

**Department of Zoology**

**List of Instruments 2022**

<b>Sl. No.</b>	<b>Instrument</b>	<b>Specifications</b>
1	Analytical Balance	Capacity 220 gm Minimum Display 0.1mg Repeatability (Standard Deviation) </- 0.1mg Shimadzu ATX224 Linearity ± 0.2mg Stabilization Time*1 Approx. 3.0 seconds Operating Temperature and Humidity Limits 5-40°C20-85%*2
2	pH meter Meter Kit	Cole-Parmer P200-02
3	portable pH Meter	HANNHA
4	Finnpipette F2 Kit 2 (0.2 to 1000µL)	Thermo Scientific 4700880
5	Remi R-8C BL Laboratory Centrifuges	Remi (with 16x15 ml Angle Rotor Head)
6	Portable Lux Meter	0.001 Klux; 0.01 Klux; 0.1 Klux HANNHA
7	Portable Autoclave Stainless Steel 20 Ltr	Size 12x12 by mLabs
8	Digital Incubator (60-100 degree)	Central Scientific
9	Solo Microwave Oven 17 L	IFB (17PM MEC 1, White)
10	Magnetic Stirrer Mixer Stirring Bar Rod Bead set	G LAB B25 (Teflon)
11	0-60 RPM Dancing Shaker	Tarson MC-02
12	4-degree refrigerator	320 Litre with Transparent door Voltas

**AMC/Service/Repairing**

<i>Sl. No.</i>	<i>Item Name</i>
1	BOD incubator
2	Shaker Incubator

**Department of Botany**

**List of Instruments 2022**

<b>Sl. No.</b>	<b>Instrument(s) with details /specification</b>
1.	Orbital Shaker Incubator Brand: Remi; Display: LED; Voltage: 220-240V/Hitech BOD Incubator Temperature range:5 to 75 degree celsius, 5 to 105 degree celsius, 5 to 200 degrees Celsius. Chamber Volume:250L, 350L. 400 & 500 L. (TWO INCUBATORS will be merged into one)
2.	NIKON DSLR D-90 (AF-S-18-105 mm VR kits)
3.	BLUESTAR/CELL FROST -20 Degree Centigrade Refrigerator: Brand: Bluestar; Capacity: 340L (VERTICAL)
4.	Cell Frost 4-degree Centigrade Refrigerator (320 L)
5.	Magnetic Stirrer with hot plate500ml (SMALL) Brand: REMI; 10ML DX, Stirring capacity: 10L
6.	pH Meter GLOBERpH Range: 0 to 14 Type: Digital Compensation: 0-to-80-degree Celsius Type of PH Meter: Portable Resolution: 0.01 pH
7.	Single PAN Balance Aarson Scientific Works
8.	CARL ZEISS TRINOCULAR STEREOZOOM Microscope Model Sterni 508, Axiocam ERC 5S & Computer
9.	Heater
10.	Refrigerator Samsung Double Door(520 L)
11.	Tabletop Centrifuge Benchmark (Small)
12.	ALTIMETER (upto 5000 m) (3020 Trintec 10-inch Aviation Modern Altimeter Instrument -Stuyle Wall Clock)
13.	GARMIN GPS 964s Hand held GPS Navigator
14.	TREE PRUNER (Falcon extendable Long Reach Cut and Hand-Hold Premium Pruner FPLR-26-Falcon)

**AMC/Servicing/Repairing**

<i>Sl. No.</i>	<i>Item Name</i>
1	Microscope

**Department of Physics**

**List of Instruments 2022**

<b>Sl. No.</b>	<b>Item Name</b>
1	Magnetometer
2	Potentiometer (teakwood)
3	Carey-Foster Bridge (teakwood)
4	Digital Multimeter (with LC measurements & 6 and 1/2 digit display)
5	D.C. Power Supply (0 – 5 V)
6	D.C. Power Supply (0 – 20 V)
7	Resistance Box (fractional)
8	Resistance Box (up to 10 K)
9	Back up UPS (600 VA)

**AMC**

<i>Sl. No.</i>	<i>Item Name</i>
1	Copier cum printer (Konica Minolta Bizhub 206)
2	Water Purifier (Aqua guard cooler cum purifier)

**Department of Microbiology**

**List of Instruments 2022**

Name and specification	Brand	Catalogue Number
Gel Rocker (Speed range 10 to 50 RPM with timer display)	Tarsons	Tarson 4080 Rockymax Rocking Shaker
Sanitizer Fogging machine (5 Lit capacity)	Dolphy or equivalent	Dolphy DSDR0115
Filter Wheel for JASCO UV 630 Spectrophotometer	JASCO	

**List of Chemicals 2021**

Sl. No.	Item	Brand	Catalogue Number
1.	Hi Per Bacterial DNA Extraction Teaching Kit (10 reactions)	HiMedia	HTBM009
2.	Hi Per Plasmid DNA Isolation Kit (20 reactions)	HiMedia	HTBM003
3.	Hi Per Cloning Teaching Kit (5 reactions)	HiMedia	HTBM022
4.	Hi Per Transformation Teaching Kit (10 reactions)	HiMedia	HTBM017
5.	Hi Per DOT ELISA Teaching Kit (20 reactions)	HiMedia	HTI015
6.	Hi Per Immunoelectrophoresis Teaching Kit (20 reactions)	HiMedia	HTI005
7.	Hi Per ODD Teaching Kit (10 reactions)	HiMedia	HTI002
8.	Hi PurA Soil DNA Purification Kit (20 reactions)	HiMedia	MB542-20PR
9.	Hi Per Phage Titration Teaching Kit	HiMedia	HTM003
10.	Water for chromatography (LC-MS Grade)	Merck	CAS 7732-18-5
11.	Centrifuge tube (15 ml sterile)	Tarsons	546021
12.	Centrifuge tube (50 ml sterile)	Tarsons	546041
13.	Clicklock microcentrifuge tube 1.5 ml	Tarsons	500010
14.	Clicklock microcentrifuge tube 2 ml	Tarsons	500020
15.	Maxiamp PCR tubes flat lid 0.2 ml	Tarsons	510051
16.	Tarsons Micro Tips 2-200 µl	Tarsons	521010
17.	Tarsons Micro Tips 0.2-10 µl	Tarsons	521000
18.	Tarsons Micro Tips 200-1000 µl	Tarsons	521020
19.	Potassium hexacyanoferrate (III) 100g	Merck	1049730100
20.	Deoxycholate citrate agar	Hi Media	MM065-100G

**AMC/Maintenance/Service of Equipment**

Sl. No.	Instrument	Service required
1	UV Transilluminator (Bangalore Genei)	Repair
2	Vis Spectrophotometer (Systronics)	Repair
3	Ice maker (Blue Star)	Repair

**Department of Chemistry**

**(a) Chemicals, Glassware/Plasticware**

Chemicals: E-Merck-Germany, E-Merck-India, SRL, SD Fine Chemicals, Qualigens, CDH, Loba, Nice, Spectrochem, Sigma Aldrich, HiMedia, Finer, GENEXT Biotech, Thermo-Fischer, GENEI-Bangalore, Local Make (for acids only)

Glassware & Plasticware: Borosil®, Borosil Glass, Ordinary Glass, Tarsons, Polylab

**(b) Laboratory Instrument/ Equipment:**

Sl. No.	Lab Instrument/Equipment	Specification
1.	Digital Colorimeter	Reads: 650A - % T & OD / 653 - OD; Filters: Disc mounted German filters 400, 420, 470, 500, 530, 620, 660, & 700 nm, Readout: 3-digit LCD display; Measurement: a) Transmittance 'T'-0-100% b) OD-0-1.99; Accuracy: %T – ± 1% - OD – ± 0.01; Light Source: LED of infinite life; Detector: Photo to cell; Cuvette: Square cuvette 10 mm path length Opti glass window; Sample quantity: 1 ml; Accessories: Square cuvette, Dust proof cover
2.	Digital Polarimeter	Readout: 5-digit LED display for measurement; Angle of rotation: ±120°; Resolution: 0.01°; Accuracy: 0.02°; PC Software to be provided; IQ, OQ, PQ: to be Provided; Calibration: Factory calibrated with degree or international sugar scale; Light Detection: Electronic sensor; Sample Tube: Glass Teflon tube of 20 cm for organic solution
3.	Polarimeter (research type, 220 MM, Half-shade)	Rotating Half Shade System Measuring Range: Angular scale from 0 to 360 degrees and subdivided to 1 degree to enables direct reading to 0.05, sugar scale in I.S.S. Units Accessories: Spare Polarimeter Tubes 100 mm and 200 mm, Sodium Lamp with power supply, Adjustable tripod stand
4.	Conductivity meter	Readout: 4 digit LED display; Unit of meas.: MHO; Ranges: 0.01μΩ to 200 mΩ in 6 ranges; Six ranges: 200 mΩ , 20mΩ , 2 mΩ , 200 μΩ , 20 μΩ , 2 μΩ; Accuracy: :± 1% ± last 2 digits; Standard cond.: Conductance of 1.000 mΩ; Electrode: Cell K = 1 - PVC sleeved; Accessories: Stand set, Screwdriver and Dust proof cover, Power :AC + battery
5.	pH-meter with combined electrode	Readout: 4-digit LED display; Range: pH: 0 to 14.00, mV: 0 to ± 1.999; Resolution: pH: 0.1, mV: 1; Accuracy: pH: ± 0.02, pH ± 2 least count, mV: ± 0.2%, ± 1 least count; Temp. comp.: 0 to 100°C; Electronic buffer: Equivalent signal output of ideal electrode in solution, Power: AC + battery
6.	Potentiometer	Readout: 4-digit LED display; Ranges: ± 1.999 V; Accuracy: 0.001 Volts; Standard Cell: 1.018 V inbuilt, Stirrer Speed: 500 RPM fixed; Accessories: Electrode clamp, Rod, Teflon magnet, Screwdriver and Dust proof cover, Power: AC + battery
7.	Electronic Weighing Balance	Accuracy: 0.001 gm, Capacity: 200GM/300GM
8.	Rotary Shaker	Variable speed-20 RPM to 300 RPM, 24" x 24" Platform with interchangeable clamps for different capacity of flasks, Max volume 16 litres, Digital display of speed with presetting facility, Shaking amplitude 40 mm
9.	Manual Electrical Melting Point Apparatus	Temp. Range 350°C, Operation Grade: Automatic, Control System: PLC control
10.	Analog Water Bath with Thermostat (6-holes)	Thermostat, 6-Holes, Size 300 x 250 x 100 mm, 8 litres, Material Stainless Steel, Diameter Concentric Rings: 75 mm
11.	Analog Water Bath without Thermostat (6-holes)	6-Holes, Size 300 x 250 x 100 mm, 8 litres, Material Stainless Steel, Diameter Concentric Rings: 75 mm
12.	Student Calorimeter (copper)	Material: Inside Copper, Outer casing Aluminum, Dimensions: 75 mm x 50 mm & 100 mm x 75 mm diameter

**Maulana Azad College, Kolkata**

**Equipments/Instruments/ Chemicals/Glassware/ Software 2022**

Department of Chemistry

Sl. No.	Lab Instrument/Equipment	Specification
13.	Hot Plate with Magnetic Stirrer	Heating Capacity-150, External Dimension- 200×225×185, Model- Q-19, Length- 9×25 mm Heating Capacity-300, External Dimension- 200×225×185, Length- 9×35 mm
14.	Heating Mantle with energy regulator	Capacity 100 ml Capacity 250 ml
15.	Spare Electrodes compatible with Digital Potentiometer Equiptronics-EQ-601; platinum; silver, calomel	Platinum Silver Calomel
16.	Spare Combined electrode compatible with Digital pH meter Systronics-335	Combined electrode for pH-meter
17.	Hot Air Oven (copper)	Temperature Range 5°C above ambient to 250°C, Temperature Uniformity + / - 1°C, LED Display Sensor PT-100, Heating Element: Nichrome wire /Kanthal, Temperature safety as per DIN 12880 Class 3.1, Doors: Solid doors w/ silicone rubber gasket & lock, Shelves: 2 – 3 Stainless steel shelves (Removable), Air Circulation: Forced air circulation, Inner Chamber: 355 x 355 x 355 mm, Vol-45 liter
18.	Ice Maker	20 Kg, storage capacity: 4 kg
19.	Lab Q Water maker	Capacity:10 L/H, Dispensing Flow: 1 - 1.5 L/min, Pure Water Resistivity: 18.2 MΩ
20.	Submersible pump	45 W, 2.8 m lift
21.	Vacuum Desiccator (Glass and Plastic)	Diameter: 6 and 12 inches
22.	Glass Thermometer (Mercury)	(300°C, accuracy 2°C)
23.	Glass Thermometer (Alcohol)	(300°C, accuracy 1°C)

**(c) Accessories, Software, Hardware components of Computers/ Laptops, Teaching Aids:**

Item(s)	Specification/Make
ChemDraw licensed software	PerkinElmer
HyperChem 8 licensed software	Hypercube, Inc.
Hyperprotein	Hypercube, Inc.
Intel Fortran Compiler	Intel
Windows 10 licensed software	Microsoft
Quick Heal Antivirus Internet Edition	Quick Heal
Black-White Laser Printer	HP
Colour Ink tank Printer	Epson

**(d) AMC/ Servicing of Equipments including Scientific Instruments etc.**

Sl. No.	Instrument	Model No.	Make
1.	FTIR	Spectrum-2	PerkinElmer
2.	Fluorescence Spectrometer	LS 55	Perkin Elmer
3.	UV-Visible Spectrophotometer	Lambda 25	Perkin Elmer
4.	Lab Q Water maker	Lab Q	Ion Exchange India Ltd.
5.	High Vacuum Pump		
6.	Desktop Computers (15)	core-i3	HP

**(e) AMC of Water Purifier, Copier Machines**

Sl. No.	Instrument	Model No.	Numbers
1.	Water Purifier	Aqua Guard	2
2.	Xerox /Copier	Konica Minolta Bizhub 206	1
3.	Xerox /Copier	Kyocera Task alfa 220	1

**Maulana Azad College, Kolkata**  
**Equipments/Instruments/ Chemicals/Glassware/ Software 2022**

**Department of Economics**

- |                                       |
|---------------------------------------|
| 1. STATA & EVIEWS (licensed versions) |
| 2. A-4 Digital Slate                  |

Maulana Azad College, Kolkata

Equipments/Instruments/Chemicals/Glassware/Software 2022

## Department of Physics

### List of Instruments 2022

Sl. No.	Item Name
1	0 – 1 V Voltmeter analog – Oxford
2	0 – 20 V Voltmeter digital – Plasma make
3	Hot plate Electrical – 12''x 10''
4	Optical Level Brass
5	Screw gauges full brass
6	Slide calliper – S. S.
7	Stop Watch Analog – Diamond
8	Stop Watch Analog – Racer
9	Spirit Lamp
10	Heating Metal with Flask – 250 ml Heating Metal with Flask – 500 ml
11	Study of Dielectric constant and curic Temperature of ferro electric ceramic – SES Install Dec-01