

LIST OF REQUIREMENTS
(INSTRUMENTS)

DEPARTMENT OF BOTANY
GOVERNMENT GENERAL DEGREE COLLEGE AT KALIGANJI

INSTRUMENTS AND OTHER EQUIPMENTS

Sl No.	Name of Items	Description and Specification of Items
1	Monocular Microscope Model - HM-100 , Brand - Magmaster	Type: Compound light Microscope Optical Tube: Monocular Objectives: 10X and 40 X Eyepieces: 10X LED illumination and battery backup, Moving Condenser, Reflector, Microscope Dust Cover in complete set in thermocoal Packing.
1	Monocular Microscope Model – HL-33 Brand - Weswox	Type: Compound light Microscope Optical Tube: Monocular Objectives: 10X (Wide field) and 40 X Eyepieces: 10X (Wide field) and h15X, Standard Planoconcave mirror; Fixed Square stage 120mm X 120 mm; Two Lens Abbe Condenser N. A. 1. 25 With Continuously Variable Iris Diaphragm And Swing Out Filter H, Reflector- Plano concave mirror 50 mm; Microscope Dust Cover in complete set in thermocoal Packing.
	Monocular Microscope Model – HL-99 Brand - Weswox	Type: Compound light Microscope with three achromatic objectives. Optical Tube: Monocular Objectives: 10X (Wide field) and 45 X and 5X Eyepieces: 10X (Wide field) and h15X, Standard Planoconcave mirror; Fixed Square stage 120mm X 120 mm; Two Lens Abbe Condenser N. A. 1. 25 With Continuously Variable Iris Diaphragm And Swing Out Filter H, Reflector- Plano concave mirror 50 mm; Microscope Dust Cover in complete set in thermocoal Packing.
	Monocular Microscope Model – HL-4 Brand - Weswox	Type: Compound light Microscope with three achromatic objectives(anti-fungal, anti-reflection coated). Optical Tube: Monocular Objectives: 10X (Wide field) and 45 X and 100X (oil immersion) Eyepieces: 10X (Wide field) and h15X, Standard Planoconcave mirror; square stage 120mm x 120mm fitted with detachable graduated mechanical stage for X and Y movement upto 40mm to 75mm; Two Lens Abbe Condenser N. A. 1. 25 With Iris Diaphragm And Swing Out Filter H, Reflector- Plano concave mirror 50 mm; Microscope Dust Cover in complete set in thermocoal Packing.
2	Monocular Microscope Model - SM-100 , Brand - Magmaster	Type: Compound light Microscope Optical Tube: Monocular, Objectives: 10X, 40X and 100 X oil immersion Eyepieces: 10X Included with Mechanical Stage, Moving Condenser, LED illumination and battery backup

		Objectives: 4X, 10X, 40X and 100 X. Microscope Dust Cover in complete set in thermocoal Packing.
3	Monocular Microscope Model- Magnus HB	Type: Compound light Monocular Microscope Optical Tube: Monocular HB Objectives: 10X, 40X and 100 X Eyepieces: 10X and 15 X With Mechanical Stage, Moving Condenser, Mirror, Dust Cover in thermocoal Packing.
4	Magnus Stereoscopic Binocular Microscope Model – MS-24	Type: Biocular Stereo Dissecting Microscope Total Magnification: 2.4x-240x, With inbuilt light stand, complete set in thermocoal packing.
5	Magnus Zoom Stereo Trinocular Microscope Model- MSZ-TR	Type : Zoom Stereo Trinocular Microscope Total Magnification: 2.4x-240x, LED illumination strand from above and from base, with spot light & base light, with dust cover in thermocoal packing.
	Stereoscopic Binocular Zoom Microscope Brand – Weswox Model – SZM-120	Type : Zoom Stereo Trinocular Microscope Magnification: 6.1x-55x with 1.0x objective & 10x eyepiece Objective: 1X Apo chromatic Illumination: LED ring light with 25000 hours or working life along with diffuser to reduces reflexes from high from reflecting Surfaces like metal paint; Phototube: Phototube with integrated documentation port)
6	Laminar Air Flow Chamber Model – RH-58-13 Brand – Rescholar	Type: Horizontal Laminar Air Flow Chamber Size – 90 x 60 x 60 cm. Made of mild steel work bench, covered with 304 grade SS sheet. Microprocessor control, digital display with filter failure alarm, with HEPA filter (99.97-99.99%), FREE filter, digital display, blower, UV light, Manometer with filter failure alarm
7	Simple Microscope Brand - Weswox	Type: Simple Monocular Microscope Eyepieces: 20X and 10 X. With Hand rest, Mirror & Dust Cover in Thermocoal Packing.
8	Stage Micrometer Model – Erma Brand - Japan	Original Erma Stage Micrometer, .001 Division
9	Ocular Micrometer Model – Erma Brand - Japan	Original Erma Ocular Micrometer, 100 Division Scale
10	Pointer Eyepiece Brand - Keshav	Magnification: 10X, in velvet box.
11	Camera Lucida (Prism Type) Model – HLP-3 Brand - Weswox	Specification: Aluminum molding body fitted with prism, adjustable system in box.
12	Hot Air Oven Brand – CENSIA / Keshav	Type: Single Door Hot Air Oven Capacity : 28 Liter

		Power: 1000- 2000 W No. of Shelves required: 3, Digital Display & temperature controller system, Size – 20 x 20 x 32 inner SS chamber, outer MS sheet, duly painted, digital display come temperature controller.
13	Covering Box of Microscope Brand – CENSIA	Specification: Fiber Material transparent 4mm thickness, (For Olympus Microscope CH20i and SZ 51)
14	Electronic Balance Model – EB-600 Brand – K Roy	Capacity: 600 gm Readability: 0.01 gm
15	DSLR Camera (24 MP, (Preferred Brand/Model- Nikkon , Model- D3300)	Specifications: 24 Megapixels, Must include: Lens- 18-55 mm, SD Card, Camera bag.
16. a	Herbarium Press (Wooden type)	Light weight, made of Tick wood, nicely polished with black paint & having straps to tighten it. Size 12”x18”
16. b	Metal Herbarium Press	Deluxe model. Sturdy streamlined unit manufactured from heavy iron sheet. Supplied complete with comfortable handle and tightening device.
17	Gel Electrophoresis unit complete set up (BioRad)	Specification- 1.Horizontal apparatus for buffer (Must include- Spacers, comb, upper lid) ; 2. Power Supply instrument (230V 50 Hz, 300 mA Current Supply), 3.Wires to anode and Cathode.
18	Paper Chromatography Chamber and Papers	Item: Chromatography Chamber made up of glass with compact lid Must include: Chromatography Papers (50 Piece), Clip and Stand.
19	Turbidometer (Model- Systronics 132)	Range- 0- 1000 NTU in 4 Ranges Must include: Flat Bottom Test tubes & Light Shield.
20	Heating Mantle (1000 ml) Make CENSIA	Specifications: Metal Body, Double Phase, Upto 250° C temperature maintained by 3 heat switch, thermostatic control.
20	Refrigerator Strand (Plastic)	Plastic Material for Single door 150-300 L Refrigerator.
21	Turn Table Make CENSIA	The Turn Table base is made of tick wood with polished, turn table is made of brass with two clips to hold slides. Ball bearing is fitted with spindle with the turn table base.
22	Slide Box	Wooden slide box 100 slide capacity in two rows. Two hinges are fitted on back side to open the upper part with polished.
23	Scanner (Preferred Brand/Model- Cannon/Epson)	Specifications: 4800 dpi Flat bed Scanner Scanning bed dimension- atleast 216mm x 356 mm Should be able to scan Legal Page.
24	Monochrome Printer & Scanner (Preferable Brand/Model: Brother DCP-L2541DW)	Specification: Should be able to scan Legal Page. With Network connecting TCP/IP Port; Wifi Connectivity.

25	Digital Microscope Camera	Data Interface USB2.0 (480 Mbit / sec) Brand Weswox White Balance Manual/Auto one-touch Software Display/Film/Video Shutter Electronic Sensor 1/2.5 Inch CMOS,Micron(MT9E001) Sensitivity 1.0 V/ lux-sec (550nm) Scanning Mode Progressive Scanning S N Ratio 43 dB Resolution 3264X2448(8MP) Power Supply DC 5V +/- 5 Percent Pixels Size 1.758X1.75 Micron Operating Temperature 0 ~ 60 Degree Celsius Frame Rate 3fps 3264×2448; 30 fps 640 x 480 Exposure Control 10us-32ms, Auto Exposure Electricity 200 mA
		<p>Specifications:</p> <p>Sensor: CMOS 5MP;Scan: Progressive;Max Resolution:2592×1944 ;Pixels Size: 2.2µm×2.2µm</p> <p>Sensor: ½.5 Inch CMOS Color ;Frame rate:15fps at 2592x1944, 30fps at 1280x720 ;Shutter:Rolling Shutter</p> <p>S/N Ratio: 42.3 dB;A/D: 12-bit parallel, 8-bit R.G.B to PC</p> <p>Spectral Response: 400nm-1000nm (with IR-filter); View of Field: 0.5X reduce lens (80% of eyepiece); Sensitivity:1.4 V/lux-sec at 550nm ;White Balance:Manual/Auto, Temp-Tint Adjustment ;Exposure: Normal Exposure: 0.22-119.37ms, ROI Auto & Manual Long Exposure: 119.37ms~4mins ;Color:Ultra Fine Color Engine</p> <p>Working System:WIFI: Android System; USB: Windows and Linux PC, MAC ;Software Available:Measurement, Snap, Video ;Working Temperature:0°C ~ 50°C</p>
26	Magnifying Glass Make – Keshav	Focal Length: 10-15 cm, Width of Lens: 4 inch, Metal handle.
27	Mercury Thermometer (For Incubator) Make- Omson	Type: Glass rod type. Precision: 0.1°C, Temp. upto 250°C
28	Digital Thermometer with LCD with Wired Probes	Thermometer with LCD Screen with wired probe. Should be able to measure temperature of Fridge and Aquarium.
29	Projector (Model- BenQ)	Specifications: Full HD, 3400 Lumens with wifi, 3 LCD Technology; Resolution upto 1920 x 1080)
30	Wall Mounted Projector Screen Make - CENSIA	Size: 6ft X 4 ft. Wall Mounted. Auto folding.
31	Projector Hanging System (Model- Elcor)	Made up of Metal, should be able to mount on roof to support Projector.
32	Hard Drive 1 TB (Make- Silicon Power 1TB Rugged Armor A80)	Specifications: 1 TB HDD/SSD
33	VGA Splitting sharing switchbox	Resolution : 1920 x 1440, Maximum Transmission Distance: 30 meters With AC/DC Adaptor Input: 100 - 240V AC Frequency: 50 - 60 GHz; Output: 5V DC 1000 mA for converting 1 VGA input into 2 VGA output
34	Lab Jack	

34	LAPTOP (Preferable Model- Lenovo Ideapad)	Specifications: 15.6 inch Laptop with Intel i3 Processor 6 th gen, 4GB DDR4 RAM, 1TB HDD OS- WINDOWS
35	DIGITAL COMPACT CAMERA	SPECIFICATIONS- OPTICAL ZOOM- 35 TO 45 X RESOLUTION- 20 MP (AT LEAST) LI ION BATTERY SD CARD – 16 GB CAMERA BAG
36	Metal Tongs	Made up of steel
37	Metal Tongs for Holding 100 ml Beaker	Made up of steel for holding 100 ml beaker
38	Bathtub for Aquatic plant culture with delivery charge	Material- Porcelin/Enamel coated steel Size- 4ft long X 2 ft wide with depth of 1½ ft Should be able to kept outside without cementing.
39	Gannongs Respirometer	The apperatus consisting of three parts:- (1) The bulb for the respiring material which ends in a smaller bulb at the bottom, the bulb top should be provided with air tight mouth of cork/glass, (2) A graduated manometer fitted with the bulb and (3) a levelling tube connected with the manometer tube by rubber tubing. The whole apperatus is clamped on a stand.
40	Respiroscope	The entire apparatus should be supported with wooden stand and base. Two glassware each with a cylindrical tube like portion for keeping the respiring material which is fitted with airtight cork mouth at the upper end and lower end tapering like pipette with graduation in ml, diameter of the hollow side of tube is 1 cm. Both glassware should be kept side by side on the wooden stand.
41	Vials of class working specimen	Price per vial to be quoted
42	Permanent Slides of Specimens	Price per slide to be quoted
43	Museum Specimen	Price per Jar to be quoted
44	Herbarium Sheets of Plant Pathological Specimen	Per Sheet to be quoted
45	Specimen Jar (Boyum Type)	Made up of glass with plastic cap not less than 5 cm diameter and 15 cm in height
46	Herbarium Sheet (Blank)	Quality material with one side smooth, one side soft, 16 ½ inch x 11 ½ inch in dimension
47	Specimen vial	Round bottle type, With airtight cap, dimension- 3-5 cm in height 3 cm diameter
48	Haemocytometer	
49	Anemometer	Weight - Sensor280 gms,Instrument 500gms; Air Velocity- 0.25-15 mtr/sec (Least Count 0.01); Air Temperature 0-100dig C; Battery 2x9 Volts (6 F 22 Type); Extended Request - 50 mtr/sec,(Least Count 0.1); Operating Temperature- 0-55dig C For Continuous Use 0-100dig C Instantaneous Reading ; Size Carry Case 250 x 210 x 85mm ; Total With Cary Case 1400 gms
50	Soil thermometer	Range- -10 to 50 degree Centrigrade
51	Lux meter	Max. Range : 4,00,000 Lux; Accuracy : ± 5% ± 10d (<10,000 Lux);± 10% ± 10d (> 10,000 Lux); Max Resolution : 0.1 lux / Fc
52	Psychrometer	Accuracy 2%; Display type LCD display; Material Plastic Measures Temperature & Humidity P; Voltage range 0-10 V
53	Hygrometer	Analog; Temp Range 0-100%
54	Rain Gauge	Manual Rain Gauge

55	Printing of Photo in photoplate size A4	Per copy Photo should be quoted; Only digital files of Photos will be provided for printing; Photo should be coloured and high quality and must be printed on A4 Photopaper
55	Distillation Plant Installation Charge including Brass made 3 way Water tap and other required items for installing	Only Distillation Plant (Metal type) and a sink with normal water tap is there which is to be replaced with 3 way water tap (should be provided by vendor who will quote here) and all the required items needed for installation of water tap should be calculated within the quoted price
56	Biological Specimen for Botany	Rate per vial containing One Specimen
57	Camera fitted stereo compound microscope with image analyzer	Rescholar, Zeica, etc

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Laboratory Instruments

Name	Companies	Specifications
Digital Kymograph Machine	Micro Technologies	Kymograph with special heavy duty motor, oil lapped gear systems, speeds from 0.12 mm/Sec. to 640 mm/Sec. in 8 steps, Jerk free running, instantaneous start & stop clutch. Stainless steel spindle with screw lift 15x15cm cylinder, with leveling Screws, pilot lamp, plug & cord. Voltage : 220 V Weight : 7.5 kg Condition : New Source : Electric
Kymograph Recording Drum	Lyzer Kymograph Recording Drum	Lyzer Kymograph Recording Drum: With special heavy duty motor, oil lapped gear systems, speeds from 0.12 mm/sec to 640 mm/sec, in 8 steps, jerk free running, instantaneous start & stop clutch. Stainless steel spindle with screw lift 15 x 15 cm cylinder with leveling screws, pilot lamp, plug & cord.
Student Organ Bath Single Unit Item Code: 012	Pharmacy Instruments	A Perspex organ bath with fine thermostatic temperature controlled has been designed mainly for student's experiments with smooth muscles etc. The bath size 8"x5"x5" with leak proof dovetailed joints, and rests on Stainless steel/metal supports. Supplied with upright, organ & oxygen tubes with platinum tip, frontal writing lever from SS capacity tubing.
Product Name: Naugra Lab Myographic Lever Product Code: PHR0012		Description and Specification for Lab Tenders <ul style="list-style-type: none"> • Naugra Lab Myographic Lever. • Myographic Lever Myographic Lever is used to assist with after load screw and fixing nuts to fit on any Myograph
Product Name: Naugra Lab Hook & weight Product Code: PHR0010		Description and Specification for Lab Tenders Naugra Lab Hook & weight. Hook & weight:- Set 11 gm made of brass.

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Laboratory Instruments

Weswox Senior Rotary Microtome, MT-1090A	Micro Measures & Instruments Arya Nagar, Ambala	Type- Bio-Separation System Section-0.5-60mm Packaging-Plywood Case
Vacuum Embedding Bath	LABEC Laboratory Equipment Pty Ltd	(Ambient +5°C to 100°C) Labec Vacuum Embedding Bath is manufactured with stainless steel. Suitable to heat up paraffin wax for heat therapy. The vacuum embedding bath has two vacuum pots surrounded by water with glass viewing lids and a vacuum gauge per pot. Heating elements are securely embedded at the base of the bath vessel. The temperature is controlled by digital display, temp: controller with indicator, provided with lid and drain cock for the bath.
Borosil 3362-All Glass Double Distillation Unit		<ul style="list-style-type: none"> Electrical Requirement: 230-250 volts Single phase 1.5x2 kw Quartz heater Minimum cooling water requirement: 1 Lit / min Biological Activity: Pyrogen Free With Borosilicate Boiler, Borosilicate Condenser & Quartz Heater, Horizontal Type Output capacity: 2.5 lit/hours
Tarsons 1000 ul Accupipet - Variable Volume Pipette, 030050	Tarsons	Specifications: Accuracy: 0.006 Brand Name: Tarsons Contains: 1 pack contains of 1 piece
Tarsons 200 ul Accupipet - Variable Volume Pipette, 030040	Tarsons	Specifications: Accuracy: 0.006 Brand Name: Tarsons Contains: 1 pack contains of 1 piece
Remi RM-12C Micro Centrifuges (with 10x2 ml Angle Rotor head)	REMI	Features Type of Product : Micro Centrifuges Capacity : 40 Rotor Capacity (ml): 10x2 Type of Head : Angle Rotor head Max. Speed (RPM) : 1600

DEPARTMENT OF PHYSIOLOGY
GOVERNMENT GENERAL DEGREE COLLEGE AT KALIGANJ

Laboratory Instruments

Remi High Speed Homogenizer with 1/8 HP Motor, RQ-127 A/D, Stirring Capacity: 100 ml	REMI	<p>Key features</p> <ul style="list-style-type: none"> Transformer speed regulator. Impeller: Teflon Pestle. Motor: AC/DC 1/8 HP. <p>Product Specifications</p> <p>Shaft Length 275 mm</p> <p>Stirring Capacity 100 ml</p> <p>Shaft Diameter 8 mm</p> <p>Speed Range 300-8000 rpm</p> <p>Item Code RQ-127 A/D</p>
Casio FX-991MS Scientific Calculator	Casio	<p>Two way power</p> <p>401 Functions / Dot Matrix /</p> <p>2-Line Display / 10+2 Digits / Plastic Keys</p> <p>Multi-replay function , Matrix calculations ,</p> <p>Equation calculations , Vector calculations ,</p> <p>Differential calculations , SOLVE function</p> <ul style="list-style-type: none"> Statistics <p>(STAT-data editor, Standard deviation, Normal distribution calculations, Regression analysis)</p> <ul style="list-style-type: none"> Base-n calculations / conversions
Docbel-Braun Postal 1kg Weighing Scale	Docbel	<ul style="list-style-type: none"> Kitchen with Analog Display Measures in: Kg Material: Plastic Maximum Weighing Capacity: 1 kg
Digital Spirometer I	AMD Global Telemedicine	<ul style="list-style-type: none"> AMD-3450 Tests: FVC, SVC, MVV, Pre- and Post-BD USB interface to PC Export compatible with most electronic medical records programs Software: Compatible to Wins 7 or higher.
Permanent Histological Slide		HE stained section of mammalian tissue.
Histological Slide		Unstained section of mammalian tissue.

Equipments

Name	Specifications
<p>Tarsons 10-100</p> <p>Tarsons 20-200 ul Tarsons</p> <p>100-1000 ul Accupipet -</p> <p>Variable Volume Pipette,</p> <p>030040, Pipette, 030050</p>	<p>Specifications:</p> <p>Accuracy: 0.006</p> <p>Brand Name: Tarsons</p> <p>Contains: 1 pack contains of 1 piece</p>
<p>Weswox Senior Rotary</p> <p>Microtome, MT-1090A</p>	<p>Type- Bio-Separation System</p> <p>Section-0.5-60mm</p> <p>Packaging-Plywood Case</p>
<p>Vacuum Embedding Bath</p>	<p><i>(Ambient +5°C to 100°C)</i></p> <p>Labec Vacuum Embedding Bath is manufactured with stainless steel. Suitable to heat up paraffin wax for heat therapy. The vacuum embedding bath has two vacuum pots surrounded by water with glass viewing lids and a vacuum gauge per pot. Heating elements are securely embedded at the base of the bath vessel. The temperature is controlled by digital display, temp: controller with indicator, provided with lid and drain cock for the bath.</p>
<p>Borosil 3362-All Glass</p> <p>Double Distillation Unit</p>	<ul style="list-style-type: none"> Electrical Requirement: 230-250 volts Single phase 1.5x2 kw Quartz heater Minimum cooling water requirement: 1 Lit / min Biological Activity: Pyrogen Free With Borosilicate Boiler, Borosilicate Condenser & Quartz Heater, Horizontal Type <p>Output capacity: 2.5 lit/hours</p>
<p>Remi RM-12C Micro</p> <p>Centrifuges (with 10x2 ml</p> <p>Angle Rotor head)</p>	<p>Features</p> <p>Type of Product : Micro Centrifuges</p> <p>Capacity : 40</p> <p>Rotor Capacity (ml): 10x2</p> <p>Type of Head : Angle Rotor head</p> <p>Max. Speed (RPM) : 1600</p>

Equipments

Remi High Speed Homogenizer with 1/8 HP Motor, RQ-127 A/D, Stirring Capacity: 100 ml	<p>Key features</p> <ul style="list-style-type: none"> • Transformer speed regulator. • Impeller: Teflon Pestle. • Motor: AC/DC 1/8 HP. <p>Product Specifications</p> <p>Shaft Length 275 mm</p> <p>Stirring Capacity 100 ml</p> <p>Shaft Diameter 8 mm</p> <p>Speed Range 300-8000 rpm</p> <p>Item Code RQ-127 A/D</p>
Casio FX-991MS Scientific Calculator	<p>Two way power 401 Functions / Dot Matrix / 2-Line Display / 10+2 Digits / Plastic Keys Multi-replay function , Matrix calculations , Equation calculations , Vector calculations , Differential calculations , SOLVE function</p> <ul style="list-style-type: none"> • Statistics (STAT-data editor, Standard deviation, Normal distribution calculations, Regression analysis) • Base-n calculations / conversions • Logical operations • Complex number calculations • CALC memory • 9 variable memories
Colorimeter. EI 312 OR CYSTRONIC 112	8 filter, digital display, with cuvette
Monocular Microscope Model (Magnus HSA)	

Equipments

Monocular Microscope Model (Students type)	
Monocular Microscope (Olympus/Magnus HB, GB, HSA Model)	
Slide warming table	Stainless steel top (thermostatic control) 18X12
Disposable Razor for microtomy (set of 50 razors) and razor holder	
Sewdick Rafter counting chamber	1ml Capacity, graduation chamber: 50X20 with cover glass

Equipments

Insulated Burette with Stand and Clamp	50 ml capacity
Compass	Standard material used in wildlife studies
Binoculars	Standard material used in wildlife studies
Spotting scope	Standard material used in wildlife studies
Range Finders	Standard material used in wildlife studies

Equipments

Global Positioning System	Standard material used in wildlife studies
Various types of Cameras and lenses	Standard material used in wildlife studies
Crafts and gears	Standard materials used in Fisheries

Sl. No	Name of Item	
1	Generator	Make- Mahindra Powerol Power- 40 KVA; Single phase
2	Generator	Make- Mahindra Powerol Power- 40 KVA; Triple phase
3	Generator	Make- Mahindra Powerol Power- 125 KVA;
4	Ahuja Power Amplifier Model- TZA 4000 EM	Power Output :300W + 300W Max., 200W + 200W RMS at 10% THD ;180W + 180 RMS at 5% THD, 165W + 165W RMS at 2% THD Output Regulation 2 dB, no load to full load at 1kHz ; Input Channels :Mono 6 × Mic 0.6mV/4.7k, 2 × Aux 100mV/470k.Stereo L/R 200mV/100k, Line L/R 1V/50k Frequency Response : 50-15,000Hz ±3dB Signal to Noise Ratio :60dB ; Tone Controls : Bass: ±10dB at 100Hz, Treble: ±10dB at 10kHz ; Outputs : Preamp 200mV/600, Line 1V/1k; Speaker Outputs : 4, 8, 70V & 100V for each zone; Power Supply : AC: 220-240V 50/60Hz DC: 24V (2×12V Car Battery) ; Power Consumption :- AC: 700VA DC: 9A
5	Wall Mounted Speaker (Column) Bosch	Model- LBD 3921/00; Max Power- 36 W, Rated Power- PHC 24W; Effective frequency range- 200- 15000 Hz; Rated Voltage 100 V; Dimension in mm- 850x 153 x 140
6	Auagurd Reviva RO Make- Eureka Forbes	Capacity 8 Ltr; Purifier Type- Electric ; Wall-Mounted; Filter Cartridges – RO,UV,MTDS; C Life Of UV Lamp 5000 Burning Hours; Water Flow Rate 15 Litres/hour ; Input Water Iron 0.3 mg/Litre; Frequency - 50 Hz ; ABS Plastic body; Operating Voltage- 220-240 V; UV Lamp 4 Watts Weight 8.20 kg ; RO Membrane 75 GPD; Product Dimension: 320 x 275 x 410 mm
7	Eureka Forbes Ironil Pre filter	Capacity- 12000 lit.
8	Table Top Microphone	LBB 1950 Philips; Dimension- 40x 100 x235 mm; 2 m cable length; Voltage Range- 12V-48V; Maximum input sound level: 110 dBSPL

9	Coffee Machine	Atlantis, 5 Lt.
10	Wireless collar microphone	Microphone, receiver with transmitter
11	Portable Public Address System	Brand- AHUJA ; Model- WP 220; Item Weight- 3.69 Kg; Package Dimensions- 37.8 x 35.2 x 17.8 cm; Batteries:1 Lithium ion batteries required. Item model number- WP 220 Battery Cell Composition- Lithium
12	Wireless Microphone with powered mixer	Make- Ahuja/Bosch
13	Warning Bell	Connected with AC 220-240 V, Should be loud enough to be audible in 100 mtrs
14	Inverter	Brand- Exide/Luminous; 2 KVA
15	Digital Camera	DSLR; 24 MP Lens- 18-55mm with SD Card 16 GB, camera bag
16	Refrigerator Samsung	190 lit
17	Biomedical Freezer	Temp. range: -40°C to -60°C, Capacity: 200L
18	Biomedical Freezer	Temp. range: 8 °C to -25 °C, Capacity: 200L
19	Refrigerated Centrifuge (REMI)	Pre cooling, Programable compensation for true sample temperature, Acceleration Profiles and Deceleration Profiles 9, PC connectivity with software, Brushless motor with frequency drive, Choice of rpm / rcf setting, max RCF 31150 g , *Lowest Temp. -8°C, Capacity 12x15ml; (CPR-24 Plus) R-244 M
20	Refrigerated Centrifuge (REMI)	Pre cooling, Programable compensation for true sample temperature, Acceleration Profiles and Deceleration Profiles 9, PC connectivity with software, Brushless motor with frequency drive, Choice of rpm / rcf setting, max RCF 37570 g , *Lowest Temp. -8°C, Capacity 24 x 1.5 ML; (CPR-24 Plus) R-248 M
21	Cold Centrifuge (REMI)	R-81 M
22	Cold Centrifuge (REMI)	RM-1214 M
23	Cold Centrifuge (REMI)	RM-1215 M

24	De-Ionizer Plant	Output Capacity: 200Lt. per hour, 2 anion and 2 cation cylinder
25	De-Ionizer Plant	Output Capacity: 100Lt. per hour, 1 anion and 1 cation cylinder

LIST OF REQUIREMENTS

COMPUTER and PERIPHERALS :

Sl. No	Name of Item	
1	Computer Desktop (Preferable brand- hp/dell)	Processor- i7-8550U 8 th Gen; RAM- 8GB DDR4; Storage- 1TB + 128 GB SSD; OS- Windows 10; 4GB intel HD Graphics Card; 650 watt SMPS. Wireless Keyboard and Mouse.
	All in One Desktop (DELL)	Processor- i7-8550U 8 th Gen; RAM- 8GB DDR4; Storage- 1TB + 128 GB SSD; OS- Windows 10; 4GB intel HD Graphics Card
	All in One Desktop (LENOVO)	Processor- i7-8550U 8 th Gen; RAM- 8GB DDR4; Storage- 1TB + 128 GB SSD; OS- Windows 10; 4GB intel HD Graphics Card
2	Laptop	Model- Acer Aspire 3 A315-53; 15.6-inch Laptop ; Processor- 8th Gen Intel Core i3-8130U; RAM- 4GB; Storage- 1TB; OS- Windows 10 Home; Integrated Graphics
3	Laptop with SSD	Processor- i7 8 th generation; Storage- 1TB + 128 GB SSD; RAM- 8GB or 16 GB DDR4; OS- Windows 10; Graphics- 4GB to 8GB NVIDIA Graphics card Preferable brand- hp/dell/lenovo
4	APC UPS	600 VA
5	UPS Battery Backup	UPS 1 KVA Battery Backup
6	Wireless WiFi Adapter	300Mbps
7	Wireless Keyboard and Mouse	(Preferable brand- hp/dell)
8	Hard disk	2 TB; Make- WD
9	Pendrive	16 GB ; Make- HP
10	Projector Dell 1550	Brand- Dell; Model: Dell 1550; Product Dimensions 45.7 x 35.6 x 19 cm; Item model number Dell 1550; Additional Features- 3D Capable, 3800 lumens, Contrast Ratio 2200:1 / 10000:1 (dynamic, Speaker(s) - integrated, Video Modes 480p, 720p, 1080i, 1080p, 480i, 576i, 576p, Lamp Life Cycle Up to 3000 hour(s) / up to 5000 hour(s) (economic mode), Resolution XGA

		(1024 x 768); Included Components:- Power cable , VGA cable (VGA to VGA) , Remote control , AAA Batteries (2) , CD, User's Guide, and Documentation; Number Of Items-1 Display Type DLP Colour Screen, No Optical Zoom1.2 X Max Vertical Resolution- 768 Pixels; Noise Level- 37 dB ; Wattage- 10 Watts; Speaker Output Channel Quantity- 1 ; Total Usb Ports- 2 ; Connector Type- USB.
11	Ceiling mounter for projector	Elcor ceiling mounter for projectors
12	VGA Cable	10 meter
13	Projector Screen	6ft x 4 ft standing/ Wall mounted
14	Antivirus	Quick Hill Total Security Latest Version; 10 User, 3year.
15	Antivirus	Kaspersky Total Security Latest Version; 10 User, 3year.
16	Photocopier	Brand- Cannon; Model- Image Runner – 2206
17	Scanner cum Printer	HP laser jet Pro 400MFP
18	Scanner	Specifications: at least 4800 dpi Flat bed Scanner Scanning bed dimension- at least 216 mm x 356 mm Should be able to scan Legal Page.

Name of the item
Physalia
Pennatula
Taenia solium
Balanus
Julus
Termites
Echinus
Cucumaria
Antedon
Sepia
Gorgonia
Metridium
Tubipora
Alcyonium
Corallium
Aphrodite
Chaetopterus
Balanoglossus
Aurelia
Gorgonia
Limulus
Sacculina
Daphnia
Peripatus
Petromyzon
Myxine
Mystus
Sphyrna

Flat fish
Anguilla
Heteropneustes
Torpedo
Pristis
Chimaera
Gambusia
Exotic carps
Chelone
Trionyx
Hemidactylus
Draco
Hyla
Axolotl
Tylototriton
Varanus
Ophiosaurus
Chamaeleon
Vipera
Naja
Crocodylus
Carapace and plastron of turtle
Skull of Poisonous Snake
Skulls of Guineapig
Skulls of Dog

Disarticulated skeleton of Toad
Disarticulated skeleton of Pigeon
Disarticulated skeleton of Guineapig
Permanent slides of T.S. through pharynx, gizzard, and typhlosolar intestine of earthworm
Permanent slides of digestive system, septal nephridia and pharyngeal nephridia of earthworm
Permanent slides of various stages of meiosis
Permanent slides of Mammalian Skin
Permanent slides of Mammalian Cartilage
Permanent slides of Mammalian Bone
Permanent slides of Mammalian Spinal cord
Permanent slides of Mammalian Nerve cell
Permanent slides of Mammalian Pituitary
Permanent slides of Mammalian Pancreas
Permanent slides of Mammalian Testis
Permanent slides of Mammalian Ovary
Study of permanent slides of Mammalian Thyroid
Permanent slides of Mammalian Parathyroid
Permanent slides of Mammalian Adrenal
Permanent slides of Placoid scale
Permanent slides of Cycloid scale
Permanent slides of Ctenoid scale
Permanent slide of spleen
Permanent slide of thymus
Permanent slide of lymph nodes
Permanent slides of Primitive streak (13 hours)

Permanent slides of Primitive streak (18 hours)
Permanent slides of chick embryo of 72 hours of incubation (Hamilton and Hamburger stages)
Permanent slides of chick embryo of 96 hours of incubation (Hamilton and Hamburger stages)
Permanent slides of different sections of placenta
Permanent slides of life stages of <i>Giardia intestinalis</i>
Permanent slides of life stages of <i>Trypanosoma gambiense</i>
Permanent slides of life stages of <i>Leishmania donovani</i>
Permanent slides of adult and life stages of <i>Schistosoma haematobium</i>
Permanent slides of adult and life stages of <i>Taenia saginata</i>
Permanent slides of adult and life stages of <i>Ancylostoma duodenale</i>
Permanent slides of adult and life stages of <i>Brugia malayi</i>
Permanent slides of adult and life stages of <i>Trichinella spiralis</i>
Permanent slides of <i>Pediculus humanus</i>
Permanent slides of <i>Xenopsylla cheopis</i>
Permanent slides of <i>Cimex lectularius</i>
Photograph of polytene and lampbrush chromosome
Photograph chromosomal aberration in <i>Drosophila</i> and man
Models of fossils

DEPARTMENT OF ZOOLOGY, GGDC AT KALIGANJ

IMMEDIATE REQUIREMENT OF ZOOLOGY