DEPTT OF PHARMACOLOGY

	DEPIT OF	PHARMACOLOGY
Sl. No.	Name of Machine & Instrument	Specification
1	Student Jar Bath (Dale's Organ Bath)	Water tank -01 Assembly, Water Stirrer -01 Assembly, Temp, frontal writing lever, Controller-Analogue, Organ Bath Tubes-01, Temp. Range-5°C above Ambient to 60°C, Temp. Accuracy±2°C, Coupler Set 02 Set, Aeration Tube 02.
2	Sherrington Recording Drum (Kymograph)	Highly accurate 7 Speeds - 0.12, 0.25, 0.50, 0.75, 1.00, 1.25, 2.50 mm/sec., Drum Dimension – Height of Drum 170mm, Diameter of drum 150mm, Height of rod-340mm, Optional –Battery Backup, Power Requirment-220V AC.
3	Dispensing Balance with wt 1 gm to 50 gm	Specification not available. Best/specification should be aquired.
4	Mortar & Pastel	Specification not available. Best specification should be aquired.
5	Oxygen Cylinder	Specification not available. Best specification should be aquired.
6	Bubble Aerator	Specification not available. Best specification should be aquired.
7	Frontal Writing Lever	Specification not available. Best specification should be aquired.
8	Smoking Burner	Kerosene with 3" wick & winding up gear.
9	Computer desktop with Accessories	<ul> <li>Intel Pentium Dual-Core Processor E2160, 1.82 GHz</li> <li>2-MB L2 Cache, 800 MHz FSB</li> <li>Intel 945GC Chipset Motherboard</li> <li>1024-MB DDR2 Memory, Upto 4-GB maximum</li> <li>160-GB Serial-ATA Hard Disk Drive, 7200 rpm</li> <li>32X DVD Super Multi Drive DVD Writer</li> <li>15-inch (43 cm) Wide TFT LCD Monitor with Digital Video Interface</li> <li>Intel Graphics Media Accelerator GMA950 with DVMT 3.0, 128 MB Shared Video Memory</li> <li>WiFi 802.11 a/b/g Wireless Network Interface</li> <li>Ports: 2 USB v2.0, Serial, Parallel, Audio In, Audio Out, PS2 mouse/keyboard, S-Video TV output, IEEE 1394 Port</li> <li>6 Channel Audio (without 5.1 speaker system)</li> <li>Two External Stereo Speakers</li> <li>2 PCI Slots, 1x PCI Express x16 graphics slot</li> <li>Multimedia Keyboard with Trackball - Window 8.1</li> </ul>
10	Ex pharma pro Software	Works with Windows No external Software required Both Online and Offline model available The display gets adjusted autom atically depending on the screen resolution chosen Works seamlessly with all latest versions of Windows including Vista
11	X- cology software	Specification not available. Best specification should be aquired.
12	Pharma expert	Specification not available. Best specification should be aquired.
13	SPSS SOFTWERE	Specification not available. Best specification should be aquired.
14	Analgesiometer	Radient Heat type or tail flick type, provide

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	(Digital)	noin ctimulus by beated No. 1.
	(Digital)	pain stimulus by heated Nichrome wire in a
		rat's tail to determine analgesic effect of drugs. Provides 50Hz alternating current stimulus for
	=	producing minimal and super maximal
	Electro Convulsiometer	seizures required in theassay of anti-
15	(Digital)	convulsant epiteptic drugs complete with one
	, ,	pair corneal electrodes 4,6 & 8mm cups and
	-	one pair of ear clips work on 220 A.C.
		Completely automataed, Stirrer bar, Still pot,
		Distillation path ,Thimble, Solid ,Siphon top
16	Soxhlet Apparatus (2L, 3L)	,Siphon exit, Expansion adapter, Condensor,
10		Cooling water in ,Cooling water out, Temperature
		Range : 50°C to 350°C
		XXY-11
	Heating Mantal (2L,	With stand high temperature up to 350°C, the
17	3L)	body of the mantle is spun in one piece from non-rusting aluminium, work on 220/230 volts
	22)	A.C, capacity 3 ltr 450 wattage
		Maximum vaccum of 1 torr for 72 hrs, Highly
		transparent, shatter-proof, non corrosive and
	Desiccator with	easy to clean polycarbonate, Greaseless
18	vacuum facility with	airtight vaccum seal using high quality silicon
10	capacity 06 ltr & 10 ltr	gasket, providing three way stopcock, Flange
	emploidy so its & 10 its	lock holding, UV-blocking models minimize
		damages & vacuum gauge attached at the
	all Maga	center of the lid, capacity 10 ltr, 308 x 400
19	all Mage system(Digital)	Specification not available. Best specification should be aquired.
	Animal Holder For	Specification not available. Best specification
20	Small Animal 62mm	should be aquired.
	with Universal	n
		Heated, temperature-controlled operating table
		for rats
		Heated, temperature-controlled operating table
		for mice
		Positioning stage for operating table
		OP table with wound retractors and kidney cup: 290x200x65 mm, PVC, gray, with cork pad,
		surrounding channel for fluid drainage, and 2
		height-adjustable feet, Electrical heating pad,
	Animal Operating Table(Small)	150x55 mm, black anodized aluminum; Pivoting
		mounting bracket, height adjustable, with 6 mm
		diameter rod for mounting of clamps; 4 mounting
21		rails; 1 cross bar clamp; 1 swivel bar clamp.
		Control units Domilating town and and 26
	Table(Small)	Control unit: Regulating temperature range 36-
	Table(Small)	42 degree C
	Table(Small)	42 degree C Positioning stage
	Table(Small)	42 degree C Positioning stage Accessories:
	Table(Small)	42 degree C Positioning stage Accessories: XY-stage for operating table (allows 20 mm
	Table(Small)	42 degree C Positioning stage Accessories: XY-stage for operating table (allows 20 mm translational and 360 degree rotational
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	Table(Small)	42 degree C Positioning stage Accessories: XY-stage for operating table (allows 20 mm translational and 360 degree rotational movement) 03-11 Kidney cup 10 mm, Lucite
	Table(Small)	42 degree C Positioning stage Accessories:  XY-stage for operating table (allows 20 mm translational and 360 degree rotational movement) 03-11 Kidney cup 10 mm, Lucite (for mice)  Kidney cup 12 mm, Lucite (for mice)  Kidney cup 14 mm, Lucite
	Table(Small)	42 degree C Positioning stage Accessories: XY-stage for operating table (allows 20 mm translational and 360 degree rotational movement) 03-11 Kidney cup 10 mm, Lucite (for mice) Kidney cup 12 mm, Lucite (for mice) Kidney cup 14 mm, Lucite Kidney cup 19 mm, Lucite
	Table(Small)	42 degree C Positioning stage Accessories:  XY-stage for operating table (allows 20 mm translational and 360 degree rotational movement) 03-11 Kidney cup 10 mm, Lucite (for mice)  Kidney cup 12 mm, Lucite (for mice)  Kidney cup 14 mm, Lucite

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		Kidney cup 26 mm, Lucite	
	1	Set of 5 kidney cups 14-26 mm, Lucite	
	16.	Stand for kidney cups, red plastic. Holds up to 5	
		cups	
		Aortic clamp, complete with stainless steel holder	
		Adjustable mounting bar for operating table	
		(including 2 thumb screws)	
		Clamp with mounting bar	
		Fixed bar clamp (for 6 mm o.d. bars)	
		Swivel bar clamp (for 6 mm o.d. bars)	
	1	Clamp with ball joint (for 6 mm o.d. bars)	
	1	Rail clamp with mounting bar (6 mm o.d.), 150	
		mm length	
	ĺ	Wound retractors for operating table, set of 4	
		Wound retractors for operating table, set of 4	
		(for mice)	
		Rectal temperature probe, rigid (1.7 mm o.d.)	
		Rectal temperature probe, flexible (2.4 mm o.d.)	
22	Cannular Arterial	Specification not available. Best specification	
	Cannula	should be aquired.	
23	Animal Head Holder	Specification not available. Best specification	
	Universal Joints	should be aquired.	
24	Rat Tail Clip	Specification not available. Best specification	
		should be aquired.	
	UV- Cabinet For TLC Monitoring	U.V Chromatography inspection cabinet for	
25		viewing and detecting prepared substance on	
25		T.L.C layers fitted with long wave (365nm)U.V	
		tubes for use 220 volts AC.	
	Vacuum Filtration Assembly	Fitted with vaccum pump, filtration flask 2 ltr	
26		capacity fitted with buchner funnel & rubber	
		tubing.	
	Magnetic Stirrer with heating options	With hot plate and heavy duty permanent	
		magnet,compact stirring device utilising	
27		magnetic field, variable speed stirring action of	
		small Teflon rotor, the unit fitted with pilot	
		lamp, work on 220/230 volts A.C.	

28	Vacuum Pump, Laboratory	V belt driven at 400 rpm and fitted electric motor mounted on a cast iron base plate, pumps are single and double stage single and double stage pump create maximum vaccum of 0.01 and 0.001mm hg.capacity 25,50,75 &100 lt/mm
29	Hebb Willian Mage	Specification not available. Best specification should be aquired.
30	Langender off System (Lever/Kidney) Mouse to Rabbit	The system should be designed for in vitro investigations of the perfused kidney of small laboratory animals like mice, rats, hamsters, guinea pigs and rabbits. During experiments, the artery of the organ is cannulated and perfused with a buffer solutions using either constant pressure or constant flow mode. Then changes in the perfusion pressure can be measured. If desired, the effluents can be collected for biochemical analysis.  Features:



Should have constant and constant pressure modes Should be equipped to measure perfusion pressure, arterial flow and buffer temperature Perfusion pressure up to 120mmHg · Should maintain buffer temperature with water-jacketed reservoir Should consists lubricant-free Teflon taps · Should have external circulating water bath for the buffer reservoir Should have internal heater/controller for the organ bath Supplementary thermostat in the organ Constant oxygenation of the buffer **Perfusion Chamber:** Each perfusion chamber should have an organ holder, water bath, heater, vaporizer, perfusion inlet and outlet, thermo-sensor port, supplementary thermostat, mesh organ fastener, acrylic lid, and blood vessels and ureter ports. The perfusion chamber, the most critical part of the system must have autonomic thermoregulation. The system should be equipped with a kidney chamber. This system should include the following items Table with base plate, shelf, and sink – 1 No Console – 1 No Perfusion buffer column – 1 No Glass overflow tube – 1 No. • Pressure sensor holder - 1 No Oxygenation bubbler set - 1 No Oxygenation pressure equalizer set - 1 No Teflon tap – 1 No Silicon tubing cables set, and accessories - 1 No 2 Channel Peristaltic pumps -2 Nos (One for filling buffer reservoirs, and one for constant flow mode) Circulating Water Bath – 1 No Pressure transducers with cables – 2 Nos Data Recording System - 1 No Tissue Bath for Liver - 1 No Four unit organ bath with automatic dose response software perpex bath with tissue chamber, pre-heating reservoir coil, gas diffuser, Organ Bath (2/4/6/8 tissue holder, micro positioner, water pump and temp. controller, 31 Cabins) with dose recording unit with +2 mV to +10 V range, Third party software free response software import and export, file sharing free of cost,

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	QUATERNARY GRADIENT HPL	<u>u</u>
	PUMP	Quaternary
	-	Gradient HPLC System with Vacuum Degassing
	Flow rate range	0.01to 10.0 mL/min,
	maximum pressure of 6100 psi	
	Flow rate increments	for the entire range 0.01 from 0. to
	99 mL/min; 0.1 from 1.0 to 10 mL/	
	Flow Precision	0.3% relative standard
		deviation (typically (0.1%) at 1 mL/min
	1	and 1 000 psi (70 bar)
		with water
	Flow accuracy	+/- 1 % of setting at 1 mL/min and 1000 psi
		with water
	Retention Time Reproducibility	<0.3% RSD (typically
	<0.1% RSD) Pressure range	0 to 6100 psi for the
	27 - COMPANIA CONTROL	entire flow rate range
	Composition range Composition Settability	0 to 100% solvent A - D Settable to 0.1%
	Composition Settability Composition Accuracy	+/-1.0% absolute from 3
		to 97% from 0 to 5 mL /
8 11		min (typically +/- 0.50%)
	Composition precision	Typically less than 0.2
	Gradient Forms	% variation Linear, exponential 1 to
	Gradient i Omis	99 (positive and
		negative) or step (189
	Linearity	profile selections) Within +/- 1% of from 10
	Linearity	to 90% at 5 ml/min
TO DIES SHAP WE SHAPE	Program Steps	Steps 0 plus upto 19 solvent program steps.
L.C.M.S / M.S For		Battery-backed
TDM		storage of up to 20
		method plus 1 edit method and 1default
	method.	
	Step time	0 to 999 min 0.1 min, 0 to 9.9 min;
	Step time increments	1.0 min 10 to 999 min
	Timed events	Two built-in
		independent momentary (two-second) contact
	closures	. 100
	Events / Method Event Increments	Maximum 9 0.1 min 0 to 9.9 min; 1.0
	Event increments	min 1 to 999 min
	UV/VIS DETECTOR	
		400 700
	Wavelength range Band width	190-700 nm 5 nm
	Wavelength accuracy	+/- 1 nm
	Optics	Dual beam
	Sensitivity range 0.0005 to	increments
		from 0.0005 t
		0.1 and 0.0 increments
		above 0.
	Noise <7.5 x 10-6 AU, 2	AUFS
	Noise <7.5 x 10-6 AU, 2	time,Standard
	Dail 44 V 40 4 611/2	test cell
	Drift < 1 X 10-4 AU/hour, after Flowcell 12 μL, 10 mm path le	ngth,
	Leak detection Heated therm	istor sensor in glass envelo
II.		located

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drip flowcell pan. Deuterium (190-360 nm) or Tungsten (360-700 Light sources pre-

nm), focused, adjustment required on replacement

### HPLC COLUMN OVEN

Operating range Recommended flow range Temperature accuracy

5 °C to 90 °C Up to 5 mL/min ±1 °C over

entire range\* Temperature stability

±0.2 °C ±1 °C

Temperature repeatability Heating rate

20 min to 10 °C

or 60 °C at 2 mL/min Temperature ramp

Up to 5 °C/min

Column-selection-valve capacity

6 switching

positions

Power consumption

120 Watts

#### **AUTOSAMPLER**

Pressure limits (428 bar)

Up to 6100 psi

Fixed Loop: 5x

Injection modes sample overfill

Partial Fill: Variable injection volumes µL Pickup:

Injections without any excess sample waste Fixed Loop mode: 2 µL

Injection volume to 500 µL,

Partial Fill mode: 0.1 µL

to 2.45 mL

As fast as 8 seconds in Injection cycle time

Partial Fill mode or 35 seconds in µL

Pickup mode

Fixed loop mode: 0.3%

Injection repeatability RSD

Sample carryover programmable needle wash

Both Derivatization/ serial dilution automated pre-column derivatization and serial dilution

are supported

<0.01%, using

Peltier temperature

Cooling-Only: 4 °C to

ambient -3°C

Cooling/Heating: 4 °C to 40 °C

Audible noise level

LeAq <70 dB

## MASS SPECTROMETER

#### ION SOURCES:

- lon sources should easily be interchanged without using any tools or shutting down the vacuum for quick and efficient switching between applications.
- Should have Wide range of desolvation flows (counter/dry gas) and choice of solvent composition enabled via innovative ion source design.
- lonization technology: lon source design should allow modulation of electric field that allows ionization preserving molecular structure even for weak compounds.



- Should have Ease of use: Snap-in probe design
  preferable, which should allow easy and fast
  interchangeability to minimize cross contamination,
  autotune algorithm to allow easy tuning and
  optimization of performance. Angular grounded
  probe adjustable in X, Y, and Z axes (to avail
  large range of flow rates)
- Must have Source ID: Built-in source transponder must transfer source ID to software allowing use of proper calibration parameters.
- Should have Capillary technology for smooth transition from atmospheric pressure to vacuum with best ion transfer.
- Should have Single Click Autotune facility with 3 options – through vials or built in syringe or External syringe.
- Must have Special Dual ESI source compatibility for LC SQ.
- Desired Sensitivity: Best in class sensitivity in positive and negative ion mode for ESI and APCI applications through the adoption of patented design ion path that optimizes efficiency of ions transfer. Should have Hexapole - for excellent Ion guide towards quads
- Must have Single Screw maintenance for the customer till Hexapole.
- Should have Easy cleaning process, Compatible with even phosphor buffer.
- ESI and Dual ESI Flow rate range is 0.004 1.4 mL/min (no split)
- APCI Flow rate range is 0.05 1.5 mL/min (no split)
- Easy and fast Customized optimization facility for all samples which should Increase speed in method development on MS.

# Quadrupole Analyzer Performance Specifications:

- Mass Range 20-3000
- Mass Accuracy + 0.1u/24 hr; ± 3°C
- Mass Axis Stability + 0.1u/24 hr; ± 3°C
- Max Scan Rate (u/s) 10,000
- Resolution (FWHM) 0.6u ± 0.1 (20-3,000u)
- Polarity Switching Standard
- Quant. Dyn Rng 10 e5

#### SENSITIVITY SPECIFICATIONS:

- ESI+SIM S/N ≥120:1 RMS 1 pg/ ul reserpine @ 400 ul/ min MeOH/ H2O
- ESI-SIM S/N ≥100:1 RMS 2 pg/ ul p-nitrophenol @ 400 ul/ min MeOH/ H2O

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	<ul> <li>APCI+SIM S/N ≥100:1 RMS 1 pg/ul reserpine @ 1.0 ml/min MeOH/ H2O</li> </ul>
±	APCI-SIM S/N ≥100:1 RMS 20 pg/ ul p-nitrophenol     @ 1.0 ml/min MeOH/ H2O
e .	PC WITH SOFTWARE / DATA CONTROL SYSTEM
	Vendor must offer branded PC preloaded with the Controlling Software for HPLC and Mass Spectrometer / Data Control System.
	ESSENTIAL ITEMS
	Suitable Nitrogen Generator (N2 @100 psi >97% pure, hydrocarbon free; Required ~20-30 L/min), Printer and On-line UPS must be quoted.
Paper & Gel	Specification not available. Best specification
1 -	should be aquired.
Electronic Board with	Specification not available. Best specification
Accessories	should be aquired.
Rotarod Apparatus with software utility	dimension(mm)-850X310X550,Width of lane(mm)- 118,Number of components-05,Diameter of central rod for mice(mm)-30,Diameter of central rod for rat(mm)- 60,Distance & rod shaft from bottom time switch plate-215mm,power recruitments-230 V AC, PC connectivity-yes
Digital Physiograph along with software	Software with HTML support,One centralised station with two sub-station on line facility with 100 students,Extensive list of self-contained experiments,life time license with free updating of the experiments,analysis modules for ECG,BP,HRV, Peak analysis supporting excel and Matlab,4 channel system hardware along with stimulator software,ECG swith box.
Computerized Non Invasive Blood Pressure System for Rats	Software 4 channel data unit, automated online and offline data extraction, free update and upgrades, NIBP system with DAS, Automatic starting, Rodent tail-cuff holder restrainer, ergometer, desktop computer, TFT, core2-duo processor, 160 GB HDD, 2GB Ram, DVD RW, UPS & Printer
Digital Plethsmometer auto calibration & PC connectivity	Auto calibration, high accuracy, resolution: 0.01 ml Pedal switch, LCD graphic display, connectivity to PC, data entry system, parameter measuring system, control ynit, stand for holdinig Perspex tube, cables, connectors, surfectent solution bottles, dust protection covers, micro-litre syringe (500 µl), digital pocket connectivity meter, calibration probes
Lagendorff Isolated Perfused Heart System, Single Column	The system should be used for in vitro investigations of the hearts of small animals according to the methods originated by Oscar Langendorff. The system should be
	Accessories  Rotarod Apparatus with software utility  Digital Physiograph along with software  Computerized Non Invasive Blood Pressure System for Rats  Digital Plethsmometer auto calibration & PC connectivity  Lagendorff Isolated Perfused Heart System,

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mammalian hearts. Some of the special features of this system should include the stainless steel sink, the small reeling pump and two-way Teflon taps. Retrograde perfusion of isolated hearts from mouse, rat, guinea pig, hamster and rabbit Measurements in constant pressure or constant flow mode on the same device Should be equipped with two columns for using different buffers Should be capable of recording aortic pressures as high as 120mmHg Should be equipped for measuring left ventricular pressure (LVP) • Should have ports in the system for measuring pressure, flow, temperature and surface potentials, and for the infusion or injection of drugs Continuous filling of buffer columns with use of a pump Continuous oxygenation of buffers Should have water-jacketed system for precise temperature control This system should include: Table with base plate, shelf, and sink Console Perfusion buffer column Glass overflow tube Teflon Tap set - tap valves and heater Heart suspension unit Heart chamber • Spindle syringe - cannula, tube, syringe Pressure sensor holders Oxygenation bubbler set Oxygenation pressure equalizer set Silicon tubing set, cables accessories Latex Pressure Balloons Peristaltic Pumps – 2 Nos • Circulating Water Bath - 1 No Latex Balloons – 1 No Biological Amplifier with 2 pressure sensors and 1 temperature sensor – 1 No 12-electrode sensor for recording MAP from different positions around the heart Data Recording Instrument. The system should be a turnkey solution for performing anesthesia on neonates and up to 1 kg animals. It should be 90% below OSHA Small Animal Isoflurane limit which is safe for lab personnel. Anesthesia System The anesthesia system should have different breathing devices, all with a patented valve that mitigates the gas flow to the snugly-

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fitted nosecone. A highly sensitive valve regulated by the animal's breathing works with the nosecone to ensure non-rebreathing efficiency and allow safe anesthesia for up to 12 hours. An activated charcoal air filter canister at the top of the induction chamber releases safe, filtered, exhaust air back into the room. It should have a push button oxygen flush to safely eliminate the isofluorane from the induction chamber. Features: Fixed flow rates are set specifically for mice and rats Each output is individually controlled with simple on/off switch Five outputs supply anesthesia to the induction chamber and up to four breathers Preset flow rates eliminate need for flow meters and manual adjustments Protocols should be easily followed without calculations Minimum opportunity for operator error Flow rate should not be impacted by the type or number of accessories connected Precise and low flow gas Pushbutton oxygen flush purges induction chamber before removing animals Carry handle facilitates safe, easy transport of the unit The system should include - Auto-Flow Vaporizer Unit – 1 No Mouse/Rat Non-Rebreathing Device – 1 Mouse/Rat Induction Chamber – 1 No Charcoal Filters (8) Oxygen Regulator for 'H' Tanks – 1 No Mouse/ Rat nosecones Nosecone plugs, plastic Surgery beds (2) Charcoal filter stand All connecting tubes Fully Microprocessor controlled High Performance Upright -20°C DEEP Freezer Operated on 22-230V/50-60Hz 41 Deep Freezer Microprocessor control system with high temp, low temp, door air alarms, and password security. Capacity should be around 340-350 Lit. The unit should be equipped with a solid core door and includes 4 white wire sheet steel shelves

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		nounted
	OI	n anti-tilt clips. hould have provision for Included is a door
	9	ecurity key lock, small castors, external dry
		larm contacts,
1	l a	ED lighting for no fluctuation of inner temp
		Should have Antimicrobial exterior paint
	7	The electronic controller has temperature set
	BC I	ability of 0.1C resolution and is fitted with a
		packlit
ba		Alphanumeric display capable of being set in 5
1:		anguages menu.  The unit should includes automatic defrost.
1	[]	The unit should includes automatic defrest.
	ļ t	Electronic control: 0.1°C resolution, intelligent
	18	automatic defrost, password protection
		Should have following safety features like Door
		open alarm, high/low temp alarm, power failure
	15	alarm, condenser filter, alarm, key lock
	8	Temp range: -10°C to -25°C with temp
		uniformity range: ±3°C Door: 1 solid door with interior wall: Stainless
		steel Defrost: Intelligent automatic defrost optimizes
		thermal performance while managing the thermal
		variation for true high performance rrotection of
		samples
		Warranty should be not less than 2 yrs
		Certifications : CE mark/ISO 9001:2008; ISO
		13485:2004
		Shelves: 4 nos, optional drawers
_		Pure water production at 15°c,L/H:7,resistivity at
		25°c,MΩCM:15-10,conductivity µs/cm:0.067-0.1
	Water Purification	Toc value, ppb: <30,
42	System	Removal of bacteria particles:99%,silicate
	System	removal:99.9%,
		Chamaga tank all liter
		Storage tank 30 liter,
	Wester Distillation	Co2 absorber+sterile filter
43	Water Distillation	Specification not available. Best specification should be aquired.
43	Water Distillation Automatic 10/LT	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min
		Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit
43	Automatic 10/LT	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts.
	Automatic 10/LT  Electrophoresis power	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts.  For two slab gel 10 x 8 cm, include buffer chamber
	Automatic 10/LT  Electrophoresis power	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts.  For two slab gel 10 x 8 cm, include buffer chambers afety lid with cables two alumina plates, 10 glass
44	Automatic 10/LT  Electrophoresis power supply	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts.  For two slab gel 10 x 8 cm, include buffer chamber safety lid with cables two alumina plates, 10 glass plate. 2 ten well 1 mm thick comb, 4 spacers of 1
	Automatic 10/LT  Electrophoresis power supply  Mini dual vertical	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts. For two slab gel 10 x 8 cm, include buffer chambe safety lid with cables two alumina plates, 10 glass plate, 2ten well 1 mm thick comb, 4 spacers of 1 mm thickness description – electrode assembly,
44	Automatic 10/LT  Electrophoresis power supply	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts.  For two slab gel 10 x 8 cm, include buffer chambe safety lid with cables two alumina plates,10 glass plate, 2ten well 1 mm thick comb,4 spacers of 1 mm thickness, description – electrode assembly, ceramic plate, glass plate, spacer 0.75mm, silicon
44	Automatic 10/LT  Electrophoresis power supply  Mini dual vertical Electrophoresis unit	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts.  For two slab gel 10 x 8 cm, include buffer chambe safety lid with cables two alumina plates,10 glass plate, 2ten well 1 mm thick comb,4 spacers of 1 mm thickness, description – electrode assembly, ceramic plate, glass plate, spacer 0.75mm, silicon sealing cord, spring cups, gel caster,
44	Automatic 10/LT  Electrophoresis power supply  Mini dual vertical Electrophoresis unit	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts. For two slab gel 10 x 8 cm, include buffer chambe safety lid with cables two alumina plates,10 glass plate, 2ten well 1 mm thick comb,4 spacers of 1 mm thickness, description – electrode assembly, ceramic plate, glass plate, spacer 0.75mm, silicon sealing cord, spring cups, gel caster, Specification not available. Best specification
44	Automatic 10/LT  Electrophoresis power supply  Mini dual vertical Electrophoresis unit	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts. For two slab gel 10 x 8 cm, include buffer chambe safety lid with cables two alumina plates, 10 glass plate, 2ten well 1 mm thick comb, 4 spacers of 1 mm thickness, description – electrode assembly, ceramic plate, glass plate, spacer 0.75mm, silicon sealing cord, spring cups, gel caster.  Specification not available. Best specification should be aguired.
45	Automatic 10/LT  Electrophoresis power supply  Mini dual vertical Electrophoresis unit	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts.  For two slab gel 10 x 8 cm, include buffer chambers safety lid with cables two alumina plates, 10 glass plate, 2ten well 1 mm thick comb, 4 spacers of 1 mm thickness, description — electrode assembly, ceramic plate, glass plate, spacer 0.75mm, silicon sealing cord, spring cups, gel caster specification not available. Best specification should be aquired.  Specification not available. Best specification
44	Automatic 10/LT  Electrophoresis power supply  Mini dual vertical Electrophoresis unit  0.2 ml tube with cap autoclavable  0.5 ml tube with cap autoclavable	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts. For two slab gel 10 x 8 cm, include buffer chambe safety lid with cables two alumina plates,10 glass plate, 2ten well 1 mm thick comb,4 spacers of 1 mm thickness, description – electrode assembly, ceramic plate, glass plate, spacer 0.75mm, silicon sealing cord, spring cups, gel caster.  Specification not available. Best specification should be aquired.  Specification not available. Best specification should be aquired.
44 45 46 47	Automatic 10/LT  Electrophoresis power supply  Mini dual vertical Electrophoresis unit  0.2 ml tube with cap autoclavable  0.5 ml tube with cap autoclavable	Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts. For two slab gel 10 x 8 cm, include buffer chambe safety lid with cables two alumina plates, 10 glass plate, 2ten well 1 mm thick comb, 4 spacers of 1 mm thickness, description – electrode assembly, ceramic plate, glass plate, spacer 0.75mm, silicon sealing cord, spring cups, gel caster. Specification not available. Best specification should be aquired.  Specification not available. Best specification should be aquired.
45	Automatic 10/LT  Electrophoresis power supply  Mini dual vertical Electrophoresis unit  0.2 ml tube with cap autoclavable  0.5 ml tube with cap autoclavable  Individually Ventilated	Co2 absorber+sterile filter  Specification not available. Best specification should be aquired.  This unit can be used with submarine and min vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts, For two slab gel 10 x 8 cm, include buffer chambers safety lid with cables two alumina plates, 10 glass plate, 2ten well 1 mm thick comb, 4 spacers of 1 mm thickness, description – electrode assembly, ceramic plate, glass plate, spacer 0.75mm, silicon sealing cord, spring cups, gel caster.  Specification not available. Best specification should be aquired.  Specification not available. Best specification should be aquired.
44 45 46 47	Automatic 10/LT  Electrophoresis power supply  Mini dual vertical Electrophoresis unit  0.2 ml tube with cap autoclavable  0.5 ml tube with cap autoclavable	Specification not available. Best specification should be aquired.  This unit can be used with submarine and mir vertical electrophoresis unit, can run two unit at, max. output of 300V, 400 mA & 80 Watts, For two slab gel 10 x 8 cm, include buffer chambe safety lid with cables two alumina plates, 10 glass plate, 2ten well 1 mm thick comb, 4 spacers of 1 mm thickness, description – electrode assembly, ceramic plate, glass plate, spacer 0.75mm, silicon sealing cord, spring cups, gel caster, Specification not available. Best specification should be aquired.  Specification not available. Best specification should be aquired.

50	Dryer	Sturdy double wall fabrication, chamber size in mm(WxDxH) approx. 430 x 840 x 910
51	Double Distillation Apparatus Glass	Metallic stand plug and board, Borosil flask cap 5 Itr, Single stage, double stage, triple stage,
52	Referigerator 300 L	Specification not available. Best specification should be aquired.
53	LCD Projector with Laptop	Specification not available. Best specification should be aquired.
54	Sliding Screen For Power Point Projector	Specification not available. Best specification should be aquired.

S/a 19/8/14