

Department of Zoology
STATE PLAN GRANT

List of items for purchase under State Plan Grant (vide Tender Notice No. 4/17-18, dt. 1/9/17)

1. List of Instruments:

Sl. No.	Name of Items	Specifications
1.	Compound Microscope	<p>Body: Monocular die-cast body, inclinable upto a horizontal position (90°). Magnification:100X ~ 600X. Stage: Plain square stage of 100 X 100 mm, with two clips, mechanical stage (optional). Nosepiece: Triple hole nosepiece with positive click stops for precise and smooth alignment of objectives. Focusing: By coarse & fine focusing knobs. Eyepieces: Huygenian 10x and 15x. Objectives: Hard anti-reflection coated, colour coded Parfocal Achromatic 10x and 40x. Condenser: Built-in Substage Condenser with iris diaphragm. Illumination: Plano-concave mirror in adjustable fork mount. Finish: Grey or black durable acid resistant epoxycoated finish.</p>
2.	Digital Hot Plate	<p>Top Plate size: 18 X 18 cm Top plate material: Ceramic</p>
3.	Haemoglobinometer (Shali's) set	
4.	Micropipette (µL)	1-10, 2-20, 10-100, 20-200, 100-1000
5.	Refrigerator (200-350L)	Samsung
6.	Pipette controller	Material: PP/Silicone; Capacity: 1-100 ML
7.	Micro centrifuge	<ul style="list-style-type: none"> ▪ Independent ON/OFF switch ▪ Fixed speed of 6000 RPM/2000 g ▪ 6 place Rotor for 1.5 ml tubes ▪ 2 place Rotor for 8 x 0.2 ml tube strips

8.	Midi Submarine electrophoresis Unit	<ul style="list-style-type: none"> • Buffer chamber with safety lid with cables. • UV transparent tray 15 x 10 cm, casting gates one each of 1.5mm thick 8 and 15 well comb.
10.	Electrophoresis Power Supply Unit	Compatible with horizontal & vertical electrophoresis gel unit
11.	Gel caster for Submarine electrophoresis Unit	Accommodate 7 x 10cm & 15 x 10cm. gel casting tray for gel casting
12.	UV Trans-illuminator	Facilitate with 200X210 mm/200X240mm filter Wav length: 254nm/312nm/365nm
13.	Mini Dual vertical electrophoresis Unit	Mini Dual electrophoresis unit for two slab gels 10 x 8cm. buffer chamber, safety lid with cables, two alumina notched plates, 10 glass plates, 2 ten well 1 mm thick combs, 4 spacers of mm thickness and dual gel caster
14.	Cell counter	
15.	Sphygmomanometer	
16.	EGG INCUBATOR	<p>EGG Holding Capacity: 100 eggs</p> <p>Humidity Creation: Created in S.S. water reservoir fitted at the bottom</p> <p>Humidity Control: Controlled Through Humidity Control Arrangement</p> <p>Humidity Range: 5% above ambient from 40% to 95% RH at cool temperatures.</p> <p>Temperature Range: Ambient +50C to 700C.</p> <p>Temperature Controller: Microprocessor Based PID Digital Temperature Indicator-cum-Controller</p> <p>Display : Digital LED Display with Set Value (SV) & Process Value (PV)</p> <p>Temp. Accuracy: +10C</p> <p>Tilting Device: Provided with manual tilting device to tilt the tray holding eggs.</p> <p>Power Supply: 220/230 Volts. AC supply</p>
17.	HIGH PRECISION WATER BATH	<p>Capacity: 28 ltrs</p> <p>Heating Load: 1.5 KW (1.0 KW + 0.5 KW)</p> <p>Temperature Range: Ambient +30C to 100 OC</p> <p>Temperature controller: Microprocessor Based PID Digital Temperature Indicator-cum-Controller</p> <p>Temperature Sensitivity: +0.1 OC</p> <p>Temperature Sensor: RTD (Pt-100)</p> <p>Timer In-Built: Digital display in min/hr</p> <p>Alarm: End of cycle buzzer</p> <p>Auto Control: With respect to temp. & time with in-built timer & buzzer alarm</p>

		<p>Temperature Display: LED Display for Set Value (SV) & Process Value (PV)</p> <p>Stirring Device: Available with stirring arrangement with the help of FHP stirrer, as standard accessory.</p> <p>Diffuser Shelf: Heater protective perforated cover made of stainless Steel</p> <p>Regulator: Solid state electronic relay with protective heat sink.</p>
18.	B.O.D. INCUBATOR (HUMIDITY CONTROLLED)	<p>Capacity: 171 ltrs 280</p> <p>Volume : 4 Cuft /6.1Cuft</p> <p>No. of shelves: 6/8</p> <p>Type: Forced Convection Type</p> <p>Freezer Compressor: Hermetically sealed air cooling compressor system</p> <p>Temperature Range: 5OC to 60 OC</p> <p>Accuracy: +1OC</p> <p>Humidity Creation: Humidity generation (Steam Type)</p> <p>Humidity Range: 5% above ambient from 40% to 95% RH at cool temperature</p> <p>Humidity Accuracy: +3% RH</p> <p>Controller: Microprocessor based temperature Data Logger with 9 segments to enable users to control nine different variation and repetition of temperature and humidity according to its conditions.</p> <p>Electric Supply: 220/230V AC, 50/60 Hz</p>
19.	COOLING INCUBATORS	<p>Internal Volume (Litres) : 280/370</p> <p>Number of tray : 3/4</p> <p>Internal Dimensions W x D x H (mm): 660 x 655 x 650 /660 x 655 x 850</p> <p>External Dimensions W x D x H (mm): 800 x 1095 x 1220/800 x 1095 x 1420</p> <p>Temperature Range & Accuracy: 0°C to 60°C, ± 0.1°C</p> <p>Temperature control: Microprocessor with PT-100 sensor</p> <p>Display: 1" – 7 Segment, Big Size LED</p> <p>Power Failure Alarm: Visual Alarm</p> <p>Door Open Alarm: Audio Visual Alarm in case door open for over one minute</p> <p>Temperature Variation Alarm: Set Temperature $\hat{\pm} 2\hat{\text{A}}^{\circ}\text{C}$, Audio Visual Alarm</p> <p>Illumination: 8 Watts Fluorescent Tube</p> <p>Internal Body Material: Stainless Steel – 304 grade (Standard Models), Stainless Steel – 316 grade (GMP Models)</p> <p>External Body Material: Powder Coated CRCA Steel (Standard Models), Stainless Steel – 304 grade (GMP Models)</p> <p>Insulation: 70 mm minimum for Body & 80 mm for Door, CFC free polyurethane foam</p>

		Noise Level: Less Than 65 db(A)
20.	HEATING INCUBATORS	<p>Internal dimension (W — D — H) mm: 415 x 360 x 355 500 x 400 x 400</p> <p>External dimension (W — D — H) mm: 690 x 500 x 500 780 x 530 x 560</p> <p>Chamber volume (Litres): 80</p> <p>Shelves (Nos) 2</p> <p>Temperature range: RT +5°~65°C</p> <p>Display resolution: 0.1°Temperature stability + 0.5°C</p> <p>Timing range: 1 min to 9999 min</p> <p>Type of heating: Forced air convection</p> <p>Power consumption: 350W</p> <p>Electrical requirement: 220V, 50Hz, Single phase</p>
21.	Vertical Gel electrophoresis system	<p>Number of gels:1–4</p> <p>Precast gels: Ready Gel precast gels</p> <p>Handcast gels: Cast using Mini-PROTEAN spacer plates</p> <p>Gel size (W x L): Precast: 8.6 x 6.8 cm Handcast: 8.3 x 7.3 cm</p> <p>Glass plate size: (W x L)</p> <p>Short plate: 10.1 x 7.3 cm</p> <p>Spacer plate: 10.1 x 8.2 cm</p> <p>Total buffer volume for 2 gels: 700 ml</p> <p>Total buffer volume for 4 gels: 1,000 ml</p> <p>Typical run times for SDS-PAGE: 35–45 min (at 200 V constant)</p> <p>Recommended power supply: PowerPac Basic or PowerPac HC (High Current)</p> <p>Dimensions (W x L x H): 12 x 16 x 18 cm</p>
22.	Wide Mini-Sub Cell GT Cell	<p>Cell size (W x L x H): 17.8 x 25.5 x 6.8 cm</p> <p>Gel tray sizes (OD) (W x L): 15 x 10 cm</p> <p>ReadyAgarose gels accommodated: Yes, wide mini and 96 Plus formats</p> <p>Sample throughput: 10–60</p> <p>Base buffer volume: ~650 ml</p> <p>Buffer recirculation: No</p> <p>Bromophenol blue migration: ~4.5 cm/hr (at 75 V)</p>
23.	Neubauer Haemoytomter	Mirror based

24.	Computer	Processor- i5 5 th generation HDD- 1TB RAM-4 GB OS- Windows 10 With DVD R/W Drive Monitor – LCD Power backup-UPS
25	Hard top deep freezer	200 lt capacity, temp. Range: -18°C, Inner cabinet: anodised stucco aluminium, puff thickness 65 mm, 1 basket, refrigerant: R134 A
26	Upright microscope	Phase Contrast, Fluorescence (Blue/Green Excitations), Simple Polarized Light, Bright field, dark field, Revolving Nosepiece, Standard Type (MIN. 5 position), Mechanical Stages with Right-Hand Control (X: 76 mm, Y: 52 mm), Abbe Condenser, Observation Tubes-trinocular
27	Camera	Compatible to the microscope, 5 megapixel color CCD High quality color and fidelity with high pixel resolution for documentation Optimized contrast and color modes for brightfield observations, pixel size 3.45x3.45 /2.2 x2.2 micrometer,
29	Software	Compatible to the microscope & camera

2. Glass wares: Borosil (R)

3. Plastic wares: Tarsons

4. chemicals: Himedia, Merck, SD fine, SRL

5. List of Specimens, Models & Slides:

(i) Specimens:

Sycon,
Neptune's cup,
Physalia,
Obelia (Microscopic and macroscopic),
Millepora,
Tubipora,
Corallium,
Aurelia,
Gorgonia,
Pennatula,
Fungia,
Meandrina,
Madrepora,
Aphrodite,
Heteronereis,
Sabella,
Sircula,
Bombyx,
Termite queen,
Dentalium,
Doris,
Helix,
Ostrea,
Nautilus,
Clypeaster,
Pinctada,
Balanoglossus,
Pristis,
Chimera,

Exocoetus,
Echeneis,
Anguilla,
Hippocampus,
Tetradon,
Flat fish,
Alytes,
Chelone,
Trionyx,
Varanus,
Uromastix,
Ophiosaurus,
Baungarus,
Zamenis,
Crocodylus,
Funambulus

(ii) Model:

Septal Nephridium of earthworm,
Pharyngeal nephridia of earthworm,
Digestive system of earthworm,
Carapace,
Plastron,
Trilobite,
Archaeopteryx.

(iii) Slides:

T.S. through pharynx of earthworm,
T.S. through gizzard of earthworm,

Typhlosolar intestine of earthworm,
Mitotic stages from onion root tip,
Striated muscle fibre,
Nerve cell,
Cartilage,
bone,
spinal cord,
pituitary,
parathyroid,
thymus,
lymph node,
spleen.

Terms and conditions

1. The authority reserves the right to reject any or all the quotations without assigning any reasons thereof.
2. Equipments should be of a reputable make.
3. Documents to be submitted along with the quotation: Copy of the PAN card, Bank details, Trade License, valid GST certificate
4. The cost of items should be inclusive of all taxes
5. Attach the brochure of the instrument with technical specification