

## Laboratory Equipments

Sl. No	Generic Name and Specification	Pack size	Model No.
	Laboratory Equipments		
1	<b>Analytical Balance:</b> Readability: 0.0001g. Max. Load: 1100g. Repeatability: 0.01g. Linearity: $\pm 0.003$ g. Power supply: AC 220-240V, 50/60Hz. Power cord with round three pin top	Set	MC-1000
2	<b>Autoclave:</b> Operating temperature range: 105 - 132°C. Operating pressure range: 0 - 186kPa. Temperature control: Digital, microprocessor controlled. Capacity of chamber: 53ℓ Voltage: 230V 50Hz .	Set	Autoclave 315
3	<b>Hemoglobinmeter,</b> Cyanmethemoglobin method, Display 3-1/2 digit (7 segment LED). Wavelength 540 nm. measuring range g/dL: 0.0 - 30.0mmol/L: 0 - 20.0.M measuring range g/dL: 0.0 - 30.0mmol/L: 0 - 20.0. Power AC adapter(100 - 240 VAC, 50 / 60 Hz)	1	HG-220
4	<b>Bench top Centrifuge:</b> Bench top Centrifuge: Swing out rotor (TS-38C). Bucket: 50ml tube x 2 (3850-02P), 15ml tube x 8 (3815-10P), 5-10ml Blood collection tube x 14 3810M-14P, Microtube x 24 3802-EP24P Maximum speed: 10,000rpm, Maximum RCF 11,740G. Main control: LCD microprocessor controlled. Power supply: AC 220-240V, 50 HZ	Set	Body: Model No.LX-200 Swing rotor: TS-28C. Bucket: 50ml tube x 2 (3850-02P), 15ml tube x 8 (3815-10P), 5-10ml Blood collection tube x 14 3810M-14P, Microtube x 24 3802-EP24P
5	<b>Distillation plant:</b> (mono distiller) with all the required accessories and suitable for bench mounting. Thermostatic low water cut-off. Destillate withdrawal through outlet at the condenser. Evaporator easily accessible for cleaning purposes. economical energy consumption by distillation of the heated cooling water. Throughput: 4 liters/hour. Power supply: 220-240V 50/60Hz.	Set	2001/4
6	<b>Refrigerator with glass door</b> for storage of laboratory reagents: Capacity: 489 Liters. Temperature Range: 0 - 10° C. Temp. Accuracy: $\pm 0.3$ at 4°C. Temp. Controller: Digital P.I.D. controller. Display: Dual LED display. Power supply: AC 220V-240V, 50Hz. Power cord with round 3 pin top and appropriate Voltage stabilizer	Set	MPR-514

7	<b>Laboratory Freezer.</b> Vertical type with microprocessor controlled temperature regulation with digital display. Temperature Range: -20 to -40°C. Capacity: 369 Liters. Power: 220-240V, 50/60Hz. Should be supplied with appropriate storage racks with individual storage compartments.		MDF-MU339HL PW(2 pcs/set)	MDF-03SC-
8	<b>Microscope:</b> Trinocular upright microscope with Epi fluorescent attachment bright field, dark field and phase contrast applications. LED illumination. Universal condenser. Nosepiece - standard 5 positions. Eyepieces - 10X with Field of view greater than 22mm with diopter adjustments. Objectives – X Line objectives 10x; 20x, 40x and 100x (Oil immersion). <b>Image acquisition &amp; analysis:</b> HD Digital camera - 5 megapixel (EP50 camera and WLAN adaptor), with necessary image acquisition & measurement and analysis software and cables. Computer system for image capture & analysis – Intel i7 or higher processor, 1TB Hard disk, 8 GB Ram, 4 GB graphics card, 27” ultra-high definition 4K monitor, Windows 10 OS and high quality colour printer. Power supply: AC 220V-240V/50 - 60 HZ	Set	BX53 & EP50	
9	<b>PHOTOMETER:</b> Display, high resolution graphics LCD with backlight. Light Source: Quartz-halogen lamp 12V/20W Wavelength: 340, 405, 492, 510, 546, 578, 630, 670nm Photometric Range: 0 - 3.0 OD. Measuring volume: 32uL, Minimum Aspiration Volume 200 uL, Temperature Control: 20°C- 40°C in steps of 1°C. Built-in daily and monthly quality control and thermal printer Interface: USB interface to PC, USB interface to external printer, Port for external keyboard . Power supply: 18 V DC, 70 W, 100/240 V, 50 - 60 H with UPS backup.	Set	Chem7	
10	<b>Vortex mixer,</b> Speed Range: 0 - 3000 RPM. Operation Mode: Touch on and constant on Head: Rubber Mixing Cup. Power supply: AC 220V-240V, 50Hz. Power cord with round 3 pin top	1	SA8	
11	Micropipette, autoclavable (2 – 20µL)	1	00-NPP-20	

12	Micropipette, autoclavable (10 – 100µL)	1	00-NPP-100
13	Micropipette, autoclavable (20 – 200µL)	1	00-NPP-200
14	Micropipette, autoclavable (100 – 1000µL)	1	00-NPP-1000
15	Micropipette, autoclavable (1000 – 5000µL)	1	00-NPP-5000
16	<b>Biosafety cabinet</b> Class II type A2. Main control: Full digital microprocessor control with LCD digital display. Airflow: should be 70% recirculation 30% exhausted. Filters: Should have 0.3 micron 99.9% efficiency and HEPA should be protected by a perforated metal diffuser covering the top of the work zone. Work access opening should be 8 inches (203mm) high. Cabinet should be easily fumigated employing an established procedure. Sound level shall be no more than 67 dbA measured 15 inches (381mm) above the work tray and 12 inches (305mm) in front of viewing window. Illumination: Mounted Fluorescent lighting with UVG lamp. Utility: Two gas valve/service couplings, three or four (230VAC) internal electrical circuits. Cabinet shall be easily converted to a free-standing console model with the addition of the optional base support stand. Power supply: AC 220V- 230V, 50HZ Power cord with round 3 pin top	Set	SC-1302A2
17	<b>iLED Fluorescence Microscope</b> , Objectives: Plan-Achromat 10x, 20x, 40x, 100x oil Condenser: N.A. 1.25 Abbe condenser, Stage: Mechanical stage with slide holder. Focusing: Coaxial coarse/fine focus, Illumination: Brightfield LED illumination. Power supply: AC 220V- 230V, 50HZ	Set	ZEISS Primo Star iLED
18	<b>HAEMATOLOGY ANALYZER:</b> 3-part diff,18 parameter min	Set	XN-350
19	<b>Hot plate &amp; magnetic stirrer:</b> Speed Range: 50 - 1500 RPM. Temperature Range: Ambient to 350°C. Temp. Controller:	1	SD162
20	<b>Incubator</b> Temperature range: Ambient +5 °C to 70 °C. Temperature control: Digital P.I.D. controller. Display: Dual	1	IN75Plus
21	<b>Hot air oven:</b> Temp. Range: Ambient +5 °C to 220 °C. Temp. Control: Digital P.I.D. controller. Display: Dual LED display	1	UN55
22	<b>Microscopes binocular:</b> (for student) Illumination mount, Right-handed (for control), Objectives: 4X, 10X, 40X, & 100X. Eye	Set	CX23
23	<b>Shaker (orbital),</b> Programmable Speed Range: 0 - 500 RPM. Speed controller: Electronic controller. Power supply: AC	1	SSM1
24	<b>Swing roll mixer</b> Speed - 0 to 60, Capacity - 50 to 100 tubes. The roller should have adequate vertical band to ensure	1	SRT6D
25	<b>Water bath Temperature range:</b> Ambient + 5°C to 99°C. Temp. Accuracy: +/-2&#730;C at 37&#730;C. Temp. Controller: Digital P.I.D. controller, 4Zone PID. Display: Dual LED display supplied with lid. Capacity: 20 - 30liters. Power supply: AC 220V-240V, 50Hz.	1	WNB 29

26	<b>Microplate reader:</b> Detection method: Absorbance. Read method: End point, kinetic, linear scanning. Microplate type: 96 well plate. Reading speed: 8 single wavelengths, 18 double wavelength. Measurement system: 8-channel optical system. Wavelength range: 300 to 700nm. Filters nm: 340, 405, 450, 492, 630. Filter capacity: 6-filter capacity wheel. Light source: Tungsten halogen. Shaking: Low, Medium, High and variable speeds. Reading range: Absorbance range. Abs; 0.000 - 4.000. Dynamic range: 0 to 4.0 OD. Optical Density (OD) accuracy: <1% at 2.5 OD typical. Reading speed: 8 seconds interval. Display: large LCD display with touch screen. External printer compatible to reader. Power supply: AC 220V- 230V, 50HZ Power cord with round 3 pin top and suitable voltage stabilizer	1	800 TS
27	<b>Microplate strip washer:</b> Microplate: 96 wells plate washer. Wash programs: Up to 40. Wash cycles Up to 9. Fluid flow rates; variable, 150 - 1000uL/well/s. Dispense volumes: 50 to 450µl in 1 µl increments. Dispensing accuracy: <5% at 300µl. Display: LCD display with touch screen. Automatic internal four buffer switch. Washing-manifold type: 1x8 manifold. Soaking time programmable in minutes and up to 60 seconds. Washing speed: 3 aspirate and dispense cycles >300 µl/well of 96 wells 8 tube manifold till final aspirate time: &#8804;130 seconds. Operating temperature: -10°C to +40°C. Power supply: AC 220V- 230V, 50HZ Power cord with round 3 pin top.	1	50 TS
28	8 channel Multi Channel Pipette, Autoclavable, (5 – 100µL)	1	00-NPM-8S
29	12 channel Multi Channel Pipette, Autoclavable, (5 – 100µL)	1	00-NPM-12S
30	<b>Incubator Temperature range:</b> Ambient + 5°C to 70°C. Temperature control: Digital P.I.D. controller. Display: Dual LED display. Capacity: 75 liters. Power supply: AC 220V- 230V, 50HZ Power cord with round 3 pin top and suitable voltage stabilizer	1	IN75Plus

31	<b>Ultra low Freezer</b> Vertical type with microprocessor controlled temperature regulation with digital display. Temperature Range:- 60 to -86°C. Capacity: 360 Liters. Power: 220-240V, 50/60Hz. Power cord with round three pin top. Should be supplied with appropriate storage racks with individual storage compartments & Voltage stabilizer. Operating environmental condition: - 10 to +40°C. RH >80%.	1	MDF-DU302VX TwinGuard ULT
32	<b>Water bath with and without shaking</b> capabilities Capacity 24L. Temperature range Ambient +5°C to 99.9°C. Temperature stability $\pm 0.25^{\circ}\text{C}$ . Shaking speed From 20 upto 130rpm. Shaking orbit amplitude 20mm. Power supply 230V, 50hz, 1400W	1	SWB24D
33	<b>Vortex mixer</b> Speed Range: 0 - 3000 RPM. Operation Mode: Touch on and constant on Head: Rubber Mixing Cup. Power supply: AC 220V-240V, 50Hz. Power cord with round 3 pin top	1	SA8
34	<b>High Precision UV-VIS Spectrophotometer</b>	Set	PD-3000UV
<b>Total</b>			