

Requisition for Equipment

(Under DBT Star Scheme)

DEPARTMENT OF CHEMISTRY

A N College, Patna

Sl No	Name of Equipment	Product Specification
1	Deionizer	<ul style="list-style-type: none"> • Input water maximum hardness : 1500 • Input pipe : ½ inch diameter • Output tank capacity : 100 Liters. • Maximum Working Pressure : 2.5 Kg/cm² • Minimum Working Pressure : 2.5 Kg/cm² • Treatment Flow Rate : 60 Liters/Hr. • Power consumption : 2KW. • Electric Power : 230V/50Hz, 5 A socket required.
2	Servo Controlled Voltage Stabilizer	<ul style="list-style-type: none"> • Single Phase Servo Voltage Stabiliser Input Voltage Range 170 – 270 V 150 – 300 V • Out Put Voltage 230 V 230 V • Ratings KVA - Air Cooled 1 , 2 , 3 . 5 , 7.5 , 10 , 15 , 20 KVA • Standard Features Regulator Special Sensing Circuit to maintain constant output voltage even on DG Metering - Combine Digital VIF Meter for Input and Output Voltage / Output Current / Frequency. • Out put Voltage Protection Adjustable Output Under and Over Volt. Alarm / time Delay Circuit / Trip and By pass Facility Controls Auto – Manual Switch / Lower – Raise switch Servo Motor Protection Voltage Cut-off for Servo Motor at Input Under and Over Voltage MCB Std. Upto 20 KVA
3	Distillation Unit	
i	Stainless steel tabletop Distiller (Barnstead Type)	<ul style="list-style-type: none"> • The range of table top water distillers is nicely designed using stainless steel 304 grade as construction material • The whole unit is mounted on a sturdy metallic stand. • All these units are Barnstead type and equipped with removable immersion heater, high / low water level cut-off device and heating indicator. • Standard models of these tabletop distillation units comes with 2 liters per hour of capacities, which may further customized if required to meet specific requirements of customers. • Load: 2KV, Power Supply: 220 Volts 50Hz • Certification: ISO, CE & GMP

ii	Water Distillation Unit- Manesty Type	<ul style="list-style-type: none"> • Stainless steel 304 grade sheet, the cock that comes fitted to the unit is of brass metal with C.P. wall mounting clamp. Further, the unit also comprises flexible tubing, supplied with cord as well as plug and work on 220/230 volts A.C. supply. • Comes with 4 Liter /Hr output capacity • Features use of 3 kw heater load support • Finds application in making of pyrogen free distilled water
iii	Water Distillation Single Unit	<ul style="list-style-type: none"> • Features mild steel powder coated main body support • Features borosilicate glass construction • Comes with 1 KW each of heater load • Features use of ceramic with spiral element based heater material and quartz /silica glass based heater tube • Comes with distillation unit outputs (single) of 1.5Litre/Hr, 3.5Litre/Hr
4	Fractional Distillation unit With glass assembly	<ul style="list-style-type: none"> • Heat source, such as a hot plate with a bath • distilling flask, typically a round-bottom flask • receiving flask, often also a round-bottom flask • fractionating column • distillation head • thermometer and adapter if needed • condenser, such as a Liebig condenser or Allihn condenser • vacuum adapter (only required if performing vacuum distillation; not used in image to the right) • Standard laboratory glassware with ground glass joints, e.g. quickfit apparatus.
5	Soxhlet Extraction Unit	<p>Features :</p> <ul style="list-style-type: none"> • Body constructed in MS epoxy coated finish • Featuring use of mantle type heaters that comes with support of energy regulator • Capability to handle 3/6 tests • Can handle flasks of 250ml & 500ml capacity • Supplied with support of clamps as well as rubber tubing • Works on electric supply of 220/230 Volts, 50/60 Hz AC <p>Technical Specifications:</p> <ul style="list-style-type: none"> • Technical Specifications: • Mantle type heater support • 3/6 tests capacity • Work on 220 v ac • Suitable to heat soxhlet flasks of 50-500ml • Mild steel sheet housing • Rating of each test of 200 Watts • Can also be supplied without glass parts & clamp support

6	TLC Kit	<ul style="list-style-type: none"> TLC kit is used to run five chromatogram altogether to find the r_f (rate of flow) standard of the sample. It consists of rack, developing chamber, applicator, aluminum chamber, glass plate, spotting tray, pipette, sprayer, silica gel.
7	Digital Balance 0.001 gm to 120gm	<ul style="list-style-type: none"> Preferably K-Roy Make Balance covered with Glass cabinet
8	Polarimeter	<p>Polarimeter is used to determine the optical rotation of the sample place inside the instruments. It is also used in the determination of left handed sugar solution and right handed sugar solution. Specification</p> <p>Illumination: Sodium Vapor lamp Power Supply: 220V AC Components: Transformers Diameter: 10cm diameter circle</p>
9	Calorimeter	Isothermal, Micro Calorimeters – METTLER TOLEDO
10	Desiccators	i. Desiccator Cabinet
		ii. Vacuum Desiccator
		iii. Non-vacuum Desiccator (Small)
11	Reflux apparatus using water jacketed condenser	Distillation Head, Vigreux, Jacketed, Chemglass Vacuum jacketed Vigreux distillation head having a sealed on condenser, braced for strength. The top outer joint is for a 1” immersion 10/18 or 10/30 thermometer. Vacuum adapter has an inner joint and a sealed in drip tip. Condenser length is 100mm on the 14/20 size and 200mm on the 24/40
		Distilling Column, Water Jacketed Chemglass Jacketed distilling column has indentations on the inner tube to support packing material. The jacket allows the column to be used as a condenser. Column has a top outer and lower inner standard taper joint. All sizes have an I.D. of approximately 10mm.
12	Mortar & Pestle	
13	Vertical Laminar Air Flow Cabinet	<ul style="list-style-type: none"> Vertical Laminar Air Flow Cabinet involves natural air current flow on a vertical surface inside the cabinet. The Laminar cabinet consists of a thick board made from sunmica, stainless steel and mild steel powder coated finish. It is equipped with one or two HEPA filters as per the requirement and demand. The 99.99% efficiency HEPA filter incorporated in the cabinet provide high class level protection inside the vertical laminar Air flow cabinet.

		<ul style="list-style-type: none"> The UV light inside the laminar is kept on for a few second before starts performing an operation inside the cabinet. UV Germicidal Tube The HEPA filtered air entering the cabinet provides complete protection against the airborne particles. It is widely used in areas like bio-assays, cell culture, semiconductors, electronic service centres, space applications, etc.
14	Refrigerator (mini)	VOX 4 Litres Portable Mini Refrigerator Single Door Refrigerator, 4 Liter Capacity, Direct Cool
15	Refrigerator (small)	Koryo KMR45SV 45 L 4 Star Mini Single Door Refrigerator Single Door Refrigerator, 45 Liter Capacity, Direct Cool, 4 Star Rating
16	Thermos Flask	•
17	Basic Kits for micro/mini lab	Microscale
	A Air condenser	Microscale
	B. Claisen adapter	Microscale
	C. Conical reaction vial, 0.1mL	0.1 mL capacity
	D. Conical reaction vial, 3.0mL	3.0mL capacity
	E. Conical reaction vial, 5.0mL	5.0mL capacity
	F. Craig recrystallization tube, 1mL	1mL capacity
	G. Craig recrystallization tube,	2mL Capacity
	H. Drying tube	Microscale
	I. Gas-delivery tube	Microscale
	J. GC collection tube, 5/5M	5/5M
	K. Hickman column	Microscale
	L. Hickman still head	Microscale
	M. Jacketed condenser	Microscale
	N. Multi-purpose adapter	Microscale
	O. Round-bottom flask, 10mL	10mL capacity
	P. Sample syringe	Microscale

	Q. Spin vane	Microscale
	Air condenser	Microscale
	B. Claisen adapter	Microscale
	A. Centrifuge/sublimation tube, 15mL	15mL
	B. Chromatography column, 150mm	150mL
	C. Connecting adapter	Microscale
	D. Connector only	Microscale
	E. Connector only, Viton	Microscale
	F. Connector w/support rod	Microscale
	G. Distillation column	Microscale
	H. Distillation head, 60mm	60mL capacity
	I. Filter adapter, Pluro stopper	Microscale
	J. Flask, Erlenmeyer, 10mL	10mL capacity
	K. Flask, filtering	25mL capacity
	L. Flask, long-neck	5mL capacity
	M. Flask, short-neck, 5mL	5mL capacity
	N. Hirsch funnel, w/20 µm PE disc	Microscale
	O. Pipette, 1mL	1mL capacity, 5mL capacity each
	P. Reaction tube, 10 x 100mm	10 x 100mm
	Q. Sleeve stopper, 8mm	8mm
	R. Spatula, SS	Small
	S. Stirring bar, 4 x 12mm	4 x 12mm
	T. Stopcock, one-way, PE/nylon	Small
	U. Syringe, PE	Small
	V. Thermometer adapter	Small

	W. Tubing, PTFE, 2ft (fits 20 gauge needle)	2 ft (fits 20 gauge needle)
	X. Burette	Borosilicate Glass, 20ml-25ml cap
18	Fume Hoods	Small
19	Pipette pump	Glassco
20	Vacuum Pump	Glassco
21	Crucible Porcelain	Glassco
22	Stalagmometer	Simpson Analog Meters 1.5" to 4.5" Sizes, Square, Round & Rectangular, +/- 2% F.S. Accuracy
23	Viscometer	Digital Viscometer (multi-range)-Torque measurement accuracy: 1% of full scale range
24.	Bravis Lattice Models	
25.	Spectrochemistry Models	
26.	Crystallography Models – Set – I	
27.	Crystallography Models – Set – II	
28.	Hybridisations Models	
29.	Softner for double distillation unit	

Principal
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