

Annexure- 1

• **List of Instrument/Equipment Dept Of Pharmaceutical Chemistry**

Sr. No.	Name of Instrument/Equipment	Quantity	Manufacture By	Specification
1	Micro Wave Oven	1	Catalyst Labtron	Microwave Frequency 2450 MHz $\pm$ 25 MHz, Microwave Power 100 – 1400 W continuous adjustable, Common Operating Temperature $\leq$ 1100 °C, Temperature Range 0 °C to 1300 °C, Heating Rate 0 – 250 °C/min Temperature Accuracy $\pm$ 1 °C, Capacity 1liter Heating Space $\varnothing$ 20 mm $\times$ 100 mm
2	Digital Melting Point	02	Illumination	The instrument works by heating the sample in a capillary tube and digitally displaying the temperature at which the substance melts. Standard specifications of a digital melting point apparatus include temperature range from ambient to 300 °C or 400 °C, digital LCD display, temperature accuracy of $\pm$ 0.5 °C to $\pm$ 1 °C, microprocessor-based temperature control system, automatic heating rate control, magnifying observation lens, simultaneous analysis of multiple samples, and rapid heating with uniform temperature distribution.
3	Lab Junction 12 Holes Rectangular Double Wall Water Bath with Thermostatic Control, LJ-1522	1	Equitron	The inner chamber is made of stainless steel while the outer body is powder-coated mild steel for durability and corrosion resistance. It is provided with 12 holes of 75 mm diameter fitted with concentric rings to accommodate different sizes of laboratory glassware. The temperature is controlled through a thermostatic control system with PT-100 temperature sensor for accurate heating performance. The operating temperature range is generally from ambient +5°C to

				95–100°C with accuracy up to $\pm 0.5^\circ\text{C}$ to $\pm 1^\circ\text{C}$. The chamber capacity is approximately 15 liters with internal dimensions around $355 \times 405 \times 100$ mm. The equipment works on 220–240 V AC, 50 Hz power supply with heating load approximately 1.5–2.0 kW. Additional features include glass wool/mineral wool insulation, immersion heater, pilot lamps, ON/OFF switch, and removable concentric rings for flexible laboratory use
4	Digital Magnetic Stirrer With Hot Plate	05	Lab Solution India	Standard specifications of a digital magnetic stirrer with hot plate include stirring capacity ranging from 1 liter to 20 liters, temperature range from ambient to 350°C or higher, stirring speed up to 1500 rpm, ceramic or stainless-steel top plate, digital LCD/LED display, microprocessor-based temperature control, PID controller, hot top warning indication, and variable speed regulation. The instrument generally operates on 220–240 V AC supply with excellent temperature uniformity and corrosion-resistant construction suitable for continuous laboratory operation.
5	Hotplates	4	Remi Elektrotechnik	Standard specifications of a laboratory hot plate include temperature range from ambient to 350°C or higher, digital or analog temperature controller, heating capacity up to 5 liters or more, corrosion-resistant top plate, uniform heat distribution, microprocessor/PID temperature control, hot surface warning indicator, and compact bench-top design. Advanced models also provide digital display, timer function, and safety cut-off protection. The instrument generally operates on 220–240 V AC supply with durable and energy-efficient heating system suitable for continuous laboratory operation.
6	Heating Mantle	03		Capacity-100ml Round Bottom Flask Heating Element-Nichrome Wire/

				Fiberglass Insulation Temperature Resistance– 350 TO 450C Applications–Distillation, Reflux, Solvent evaporation, Chemical Synthesis (Small-scale Heating)
7	Heating Mantle	03		Capacity-250ml Round Bottom Flask TemperatureResistance–Upto450C Voltage-220-230VAC, 50Hz Applications–Distillation, Reflux, Solvent evaporation, Chemical Synthesis(Medium Scale Heating)
8	Heating Mantle	03		Capacity-500ml Round Bottom Flask PowerConsumption-200-300W Controller Type- Analog Regulator or Digital PID Applications–Distillation, Reflux, Solvent evaporation, Chemical Synthesis(Large Scale Heating)

• **List of Instrument/Equipment Dept Of Pharmacology And HAP**

Sr. No.	Item Name	Suggested Specification / Grade	Qty.
1	Sphygmomanometers	Mercury-free aneroid BP apparatus, adult cuff, calibration certified, hospital grade	5
2	Stethoscopes	Dual-head acoustic stethoscope with stainless steel chest piece, adult diaphragm & bell	5
3	Human Skeleton and Bones	spare bones set	1 spare bones set
4	IR Thermometer	Non-contact infrared thermometer, clinical grade, LCD display, $\pm 0.2^{\circ}\text{C}$ accuracy	2
5	Dummy Inhalers and Nebulizer	Training inhaler models (MDI/DPI/spacer) and portable compressor nebulizer kit	1 Set
6	Digital BP Instrument	Automatic digital BP monitor with adult cuff	2
7	ESR Apparatus (Westergren and Wintrobe)	ESR stand with Westergren and Wintrobe tubes, graduated pipettes, complete set	10
8	Peak Flow Meter	Portable peak expiratory flow meter, adult range	1
9	Stadiometer	Wall-mounted or portable digital stadiometer, range up to 210 cm	2
10	Adult Weighing Scale (150 kg)	Digital weighing machine, 150 kg capacity, accuracy ± 100 g	2
11	Glucometer	Portable glucometer with strips, auto-calibrated, memory storage	1
12	Various Types of PPE Kits	Disposable PPE kits including gowns, gloves, masks, face shields, and shoe covers	1 Gloves Set; 1 Masks Set
13	Menstrual Hygiene Products	Demonstration kits including sanitary pads, menstrual cups, tampons	Required

Sr. No.	Item Name	Suggested Specification / Grade	Qty.
14	Display for Various Disinfectants, Mosquito Repellents etc.	Sample display units with labels and educational information	Required
15	Water Testing Kit	Portable water analysis kit for pH, hardness, chlorine, and microbial contamination	1
16	Permanent Slides of Different Microbes	Prepared microbiology slides: bacteria, fungi, parasites	Required
17	Lucas Moist Chamber	Standard Lucas moist chamber apparatus with accessories	1
18	Aerators (for Organ Bath)	Laboratory aerator with tubing and airflow control for organ bath setup	5
19	Respirometer	Digital/manual respirometer for lung volume and respiratory function testing	1
20	Stop Watch	Standard digital or mechanical stopwatch. Standard models feature 1/100 to 1/1000-second precision, elapsed/split time measurement modes, a 24-hour capacity	20

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List of Instrument/Equipment Dept Of Pharmaceutics

Sr. No	Item Name	Specification/Grade	Quantity	Purpose	Manufactured by
1.	Hot Plate	Temperature range: 30°C–80°C	02	For heating samples, solutions, and preparations during experiments	Remi
2.	Electric Water Bath	Thermostatically controlled water bath with temperature control up to 100°C	01	To maintain constant temperature during pharmaceutical experiments	Labline
3.	Double Cone Blender	Volume capacity: 50 L–200 L with speed control	02	For mixing and blending pharmaceutical powders and granules	Shakti
4.	Ball Mill ball (Marble)	Marble balls suitable for ball mill	Medium size 5	For size reduction and grinding operations	S.G. Scientific Works Pvt. Ltd.
5.	Ointment Slab	Porcelain/Glass slab	20	For preparation and mixing of ointments and creams	
6.	Ointment Spatula	Stainless steel spatula	20	For mixing, transferring, and spreading ointments	
7.	Micrometer Slide Eyepiece	Calibrated eyepiece micrometer	05	For measurement of particle size under microscope	
8.	Sieve Set	Copper/SS (Sieve No. 10,12,14,22,44,66,72,80,120)	10 Set	Laboratory Use (Size distribution)	

• **List of Instrument/Equipment Dept Of Central Instrument Room**

Sr. No	Item Name	Specification/Grade	Quantity	Purpose	Manufactured by
01	Digital pH meter	pH range 0–14; resolution 0.01 pH; accuracy ± 0.01 pH; temperature compensation; LCD display.	01	Measurement of pH of pharmaceutical formulations, buffers, and biological sample	Mettler Toledo, Hanna Instruments, Eutech Instruments, Labindia
02	Flame Photometer	Measurement range 0–100 ppm; filters for Na, K, Ca, Li; LPG/air flame; digital display.	01	Estimation of sodium, potassium, calcium, and lithium in pharmaceutical and biological samples.	Systronics, Elico, Labtronics
03	Ion-Exchanger	Cation and anion exchange columns; resin capacity 1–5 L; flow control system; transparent columns.	01	Demonstration of ion-exchange chromatography, water purification, and separation processes.	Merck Life Science, Thermo Fisher.
04	UV-Spectrophotometer	UV–Visible Spectrophotometer include wavelength range from 190–1100 nm, spectral bandwidth of 1–2 nm, wavelength accuracy of ± 0.3 to ± 1 nm, photometric accuracy of $\pm 0.3\%$ T, automatic wavelength calibration, LCD/touchscreen display, quartz cuvette holder, deuterium and tungsten light sources, USB/data transfer facility, and microprocessor-based operation. Advanced models also provide scanning modes, kinetic studies, multi-component analysis, and PC software compatibility for data handling and documentation. The instrument generally operates on 220–240 V AC supply with high sensitivity and reproducibility suitable for routine and research laboratory applications	01		Shimadzu Corporation, PerkinElmer
05	HPLC	Flow rate –Typically 0.5–2.0ml/min, operating pressure upto 400–600 bar ,Column usually C18 reversed –phase column.,injection volume – 10–20 ul.	01	Drug analysis , impurity profiling , stability studies . quality control testing.	Thermo fisher , Shimadzu,

List of Instrument/Equipment Dept Of Machine Room

Sr.No	Item Name	Specification/Grade	Quantity	Purpose
1	Sieves Set (Brass) PI-55/12086	All sieves are 8" in diameter. The wire mesh is made of stainless steel. The sizes available are No.10,16,22,30,80 & 100. All sizes are designed as per B.S. Specifications.	01	Sieve shaker (rotap type-floor model) PI-56 / 12087 requirements for Machine Room as per PCI for existing machine Supplier: COSMO LABORATORY EQUIPMENT, +91-9416113230 +91-9812183773 info@coslabindia.com
2	Bottle/Ampoule Washing Machine PI-16 / 12023	This unit consists of Brushing Unit, Rinsing Unit & Washing Tank made of stainless steel mounted on sturdy square MS pipe frame duly powder coated, motor driven unit embedded in a metallic box rest on the main unit with a drill chuck to accommodate various sizes of washing brushes. Works on 220V/50Hz AC. Output up to 30 bottles.	01	Requirements for Machine Room as per PCI. Supplier: COSMO LABORATORY EQUIPMENT, +91-9416113230 +91-9812183773 info@coslabindia.c om
3	Liquid Mixture	HB 22 300W Hand Blender	01	

List of Instrument/Equipment Dept Of Pharmaceutical Biotechnology

Sr.No	Item Name	Specification/Grade	Quantity	Purpose
1	Rheometer	Routine QC/ Entry Level	01	Measurement of Viscosity of fluid practical
2	Respinometer	LR	01	To Study rate of respiration Practical