

**NAAC CRITERIA 04: Infrastructures and learning resources**

**DOCUMENT CODE: 4.2.1**

Teaching Hospital, equipment, clinical teaching-learning and laboratory facilities as stipulated by the respective Regulatory Bodies.

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**4.2.1 QIM Teaching Hospital, equipment, clinical teaching-learning and laboratory facilities as stipulated by the respective Regulatory Bodies (7 marks)**

Describe the adequacy of the Teaching Hospital, equipment, clinical teaching- learning and laboratory facilities as stipulated by the respective Regulatory Bodies within 500 words

**Provide Weblink to:**

- The facilities as per the stipulations of the respective Regulatory Bodies with Geotagging
- The list of facilities available for patient care, teaching-learning and research
- Any other relevant information

**Machine Room Details**

- Machine Room (Industrial Pharmacy Room) is well equipped facility covering total area of 75 Sq. meters.
- The overall area is properly segregated as separate sections or rooms like Documentation section, Solid Section, Liquid section, Semisolid Section, and IPQC section.
- Machine room is provided with AC as well as UPS facility for the important machines in some sections.
- Utilization of machine room is through well defined procedure.
- Every machine is provided with utilization entry log book and SOP for safe handling of machine.
- The machine room cleanliness is maintained by machine room attendant and Deesha services. Details of equipment available at machine room are given in table no. **4.2.1 A**

**Table 4.2.1a: Machine Room Details**

<b>Sr. No</b>	<b>Name of equipment</b>	<b>SOP number</b>	<b>Make</b>	<b>Model</b>	<b>Availability of Log Book (Yes/No)</b>	<b>Safety measures</b>
1	Erweka main drive	MR 001-00	Inweka	IV MD Sr.No 401104.0811	Yes	Availability of electric earthing, Fire-hydrant system, Exhaust fan, UPS back up, Multi circuit breaker , Students wearing cap/apron, Glass shutters are provided as a safety
2	Universal gearing	MR 002-00	Inweka	Model-Universal Gear, Sr.No. 402107.0811	Yes	
3	Erweka dry granulator	MR 003-00	Inweka	Model-Dry Granulator, Sr. No .420109.0811		
4	Erweka wet granulator	MR 004-00	Inweka	Model Wet Granulator, Sr. No . 419108.0811	Yes	
5	Erweka planetary mixer	MR 005-00	Inweka	Model- Planetary Mixer, Sr.No . 404111.0811	Yes	
6	Erweka ball mill	MR 006-00	Inweka	Model- Ball Mill, Sr.No .	Yes	

				428112.0811		measures during handling of compression machine
7	Erweka double cone mixer	MR 007-00	Inweka	Model- Double cone Mixer, Sr.No . 411110.0811	Yes	
8	Erweka Homogenizer	MR 008-00	Inweka	Model - Homogenizer, Sr.No . 421113.0811	Yes	
9	Mechanical lab stirrer	MR 009-00	Remi, Mumbai	FEUG 14750	Yes	
10				FEUG 14752	Yes	
11				FEUG 16353	Yes	
12				FEUG 14748	Yes	
13				FEUG 14753	Yes	
14	Environmental test chamber	MR 010-00	Remi, Mumbai	1 HC 2016	Yes	
15		MR 010-01		1 HC 2015	Yes	
16	Hardness tester	MR 012-01	Modern lab instruments	Monsanto type	Yes	
17	Disintegration test apparatus	MR 013-01	Metalab	H651	Yes	
18	Vernier caliper	MR014-00	Advance	Dial Caliper	Yes	
19	Collapsible tube sealing machine	MR 015-01	Dolphine	-	Yes	

20	Coating pan	MR 016-01			Yes
21	Digital weighing balance	MR 017-01	Sansui	JW, Sr No:140101937	Yes
22	Friability apparatus	MR 018-01	Metalab	4652	Yes
23	Digital bulk density apparatus	MR 019-01	Metalab	Innovative XCN774, H691	Yes
24	Cooling centrifuge	MR (QA) 020-01	Remi, Mumbai	VCCA-2560	Yes
25	Capsule filling machine	MR 021-01	Dolphin	CF 136 S/O	Yes
26	Brookfield Viscometer LV	MR 022-00	Brookfield Engg. Lab	DVE	Yes
27	High Speed Homogenizer	MR 023-01	Ika	T-25 IKA ULTRA TUREX	Yes
28	Digital Lab stirrer	MR 024-01	Remi, Mumbai	ELF 1377	Yes
29	Digital Lab stirrer	MR 024-01	Remi, Mumbai	ELF 1378	Yes
30	Dissolution test apparatus	MR 025-01	Electrolab, Mumbai	Equipment no. 1309322 (08L)	Yes
31	Multiple punch compression (Minipress)	MR 026-01	Karnavati	Rimek	Yes

32	Orbital shaker	MR 027-01	Remi. Electrotechnik	IHC 3193	Yes	
33	Tablet Coater	MR028-00	ACG Pharma Technologies PVT Ltd.	Mini Quest T	Yes	
34	Bottle filling Machine	MR029-00	-	-	Yes	
35	Bottle Crimper	MR030-00	-	-	Yes	
36	Collapsible tube filling machine	MR031-00	-	-	Yes	
37	Spray Dryer	MR(PH)32- 02	Labultima	LU-222 ADVANCED	Yes	
38	Digital hardness tester	MR033-00	Laboratory Enterprises	-	Yes	
39	Rapid Mixer Granulator	MR034-00	General mechanical Industries	HSMG-5	Yes	

#### 4.2.1 B Instrument Room Details:

- Sophisticated, air-conditioned ‘Central Analytical Instrument Room’ located at ground floor of institute with area of 36 sq. m.
- Instrument room is provided with separate and dedicated UPS system.
- For all instruments Standard Operating Procedures (SOPs) are prepared and maintained.
- For each instrument separate log-book is provided, where students/ users enter the purpose, in time and out time.
- General user rules, user privilege are displayed in instrument room.
- Students operate the instruments individually under supervision of trained staff.
- The use of apron is compulsory in instrument room.
- The cleanliness is maintained by instrument room attendant and Deesha Services. Details of equipment available at instrument room are given in table no. 4.2.1B

**Table 4.2.1 b: Instrument Room Details**

<b>Sr. No</b>	<b>Name of equipment</b>	<b>SOPs number</b>	<b>Make</b>	<b>Model</b>	<b>Availability of Log books (Y/N)</b>	<b>Safety measures</b>
1.	Digital	1	Shimadz	AUX220	Yes	Availability of

	Balance		u			electric earthing, Fire-hydrant system, UPS back up, Multi circuit breaker, Students wearing cap and apron.
2.	Binary High Pressure Gradient HPLC	4.1 - 4.5	JASCO	PU 2080 plus	Yes	
3.	UV-Vis Spectrophotometer	2.1 - 2.6	JASCO	V-630	Yes	
4.	FT-IR Spectrophotometer	3.1 - 3.6	Shimadzu	IRAffinity-1	Yes	
5.	KBr die set , hydraulic pellet press	6.1 - 6.2	PCI Analytic	---	Yes	
6	HPLC system	-	Waters	e2695 quaternary low pressure gradient HPLC system with PDA detector equipped with Empower 3 Software	yes	



**Table 4.2.1 c Details of Laboratories**

Lab Description	Batch size	Rooms/Labs equipped with		Quality of instrument	Safety measures	
<b>Department of Pharmaceutical Chemistry</b> Total Laboratories :04 Including preparation room and balance room	20	<b>Equipments/quantity</b>	<b>Availability of</b>		<b>Make/ Model</b>	Availability of material safety data sheets, electric earthing, Fire hydrant pump systems, UPS back up, Multiple Circuit Breaker, Hand gloves, Eye washer, Safety goggles, High ventilation Windows , Students wearing
			<b>SOP</b>	<b>Manual</b>		
		UV-Vis Spectrophotometer(01)	√	√	Shimdu 1800	
		pH meter(01)	√	√	Systronics 361	
		Conductometer(01)	√	√	Systronics 301	
		Refractometer (01)	√	√	Dolphin 1078	
		Flamephotometer (01)	-	√	Systronic 130	
		Deep freeze (01)	√	-	Blue Star CHF300B	
		Nephelo-turbidometer (01)	√	√	Systronics 132	
		Photoflurometer (01)	√	√	Systronics 152	
Polarimeter (01)	√	√	Dolphin 1079			

		Sonicator(01)	√	-	PCi 1.5L50	aprons and caps during practical
		Centrifuge (01)	√	-	Remi	
		Oil free Vacuum Pump (01)	√	-	INSTU	
		Solvent filtration kit (01)	√	-	PCI Analytics	
		Ball & Stick Model(01)	√	-	Molecular Vision	
		Electric Oven(01)	√	√	Dolphin	
		Electric Water Bath(02)	√	-	Dolphin	
		Heating Mantle(21)	√	-	Dolphin	
		Hot Plate(01)	√	-	Dolphin	
		Magetic Stirrer-Hot Plate (01)	√	-	Remi	
		Fume Chamber (01)	√		Lab Exel	
		Vaccum pump (01)	√		J B Vak	
		Digital Balance (01)	√		Sansui	

		Triple Beam Balance(01)	√			
		Analytical Balance(01)	√			
<b>Department of Pharmaceutics</b> Total Laboratories :03 Including a preparation room and aseptic room with air lock cabinet, pass box, garment cabinet, Laminar flow work station – (horizontal flow type )	20	Glass Double Distillation unit (Water)-01	√	√	Borosil	Availability of material safety data sheets, electric earthing, Fire hydrant pump systems, UPS back up, Multiple Circuit Breaker, Hand gloves, High ventilation Windows , Students wearing aprons, mask and caps
		Hot Air Oven (01)	√		Meta lab	
		Digital Electronic Balance(01)	√		Sansui	
		B.O.D Incubator(01)	√		Lab Line	
		Autoclave (01)	√		Dolphin	
		High Pressure Gas Burner (02)			Fuel king	
		Sieve Shaker (01)	√		Fuel king	

						during practical.
<b>Department of Pharmacology</b> Total Laboratories:02 Including a preparation room and a separate animal house (CPCSEA Approved Registration Number: 1344/ac/10/CPCSEA)		Microscope (10)	√		Unilab India	Availability of material safety data sheets, electric earthing, Fire hydrant pump systems, UPS back up, Multiple Circuit Breaker, Hand gloves, High ventilation Windows , Students wearing aprons, mask and caps during
		Hemocytometer (24)	√		Rohem India Silverlite	
		Sahli's Haemoglobinometer (20)	√	√	A Q R A SAHLI	
		Hutchinson's Spirometer 01	√		Orchid	
		Sphygmomanometer (08)	√		Medi Touch	
		Stethoscope10	√		Konica DX	
		Centrifuge (01)	√	√	Remi	
		Electronic balance (01)	√	√	Sansui	
		Digital Electrophoresis Apparatus (01)	√	√	Systronics	
		Colorimeter (2)	√	√	Systronics	
		Sherington rotating drum(18)	√		INCO Scientific Industries	
	Perspex student organ bath (24)	√	√	Orchid		

		Actophotometer (01)	√		Omega	practical.
		Rotarod (01)	√		Omega	
		Cook's pole climbing apparatus (01)	√		Omega	
		Eddie's hot plate analgesiometer (01)	√		Orchid	
		Electroconvulsimeter (01)	√		Orchid	
		Digital pH meter (01)	√			
		Bioanalyser	√	√	Curionics	
<b>Department of Pharmacognosy</b> Total lab: 01 Includes preparation room, crude drug museum and medicinal plant garden	20	Steam Distillation Unit-01	√		Metalab	Availability of material safety data sheets, electric earthing, Fire hydrant pump systems, UPS back up, Multiple Circuit
		Medical microscope-20+5	√	√	Unilab	
		Mixer-01	√		Bajaj	
		Refrigerator-01	√	√	Godres axis	
		Table Lamps-06	√		Ekvira electrical	
		Heating Mantle	√		Unilab	
		Trinocular microscope-01	√		Olympus	
		Muffle Furnace-01	√		Omkar	

	Digital Balance-01	√		Sansui	Breaker, Hand gloves, High ventilation Windows , Students wearing aprons and caps during practical.
	Digital Camera -01	√		Canon	
	System UV Cabinet-01	√		Dolphin	
	Antibiotic zone reader	√		Spacelab	
	Incubator	√		Metalabs	
	Autoclave	√		Dolphin	
	Digital Colony Counter	√		Dolphin	

**Table no: 4.2.1d The list of facilities available for patient care, teaching-learning and research**

<b>Sr. no</b>	<b>List of facilities</b>
1	B.P apparatus
2	Weighing machine
3	Glucometer
4	Haemoglobinometer
5	Blood group detection kit
6	DHIC
7	Vital Organ Models
8	Organ System Charts
9	Human Skeleton
10	Sick Room
11	First aid box
12	Wheel Chair and Lift
13	Institute vehicle in emergency