

## **Government General Degree College, Kharagpur-II**

**Quotations are requested for the supply of following items to the Department of Zoology, Government General Degree College, Kharagpur-II**

**[Items must be quoted in the same sequence as they are mentioned below or else the quotation may be cancelled]**

### **Group – A [Instruments]**

#### **Microscopes:**

- Compound Student Microscope – eyepiece 10x, 15x , achromatic objective 10x, 40x/45x, with mechanical stage. With good build quality, detachable LED illumination source.
- Compound Student Microscope – eyepiece 10x, 15x , achromatic objective 10x, 40x/45x, 100x , with mechanical stage. With good build quality, detachable substage LED illumination source
- Simple microscope with 10x, 20x eyepiece
- Trinocular microscope for demonstration (high quality)– 10x, 40x, 100x oil immersion, complete with movable stage, substage illumination source, condenser dust cover etc.
- Digital photo and video recording accessories for microscope
- Inverted microscope – eyepiece 10x, 15x, objectives 10x, 20x, 40x, 60x, with illumination source
- Phase contrast inverted microscope – eyepiece 10x, 15x, objectives 10x, 20x, 40x, 60x with light source

#### **Centrifuges:**

- Small mini centrifuge – for 1.5 ml , 2ml tubes
- Table top centrifuge with digital speed regulator, timer, imbalance detector, brake, safety lid – for 15ml , 50 ml tubes with swing out rotors and complete accessories
- Refrigerated mini centrifuge - for 1.5 ml , 2ml tubes
- Refrigerated mini centrifuge - for 15 ml , 50ml tubes

#### **Colorimeter:**

- Microprocessor controlled colorimeter with 8 filters, 400-700nm

#### **Digital spectrophotometer:**

- Digital spectrophotometer– for student use, Visible range only

- Digital spectrophotometer– high quality for demonstration only, UV-VIS

### **Digital pH meter**

- pH meter with probe – temperature calibration optional
- Portable pH meter – pen type with LCD display

### **Micropipettes:**

- Set of micropipettes - 0.1-10ul, 2-20ul, 20-200ul, 100-1000ul

### **Refrigerators/freezers**

- Double door refrigerator – 275 ltr
- Deep freezer - -20C
- 4C refrigerator with glass display door

### **Digital balance:**

- Coarse balance – readability, repeatability 0.01g (10mg), max capacity 500g to 1kg
- Fine balance – readability, repeatability 0.001g (1mg), max capacity 200g to 500g

### **Histology apparatuses:**

- Rotary microtome with all the accessories including razors etc.
- Hot plate with digital temperature control and display
- Microtome blade
- Staining assembly
- Microtome tissue processing unit
- Paraffin dispenser
- Tissue embedding moulds – 16x16x12mm
- Tissue embedding moulds – 22x22x12mm
- Tissue embedding moulds – 32x25x12mm
- Tissue floating bath

### **Molecular biology instruments:**

- Horizontal mini gel apparatus with accessories
- Horizontal gel apparatus with accessories – 7x7 cm, 10x7cm gel approx
- Horizontal gel apparatus with accessories – 13x13cm gel approx
- Vertical gel apparatus (Mini gel) (SDS-PAGE) with accessories – 8x7cm gel approx.
- Vertical gel apparatus (midi gel)(SDS-PAGE) with accessories – 16x14cm gel approx

- Powerpack – 300v, 200mA
- Powerpack – 200v, 200mA
- Electro Blotting apparatus – for mini gels
- Electro Blotting apparatus – for midi/regular gels
- UV transilluminator – 25x13cm viewing window
- UV transilluminator – college model

### **Limnology instruments:**

- Secchi disc,
- Van Dorn Bottle,
- Water Conductivity measuring device / Conductivity meter
- Turbidity meter,
- PONAR grab sampler

### **Culture equipments:**

- Laminar airflow – 2'x2'x2'
- Laminar airflow – 3'x2'x2'
- Shaker incubator for bacterial culture – 37 C

### **Other laboratory equipments:**

- Sahli's haemoglobinometer
- Sphygmomanometer
- Digitally controlled heating water bath
- Hot air oven – 15"x15"x18"
- Hot air oven – 18"x18"x18"
- Autoclave – 12" dia x 20" height [with auto pressure cut off]
- Autoclave – 14" dia x 22" height [with auto pressure cut off]
- Microwave oven
- Magnetic stirrer with magnetic flees
- Magnetic stirrer with digitally controlled heating top
- Plankton net
- Insect collecting net portable/ butterfly net
- Beating tray
- Water double distillation plant
- Table lamp
- Insect rearing cage -8"x8"x8"
- Magnifying lens 10x, 15x
- Diamond tip pencil for writing on glass
- Spirit lamps

### **Camera/binoculars:**

- Digital camera – minimum 16 megapixel CMOS sensor & 50x or 60x optical zoom
- Binoculars – minimum 12x magnification

## **Group- B [Projectors, computers, peripherals]**

### **Projectors/screens:**

- LCD Projector with WXGA (1200x800) resolution, HDMI connectivity
- Short throw LCD projector, HDMI connectivity
- Projector screen – non motorised
- Projector screen - motorized
- Projector mounting accessories.
- Overhead projector

### **Computers/peripherals [branded models only. No self-assembled units] :**

- Desktop computer – with 4 GB RAM, Core i3 7<sup>th</sup> gen & above processor, minimum 500GB hard disk with genuine windows 10 OS, MS Office, LCD monitor
- Desktop computer – with 8 GB RAM, Core i5 7<sup>th</sup> gen & above processor, minimum 500GB hard disk with genuine windows 10 OS, MS Office, LCD monitor
- Desktop computer – low cost, with genuine windows 10 OS, MS Office
- Laptop - with 4 GB RAM, Core i3 7<sup>th</sup> gen & above processor, minimum 500GB hard disk with genuine windows 10 OS, MS Office
- Laptop - with 8GB RAM, Core i5 7<sup>th</sup> gen & above processor, minimum 2GB graphics, minimum 500GB hard disk with genuine windows 10 OS, MS Office
- UPS
- Flatbed scanner
- Laser printer – black
- Laser printer – colour
- Multi-function printer with scanner
- Anti-virus software
- Microsoft office suit, 2016

## **Group – C [Glass wares , Plastic wares, dissection items etc.]**

**Please quote Prices of glasswares that can be autoclaved along with other low cost alternatives made of borosilicate glass.**

## **Glasswares:**

Haemocytometer

Pipette Graduated Capacity 1 ml

Pipette Graduated Capacity 2 ml

Pipette Graduated Capacity 5 ml

Pipette Graduated Capacity 10 ml

Pipette Graduated Capacity 25 ml

Burettes, Boroflo, Blue screw thread stopcockmade form borosil glass capacity 50 ml

Erlenmeyer, Graduated Narrow Mouth Conical Flask Capacity 25 ml

Erlenmeyer, Graduated Narrow MouthConical Flask Capacity 50 ml

Erlenmeyer, Graduated Narrow MouthConical Flask Capacity 100 ml

Erlenmeyer, Graduated Narrow MouthConical Flask Capacity 150 ml

Erlenmeyer, Graduated Narrow MouthConical Flask Capacity 250 ml

Erlenmeyer, Graduated Narrow MouthConical Flask Capacity 500 ml

Erlenmeyer, Graduated Narrow MouthConical Flask Capacity 1000 ml

Erlenmeyer, Graduated Narrow MouthConical Flask Capacity 2000 ml

BOD bottle – 125ml with interchangeable stopper

BOD bottle – 300ml with interchangeable stopper

Couplin jar (ordinary glass) 5 /10 slides

Measuring Cylinder Hexagonal Base With spout Capacity 25 ml

Measuring Cylinder Hexagonal Base With spout Capacity 50 ml

Measuring Cylinder Hexagonal Base With spout Capacity 100 ml

Measuring Cylinder Hexagonal Base With spout Capacity 250 ml

Measuring Cylinder Hexagonal Base With spout Capacity 500 ml

Measuring Cylinder Hexagonal Base With spout Capacity 1000 ml

Beaker with Spout And Graduated Capacity 100 ml

Beaker with Spout And Graduated Capacity 150 ml

Beaker with Spout And Graduated Capacity 250 ml

Beaker with Spout And Graduated Capacity 500ml

Beaker with Spout And Graduated Capacity 1000 ml

Beaker with Spout And Graduated Capacity 2000ml [borosil]

Reagents Bottle Plain Narrow mouth With Flat Head Interchangeable stopper – 125ml

Reagents Bottle Plain Narrow mouth With Flat Head Interchangeable stopper – 250ml

Reagents Bottle Plain Narrow mouth With Flat Head Interchangeable stopper – 500ml

Reagents Bottle with wide mouth screw cap – 125ml

Reagents Bottle with wide mouth screw cap – 250 ml

Reagents Bottle with wide mouth screw cap – 500ml  
Reagents Bottle with wide mouth screw cap – 100ml  
Dropping bottle with rubber tit – 30ml  
Dropping bottle with rubber tit – 60ml  
Dropping bottle with rubber tit – 125ml  
Test Tube Thick wall 15 x 125 mm  
Test Tube Thick wall 18 x 150 mm  
Test Tube Thick wall 15 x 125 Made Of of Soda Glass Pyrex type  
Dropper Made Of Neutral Glass 8” long 5C.C Rubber Tit  
Watch Glass With All Side Edge polished Dia -----50 mm  
Watch Glass With All Side Edge polished Dia -----75mm  
Watch Glass With All Side Edge polished Dia -----100 mm  
Glass slides  
Glass slides with concavity  
Cover Glass Square 18x 18mm  
Cover Glass Square 22x 22mm  
Cover Glass Square 22x 40mm  
Petri dishes – 50mm with lid  
Petri dishes – 100mm with lid  
Specimen bottles 10ml, 20ml, 30ml

**Plasticwares and other items:**

Beakers , propelyene – 50ml  
Beakers , propelyene – 100ml  
Beakers , propelyene – 250ml  
Beakers , propelyene – 500ml  
Beakers , propelyene – 1000ml  
Burettes, with transparent acrylic body and leak proof stop cock – 25ml  
Burettes, with transparent acrylic body and leak proof stop cock – 50ml  
Burettes, with transparent acrylic body and leak proof stop cock – 100ml  
Retort Stand With Clamp Made Of Polythene  
Pipette Stand Vertical  
Test tube racks  
Multi stand for 5ml, 15 ml, 50 ml tubes  
Disposable petridish -35mm  
Disposable petridish – 60mm  
Disposable petridish – 100mm

15ml conical tubes with screw cap  
50ml conical tubes with screw cap  
1.5ml microcentrifuge tubes  
2ml microcentrifuge tubes  
Carboy with stop cock – 10ltr  
Carboy with stop cock – 20ltr  
Pipette controller/pump – 2ml  
Pipette controller/pump – 10ml  
Pipette controller/pump – 25 ml  
Slide box  
Staining Bottle 85 x 28mm with screw cap  
Plastic couplin jars  
Spatula – made of stainless steel 8 inch  
Spatula – made of stainless steel 6inch  
Spatula – made of stainless steel 4 inch  
Spatula – made of horn 8 inch  
Spatula – made of horn 6inch  
Spatula – made of horn 4 inch  
Weighing boats  
Parafilm  
Microtips with tip box – 10ul  
Microtips with tip box – 200ul  
Microtips with tip box – 1000ul  
Biohazard bags  
Nitrile gloves – medium  
Nitrile gloves - small  
Nitrile gloves – large  
Thick acid resistant gloves  
Test Tube Holder Made Of Brass Clip Type With Wooden Handle

**Dissection instruments:**

Dissection tray with wax – best quality  
Dissection instrument box – 17 instruments (best quality)  
Scalpel blades  
Scalpel blade holder  
Forceps – 4’’

Forceps – 6’’  
Forceps – 8’’  
Forceps – 15’’  
Forceps – 18’’  
Scissors – 4’’ (straight)  
Scissors – 5’’(straight)  
Scissors – 6’’(straight)  
Scissors – 8’’(straight)  
Scissors – 10’’(straight)  
Scissors – 4’’ (curved)  
Scissors – 5’’(curved)  
Scissors – 6’’(curved)  
Scissors – 8’’(curved)  
Scissors – 10’’(curved)  
Teasing needle all metal  
Tissue forceps  
Fine tissue forceps  
Micro-dissection forceps  
Curved fine point forceps  
Shell crackers/cutters

### **Group – D [Chemicals, reagent, teaching kits]**

1. Chloroform
2. Formalin
3. Methylene Blue solution
4. Saffranin solution
5. Delafield Haematoxylin solution
6. Geimsa solution
7. Leishman Stain solution
8. Crystal Violet solution
9. Phenolphthalin Solution
10. Orcein solution
11. Eosin solution
12. Janus Green B solution
13. Sodium Hydroxide Pellets
14. Sodium Chloride
15. Sodium bicarbonate



16. Sodium carbonate
17. Sodium citrate
18. Sodium potassium tartarate [Rochelle salt]
19. Sodium hydrogen phosphate  $\text{Na}_2 \text{HPO}_4$
20. Potassium chloride
21. Potassium Hydroxide Pellets
22. Potassium hydrogen phosphate  $\text{KH}_2\text{PO}_4$
23. Nitric Acid
24. Hydrochloric Acid
25. Sulphuric Acid
26. Starch
27. Dextrin
28. Glucose
29. Fructose
30. Lactose
31. Maltose
32. Sucrose
33. Dextrose
34. Albumin
35. Globulin
36. Gelatine
37. Peptone
38. Urea
39. Uric Acid
40. Ammonia Solution
41. pH Buffer Solution
42. Xylene
43. Gram Stain Kit
44. Antiserum Kit (AB&D)
45. Folin Ciocalteu
46. Luria broth powder
47. Agar
48. RPMI-1640
49. HEPES
50. PBS tablet/powder
51. Ethanol
52. Methanol
53. Bouin's fixative
54. picric acid
55. Glacial acetic acid
56. Millon's reagent
57. BSA
58. Casein
59. Sudan Black B

60. Ethidium bromide
61. Gel loading dye
62. Protein marker
63. DNA marker
64. Molisch's reagent
65. Benedict's reagent
66. potassium iodide
67. copper sulphate
68. Copper acetate
69. potassium sodium tartrate
70. Fehling's solution A
71. Fehling's solution B
72. Barfoed's reagent
73. Seliwanoff's reagent
74. Resorcinol
75. Iodine solution
76. Lead acetate
77. Tannic acid
78. Phenyl hydrazine hydrochloride
79. Coomassie Brilliant Blue G-250 dye (Bradford reagent)
80. Ninhydrin reagent
81. Sakaguchi reagent
82.  $\alpha$ -naphthol
83. Sodium hypochlorite
84. Bromine water
85. Esbach's reagent
86. Citric acid
87. Glycerol
88. Potassium metasilphate
89. Cupric hydroxide
90. Sudan III Dye
91. DPX
92. Glycerine
93. Saturated aqueous mercuric chloride
94. Manganous sulphate
95. Sodium thiosulphate
96. Periodic acid-Schiff stain
97. Manganese sulphate
98. Sodium thiosulfate
99. Phenylarsine oxide
100. Potassium bi-iodate
101. alkali-iodide-azide
102. Mercuric chloride
103. Nessler's reagent

- 104. Schaudinn's fluid
- 105. Silver Nitrate
- 106. Staining solution
- 107. Solution for Leishman
- 108. Staining buffer for Giemsa stain
- 109. Dinitro salicylic acid [DNS solution]
- 110. Distilled water

### **Teaching kits:**

- Agarose Gel Electrophoresis Teaching Kit
- Western Blotting Teaching Kit
- Bacterial Growth Curve Teaching Kit
- SDS-PAGE Teaching Kit
- Protein Silver Staining Teaching Kit
- Antibody Capture ELISA Teaching Kit
- Antigen Capture ELISA Teaching Kit
- Blood Grouping Teaching Kit
- Lymphocyte Separation Teaching Kit
- Sandwich ELISA Teaching Kit

### **Group – E [ prepared slides, model of specimens]**

- **Permanent stained slides of** Mammalian skin, Cartilage, Bone, Spinal cord, Nerve cell, Pituitary, Pancreas, Testis, Ovary, Adrenal, Thyroid and Parathyroid, oesophagus, stomach, duodenum, ileum, rectum liver, trachea, lung, kidney
- **Unstained tissue section slides** – as mentioned above
- **Models of following animals** – Noctiluca, Amoeba, Euglena, Entamoeba, Opalina, Paramecium, Plasmodium vivax and Plasmodium falciparum (prepared slides)
  - Cnidarians** –  
*Sycon (T.S. and L.S.), Hyalonema, Euplectella, Spongilla, Obelia, Physalia, Millepora, Aurelia, Tubipora, Corallium, Alcyonium, Gorgonia, Metridium, Pennatula, Fungia, Meandrina, Madrepora,*
  - Helminths** –  
*Fasciola hepatica, Taenia solium, Ascaris lumbricoides*
  - Annelids** –  
*Aphrodite, Nereis, Heteronereis, Sabella, Serpula, Chaetopterus, Pheretima, Hirudinaria*
  - Arthropods** –

*Limulus, Palamnaeus, Palaemon, Daphnia, Balanus, Sacculina, Cancer, Eupagurus, Scolopendra, Julus, Bombyx, Periplaneta, termites and honey bees, Millipede, Centipede, Beetle*

***Onychophora*** –

*Peripatus*

***Molluscs*** –

*Chiton, Dentalium, Pila, Doris, Helix, Unio, Ostrea, Pinctada, Sepia, Octopus, Nautilus*

***Echinodermates*** –

*Pentaceros/Asterias, Ophiura, Clypeaster, Echinus, Cucumaria and Antedon*

***Protochordata***

*Balanoglossus, Herdmania, Branchiostoma, Permanent slide of Herdmania spicules*

***Agnatha***

*Petromyzon, Myxine*

***Fishes***

*Scoliodon, Sphyrna, Pristis, Torpedo, Chimaera, Mystus, Heteropneustes, Labeo, Exocoetus, Echeneis, Anguilla, Hippocampus, Tetrodon/ Diodon, Anabas, Flat fish*

***Amphibia***

*Ichthyophis/Ureotyphlus, Necturus, Bufo, Hyla, Alytes, Salamandra, Rhacophorus*

***Reptilia***

*Chelone, Trionyx, Hemidactylus, Varanus, Uromastix, Chamaeleon, Ophiosaurus, Draco, Bungarus, Vipera, Naja, Hydrophis, Zamenis, Crocodylus*  
*Key for Identification of poisonous and non-poisonous snakes*

***Birds*** - Crow, duck, Owl

***Mammalia***

*Sorex, Bat (Insectivorous and Frugivorous), Funambulus, Loris, Herpestes, Erinaceous.*

- ***Pests*** -*Sitophilus oryzae, Trogoderma granarium, Callosobruchus chinensis and Tribolium castaneum*
- Disarticulated skeleton model of Frog, Varanus, Fowl, Rabbit
- Model of Mammalian skulls – goat, dog

**Group – F [Miscellaneous items]**

- Filter paper
- Chromatography paper
- Capillary tubes
- Fire extinguisher
- Fire blanket
- Safety goggles/UV goggles
- Apron

- First aid kit
- Liquid soap
- Hand sanitizer
- Hand sanitizer dispenser
- Paper towel
- Paper towel dispenser
- Absorbent cotton
- Non-absorbent cotton
- Tissue rolls

### **Group – G [Laboratory Furniture]**

- Specimen display almirah –with glass in front panel
- Steel almirah- large, 6ft x 3 ft x 1.5ft approx
- Steel almirah- small, 4ft x 3 ft x 1.5ft approx
- Instrument storage racks- wooden/ply
- Lab working table complete with water and light arrangements
- Corrosive/flammable reagent storage safety cabinet with lock
- Table – 6'x3.5'x2.5'
- Laboratory working table with water & light arrangement
- Laboratory chair
- Laboratory stool