre in the department known as the I.P.C.L.Centre. The objective of the centre is to undertake studies in industrial development in its national and international aspects. The centre has been functioning with one professor, one research associate, one research assistant and other supporting staff.

1.03 The department offers the three-year B.A.course and the Ph.D. degree course. There is also a provision for offering four papers in economics as part of the B.Sc. subsidiary course. The B.A.(economics) major course consists of eight papers as under:

- (i) Theory of value and distribution
- (ii) Quantitative methods in economics lower level/higher level
- (iii) Business and social accounting
- (iv) History of economic thought
- (v) Money income and growth
- (vi) International economics and public finance
- (vii) Structure of Indian economy
- (viii) Economic planning and policy in India.

The M.A.(economics) course comprises eight core-compulsory papers viz. (i) micro-economics, (ii) macro-economics, (iii) quantitative economics/mathematical economics, (iv) growth, development and planning, (v) public finance and social accounting and (vi) international economics, and the following four optional groups; each group having two papers:-

- (i) Agricultural economics:- Paper I - principles of agricultural economics and world farming systems; paper II - Indian agriculture and its development.
- (ii) Economics of industry and public utilities:- paper I - economics of industry; paper II - economics of public utilities.
- (iii) Econometrics - two papers
- (iv) Economics of human resource:- paper I economics of education and health; and paper II economics of labour, poverty and unemployment.

1.04 Students are required to have obtained at least 45% marks in B.A.(economics) major in order to be eligible for admission to the M.A. course in economics with the proviso that some pass course students can also be admitted. All students obtaining first class in M.A. are admitted to the Ph.D. programme, subject to the concurrence of the research guide. All other students admitted to Ph.D. must have obtained a minimum of 50% marks in M.A. (economics). Such candidates are interviewed by the Research Degree Committee and their research plans are also examined.

1.05 The department has at present two professors, five readers and four lecturers. The strength of the department is likely to be three professors, four readers and four lecturers in view of the merit promotion scheme. The members of the staff participate actively in seminars and conferences at the regional, national and international levels and their services are availed of in advisory capacity for serving on various committees, panels etc. including regional planning by the Government of Gujarat. The department has, during the last 10 years brought out 15 books and reports. The members of the teaching staff have published about 150 articles in learned journals. Special mention may be made of two publications: (i) The Baroda College Centenary Number on Social Sciences has a number of papers on theoretical and applied aspects of economics and has been edited by Prof. S.R.Hashim, the head of the department. (ii) Essays on Recent Developments in Economics brought out by the department in 1982 incorporates 13 essays; four essays deal with the problem of choice at micro - economic level, six belong to the field of macro economics and the remaining three are of interest from the methodological point of view. The latter publication was brought out on the occasion of the fourteenth Gujarat Economics Conference which met under the auspices of the department. During the last 12 years, the department has completed 10 research schemes sponsored by the university, ICSSR, Government of Gujarat, Indo-Dutch ICSSR collaboration. Three projects are in progress.

1.06 The intake capacity of the department for the M.A. course is 50. The department attracts students from several foreign countries such as Mauritius, East African countries, Thailand, Iran etc. Within India, the students come from 23 different states, thus giving the department an all-India character. 31 students have so far obtained the Ph.D. degree from the department. Nine of these students were from outside the state. Currently, 15 students are registered for the Ph.D. degree.

1.07 The department had been identified by the University Grants Commission under the faculty improvement programme and ten teacher fellowships were allocated to it. It has so far selected two teacher fellows from Gujarat, three from Tamil Nadu, two from Andhra Pradesh, one each from Uttar Pradesh, Orissa and Karnataka. Six of these teacher fellows have already obtained their Ph.D. degree. However, the scheme has since been discontinued.

1.08 The department has also been implementing the scheme of continuous internal evaluation; the weightage being 30% at the B.A. level and 20% at the M.A. level. There is, however, scope for improvement and for bringing the scheme in line with the UGC guidelines as at present evaluation is in the form of tests and internal marks are added to those

in the final end-of-course examination. It is also not clear why weightage is less at the postgraduate level. All these matters would need to be examined at the faculty rather than the departmental level.

1.09 The pass percentage in the B.A. examination has generally varied from 50 to 60 percent in the main examination and the proportion of first classes from 5 to 10 percent. At the M.A. level, the pass percentage in the main examination has been of the order of 70% but in the 1980 examination it was only 50%. The number of first classes awarded to students has progressively gone down from eight in April 1981 to three in April 1982 and two in the April 1983 examination. This deterioration in both the qualitative and quantitative performance of postgraduate students will need to be analyzed in some detail so that corrective steps may be taken in the future.

1.10 The University library has a collection of about 50,000 books in economics and subscribes to about 60 journals and periodicals. There is no departmental library but a book bank with voluntary donations by students and teachers has grown over the years and has at present about 700 books. On the whole, the general feeling amongst students and research scholars is that library resources need to be augmented and the system of issue of books streamlined further.

1.11 The department has been carrying on research work in a wide variety of fields such as economic development, public finance, industrial economics and public utilities, economics of education, regional planning, urban problems including slums and urban poverty, benefit-cost studies, income-shares, capital-output and productivity studies. Broadly these studies fall in two major areas of thrust namely (i) economics of education and human resources and (ii) studies in growth processes of Indian economy.



1.12 The department is also active in a number of co-curricular activities, through the voluntary efforts of students and teachers such as publication of a students' magazine; preparation of objective test-tutorial manuals, organization of debates, symposia and seminars, and pupils' day when students engage classes. Teachers write out special teaching notes for circulation amongst students in areas where gaps exist. The Economics Society in the department is the largest society in the university and brings out a magazine every year- Amateur Economist. Papers included in the magazine are both informative and analytical and are contributed by students. A part of the cost of the magazine is met by students. 15 issues have been brought out so far.

## II

### (Observations and Recommendations)

2.01 It is the considered opinion of the Committee that the department of economics, M.S. University of Baroda has, since its inception, done outstanding work in regard to both teaching and research and also has a clear perspective of its thrust areas, programmes, priorities and directions of growth. The members of the teaching staff have by way of professional attainments, publications, research output and involvement in curricular, co-curricular and extra curricular activities, contributed significantly to the growth of the discipline and the standing of the department.

2.02 It is also the view of the Committee that the department has the potentiality to develop as a centre of excellence particularly in view of several advantages with which it started and which have now become a part of its academic tradition. Firstly, the M.S. University of Baroda is a unitary university and as such it does not carry those burdens which often become a limiting factor in the growth of universities of the affiliating type, especially those with a large number of affiliated colleges at varying stages of development. The unitary university can experiment with the new tools and techniques and can even give a shake up to courses, syllabi, departmental structures etc. without worrying too much about the reactions of the marginal college. Secondly, the university and consequently the department of economics use English as an exclusive medium of instruction at both the undergraduate and postgraduate levels. It is, therefore, possible for the department to draw its undergraduate and postgraduate students as well as research scholars from different parts of the

country and thus impart a cosmopolitan character and expose students to current thinking in the discipline in different parts of the world. The department has, in fact used this advantage in communication to great advantage by attracting its students from far and wide. It, therefore, appears reasonable enough to assume that if granted the status of a department of special assistance, the department will be in a position to function as an all-India centre of excellence. Thirdly, the department has an innovative approach and methods which enables it to experiment with new ideas and techniques. This is reflected in the way in which both the undergraduate and postgraduate syllabi have been modernized and updated from time to time and new ideas such as the development of book banks, preparation of reading materials to fill the existing gaps, seminars conducted by students and classes taken by them once in each academic session have been tried out. Fourthly, the department has, in keeping with modern trends, placed emphasis on quantitative methods, which have been incorporated in the syllabi in respect of both undergraduate and postgraduate courses. The undergraduate syllabus has been upgraded and compulsory papers on quantitative methods and business and social accounting have been introduced. There is also a compulsory papers on quantitative economics in the M.A. course. The quantitative methods are also reinforced by the fact that the department draws some of its students from the faculty of science. Fifthly, and this is a very important consideration there is complete involvement and identification of the faculty with the department and it seems that in regard to intra-departmental as well as inter-departmental matters, the department is well placed. Finally, it seems that the department has had good academic inputs and a good collection of books, journals, and back numbers and also basic infra-structural facilities for its present strength.

2.03 The Committee noted that the department had earlier been identified for the teacher fellowship programme and has through its broad-based policy fulfilled the expectations of the Commission in this regard. It was also noted that the department had been identified for departmental research support which could not be implemented. In this connection, the members of the faculty avered that with the present commitments in regard to teaching, research and consultancy on the part of the faculty members, it was just not possible for them to take up any additional responsibility without adequate strengthening of staff, equipment and basic infra-structural facilities. It was also pointed

out that the time factor and other strategic considerations underline the need for inducting more teachers to the department at both the senior and junior levels.

2.04 The Committee recommends that in view of the various considerations outlined above and its overall assessment of the potentialities of the department, the department should be given the status of a department of special assistance. Further, the Committee is in agreement with the approach of the department to develop its resources and expertise around the following thrust area:

- i. Economics of education and human resources.
- ii. Growth processes of Indian Economy.

Under the first major area, work has already been done by the department on investment in human resources and returns to education, rates of enrolment and literacy, socio-economic background of the entrants to higher education, structure of employment, migration and wages, labour market segmentation, poverty and slums. In fact, it is no exaggeration to say that the department has done some pioneering work in this area.

Under the second major area, work has been done on capital structure and growth of the Indian economy, inter-regional flows, structure and comparative growth of regions of India, trends in public expenditure etc. at macro-aggregate level and processes of urbanization and industrialization, relevance of small-scale industries and their role in development, profitability and production function in industries, public utilities, problems and processes of growth of rural and tribal economies etc., at a more disaggregative level.

The department has also introduced an optional group on economics of education and human resources as part of the revised M.A. syllabus. Apart from this, a number of teachers and scholars have done researches in the two thrust areas and their response that these be treated as thrust areas was almost spontaneous. The Committee, therefore, recommends that the areas specified above be developed as thrust areas and in this connection it is happy to note that the department would be taking a broad based view and take up problems such as poverty, unemployment, manpower planning, structural processes, regional problem etc. instead of concerning itself with traditional studies of rates of return and other descriptive problems.

2.05. The Committee recommends the following assistance to the department of economics, M.S. University of Baroda on 100% basis for a period of five years on the usual terms and conditions:

		<u>Estimated Expenditure</u>
I. <u>Recurring</u> (Total for five years)		
1. Professor	} Economics of One Education and Human Resources/ One Growth process of Indian <b>Two</b> Economy	Rs. 2,25,000/-
2. Reader		Rs. 1,50,000/-
3. Lecturer		Rs. 2,00,000/-
4. Research Associates (Rs. 1500/-)	One	Rs. 1,00,000/-
5. Statistical Assistant.	(Rs. 550-900) One	Rs. 75,000/-
6. Word Processor Operator-cum-Technical Assistant.	(Rs. 475-800) One	Rs. 75,000/-
7. Jr. Research Fellow	Three	Rs. 1,20,000/-
8. Visiting Professors/ Visiting Fellows (Rs. 10,000/-per year)	One	Rs. 50,000/-
9. Typing and clerical assistance		Rs. 50,000/-
10. Field work/investigations (Rs. 10,000/-per annum)		Rs. 50,000/-
11. Contingencies (Rs. 15,000/-per annum)		Rs. 75,000/-
12. Library books & Journals (Rs. 10,000/-per annum)		Rs. 50,000/-
13. Seminars		Rs. 30,000/-
14. Publications		Rs. 1,00,000/-
Total :		Rs. 13,50,000/-

II Non-Recurring

1. Building 3,000 sq.ft. (including furniture)	Rs. 5,00,000/-
2. Equipment (word Professor)	Rs. 2,00,000/-
3. Library (books & journals)	Rs. 1,50,000/-
Total	<hr/> Rs. 8,50,000/-
Grand Total	Rs. 22,00,000/- <hr/>

It was noted that (a) the university has an assurance from the State Government for taking over the commitments after the Commission's assistance ceases and (b) the Sixth Plan Visiting Committee had recommended one professorship in quantitative economics, Rs. 20,000/- for books and journals and Rs. 20,000/- for equipment for the department.

The Committee would like to express its thanks to the Vice-Chancellor and his colleagues and the staff of the economics department for their cooperation and assistance in its deliberations.

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 8th February, 1984

Item No 5.01: To consider the question of raising the VI Plan allocation of the Saurashtra University

...

The University Grants Commission made a tentative allocation of Rs.75.00 lakhs to the Saurashtra University for its development programmes during the 6th Plan period. Against this allocation, priority proposals involving financial outlay of Rs.52.05 lakhs were accepted by the Commission prior to the visit of the VI Plan Visiting Committee. Subsequently, the Commission accepted the recommendations of the Visiting Committee involving funds to the tune of Rs.32.05 lakhs (thus bringing the total financial cost of the proposals so far accepted to Rs.84.10 lakhs against the VI Plan allocation of Rs.75.00 lakhs) and desired that the University may keep the expenditure within the VI Plan ceiling or else indicate the adjustment the University would like to propose. The position is summarised below:-

A. Proposals accepted prior to the visit of the Visiting Committee

Books	Rs. 4,00,000/-
Equipment	Rs. 7,00,000/-
Staff	Rs. 2,55,000/-
Buildings' cost (escalation)	Rs. 38,50,000/-

B. Proposals accepted on the recommendations of the Visiting Committee

Books	Rs. 14,10,000/-
Equipment	Rs. 10,50,000/-
Staff	Rs. 4,20,000/-
Buildings	Rs. 3,25,000/-

The Saurashtra University has, however, informed that even the amount of Rs.84.10 lakhs is not sufficient to satisfy the bare minimum development needs of the University as it is a budding University and hence deserves full financial support and encouragement from the Commission. The University has, therefore, requested the Commission not to insist on keeping the expenditure within the VI Plan allocation. However, the University was informed that it should take up only the first priority schemes so that the expenditure remains within the ceiling fixed by the Commission for the VI Plan period.

Subsequently, the proposals of the University for sharing the increase in cost due to escalation in the prices, in respect of the building for the departments of Commerce, Education and Economics amounting to Rs.1,46,500/- as UGC share was also accepted and the University was **requested** to intimate how it would adjust the amount within the VI Plan allocation. The University has intimated that it would not be possible to make any adjustment or curtailment from the barest minimum grant sanctioned for the VI Plan. A copy of the letter received from the University is attached as Annexure. It would thus be seen that the total financial cost of the proposals so far accepted comes to Rs.85,56,500/- against the VI Plan allocation of Rs.75,00,000/-.

In this connection, it may be stated that the total amount allocated for books and equipment has been released to the University.

It is, therefore, for consideration whether the proposal of the University to meet the entire cost of all the proposals agreed to so far amounting to Rs.85,56,500/- against the VI Plan allocation of Rs.75.00 lakhs may be agreed to or the University may be requested to defer the construction of some of its buildings to the VII Plan so as to keep the entire expenditure within the VI Plan ceiling.

The matter is placed before the Commission for consideration.

US(B.2)/DS(B)

File No. F.14-2/81(B.2)

Annexure to item No. 5.01

Copy of letter No. PLG/UGC/F-4/1189/1983 dated 14.11.1983 received from the Registrar, Saurashtra University, addressed to Secretary, UGC

...

Sub: Construction of building for the Department of Commerce, Education and Economics

...

Sir,

I am to request you to kindly refer to the Commission's letter No. F.14-2/81(B.II) dated 15th October, 1983.

The Commission has been pleased to sanction the revised cost of Rs. 7,93,000/- (Rs. Seven lakhs ninety three thousand only) for the construction of the buildings of the Departments referred to above against the cost of Rs. 5,00,000/- approved by it earlier. The total share of the UGC for the above building would now amount to Rs. 3,96,500/-.

The Commission has, in the last para of its letter referred to above, desired this University to intimate as to how it would adjust the excess amount within the VI Plan allocation.

In this connection, I am to state that as already stated in this office letter No. PLG/UGC/VIP(Gen)/1005/83 dated 21.9.1983 the construction works of some of the buildings which were sanctioned in the V Plan were not started strictly keeping in view the directives and in due obedience of the Commission. The University had therefore requested the Commission to sanction the grant of such buildings and additional expenditure incurred on account of escalation of cost as 'spill over' in VI Plan instead of the first charge on the VI Plan allocation but the said request was not considered by the Commission per its letter No. F.21-3/77(D-4a)(B.II) dated 11.4.1983. The total amount sanctioned by the Commission for the development schemes of this University in VI Plan is too meagre. Out of the total ceiling amount of Rs. 75 lakhs earmarked to this University, the amount of Rs. 38,50,387/- has been considered as the first charge of the VI Plan allocation. In VI Plan, the University is only granted the development grant of Rs. 32,05,000/- in addition

p.t.o.



to the grant of Rs.4,00,000/- and of Rs.9,55,000/- sanctioned by the UGC as basic grants and grant for the schemes accepted as a result of discussion with the University authorities respectively.

It will, therefore, be appreciated that the additional amount of Rs.1,46,500/- (Rs. One lakh forty six thousand five hundred only) sanctioned by the UGC as its share for the building for the Departments of Commerce, Education and Economics should be considered and sanctioned as an additional grant in VI Plan allocation. It is, therefore, not possible to make any adjustment or curtailment from the barest minimum grant sanctioned to this University in VI Plan.

Early confirmation in the matter is requested.

## SECTION 6

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated: 6th February, 1964

Item No. 6.02 : To consider a proposal received from  
\* Swami Pranavananda Saraswati, Director  
Yoga Societies in America regarding  
institution of National Awards.

.....

Swami Pranavananda Saraswati, Director, Yoga Societies in America has sent a proposal for the institution of 10 National Awards to be granted annually in their respective fields. Each award would be of Rs.5,000/- which may be established in the near future for which he will donate a sum of Rs.5 lakhs. This amount may be invested in fixed deposit and the endowment created in any of the nationalised Banks of India. Out of the income accrued from this endowment, the awards are to be financed. The following would be the names of the awards:-

1. Swami Pranavananda National History Award.
2. Swami Pranavananda National Education Award
3. Swami Pranavananda National Sociology Award
4. Swami Pranavananda National Economics Award
5. Swami Pranavananda National Political Science Award
6. Swami Pranavananda National Mathematics Award
7. Swami Pranavananda National Sanskrit Literature Award
8. Swami Pranavananda National Home Science Award
9. Swami Pranavananda National Anthropology Award
10. Swami Pranavananda National Environmental Sciences and Ecology Award.

Swami Pranavananda Saraswati is the founder and the Director of the Yoga Organisations and the institutions for the progress of woman in different countries of America and completed several world tours and visited 128 countries in the last 30 years.

Swami Pranavananda Saraswati is a medical Doctor and Yoga Scientist, a practical philosopher and a Humanist who has promoted in the world the ideas of reconciliation synthesis, unity in diversity and world

.....2/-

peace. His Mission is:-

- 1) to promote the study, practice and diffusion of the Science of Yoga and its different aspects.
- 2) to promote universal brotherhood, mutual understanding and cooperation among all nations, communities and races with the purpose of establishing peace in a permanent form.
- 3) to help establish the appropriate conditions in which humanity can attain health, happiness, wisdom and realization.

Swami Pranavananda Saraswati lives permanently in America but occasionally visits India in order to fulfill numerous engagements of the different organisations over there. During the period of his visit in India he visited and deliver lectures in in 33 universities in India. Swamiji established numerous Trusts, which are stated to be legally registered Institutions, in different cities of India.

The matter is placed before the Commission for consideration.

F.1-152/83 (CP)

US(CP)/DS(CP)

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CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

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Meeting:

Dated : 8th February, 1984

Item No. 6.03: To consider the suggestions regarding Merit Promotion Scheme as made by some Universities/State Governments.

...

The University Grants Commission has formulated a Scheme for Merit Promotion with a view to give recognition to the outstanding work done by the University/College teachers and to provide for reasonable opportunities to them for professional advancement. The guidelines for this scheme were circulated to the Universities including the Institutions deemed to be universities requesting them for its implementation w.e.f. 1st January, 1983. A copy of the guidelines for the Merit Promotion Scheme is given as Annexure I.

While most of the universities have agreed to implement the scheme subject to their State Government's approval/clearance and have started screening/considering the eligible teachers as per the University Grants Commission guidelines, some universities/State Governments have suggested modifications/clarifications with regard to the implementation of the Merit Promotion Scheme which are summarised as under for consideration.

- ✓ (i) The State Government of Andhra Pradesh has suggested that the condition of minimum period of 4 years of continuous service in the institution where a teacher is to be considered for Merit promotion, may be removed in respect of Government College Lecturers as the Lecturers in Government Colleges are liable to be transferred after completion of 3 years of service in a particular College.
- ✓ (ii) The State Government of Andhra Pradesh has also requested the Commission to agree to the suggestion that in respect of Government College Lecturers the State Government may be allowed to constitute the Selection Committees in consultation with the Vice-Chancellor of the University concerned for assessment and promotion of eligible teachers under this scheme. According to the guidelines the Vice-Chancellor or his nominee should refer the proposal of the Lecturers to atleast two experts in the subject concerned out of a panel of names prepared by the University for evaluation of the work done by the teacher concerned. The evaluation reports of these experts are then to be considered by a Selection Committee consisting of the Vice-Chancellor, two subject experts and the Principal of the College concerned.

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- (iii) The University of Kalyani has suggested that the teachers who are eligible for consideration under the Merit Promotion Scheme may be considered for promotion after completion of their six years of continuous service in their respective Cadre of which atleast three years should be in the institution where the teacher concerned is being considered for such assessment and merit promotion.
- (iv) The Karnataka University has suggested for the provision of 2 or 3 advance increments in deserving cases recommended for merit promotion in the Cadre of Reader/Professor under the UGC Merit Promotion Scheme.
- (v) The Visva Bharati has sought clarification whether the teachers who were promoted as Reader under the 'Personal Promotion Scheme' in 1972 and have now completed more than eight years of continuous service could be considered for further promotion under the Merit Promotion Scheme.
- (vi) The M.S. University of Baroda desires to know whether the teachers of the following three institutions which form the constituent units of the University could be considered for the benefit of Merit Promotion Scheme as circulated by the Commission.

(a) Sanskrit Mahavidyalaya

This institution has provision of courses leading to certificate, Diploma, Degree and Postgraduate Degrees. There is also provision for Ph.D. The posts do not carry the scales approved by the UGC.

(b) Polytechnic

In this Institution there is a provision of only diploma courses in technical subjects. The teachers are given the grades sanctioned by the Government of Gujarat.

(c) Oriental Institute

There is provision of research in this Institute. The teachers guide Ph.D. students. The posts do not carry the designations as Lecturer, Reader etc.

vii) The Delhi University has forwarded a copy of letter dated 18-11-1983 (Annexure-II) from the Delhi University Teachers Association which demands that the pay fixation formula as per the University Executive Council Resolution may also be made applicable to the teachers who have been recommended for promotion under the Merit Promotion Scheme. The University had asked for clarification from the Commission regarding fixation formula for these teachers as per UGC Merit Promotion guidelines. In this regard, the attention of the University was invited to Para-6 of the Merit Promotion guidelines (Annexure-I) governing the scheme of Merit Promotion for University appointed teachers and the university was informed that the Commission was not in favour of any relaxation to provide for increments under Merit Promotion scheme and that only marginal adjustment could be made in the new scale, nearest to the pay already drawn by the promotee.

However, the Vice-Chancellor, Delhi University vide his letter dated January 11, 1984 (Annexure-III) has again approached the Commission to reconsider the question and allow the University to fix the salaries of those promoted by granting them one increment in their existing grade and then fixing their salary to the nearest higher point in the higher grade.

The matter is placed before the Commission for consideration.

US (MP) / JS (0)

Annexure I to Item No. 6.02

University Grants Commission  
Bahadur Shah Zafar Marg  
New Delhi-110002.

SECRETARY

D.O. No.F.1-87(CP) Part I

23 November, 1982.

Dear Vice-Chancellor,

Kindly refer to D.O. letter No.F.1-87(CP) dated the 14th January, 1981 from the Chairman, University Grants Commission regarding the Scheme of Merit Promotion for university appointed teachers formulated by the UGC with a view to giving recognition to outstanding work done by the university appointed teachers and to providing for reasonable opportunities to them for professional advancement.

2. The above scheme has since been slightly modified and I am enclosing a copy of the revised guidelines for the implementation of Merit Promotion Scheme for university appointed teachers in the university.
3. The Commission would make a contribution of Rs.600/- per annum for each person promoted as Reader/Professor under the above scheme in accordance with these guidelines for the remaining period of the Sixth Plan only, after which the expenditure involved under the scheme would be taken over as committed expenditure by the university/State government concerned.
4. Any scheme which the university may already have for merit/personal promotion and persons already promoted under which a scheme prior to the present scheme of the UGC becoming effective will not qualify for UGC assistance.
5. The University would supply to the UGC necessary particulars, each year, of the persons considered under the scheme, the referees evaluations and recommendations alongwith minutes of the selection committees and persons finally promoted.
6. I shall be grateful if the University would kindly give an assurance after consulting State Government concerned to the effect that the recurring additional liability for implementation of this scheme would be taken over as committed expenditure by the university/State Government concerned with effect from 1.4.1985. The scheme should be introduced by the University only after obtaining the above assurance from the State Government.

With regards,

Yours sincerely,

sd/-  
( R.K. Chhabra )



Guidelines for the implementation of the  
Merit Promotion Scheme for University  
appointed Teachers

...

PREAMBLE

The role of the teacher is crucial in the maintenance of academic standards and discipline in an educational institution. A great responsibility, therefore, lies on the teacher to ensure that proper academic atmosphere is maintained in the institution and that all academic work is carried out efficiently and with devotion to duty as a full time employee of the institution. Every professional, for its orderly progress, needs certain rules of professional ethics, and education is no exception. In order to do justice to this challenging task, the teacher has to be devotedly involved in programmes of teaching, research examination and extension activities taken as a whole. There should be regular assessment of his work and also of the institution. At the same time, it is necessary that teachers are provided reasonable opportunities for career advancement, and recognition of merit.

Objectives

1. The basic objectives of the Scheme should be (1) to recognize outstanding work done by the university teachers in the area of teaching and research.
2. Subject such work to objective evaluation by experts in the subject areas concerned and (3) to provide for reasonable opportunities for professional advancement to such teachers, who merit academic recognition, on a competitive basis. The scheme therefore may be appropriately named as "Merit Promotion Scheme for University Teachers". This would be in the nature of a "flexible complementing scheme" wherein no additional posts are created, and the existing persons on the basis of critical assessment are promoted to the next higher level and the position is held by such incumbents as personal to them, and no resultant vacancy is required to be filled. Such a scheme would considerably encourage the teachers to engage in advanced teaching and research and make distinct contributions which would merit recognition and promotion.

Methods of Implementation:

2. (a) Teachers in the university departments engaged in advanced teaching and research and whose

contribution and achievements are such as to merit recognition, may be considered for merit promotion in the first instance, after completing eight years of continuous service in their respective cadre, of which at least four years should be in the institution where he/she is being considered for such assessment and merit promotion. (b) Any teacher who has been considered and not selected for merit promotion in the initial presentation could, however, submit his work again only after a lapse of two years. (c) Teachers interested in such assessment and consideration of merit promotion should present their work to the university, through their department, latest by 31st December each year or a date stipulated by the university. (d) The university should generally take a decision before the beginning of the next academic year, so that such promotions can become effective from the date of the beginning of the next academic session. (e) While the final selection of persons to be promoted can be made by the university in accordance with its normal procedure, it would be necessary to refer the work (to include research, publications, books reviews, curriculum development, teaching aids, innovation, in teaching methods, equipment, dev load etc., presented by individual teachers to at least two referees in the subject/discipline concerned. The referees are to be selected by the Vice-Chancellor out of a panel of names set up according to the procedure prescribed by the university for Selection Committee. The evaluation reports by these referees should be kept confidential and should be made available to the Selection Committee. Merit promotion be given by the appointing authority to a teacher only on recommendation of the Selection Committee duly constituted after it has given due consideration to the opinion of the referees. There should be at least two outside experts on the Selection Committee in the case of promotion to readers and three outside experts for promotion to professors in these cases. (f) The post of a reader given to a lecturer or the position of a professor given to a reader, through merit promotion, would be personal to the incumbent concerned (g) The main criteria for promotion under this scheme would be the merit of the work as defined above and not the seniority of the teachers.

3. Not more than 1/3 of the number of total permanent position of lecturers or readers within a department may hold such merit promotions at next higher level at any given time. The persons holding such merit promotions would not count for determining the total posts in the cadre of readers for purposes of merit promotion to professors. It would be desirable for a

department not to fully utilise the merit promotion scheme at one time, but to phase it out so that the full quota could be reached in the plan period.

4. Additional funds required to implement this scheme in the State Universities may be provided by the Commission as plan assistance on the condition that after the Commission's assistance ceases the university/State Government would treat this as committed expenditure.

5. No additional/extra staff can be provided in the category of posts from which a person has received merit promotion to the next higher post, consequent upon the implementation of this scheme. The work load should therefore be adjusted suitably without seeking additional positions.

6. While making selections for such promotions, it is not expected that the selection committee would recommend any advance increment, nor is it expected that any rules for pay fixation on promotion/selection to higher posts are applied to provide for increment. Only marginal adjustment would require to be made within the new scale, nearest to the salary already drawn by the promotions.

7. The Commission, in order to enable the universities to implement the scheme in the initial stage, would make a contribution of Rs.600/- per annum for each person promoted as reader/professor, under this scheme, in accordance with these guidelines, for remaining period of sixth plan only, after which the expenditure of posts filled under the scheme would be taken over as committed expenditure by the university/State Government concerned.

8. Any scheme which the university may already have for merit personal promotion and persons already promoted under such a scheme prior to the present scheme of the UGC becoming effective will not qualify for UGC assistance.

9. The university would furnish to the UGC necessary particulars, each year, of the persons considered under the scheme, the referee-evaluations and recommendations alongwith minutes of selection committees and persons finally promoted.

UNIVERSITY GRANTS COMMISSION  
BAHADUR SHAH ZAFAR MARG  
NEW DELHI

Secretary

D.O.No.F.1-87/78 (CP) Part I

31st December, 1982.

Dear Vice-Chancellor,

Kindly refer to my d.o.letter of even number dated November 23, 1982 regarding the Merit Promotion Scheme for University appointed teachers in the Universities.

2. The Commission had also under consideration the implementation of a similar scheme for college appointed teachers and a copy of guidelines for the implementation of Merit Promotion Scheme for these teachers as accepted is enclosed.
3. The Commission would make a contribution of Rs.600/- per annum for each person promoted under the above scheme, in accordance with these guidelines for the remaining period of the Sixth Plan only after which the expenditure involved under the scheme would be taken over as committed expenditure out of the college own resources or with the assistance of grant-in-aid from the State Government as the case may be.
4. Any scheme which the University may already have for merit/personal promotion for college teachers and persons already promoted under which a scheme prior to the present scheme of the UGC becoming effective will not qualify for UGC assistance.
5. The University would supply to the UGC necessary particulars, each year, of the persons considered under the scheme, the referees evaluations and recommendations along with minutes of the Selection Committees and persons finally promoted.
6. I shall be grateful if the University would kindly give an assurance after consulting State Government concerned to the effect that the recurring additional liability for implementation of the scheme would be met by the college concerned or with the assistance from the State Government concerned with effect from 1-4-1985. The scheme should be introduced by the University only after obtaining the above assurance from the State Government.

With regards,

Yours sincerely,

Sd/-

(R.K.Chhabra)

## UNIVERSITY GRANTS COMMISSION

.....

### Guidelines for implementation of the Merit Promotion Scheme for College Teachers.

.....

The role of the teacher is crucial in the maintenance of academic standards and discipline in an educational institution. A great responsibility therefore, lies on the teacher to ensure that proper academic atmosphere is maintained in the institution and that all academic work is carried out efficiently and with devotion to duty as a full-time employees of the institution. Every profession, for its orderly progress, needs certain rules of professional ethics, and education is no exception. In order to do justice to this challenging task, the teacher has to be devotedly involved in programmes of teaching, research, examination and extension activities taken as a whole. There should be regular assessment of his work and also of the institution. At the same time, it is necessary that teachers are provided reasonable opportunities for career advancement, and recognition of merit.

#### a) Objectives

A scheme of Merit Promotion is to be introduced during the 6th Plan Period, with a view to providing suitable opportunities to the teachers working in the Colleges for career advancement in recognition of their significant contributions in the field of teaching, research and allied educational activities. The scheme is intended to be in the nature of a flexible complementing scheme where a teacher after critical assessment of his work at the end of a specified period can be promoted to the next higher level and the position thus held by him is treated as personal to the incumbent and no resultant vacancy is required to be filled. It is felt that such a scheme would go in a long way in encouraging the teachers in colleges to engage in teaching, research and allied educational activities and make a distinct contribution to the teaching profession and thus help to improve the quality and standards of higher education.

#### b) Method of Implementation

I. Teachers working in colleges affiliated to a university and included under Section 2(f) and which come within the purview of Section 12(A) of the UGC Act who have made significant contribution and achievement in the field of teaching and research may be considered for Merit Promotion, if they have put in a minimum of eight years of permanent service as a teacher of which at least four years have been in the institution where he/she is being considered for such assessment for merit promotion.

II. A teacher who has been considered and not selected for merit promotion in the initial presentation could, however, submit his/her work again only after a lapse of three years.

III. Colleges teachers wishing to have their work assessed and considered for Merit Promotion should present the details of their work to their college latest by 31st December, each year. For this purpose, the institutions may keep the profile of teachers with them in which the teachers may at the end of each year indicate the details of their contributions of teaching, research, curriculum development, educational reforms innovative teaching and other forms of academic work done in the institution as well as the work done in the field of extension and continuing education, sports and cultural activities etc. Improvement of academic qualifications should also be recorded. The enclosed proforma (Annexure) could be used for this purpose and these profiles may be submitted by the college to the University concerned, alongwith the proposal of the teacher for assessment for Merit Promotion. In the case of teacher who are seeking assessment of their work, a consolidated report for the period of preceding eight years may be made available, incorporating the major contributions made by the teacher.

IV. The Vice-Chancellor or his nominee should refer the proposal of the teacher to atleast 2 experts in the subject/discipline concerned out of a panel of names prepared by the University according to the procedure prescribed by the University for such Selection Committees.

The evaluation reports from the experts should be kept confidential and should be made available at least three weeks in advance of the Selection Committee. The Selection Committee would consist of the Vice-Chancellor or his nominee, two experts other than the referees and the Principal of the College where the lecturer is working.

Merit Promotion be given by the appointing Authority to a teacher only if the Selection Committee recommends the same.

V. While considering the proposal of a teacher for Merit Promotion, only merit as defined in Para III may be taken into account. All other factors being equal, seniority may be given due consideration.

VI. The University should generally take a decision on the proposal of a teacher for Merit Promotion as far as possible before the beginning of the next academic year so that such promotions can become effective from the date of the beginning of the next academic session.

VII. The promotion given to a person would be personal to the incumbent concerned for the period he serves the institution where he has been granted promotion.

VIII. The promotion on merit to a teacher under this scheme will not entitle him to any other benefit or entitle him to any other responsibility, administrative or otherwise such as Head of Department/Principal, except where he is even otherwise to be considered and will also not lead to any reduction in this teaching or other work.

IX. While promotion a teacher on merit, his salary may be fixed in the prescribed scale of pay for the next higher post with marginal adjustment nearest to the salary being drawn by the promotee, as per usual rules of pay fixation. Since most teachers in the colleges would be in the scale of lecturer i.e. 700-1600, the teacher, on selection for Merit Promotion may be placed in the scale of Rs.1200-50-1300-60-1900 and be designated lecturer in Merit Promotion Selection Grade.

X. The financial involvement will vary from State to State but the Commission would assist the Institution in the implementation of the Merit Promotion Scheme by making available on average contribution at the rate of Rs.600/- per annum per teacher promoted to the next higher level in accordance with the guidelines laid down by the Commission upto 31st March, 1985 only, on the condition that the institution concerned continues implementation of the scheme and meets expenditure on the salary of the person concerned as committed expenditure from 1st April, 1985 out of its own resources or with the assistance of grant-in-aid from the State Government as the case may be.

XI. No. person promoted by the College prior to the introduction of the UGC Scheme and not in conformity with the guidelines laid down by the Commission will qualify for assistance from the Commission.

XII. The University would furnish to the UGC, every year latest by 15th August, necessary particulars of the persons promoted in the colleges under its jurisdiction, under the Merit Promotion Scheme for college teachers along with the evaluation report of the experts and the recommendations of the Selection Committees and also the names of all the persons considered from each colleges, to enable the Commission to consider remitting grants due to the concerned colleges.

#### GENERAL

The number of teachers promoted under Merit Promotion Scheme will not exceed 33 1/3% of the total number of permanent posts in the College, spread over a period of 3 years.

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PROFORMA IN WHICH PROFILE OF TEACHERS BE  
MAINTAINED IN THE COLLEGES EACH YEAR.

\*\*\*\*

Period of Report \_\_\_\_\_

1. GENERAL

1. Name & Designation of the Teacher.
2. Academic Qualifications
3. Date of Birth
4. Date of Joining the College
5. Date of Confirmation
6. Previous experience (with dates) if served in other colleges/institutions.
7. Courses taught at Various Levels
  - a. Undergraduate level
  - b. Postgraduate level
8. Workload per week
  - a. Lecturers
  - b. Tutorials
  - c. Practicals
  - d. Seminar/group discussions
  - e. Total number of hours/periods provided in the time table under (a), (b), (c), & (d) in the academic year and the number actually taken during the year.
9. Teaching methods applied:  
Details of new teaching methods if any, may be given (i.e. outlines of lecturers, books and articles recommended etc.)
10. Details of academic planning/preparation of Lecturers during the session.
11. How far the lecturers planned at the session were carried through upto the end of the session.
12. Details of lecture notes, bibliography etc. circulated to the students before delivering the lecturers.
13. Whether topics for discussion in the tutorials were intimated in advance? If so, details of topics on which discussions were held in the tutorials may be given on a separate sheet of paper.
14. Has the college provided audio-visual aids and if so, how far the teacher used these in teaching demonstration experience etc.?

...2/-



15. Formulation of schemes under COSIP/COHSSIP, if the college is participating in these schemes and teachers own contribution thereto:
  16. Significant contribution made in the field of:
    - a. Teaching Methods
    - b. Evaluation Techniques
    - c. Course Developments, etc.
    - d. Teaching aids developed, if any,
    - e. Any experiment/apparatus designed or fabricated by him for improving teaching.
- II. Academic & Professional Advancement during the year:
- a. Research facilities offered in the college.
  - b. Research qualifications acquired.
  - c. Research Projects undertaken indicating the name of project, and duration source of funds, if any.
  - d. Research projects completed.
  - e. Papers published indicating titles and names of journals in which published.
  - f. Guidance rendered to Research Scholars Working for Ph.D/award of Ph.D.degrees.
  - g. Name of Seminars/Workshop/Conferences in which participated during the year and titles of papers presented at such gatherings.
  - h. Names of refresher courses/orientation programmes in which participated.
  - i. Any other training obtained.
  - j. Participation in other activities of the college like Adult & Continuing Education, Community Services, NSS, Sports & Culture, Activities etc.
  - k. Membership of various professional/other bodies in the colleges.
  - l. Membership of various bodies of the University.
  - m. Membership of other academic and professional bodies.
- III. Any other distinct contribution which the teacher has made during the year under reference, in the improvement of higher education/Development programmes.

Note: Please give information on separate sheet of paper wherever necessary and indicate the enclosure number against the relevant column.

I certify that the information given above is correct and factual to the best of my knowledge.

Signature of Teacher

Department of \_\_\_\_\_

IV. Evaluation by Head of Department/Incharge/Principal with regard to:

- a. Correctness of factual information.
- b. Evaluation of the overall contribution of the teacher:

Signature  
Incharge of the Department/  
Head of the Department.

Observations/recommendation of the Principal on the overall standing/performance of teacher in college;

Signature  
Principal

UNIVERSITY GRANTS COMMISSION

Dr. D. Shankar Narayan  
Actg. Secretary

Bahadur Shah zafar Marg,  
New Delhi - 110002.

D.O. No. F.1-6/83(CP)

April 29, 1983

Dear Vice-Chancellor,

Kindly refer to this Office D.O. letter No.F.1-87/78(CP) Part 1 dated 23rd November, 1982 and F.1-6/83(CP) dated February 15, 1983 regarding Merit Promotion Scheme for university appointed teachers. Keeping in view the modalities involved in processing the cases, it has since been decided that the University, if they so desire, after consulting the State Government concerned, give the benefit of the above scheme to the University appointed teachers w.e.f. 1st January, 1983. The Commission's assistance would be available from 1st January, 1983 to 31st March, 1985.

With regards,

Yours sincerely,

SNL—

(D. Shankar Narayan )

Annexure II to Item No.603

Copy of letter No.VC/83-131 dated the 19th November, 1983 received from Vice-Chancellor, Delhi University addressed to Dr. Rais Ahmed, Vice-Chairman, UGC.

-:-

You will kindly recall that I and the Dean of Colleges met you the other day and sought clarifications on the fixation formula in case of those teachers who have been recommended for promotion under the Merit Promotion Scheme. In this connection, I have received the enclosed letter from the Delhi University Teachers' Association which I am forwarding for your consideration in this regard.

I am grateful that you were kind enough to convey that necessary clarifications from the University Grants Commission would be sent to us in a day or so. I shall feel obliged if this is done at your earliest.

With personal regards,

Encl: as above

-:-

Copy of letter No. nil dated 18-11-1983 from  
Sh. S.P.S. Chauhan, Secretary, Delhi University  
Teachers' Association to Prof. Gurbaksh Singh,  
Vice-Chancellor, Delhi University.

-:-

With reference to your letter No. DC/83/3499 dated 11th  
November, 1983, I have to state as under :-

You had assured us when we met you on 2nd November, 1983  
that you would take up DUTA's demand regarding the formula for  
fixation of pay of the promoted teachers with the UGC.

We would like to stress the point that there is no need  
for the Vice-Chancellor to seek the guidance of the UGC on this  
(& other issues) particularly in view of the fact that the EC  
resolution No. 501, 1973 (as amended till resolution No. 124, 1978)  
still stands. It is unfortunate that you are so eager to yield  
the autonomy of the University to the UGC.

Nevertheless, we had agreed to send you a note on the  
fixation formula. Accordingly we state the following points in  
support of our demand :

1) The EC resolution still stands on the books. Clause (1) of  
the Resolution clearly states : "For fixation of pay of Univer-  
sity Teachers on promotion to higher posts : The pay of the  
teacher will first be increased by one increment in the lower  
scale and then fixed in the higher scale at the stage next  
above. The teacher shall, however, have the option, to be  
exercised in writing within a period of three months of the  
promotion, either to have his pay fixed in the higher scale  
from the date of promotion or from the date on which his next  
annual increment falls due. The option once exercised will be  
final".

2) Those promoted under the personal promotion scheme for  
Faculty teachers in 1972-73 have had their pay fixed in the  
next grade in accordance with the formula enunciated in the EC  
resolution No. 501, 197 ..

3) The promotion scheme now existing, as its very name  
indicates, seeks to give promotions to teachers and not to have  
their pay up-graded. Pay fixation under upgradation must  
clearly be different from pay fixation under a promotions  
scheme.

4) Point to point fixation would clearly discriminate against  
and be unfair to those teachers who have reached (even far  
exceeded) the minimum pay in the next grade in their earlier  
grade itself, in comparison to teachers who get a pay in the  
earlier grade which is less than the minimum of the next stage  
above. This large section of teachers will have no benefit  
at all from the promotion scheme.

p.t.o.....

5) The EC had adopted a resolution in its meeting on 24-2-1983 whereby Rule 25 of University Non-teaching Employees (Terms and Conditions) Rules, 1971 was amended. According to this also, pay fixation was to be on the basis of either first increasing the pay by one increment in the lower scale and then fixing the salary at the stage next above or by fixing the salary initially in the higher scale at the next stage above and then re-fixing on the date of accrual of next increment in the lower scale of pay.

The DUTA, therefore, demands that the University apply the pay fixation formula specified in the EC Resolution without any further delays so that salaries of teachers promoted are fixed and they begin to get their salaries in the next grade immediately.

Annexure III to item No.6.03

Copy of letter No.DC/84-68841 dated the 11th January, 1984 received from Vice-Chancellor, Delhi University addressed to Prof. S.K. Khanna, Secretary, University Grants Commission.

--:-

Kindly refer to your letter No.D.O.No.F.1-9/83/MP dated 30th December, 1983.

The University would like to request the Commission to reconsider the question of fixation of salaries of those who have been promoted under the Merit-Promotion Scheme. As pointed out earlier, the practice in the University has been to give one increment and then fix the salary at the nearest point in the higher grade to those who are appointed through regular selection procedures. However, the latest communication from the University Grants Commission has stated that no increment be given to those who have been promoted. This will create a difference between those who are directly appointed and those who are promoted under the Merit-Promotion Scheme. The University feels that it was not the purpose when the Merit-Promotion Scheme was approved by the University Grants Commission.

It is, therefore, requested that the question of fixing the salary of those who have been promoted under the Merit-Promotion Scheme, be reviewed and the University be allowed to fix salary of those promoted under the Merit-Promotion Scheme by granting them one increment in their existing grade and then fixing their salary to the nearest higher point in the higher grade.

With kind regards,

--:-

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION

...

Meeting:

Dated: 8th February, 1984

Item No. 6.05 : To consider the research project of Dr. Mazharul Islam on "Romantic Literature: Awadhi Hindi and Bengali"

...

Dr. Mazharul Islam formerly Professor of Bengali Language and Literature, Rajshahi University, Bangladesh has sent a research project entitled "Romantic Literature: Awadhi-Hindi and Bengali" through the Jawaharlal Nehru University. The project will deal with the following specific aspects:

- a. The Persian influence over Awadhi-Hindi and Bengali tradition. The concept of Love in Indian Culture.
- b. Maulana Daud's Chandayan- the theme and underlying philosophy- the poet and his poem- the aesthetic and Literary value- place of Daud's poetry in the society- Sadhana's Moinasat- thematic and poetic value- the source of moina- lorok theme- the impact of Daud and Sadhana on Bengali Literature- Daulat Quazi and Alaol.
- c. Kotobon's Mrigaboti- the poet and the poetry- aesthetic, Literary and social value- Chandayan and Mrigaboti- Persian and Indian tradition- Impact of Mrigaboti on Bengali Literature.
- d. Jaisi and Padumabat- poet and the poetry- the source- similar theme in Greek and Roman tradition- Padumabat and Vidyasundar- Jaisi's Padumabat and Alaol's Padmabati- Jaisi's place in Bengali Literature.
- e. Monjhon's Madhumalati- Poet and the poetry- Padumabat, Mrigabati and Madhumalati- Madhumalati and Mir Askari's Mihr Da Mah- Kabir, Saker Mamud and other Bengali poets and their Madhumalati- Nusrati's Gulshan-i-Isk and Madhumalati- North and South Indian link.
- f. The philosophical background of Awadhi-Hindi Romantic Literature- Symbolism- the human body as the temple of God- the Baul and mystic Cults- the adyatobad- the philosophical background and expression as evident in Bengali Literature.

p.t.o.



- g. Awadhi-Hindi Literary style and tradition- Sanskrit and persian influence- the concept of beauty- the concept of Kama- the trend in Bengali Literature- a comparative assessment.
- h. The society as depicted in both Awadhi-Hindi and Bengali romantic poetry- urban and non-urban interaction- social equilibrium through literature- ethnological position.
- i. Folklore and Awadhi-Hindi as well as Bengali Literature during medieval period- the text, context and texture.

It has been proposed that the project may be headed by the Director-cum-Visiting Professor who may be Dr. Mazharul Islam and may be paid an honorarium of Rs. 2500/- p.m. (all inclusive). The duration of the project is five years. The total estimated expenditure will be Rs. 1,75,000/- including contingencies at Rs. 5000/- per annum. The project is at Annexure.

Dr. Islam is a Bangladeshi national and has been the Vice-Chancellor of the Rajshahi University. He was also a Visiting Professor at Visva-Bharati but his tenure ended on December 31, 1983. He had gone to Bangladesh on 9th October, 1983 but had to seek pre-matur retirement and leave the country owing to his political philosophy. Prof. Islam was awarded FRAS in 1967 by the Royal Asiatic Society, London and is also the recipient of DAUD prize of Pakistan and the Bangla Academy prize of Bangladesh.

The Commission may consider the project keeping in view the eminence of Dr. Mazharul Islam and the fact that he is a foreign national, and that special sanction is needed if an honorarium of Rs. 2500/- p.m. is to be paid to him.

The matter is placed before the Commission for its consideration.

JS(HR)

Annexure to item No.6.05

A RESEARCH PROJECT.

ENTITLED

ROMANTIC LITERATURE : AWADHI-HINDI AND BENGALI

BY

DR. MAZHARUL ISLAM  
VISITING PROFESSOR (U.G.C.)  
VISVA BHARATI  
SANTINIKETAN  
WEST BENGAL

FORMERLY : DIRECTOR GENERAL  
BANGLA ACADEMY  
DHAKA

: VICE-CHANCELLOR  
RAJSHAHI UNIVERSITY  
BANGLADESH

: VISITING PROFESSOR (U.G.C.)  
DEPT. OF MODERN INDIAN LANGUAGES  
CALCUTTA UNIVERSITY  
CALCUTTA

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I. TITLE OF THE PROJECT.

ROMANTIC LITERATURE: AWADHI HINDI AND BENGALI

II. STATEMENT OF THE PROBLEM:

The Medieval Persian Literature was more or less based on urban life and as such in its vast realm one can hardly find the influence of folktale in particular and folklore in general both in themes and contents. As a result, no ballad or folktale could be the symbol of the Sufi accomplishment in Iran. The mystic thoughts in India have been greatly influenced by Persian Sufism. But the main force of Indian Culture lies in the fact that, while Sufistic influence was accepted from Persian source, the Indian poets based their symbolic expression through the folktales and ballads originated in India. Kutobon, Daud and Jaisi, the three great poets of Awadhi-Hindi romantic literature, were dedicated to Sufism, but they did not deviate from Indian Culture.

While working on Sati Moina O Lor-Chandrani of Daulat Quazi and Alaol, and on Padmabati of Alaol, it appeared to me that in spite of some elaborate research on both Awadhi-Hindi and Bengali romantic poets of medieval period, no scientific comparison between the two has been done. Besides, the influence of the Awadhi Hindi poets on Bengali literature has not been truly assessed as yet. I have tried in my book (ed.) 'Sati Moina O Lore Chandrani' of Daulat Quazi (the book is prescribed in Calcutta University for M.A. in Bengali) to make some comparative approach, but the scope there was too limited.

In my opinion the two basic problems which demand a thorough treatment are : (a) how far the Awadhi-Hindi poets were influenced by Persian religious philosophy and how they adapted Sufism to suit their own situation, and (b) how the major five Awadhi-Hindi poets, Maulana Daud, Sadhana, Kutobon, Malik Mohammad Jaisi and Moujhan directly and indirectly influenced a vast area of Medieval Bengali Literature- what is the impact of that influence.

III. OVERVIEW OF LITERATURE

Scholars like Uday Sankar Sastri, Biswanath Prasad, Hassan Askari, Sreeram Sarma, Ramchandra Sukla and Dr. Pandey have done some commendable research on Maulana Daud. Hassan Askari's "Qutban's Mrigavat: A

Unique MS. In Persian Script' (J.B.R.S., 1955, XLI,4;454) G.A.Grierson and M.Sudhakar Dvivedi translated and edited 'The Padumavati of Malik Muhammad Jaisi' (Asiatic Society of Bengal, Calcutta, 1911), A.G.Shireff's 'Padumabat of Malik Muhammad Jaisi' (Asiatic Society of Bengal, 1944), Mata Prasad Gupta's Hindi "Pudumabat" (Allahabad, 1952), Agarchand Nahta's 'Mainasat of Sadhana' and Mata Prasad Gupta edited 'Monjhan Madhumalati', are the works which may be regarded as excellent source materials for any kind of study on the romantic literature of Awadhi-Hindi tradition. On the other hand in the history of Bengali literature, written by Dr. Sukumar Sen, Dr. Mohammad Shahidullah, Dr. Mohammad Enamul Haque, Dr. Asit Kumar Banerjee, Dr. Bhudeb Chaudhury, the names of Daud, Kutobon, Jaisi, Sadhana and Monjhan have just been mentioned in connection with the romantic traditon in Medieval Bengali Literature introduced by Daulat Quazi and Alaol. Dr. M.R.Tarafder of Dacca University is the only scholar who dealt in length to assess the impact of Awadhi-Hindi tradition on Bengali literature. But the whole study is of such a vast magnitude that a great deal has yet to be done. A comparative study of Awadhi-Hindi tradition with the tradition existing in Bengali, both in written and oral forms, has practically been done by none from socio-cultural as well as aesthetic-literary and ethnological points of view.

#### IV. THE CONCEPTUAL FRAMEWORK:

Indian Culture is diverse in character. But the underlying unity in it is equally deeper and stronger. During the whole medieval period, the bond of unity was not only structured, but was accepted widely through the interaction and exchange of thoughts. The Muslim influence in this unifying process did not come as deterrent, rather was helpful. The great poet Amir Khasru not only contributed to introducing some new ideas, but he was greatly influenced by the existing ideas as well. He has used the Indian words and imageries profusely in his poems, Daud, Jaisi, Kutobon and some others were mainly inspired by the folk tradition emanating from the people. Sufi and Bhakti cults came closer to each other. Thus, the whole range of Uttar Pradesh, Madhyapradesh and Bihar as well as Bengal provided the bulk of the themes for both literature of the romantic tradition on the one hand, and the mystic and devotional thoughts on the other. Jaisi, Daud, Sadhana, Kutobon Manjhan, Chandidas, Vidyapati, Daulat, Quazi, Alaol and many others are the products in the fields of Awadi-Hindi Maithili and Bengali literature, while Kabir, Dadu, Lalan and Kanai were in the realm of mystic thoughts. Monjhan has made a bridge between the two ends:

Bochona Amole Jogota Naga Aba  
Bochona Hunte Guro Guana Lokhaba  
Chara Beda Bidhanai Niramoyou  
Bochona Jogota Mohun Porgota Voeo.

'Words have come in this world as precious jewel, The Guru gives us knowledge through words. When God gave us four vedas, then came the words into existence'. This concept of word as Brahma helped to sooth the social tension and paved the way for a greater unity. If we look into the deeper structure of the literary tradition of the medieval period, it becomes strikingly distinct to us that the poets of the whole northern region were engaged in solving the similar problems, the human understanding and understanding of God through love. Thus a great link was set up between Awadhi-Hindi tradition and Bengali tradition, which has remained almost untapped till today. Hardly it has been revealed that Badu Chandidasa, the creator of Srikrishna Kirtana Kabya, was influenced by Jaisi and he borrowed some of the words used by Jaisi. Not only that Daud's and Sadhana's Soti Moina, Jaisi's 'Padumabat', Kutobon's 'Mrigaboti' and Monjhan's 'Modhumalati' were directly or indirectly translated into Bengali, but there are more than a dozen Muslim and Hindu Bengali poets who borrowed or accepted the part of their themes or words and imageries from those great Awadhi-Hindi poets.

Thus the conceptual framework of this project would be formulated to highlight the wave of thoughts that flowed from West to east and east to west. This is necessary not only to know and understand the past accurately but to help dispel the growing misunderstanding between different socio-cultural and linguistic groups in India.

#### V. RESEARCH QUESTIONS OR HYPOTHESES

The specific questions to be answered through the proposed research may be formulated as follows:

- a. The Persian influence over Awadhi-Hindi and Bengali tradition. The concept of love in Indian Culture.
- b. Maulana Daud's-Chandayan- the theme and underlying philosophy- the poet and his poem the aesthetic and literary value- place of Daud's poetry in the society Sadhana's Moinasat- thematic and poetic value- the source of moina- lorok theme- the impact of Daud and Sadhana on Bengali literature- Daulat Quazi and Alaol.

- c. Kotobon's Mriga boti-the poet and the poetry-a esthetic, literary and social value-chandayan and Mrigaboti-Persian and Indian tradition- Impact of Mrigaboti on Bengali Literature.
- d. Jaisi and Padumabat-poet and the poetry- the source similar theme in Greek and Roman tradition- Padumabat and Vidyasundar- Jaisi's Padumabat and Alaol's Padmabati- Jaisi's place in Bengali literature.
- e. Monjhon's Madhumalati- Poet and the poetry- Padumabat, Mrigabati and Madhumalati- Madhumalati and Mir Ashari's Mihr Oa Mah- Kabir, Saker Mamud and other Bengali poets and their Madhumalati- Nusrati's Gulshan-i-Isk and Madhumalati- North and South Indian Link.
- f. The philosophical background of Awadhi-Hindi romantic literature- Symbolism- the human body as the temple of God- the Baul and mystic Cults- the adyaitobad- the philosophical background and expression as evident in Bengali literature.
- g. Awadhi-Hindi literary style and tradition- Sanskrit and persian influence- the concept of beauty- the concept of Kama- the trend in Bengali literature- a comparative assessment.
- h. The society as depicted in both Awadhi-Hindi and Bengali romantic poetry- urban and non-urban interaction- social equilibrium through literature- ethnological position.
- i. Folklore and Awadhi-Hindi as well as Bengali Literature during medieval period- the text, context and texture.

In the midst of our study, some of the subjects as broadly outlined above may be changed or revised in the light of the materials collected and research undertaken.

## VI COVERAGE

The project not only covers a vast geographical area and diverse social groups but also two major languages of this sub-continent. Besides the five poets of Awadhi-Hindi literature, almost all the major Bengali poets of medieval period will come within the purview of our assessment and analysis. While tracing the source as well as making the comparison, the persian mystic poets will also receive treatment in the context of India culture.

All these and many other factors would make the universe of the present study a complex one. The coverage would be physically vast and academically diversified.

The project would not require sampling frame. Since the research would be concentrated on collected materials, sampling process would not help much. If possible, attempt would, of course, be made to collect some similar folktales from oral tradition. Sampling frame would be made if some materials are really available from oral source. Thus the handling of material would pose no problem.

#### VII. DATA COLLECTION

As mentioned above, data for this research would be collected from books and periodicals. I have already done some preliminary work while editing Daulat Quazi's Soti Moina O Lor Chandrani and made an elaborate bibliography. From my list, it appears that the libraries of the Universities of Delhi, Uttar Pradesh, Bihar and Madhyapradesh and some public libraries of this region have more relevant materials than in Bangladesh and West Bengal. Since the project envisages a thorough study, collection of material both from written and oral sources would be sufficiently emphasized.

#### VIII. DATA PROCESSING

The collected data would be processed subject-wise and then arranged phase wise. There would be a considerable number of photographs which would be collected through the help of the libraries concerned. I have already with me the following photographs:-

1. A photograph of Daud's Chandayana taken from Basil Gray's 'Rajput Paintings'. The other series are preserved in the Lahore Museum, Karachi National Musium and in the collection of Royal Patiala Museum.
2. A photograph of Chandayana, preserved in Benaras Bharat Kala Bhavana, taken from W.G.Archer's 'Indian Painting.'
3. A photograph of Mrigabati taken from illustrated Weekly of India, May 18, 1958.
4. A photograph of a page of chandayana preserved in Lahore Museum.
5. A photograph of a page of chandayana invented in Bihar Maner.

Further attempts would be made to have as many as possible.

## IX. TIME DUDGETING

The whole project would be devided into five phases with a total duration of five years from January 1, 1984.

### Phase-I

Period: January 1 to December 31, 1984.

Mainly the collection documentation and methodical processing of materials would be done during this period.

### Phase -II

Period: January 1 to December 31, 1985

Maulana Daud, Sadhana, Daulat Quazi and Alaol would be taken up during this period. Sotimoina O Lor Chandrani of Daulat Quazi and Alaol would be evaluated on a comparative basis and reedited with necessary notes and annotations. Daud's and Sadhan's influence on other Bengali poets would also receive a special treatment and be assessed, during this period.

### Phase-III

Period: January 1 to December 31, 1986

(a) Kutobon's Mrigabati and similar themes in Bengali Literature- preparation of a text with necessary notes and annotations. A volume on Mrigaboti on the basis of a comparative study would be prepared in Bengali during this period.

(b) Some works on Jaisi and Alaol would be taken up and the preparation of Alaol's Padmabati, an editing work, with sufficient notes and annotations, would be started during this period.

### Phase-IV

Period: January 1 to December 31, 1987

The main attention would be given during this period to complete the editing of Alaol's Padmabati in the comparative light of Jaisi's Padumabat.

### Phase-V

Period: January 1 to December 31, 1988.

Monjhan's Madhumalati and Madhumalati of Bengali poets Kabir, said Hamza and Saker Mamud would be



compared and analysed and a Bengali text would be prepared with necessary notes and annotations, keeping Kabir's text as the model during this period.

In all the five phases the editing, noting and annotating will be based on the formulations as outlined in V.

#### X. ORGANIZATIONAL FRAMEWORK

i. There would be one post of Director-cum-visiting Professor for this project and Dr. Mazharul Islam, presently Visiting Professor, Visva-Bharati, Santiniketan would hold that position. At present, Dr. Islam is drawing a remuneration of Rs.2500/- per month given by U.G.C. under Visiting Professorship scheme and is enjoying a free and furnished residential accommodation provided by Visva-Bharati. Dr. Islam may be given the monthly remuneration and residential facilities at Jawaharlal Nehru University (J.N.U.), New Delhi. So far as residential accommodation is concerned, this would, of course, depend on the availability of the accommodation at J.N.U. The project is to be financially supported by U.G.C. on the recommendation of the Centre of Indian Languages of the School of Languages, Jawaharlal Nehru University, New Delhi,

(ii) The work would be mainly done by Dr. M. Islam. But if possible, a research assistant, attached to Dr. Islam for this project, may be provided either by U.G.C. or J.N.U. But this may not be treated as a condition for the acceptance of the project.

Duration of the project: Five Years  
beginning from January 1, 1984

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#### XI. COST ESTIMATION

##### Item (I) Personnel:

<u>Position</u>	<u>No of Person</u>	<u>Salary</u>	<u>Duration</u>	<u>Amount required</u>
Director-cum-Visiting Professor I (Dr. Mazharul Islam)	I	Remuneration: Rs.2500/-per month	Five	Rs.1,50,000/-

##### Item No.(2) Contingency-

Collections (if not permissible, this item may be omitted). (Rs. One lakh and seventy five thousand only)	Rs.500.00	Five	Rs. 25,000/- Rs.1,75,000/-
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Sd/-

(Mazharul Islam)

Visiting Professor, House 16, Nichu Bungalow  
Santiniketan West Bengal.

Formerly: Vice-Chancellor, Rajshahi  
University Rajshahi Bangladesh

A SHORT CURRICULAM VITAE OF DR. MAZHARUL ISLAM  
FORMERLY VICE-CHANCELLOR, RAJSHAHI UNIVERSITY  
RAJSHAHI, BANGLADESH

Permanent position : Professor of Bengali Language and Literature, Rajshahi University, Rajshahi, Bangladesh.

Present position : Visiting Professor (UGC Scheme) Department of Bengali, Visva-Bharati, Santiniketan, India.

((Worked as a Visiting Professor in Calcutta University, India for two years, 1979-81).)

Date & place of birth : July 1, 1929, Charnabipur, Dt. Pabna, Bangladesh.

Nationality & Religion : Bangalee of Bangladesh, Islam.

Academic attainments

B.A. Hons. Literature : Dacca University, 1949.  
Stood first in the University.

M.A. Part I, Bengali Literature, Dacca University, 1950 - First Class

M.A. Part II, Bengali Literature, Dacca University, 1951, First Class  
first position.

Ph.D. (Literature) : Rajshahi University, 1958.

Ph.D. (Folklore) : Indiana University, Bloomington, USA, 1963.

Recognition as a Scholar and a Literature

- (a) Awarded FRAS in appreciation of his scholarship by Royal Asiatic Society, London, 1967. Still a Fellow of R.A.S. of England.
- (b) Received Daud prize, the highest literary prize of Pakistan as a researcher for his book on Folklore in Bengali, 1970.
- (c) Received Bangla Academy prize, the highest literary prize in Bangladesh for his contribution as a poet, 1968.

Academic Experience :

- (a) Lecturer : Dacca Government College - 1952-53; Dacca University 1953-56; Rajshahi University-1956-58.
- (b) Reader : Rajshahi University - 1958-64.
- (c) Professor: Rajshahi University - 1964 - till now (permanent position)
- (d) Rajshahi University : In addition to teaching, worked as Chairman, Department of Bengali -1958 - 1972; Dean of the Faculty of Arts - 1965-66; Provost of a Hall of students - 1967-70 and finally the Vice-Chancellor-1974-1975.
- (e) Director-General, Bengala Academy, Dacca, the National Academy of Bangladesh, 1972-74.

Visiting Professor :

- (i) Chicago University, U.S.A. - South East Asia Language and Area Centre - April 1 to September 30, 1963.
- (ii) Calcutta University, India - Department of Modern Indian Languages (U.G.C.Scheme) - August 20, 1979 to November, 30, 1981 (with a gap of 3 months).
- (iii) Annamalai University, Tamilnadu, India - Centre of Advanced Study in Linguistics (under U.G.C.Scheme) - November 1, 1980 to January 31, 1981.
- (iv) Visva-Bharati, Santiniketan, India - for two years from December 1, 1981 (under U.G.C.Scheme).
- (v) Department of Anthropology, Ranchi University- for a month, February 1 to 28, 1983.

Special Lectures delivered :

U.S.Universities :

- (i) Ten lectures on 'Indian Cultural History' at the University of Buffalo, New York in April, 1962.
- (ii) Two lectures on "Modern trend in Bengali Poetry" at Harvard University in July, 1966.
- (iii) Two lectures on 'Influence of Anthropology on Folkloristics' at California University, Berkeley in August, 1966.
- (iv) Three lectures on "The Birth of Bangladesh" at the University of Texas in Austin in June, 1973.
- (v) Three lectures on "System of Education and its Problems in Bangladesh" at the Southern Illinois University at Carbondale in July, 1973.
- (vi) Two lectures on "The Pattern of University Education in Bangladesh Heritage and Progress" at the Minnesota University in July, 1975 as a guest of honour.

JAPAN :

Three lectures on "The Study of Folklore as a Cultural Base" at Tokeyo Metropolitan University in September, 1966.

INDIA :

- (i) Four lectures on Tagore at Trivandrum University, Kerala in August, 1971.
- (ii) Three lectures on "Influence of Language Movement on Bengali Literature of Bangladesh" at Burdwan University, West Bengal in February, 1980.
- (iii) Three lectures on "The Scientific Approach in the Study of Folklore past, present and future" at Visva-Bharati in March, 1980.
- (iv) Three lectures on "Modern Theories of Folklore" at Rabindra Bharati University, Calcutta in March 1980.
- (v) Three lectures on "History of India Folklore Study in British India" at Mysore University in March, 1980.

P.t.o.

- (vi) Two lectures on "Modern Development in Folklore Study and its Impact on Bengali Scholars" at the Asiatic Society, Calcutta in July, 1980.

Conferences and Seminars Attended :

Attended many Conferences and Seminars in USA, USSR, India, England, France FRG, GDR, Egypt, Iran, Japan, Thailand and HongKong, of which only a few are mentioned below :

- (a) Orientalist Conference in Pennsylvania University -1963; at Paris - 1973; Asian Folklore Congress in Indiana University in 1966; Folklore in the Modern World held in Indiana University in 1973; Folklore Congress at Calcutta in 1978; Congress on Folk-culture at Cuttack, India - 1978; Conference on Ramayana at Calcutta - 1980.
- (b) The IXth International Congress of Anthropological and Ethnological Sciences at Chicago in 1973; Xth ICAES at Delhi in 1978; World Tamil Congress at Madurai, India - 1981.
- (c) International Seminar for 3 months at Harvard 1966; Conference on Juvenile Literature at Moscow- 1972; 5th Congress of Afro-Asian Writers at Alma Ata, USSR- 1973; at Tashkhand - 1973; at Riga, USSR - 1974; 175th Birth Anniversary of Pushkin at Leningrad- 1974.
- (d) Congress of Writers at Liptzig - 1972; at Budapest -1974; at Cairo - 1974; Workshop on Leadership at East-West Centre - 1975; Writer's Seminar at Bangkok-1975; Indo-American Seminar on Folklore at Mysore, India - 1980.
- (e) Presented a paper and chaired a session at All India Folklore Conference held in Central Institute of Indian Languages, Mysore in March, 1980; Presented a paper and chaired a session at the All India Conference on Anthropology and Folklore held at Bidisa in February, 1981; Presented a paper and chaired a session at the All India Folklore Congress held at Calcutta in February, 1982; Presented a paper and chaired a session at the Seminar on Folklore held in Imphal, Manipur in September, 1982.

Publications :

In addition to many papers and articles published in national and International journals and some books, only the major books are listed below :-

Creative Literature

- a. Collection (books of self-composed poems):
- Matir Fashal - The crops of soil, Dacca, 1955.
- Bichchhinna Pratilipi- Scattered Images, Dacca, 1970.
- Artonada Bibarna- Palenosa out of the cry of Despair, Dacca, 1970.
- Jakhana Bagher Thaba- Where there is a Tiger's Paw, Dacca-1978.
- Aparahna Dibastra Pretorash-A Naked Afternoon Break-fast, Dacca, 1979.
- Edited Bangla Kabita- A collection of best Bengali Poems, Dacca, 1968 (more two editions).
- b. (i) Tal Tomal - From Mango Groves to Palms, a collection of self-written short stories, Dacca, 1959.
- (ii) Edited Galpa Bichitra- The collection of best Bengali Short stories, Dacca, 1965 (more two editions).

Research

1. Kabi Pagla Kanai. A Comprehensive book written in Bangali on the life and works of a Bengali Bau folk-poet, Rajshahi University publication, 1959, pp. 340.
2. Kabi Heyat Mamud. A comprehensive book on an eighteenth century poet, the dissertation accepted by Rajshahi University for Ph.D., written in Bengali, published by Rajshahi University in 1961, pp. 861.
3. A History of Folktale Collections in India and Pakistan. The dissertation accepted by Indian University, Bloomington for Ph.D., published by Bangla Academy, Dacca in 1970, distributed by Oxford, U. Press pp. 356. Enlarged second edition published by Panchali Prakasan, Calcutta in 1982.
4. Folklore Parichiti abong Loksahityer Pathon Pathan. A comprehensive book on Folkloristics, written in Bengali, 1st edn. by Rajshahi University in 1967, 2nd edn. by Bangla Academy in 1974, pp 563, 3rd edition is in the press to be published by Nayan Publishers, Calcutta.

- (5) Lok Kahini Sangroher Itihas. A historical and critical analysis of Indian Tales, written in Bengali Dacca, 1970, pp 571. The book won for the author Daud prize, the highest literary prize of Pakistan in 1970.
- (6) Bangabandhu Sheikh Mujib. A historical survey of the birth of Bangladesh and the life and achievements of Sheikh Mujib, written in Bengali, published by Bangla Academy in 1974, pp. 1245.
- (7) Sahitya Pathay. On the Road to Literature- a book on essay on literature, Dacca, 1965, pp 323.
- (8) Sati Moina O Lorchandrani. A famous Romance of Medieval Bangali poet Daulat Kazi, edited, Calcutta 1980. The book is prescribed by Calcutta University in a compulsory paper for M.A. Course.
- (9) Rakte Protibaddha Bangladesh. Bangladesh Handicapped with Blood, a book on political, economic, social and cultural aspects of present-day Bangladesh taken from the weekly column of Sainik Basumati, a famous Calcutta Daily. The book is in the press to be published by Nayan Publishers, Calcutta.
- (10) Folkloristics: An observation. A historical and critical analysis of different aspects of folklore, in the form of a manuscript decided to be published by Annamalai University, Tamilnadu, India.
- (11) Folklore Charchaya Rupatattic Bisslation Paddhoti. (The Morphological Analysis of Folklore)-Written in Bengali, published by Lokalaukik Prakasani, Calcutta-in 1982).
- (12) Folklore- The pulse of the People. Now in a New Delhi Press, to be published by Ranchi University.

The Journal edited

Sahityiki. A bi-annual research journal of Rajshahi University, 1959-1971.

Uttar Annyasha: In search of a truth- a creative Bengali Quarterly Journal, established by the editor, published from Rajshahi, 1965-71.

Bangla Academy Gabeshona Patrika : Bengali Research Journal of Bangla Academy-1972-74.

Bangla Academy Journals. A English research journal  
of Bangla Academy, 1972-74.

Uttaradhikar. A creative journal of Bangla Academy,  
1972-74.

Dhanshalikar Dosh. A monthly Bengali journal for the  
Children Bangla Academy 1972-74.

Role as an Intellectual: Participated in all the  
national movements including  
the language movement and  
Liberation War of Bangladesh.

Sd/-

Visiting Professor  
Visva Bharati  
Shantiniketan.

