

3/31/2012-PP(Pt)
GOVERNMENT OF INDIA
Ministry of Minority Affairs

11th Floor, Paryavaran Bhawan,
C.G.O. Complex, Lodhi Road,
New Delhi – 110003
Dated: 16.07.2014

To

The Principal Secretary/ Secretary/Commissioner,
Dealing with the Minority Development Department
Govt. of Uttar Pradesh, Arunachal Pradesh, Karnataka, Kerala, Assam, West Bengal,
Bihar, Jharkhand, Manipur, Mizoram, Sikkim, Andaman & Nicobar, Uttarakhand,
Meghalaya, Odisha, NCT of Delhi, Madhya Pradesh, Maharashtra, Haryana and Jammu
& Kashmir

Subject: - Instruction regarding Construction of Polytechnic approved under MsDP

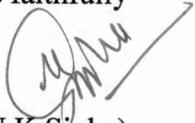
Sir,

I am directed to say that Polytechnics have been sanctioned in different district of the country under MsDP as per the norms of "Sum-Mission on Polytechnics under Coordinated Action for Skill Development", a scheme launched by Ministry of HRD. Such Polytechnics have to also follow the norms and guidelines of All India Council for Technical Education (AICTE) to obtain the affiliation of AICTE.

2. Under the scheme, new Polytechnic are sanctioned at a maximum cost of Rs 12.30 crore of which Rs. 8 crore is for civil works and Rs. 4.30 crore is for equipment, machinery and furniture, etc. The scheme of MHRD for Polytechnic envisages different components including construction of two hostel blocks of 120 students as per the list annexed.

3. It is therefore, requested to construct all the components as required under the scheme "Sum-Mission on Polytechnics under Coordinated Action for Skill Development", so that affiliation of AICTE may be obtained smoothly.

Yours faithfully


(U.K. Sinha)

Under Secretary to the Government of India
Tel: 011-24364283

O/C

Details Regarding Civil Work As per AICTE Norms

Basic Data	
Annual Intake (3 year programme)	180
60 each in the branches/ discipline of Civil, Mechanical and 30 each in Electrical and Electronics	
Total No. of students	540
Teaching faculty required	27
Administrative Area	
	Sq.m.
Principal	30
Principal's office (confidential)	25
Head of Department (4 nos.)	60
Main office	200
Reception	25
Departmental office (5 nos.)	100
Maintenance & Estate office	25
Faculty rooms	300
Seminar rooms	30
Confidential room	25
Store	100
Drawing/ Reprographic	20
Total Carpet areas	940
Plinth area	1315 Sq.m.

Academic Area	Sq.m.
Class rooms (6 nos.)	360
Tutorial room (3 nos.)	99
Drawing Hall (3 nos.)	450
Workshop	840
Library	150
Basic Science Laboratories Area	
Applied Physics Laboratory	120
Applied Chemistry Lab	120
Metal Testing & Applied Mechanics Laboratory	90
Engg. Materials, Museum and Model Room	100
Specialized Laboratories Area	
Mechanical Engineering	
Production Technology Lab	90
General Mechanical Engg. Lab	75
Heat Power Engg. Lab	120
Hydraulics & Hydraulic Machinery	90
Materials & Metallurgical Lab	75
Electronics Engineering	
Electronics Lab (Basic & Applied)	75
Communication Engg. & Digital Electronics Lab.	75
Entertainment Electronics Lab	75

Electrical Engineering	
Electrical & Electronics Workshop (Wiring Lab)	100
Basic Electricity, Measurement and relay Lab	75
Electrical Machinery Lab	90
Power Engineering Lab	90
Civil Engineering	
Construction Technology Lab	75
Survey Store	60
Construction Material Testing and Concrete Lab	90
Soil Mechanics Laboratory	75
Environmental Engg. Lab	90
Computer Center	
Computer Center	120
	1970
Total carpet area (academic)	3870
Total Plinth area (academic)	5420 Sq.m.
Total space required for academic and administrative area $2 \times (1315 + 5420) = 13470$ sqm or 3.4 acres	
Residential and Amenities Area	
Assumption (Two hostel blocks of 120 students is provided)	
Area required for residence blocks (120*9)	1080
Kitchen and Dining Hall	200

Indoor games - students center	150
Medical Room	50
Canteen	15
Warden Office	18
Guest Room (2 rooms)	18
Total carpet area for students hostel	1531
Total plinth area for students hostel	2962 Sq.m.
Staff Residences	
Principal	140
Head of Department (5 nos.)	500
Warden (2nos.)	200
Hostel type accommodation for 25% faculty (8*30)	240
Essential Staff (for two hostels)(10*20)	200
Total carpet area for staff residences	1280
Total Plinth area	1790 Sq.m.
Amenities	
Guest House	300
Students activity center	130
Canteen, Co-operative store and NCC	300
Total Carpet area	730
Total Plinth area	1020 Sq.m.

Total Estimate of the Category Wise Areas to be constructed

S.No	Description	Plinth Area in Sq.m	Carpet Area in Sq.m.
A.	Administrative Area	1315	940
B.	Academic Area	5420	3870
C.	Residential	2962	1531
D.	Staff Residences	1790	1280
E.	Amenities	1020	730
	Sub-Total	12507	8351
Construction Cost @ Rs. 6,500 Per Sqm = 12507x Rs. 6500 per Sq.m.= Rs. 812.95Lacs (Say 800 Lacs)			

The cost of construction of civil works has been taken as Rs. 6500/sqm. However, it may vary in different states depending up on local conditions. In that case, CPWD rate as applicable for the concerned area would be applicable for estimating the cost of construction.

Details regarding equipment, machinery and furniture, etc

As per AICTE Norms

Equipments, Furniture, Transport, Books & LRs

Equipments: Equipment will be required for Laboratories, Office, Hostels, Library and other facilities. The summary of the requirements is given below:

A. Equipment for Laboratories

Table: List of laboratories, equipment for three Branches of Mechanical, Civil, Electrical Engg.

S. No.	Name of the Laboratory	Cost of Equipment (Rs. In lacs)
<u>(A) Basic Sciences laboratory</u>		
<u>1</u>	Applied Physics lab	2.38
<u>2</u>	Applied Chemistry Lab	1.97
	SUB-TOTAL	4.35
<u>(B) Basic Engineering Laboratories</u>		
<u>1</u>	Applied Mechanics and Metal Testing laboratory	0.55
2	Museum and Model Room	5.00
3	Workshop	
	• Machine Shop	47.22
	• Carpentry Shop	7.07
	• Fitting Shop	2.70
	• Foundry Shop	5.40
	• Sheet metal Shop	3.44
	• Welding Shop	3.95
4.	Engineering Drawing	2.00
	SUB-TOTAL	77.33
<u>(C) Basic Computer Lab</u>		
1	Computer Center with 135 computers (P4)	27.00
2	Communication & Networking (Lab -II) LAN/WAN	1.00
3	Computer soft wares, peripherals, 13 printers	10.00
	SUB-TOTAL	38.00
<u>(D) Mechanical Engineering Laboratory</u>		
1.	Production Engineering	5.41
2.	Mechatronics	5.58
3.	Computer Aided Manufacturing (CAM)	22.30
4.	Metrology and Instrumentation	19.29
5.	Fluid and Hydraulic Machines	1.30
6.	Refrigeration and Air conditioning	8.61
7.	Theory of Machines	0.56

S. No.	Name of the Laboratory	Cost of Equipment (Rs. In lacs)
8.	Thermal Engineering	8.60
	SUB-TOTAL	71.65
(E)	<u>Civil Engineering Laboratory</u>	
1	Strength of Materials Laboratory	11.22
2.	Surveying	6.30
3.	Construction Material Testing and Concrete Lab.	7.84
4.	Soil Mechanic Laboratory	3.10
5.	Public Health & Environmental Engg. Lab.	2.52
6.	Drawing	1.06
7	Hydraulic laboratory	1.77
	SUB-TOTAL	33.82
(F)	<u>Electrical Engineering laboratory</u>	
1	Measurements & Circuits	8.44
2	Electrical Machines & Power	17.25
3	Basic Electronics	18.44
4	Electrical Workshop	64.84
5	Electronics Workshop	3.80
6	Digital Electronics & Microprocessors	8.29
7	Communication Engineering Laboratory	14.14
8	Audio Video And T.V. Engineering	7.40
9	Instrumentation & Control	6.16
	SUB-TOTAL	134.66
	Grand Total for lab equipment (A+B+C+D+E+F)	359.81 (Say Rs. 360 Lacs)

B. Equipment for Principal's Office, Administration, Accounts, Purchase Sections, Library, Equipment for hostels, Guest house and other amenities Etc.

Consolidated requirement for equipment is shown in following table:

S. No.	Equipment for	Cost RS. in Lacs
1.	Laboratories (equipment and furniture)	360.00
2.	Audiovisual, reprographic, office equipments and other misc. equipment likes water cooler, A.Cs. Kitchen equipment, transport and furniture and books	70.00
	Total	430.00