

Urgent
Time - bound

Speed Post / E-Mail

The Principal

Sub.: Upgradation of Govt. diploma pharmacy institutions to degree level institutions.

Sir

I am directed to refer to your letter Nodtd. on the above subject and to say that the question of providing financial assistance for upgradation of your institution to degree level pharmacy institution is under active consideration.

On preliminary scrutiny of your proposal, it is found that –

- a) existing facilities already available with your institution are not filled up properly. For example, area (in sq.mts) of the already available infrastructural facilities under various heads like laboratories, lecture halls, library etc is not clearly indicated to assess the extent of gap.
- b) similarly, the exact additional requirement of the building, laboratories, Central Instrumentation Room, machine room, lecture halls, library, teaching faculty, equipments, books/journals, computers, AV aids, furniture etc. is not clearly shown.
- c) the expenditure involved for additional requirement therein as called for has not been properly reflected.

It is, therefore, requested that the information, in the enclosed proforma, may kindly be filled in and sent to this Council immediately latest by 15.3.2011. It may be noted that –

- a) without clear details as sought in the enclosed proforma, your proposal may not be processed.
- b) the total financial assistance available for upgradation of your institution shall not exceed an amount of Rs.3.00 crores as a one-time grant during the XIth Five Year Plan.
- c) The recurring and maintenance expenditure thereafter shall be borne by the State Govt. You are therefore requested to prioritize the requirement of funds within the ceiling limits.

Yours faithfully

(ARCHNA MUDGAL)
Registrar-cum-Secretary

Format for furnishing information by Govt. Pharmacy diploma institutions for upgradation to run B.Pharm Course.

Part - 1

Class rooms:

Total Number of Class rooms required at the end of 4 Year Course

Class	Required Nos	Available Nos	Gap	Tentative Cost of construction on CPWD/PWD rates to meet the gap.
B. Pharm	04 75 Sq. mts each (Essential)			

Laboratory requirement at the end of 4 Years for 60 students

Sl. No.	Infrastructure for	Requirement as per Norms	Available In Numbers	Gap	Tentative Cost of construction on CPWD/PWD rates to meet the gap.
1	Laboratory Area for B.Pharm Course	90 Sq .mts x n (n=10) - Including Preparation room - Desirable 75 Sq. mts - Essential			
2	Pharmaceutics Pharmaceutical Chemistry Pharmaceutical Analysis Pharmacology Pharmacognosy Pharmaceutical Biotechnology (Including Aseptic Room) Total no. Laboratories for B.Pharm course	03 Laboratories 02 Laboratories 01 Laboratory 02 Laboratories 01 Laboratories 01 Laboratories 01 Laboratory 10 Laboratories			
3	Preparation Room for each lab (One room can be shared by two labs, if it is in between two labs)	10 sq mts (minimum)			
4	Area of the Machine Room	80-100 Sq.mts			
5	Central Instrumentation Room	80 Sq.mts with A/ C			
6	Store Room – I	1 (Area 100 Sq mts)			
7	Store Room - II (For Inflammable chemicals)	1 (Area 20 Sq mts)			

Administration Area:

Sl.No.	Name of infrastructure	Requirement as per Norms in number	Requirement as per Norms, in area	Available In Numbers	Gap	Tentative Cost of construction on CPWD/PWD rates to meet the gap.
1	Principal's Chamber	01	30 Sq .mts			
2	Office – I - Establishment	01	60 Sq. mts			
3	Office – II - Academics					
4	Confidential Room					

Staff Facilities:

Sl. No.	Name of infrastructure	Requirement as per Norms in number	Requirement as per Norms, in area	Available In Numbers	Gap	Tentative Cost of construction on CPWD/PWD rates to meet the gap.
1	HODs for B.Pharm Course	Minimum 4	20 Sq mts x 4			
2	Faculty Rooms for B.Pharm course (12 teachers)		10 Sq mts x 12			

Museum, Library, Animal House and other Facilities

Sl.No.	Name of infrastructure	Requirement as per Norms in number	Requirement as per Norms, in area	Available In Numbers	Gap	Tentative Cost of construction on CPWD/PWD rates to meet the gap.
1	Animal House	01	80 Sq mts			
2	Library	01	150 Sq mts			
3	Museum	01	50 Sq mts (May be attached to the Pharmacognosy lab)			
4	Auditorium / Multi Purpose Hall (Desirable)	01	250 – 300 seating capacity			
5	Seminar Hall	01				

6	Herbal Garden (Desirable)	01	Adequate Number of Medicinal Plants			
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Student Facilities:

Sl. No.	Name of infrastructure	Requirement as per Norms in number	Requirement as per Norms, in area	Available In Numbers	Gap	Tentative Cost of construction on CPWD/PWD rates to meet the gap.
1	Girl's Common Room (Essential)	01	60 Sq.mts			
2	Boy's Common Room (Essential)	01	60 Sq.mts			
3	Toilet Blocks for Boys	01	24 Sq.mts			
4	Toilet Blocks for Girls	01	24 Sq.mts			
5	Drinking Water facility – Water Cooler (Essential).	01				
6	Boy's Hostel (Desirable)	01	9 Sq .mts / Room Single occupancy			
7	Girl's Hostel (Desirable)	01	9 Sq .mts / Room (single occupancy) 20 Sq mts / Room (triple occupancy)			
8	Power Backup Provision (Desirable)	01				
9	Computer Room for B.Pharm Course	01 (Area 75 Sq mts)				

Computer and other Facilities:

Name	Required	Available In Numbers	Gap	Tentative Cost
Computer (Latest Configuration)	1 system for every 10 students			
Printers	1 printer for every 10 computers			
Multi Media Projector	01			
Generator (5KVA)	01			

Library books and periodicals

The minimum norms for the initial stock of books, yearly addition of the books and the number of journals to be subscribed are as given below:

Sl. No.	Item	Titles (No)	Minimum Volumes (No)	Available In Numbers	Gap	Tentative Cost
1	Number of books	150	1500 adequate coverage of a large number of standard text books and titles in all disciplines of pharmacy			
2	Annual addition of books		100 to 150 books per year			
3	Periodicals Hard copies / online		10 National 05 International periodicals			
4	CDS		Adequate Nos			
5	Internet Browsing Facility		Yes/No (Minimum ten computers)			
6	Reprographic Facilities: Photo Copier Fax Scanner		01 01 01			
7	Library Automation and Computerized System					

Furniture

1.	Requirement In Numbers	Availability In Numbers	Gap	Tentative Cost to meet the Gaps.
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Audio Visual Aid

1.	Requirement In Numbers	Availability In Numbers	Gap	Tentative Cost to meet the Gaps.
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PART II**TEACHING STAFF (for 60 students).****Teaching Staff required**

	No. of staff required for I *B.Pharm	Availa ble	No. of staff required for II B.Pharm	Availa ble	No. of staff required for III B.Pharm	Availa ble	No. of staff required for IV B.Pharm	Availa ble
Principal	1		1		1		1	
Pharmaceuti cal Chemistry	1		2		3		4	
Pharmaceuti cal Analysis	1		..		-		1	
Pharmacolo gy	1		2		3		4	
Pharmacogn osy	1		2		3		3	
Pharmaceuti cs	1		2		3		4	
Total	6		9		13		17	
Part time teaching Staff	3		-		-		-	

***Part time teaching staff for Mathematics, Biology and Computer Science should be appointed.**

Department wise list of minimum equipments required for B. Pharm (for a batch of 20 students)

DEPARTMENT OF PHARMACOLOGY

Equipment:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Gap	Tentative Cost to meet the Gaps
1	Microscopes	15			
2	Haemocytometer with Micropipettes	20			
3	Sahli's haemocytometer	20			
4	Hutchinson's spirometer	01			
5	Spygmomanometer	05			
6	Stethoscope	05			
7	Permanent Slides for various tissues	One pair of each tissue Organs and endocrine glands One slide of each organ system			
8	Models for various organs	One model of each organ system			
9	Specimen for various organs and systems	One model for each organ system			
10	Skeleton and bones	One set of skeleton and one spare bone			
11	Different Contraceptive Devices and Models	One set of each device			
12	Muscle electrodes	01			
13	Lucas moist chamber	01			
14	Myographic lever	01			
15	Stimulator	01			
16	Centrifuge	01			
17	Digital Balance	01			
18	Physical /Chemical Balance	01			
19	Sherrington's Kymograph Machine / Polyrite	10			
20	Sherrington Drum	10			
21	Perspex bath assembly (single unit)	10			
22	Aerators	10			
23	Computer with LCD	01			
24	Software packages for experiment	01			
25	Standard graphs of various drugs	Adequate number			
26	Actophotometer	01			
27	Rotarod	01			
28	Pole climbing apparatus	01			
29	Analgesiometer (Eddy's hot	01			

	plate and radiant heat methods)			
30	Convulsiometer	01		
31	Plethysmograph	01		
32	Digital pH meter	01		

Apparatus:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Gap	Tentative Cost to meet the Gaps
1	Folin-Wu tubes	60			
2	Dissection Tray and Boards	10			
3	Haemostatic artery forceps	10			
4	Hypodermic syringes and needles of size 15,24,26G	10			
5	Levers, cannulae	20			

NOTE: Adequate number of glassware commonly used in the laboratory should be provided in each laboratory and department.

DEPARTMENT OF PHARMACOGNOSY

Equipment:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Gap	Tentative Cost to meet the Gaps
1	Microscope with stage micrometer	15			
2	Digital Balance	02			
3	Autoclave	02			
4	Hot air oven	02			
5	B.O.D. incubator	01			
6	Refrigerator	01			
7	Laminar air flow	01			
8	Colony counter	02			
9	Zone reader	01			
10	Digital pH meter	01			
11	Sterility testing unit	01			
12	Camera Lucida	15			
13	Eye piece micrometer	15			
14	Incinerator	01			
15	Moisture balance	01			
16	Heating mantle	15			
17	Flourimeter	01			
18	Vacuum pump	02			
19	Micropipettes (Single and multi channeled)	02			
20	Micro Centrifuge	01			
21	Projection Microscope	01			

Apparatus:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Gap	Tentative Cost to meet the Gaps
1	Reflux flask with condenser	20			
2	Water bath	20			
3	Clavengers apparatus	10			
4	Soxhlet apparatus	10			

6	TLC chamber and sprayer	10			
7	Distillation unit	01			

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DEPARTMENT OF PHARMACEUTICAL CHEMISTRY

Equipment:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Gap	Tentative Cost to meet the Gaps
1	Hot plates	05			
2	Oven	03			
3	Refrigerator	01			
4	Analytical Balances for demonstration	05			
5	Digital balance 10mg sensitivity	10			
6	Digital Balance (1mg sensitivity)	01			
7	Suction pumps	06			
8	Muffle Furnace	01			
9	Mechanical Stirrers	10			
10	Magnetic Stirrers with Thermostat	10			
11	Vacuum Pump	01			
12	Digital pH meter	01			
13	Microwave Oven	02			

Apparatus:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Gap	Tentative Cost to meet the Gaps
1	Distillation Unit	02			
2	Reflux flask and condenser single necked	20			
3	Reflux flask and condenser double / triple necked	20			
4	Burettes	40			
5	Arsenic Limit Test Apparatus	20			
6	Nessler's Cylinders	40			

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DEPARTMENT OF PHARMACEUTICS

Equipment:

Sl. No.	Name	Minimum Required Nos.	Available Nos.	Gap	Tentative Cost to meet the Gaps
1	Mechanical stirrers	10			
2	Homogenizer	05			
3	Digital balance	05			
4	Microscopes	05			
5	Stage and eye piece micrometers	05			
6	Brookfield's viscometer	01			
7	Tray dryer	01			

8	Ball mill	01			
9	Sieve shaker with sieve set	01			
10	Double cone blender	01			
11	Propeller type mechanical agitator	05			
12	Autoclave	01			
13	Steam distillation still	01			
14	Vacuum Pump	01			
15	Standard sieves, sieve no. 8, 10, 12,22,24, 44, 66, 80	10 sets			
16	Tablet punching machine	01			
17	Capsule filling machine	01			
18	Ampoule washing machine	01			
19	Ampoule filling and sealing machine	01			
20	Tablet disintegration test apparatus IP	01			
21	Tablet dissolution test apparatus IP	01			
22	Monsanto's hardness tester	01			
23	Pfizer type hardness tester	01			
24	Friability test apparatus	01			
25	Clarity test apparatus	01			
26	Ointment filling machine	01			
27	Collapsible tube crimping machine	01			
28	Tablet coating pan	01			
29	Magnetic stirrer, 500ml and 1 liter capacity with speed control	05 EACH 10			
30	Digital pH meter	01			
31	All purpose equipment with all accessories	01			
32	Aseptic Cabinet	01			
33	BOD Incubator	02			
34	Bottle washing Machine	01			
35	Bottle Sealing Machine	01			
36	Bulk Density Apparatus	02			
37	Conical Percolator (glass/ copper/ stainless steel)	10			
38	Capsule Counter	02			
39	Energy meter	02			
40	Hot Plate	02			
41	Humidity Control Oven	01			
42	Liquid Filling Machine	01			
43	Mechanical stirrer with speed regulator	02			
44	Precision Melting point Apparatus	01			
45	Distillation Unit	01			

Apparatus:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Gap	Tentative Cost to meet the Gaps
1	Ostwald's viscometer	15			
2	Stalagmometer	15			

3	Desiccator*	05			
4	Suppository moulds	20			
5	Buchner Funnels (Small, medium, large)	05 each			
6	Filtration assembly	01			
7	Permeability Cups	05			
8	Andreason's Pipette	03			
9	Lipstick moulds	10			

NOTE: Adequate number of glassware commonly used in the laboratory should be provided in each laboratory and department.

PHARMACEUTICAL BIOTECHNOLOGY

Sl. No.	Name	Minimum required Nos.	Available Nos.
1	Orbital shaker incubator	01	
2	Lyophilizer (Desirable)	01	
3	Gel Electrophoresis (Vertical and Horizontal)	01	
4	Phase contrast/Trinocular Microscope	01	
5	Refrigerated Centrifuge	01	
6	Fermenters of different capacity (Desirable)	01	
7	Tissue culture station	01	
8	Laminar airflow unit	01	
9	Diagnostic kits to identify infectious agents	01	
10	Rheometer	01	
11	Viscometer	01	
12	Micropipettes (single and multi channeled)	01 each	
13	Sonicator	01	
14	Respinometer	01	
15	BOD Incubator	01	
16	Paper Electrophoresis Unit	01	
17	Micro Centrifuge	01	
18	Incubator water bath	01	
19	Autoclave	01	
20	Refrigerator	01	
21	Filtration Assembly	01	
22	Digital pH meter	01	

NOTE: Adequate number of glassware commonly used in the laboratory should be provided in each laboratory and department.

CENTRAL INSTRUMENTATION ROOM:

Sl. No.	Name	Minimum required Nos.	Available Nos.	Gap	Tentative Cost to meet the Gaps
1	Colorimeter	01			
2	Digital pH meter	01			
3	UV- Visible Spectrophotometer	01			
4	Flourimeter	01			
5	Digital Balance (1mg sensitivity)	01			
6	Nephelo Turbidity meter	01			
7	Flame Photometer	01			
8	Potentiometer	01			
9	Conductivity meter	01			
10	Fourier Transform Infra Red	01			

	Spectrometer (Desirable)				
11	HPLC	01			
12	HPTLC (Desirable)	01			
13	Atomic Absorption and Emission spectrophotometer (Desirable)	01			
14	Biochemistry Analyzer (Desirable)	01			
15	Carbon, Hydrogen, Nitrogen Analyzer (Desirable)	01			
16	Deep Freezer (Desirable)	01			
17	Ion- Exchanger	01			
18	Lyophilizer (Desirable)	01			