

OFFICE OF THE PRINCIPAL, MODEL DEGREE COLLEGE, SONEPUR

Letter No 55 / Dt 6.2.19

To
Shri Durga Prasad Maharana
Dy. Secretary to Govt., (Advt./IMU)
I & PR Dept., Govt. of Odisha, Bhubaneswar-751001

Sub: Advertisement for procurement of different items from laboratory equipment fund

Sir,

On the subject mentioned above, Please publish the quotation call notice. The payment will be made as per existing government rate after receipt of the bill. You are requested to publish this advertisement on 08/02/2019, i.e Wednesday in odia daily 'The Samaja' and English Daily "The Indian Express".

Yours' faithfully

D. Mohanty
Principal 5.2.19
Model Degree College
Sonepur

OFFICE OF THE PRINCIPAL, MODEL DEGREE COLLEGE, SONEPUR

At – Janmura, P.O – S. Kalapathar, Dist - Subarnapur

Letter No 55 / MDCS; Dt 6.2.19

QUOTATION CALL NOTICE

Sealed quotations are invited from registered firms / authorized dealers having valid GSTIN, PAN for supply and installation of laboratory equipment, consumables (chemicals, glassware, plant materials, museum specimen, charts etc). Sealed quotations should be marked as "Quotation for supply of laboratory equipment (item wise) at the corner of the envelope.

The complete bidding documents should reach to the undersigned on or before 22/02/2019 by 04.00 PM. The bidders are requested to go through the district website <http://subarnapur.nic.in> for terms and conditions and detailed list of items. The firms can also contact the college office for further details during working hours.

D. Mohanty
Principal 5.2.19
Model Degree College
MDC, Sonepur

Department of Chemistry

Equipment

| Instrument | Specification if required |
|---------------------------------|--|
| BOD Incubator | |
| Digester for COD | |
| Heating mantle | 50 ml, 100 ml and 250 ml |
| Magnetic stirrer with hot plate | 18 X 18cm and Optimum range 200 ⁰ C |
| Cuvettes | Quartz and Glass |
| Hot Air Oven | |
| Vacuum Desiccators | 250 mm |
| High Temperature Thermometer | Up to 500 ⁰ C |
| Vacuum pump | |
| Freeze | 4 – 10 ⁰ C |

Consumables

| Glassware and Plastic ware | Specification if required | Chemicals | Specification if required |
|-----------------------------------|-------------------------------------|-----------------------|----------------------------------|
| BOD bottles | 300 ml | Zinc Chloride | AR grade |
| Paraffin oil | | Acetylacetone | AR grade |
| Oil Bath | 6 mm | Salicylic acid | AR grade |
| Condensers | 19 and 24 joint | Sulfanilic acid | AR grade |
| Round Bottomed Flask | 50, 100 and 250 ml, 19 and 24 joint | p-nitrobenzaldehyde | AR grade |
| Pipette Bulb | | Sodium thiosulphate | AR grade |
| Magnetic bars | Oval shaped, 8 X 30 and 9.5 X 30 | Ortho-phosphoric acid | AR grade |
| Parafilm | 2 X 250 | Benzoic acid | AR grade |
| Water pipes | | Sillica gel for TLC | AR grade |
| Vacuum tubing | ¼ X 5/8 | Diethyl ether | AR grade |
| Carboy with stopcock | 10 liter | Hexane | AR grade |
| Micro tip Box | For 1ml and 5ml | BSA | AR grade |
| Nitrile Gloves | 12", large | Potassium hydroxide | AR grade |
| Micropipette | 1 ml and 5 ml | | |
| Micro tips | 1 ml and 5 ml grad. | | |
| Magnetic retriever | 30 cm | | |
| R.B Stand | For all sizes | | |
| Conical Flask with stopcock | 19 and 24 | | |
| Separating funnel holder | | | |
| UV Safety goggles | | | |

Infrastructure

| Item | Specification if required |
|-----------------------------------|---|
| Chemical Rack | 72"H x 35 ¹ / ₂ "B x 14 ¹ / ₂ "D with 6 adjustable shelves, 40 mm x 40 mm slotted angles grey enamel paint finish |
| Water Connection on working table | Stainless Steel Sink (32" x 42" x 30") |
| Working table | Granite surface, 32"H x 42"B x 30"D, top and storage racks below |

BOTANY DEPARTMENT

Equipment

| Name | Specification | Name | Specification |
|--------------------------|--|-----------------------------------|---------------|
| Mortar and pestle | | Agarose gel electrophoresis units | Small |
| Centrifuge machine | Table top with 10000RPM speeds, 15 and 50 ml tube capacity | Gel casting trays | Small |
| Microcentrifuge machine | Table top with 10000RPM speeds, 1.5 ml tube capacity | Comb | Small |
| Micropipette | 1-20 μ l | Power pack | |
| Micropipette | 20-200 μ l | UV Transilluminator | |
| Micropipette | 100-1000 μ l | Water bath | |
| UV and red laser pointer | | Microwave | |
| Ice box | | Laminar hood | |

Consumables

| Name | Specification | Name | Specification |
|----------------------|---------------|-----------------------|-----------------------|
| Buchner's funnel | | Centrifuge tubes | 15 ml |
| Separating funnel | | Microcentrifuge tubes | 1.5 ml |
| Wilmott's bubbler | | Micropipette tips | 10, 200, 1000 μ l |
| Dropping bottle | | Volumetric flask | 1000 ml, 100 ml |
| Petridishes | | Safranin o | |
| Cavity block | | Xylene | |
| Wooden staining rack | | Canada balsm | |
| Tryptone | | MS media | |

| | | | |
|-------------------|--|-----------------|--|
| Acetocarmine | | Acetone | |
| Calcium carbonate | | Petroleum ether | |

Consumables

| Name | Specification | Name | Specification |
|----------------------|---------------|--|---------------|
| Ethyl ether | | PBS | 100X, 1L |
| Potassium hydroxide | AR grade | Gel loading dye | |
| DCPIP | | Restriction enzymes (Takara) | |
| Sodium bicarbonate | AR grade | Manganous chloride | AR grade |
| Agarose low melting | 100g | Diphenyl amine | AR grade |
| Ethidium bromide | 10 ml | Barium chloride | AR grade |
| TAE | 50X, 1 L | N/K ₂ Cr ₂ O ₇ Solution | |
| Ethanol | | Phosphoric acid | |
| Ammonium thiocyanate | AR grade | N-ferrous ammonium sulphate | |
| Hydrogen peroxide | | pH paper | |
| Benedict's solution | | Ammonium sulfate | AR grade |
| α-naphthol | | Fehling's solution | |
| Sodium carbonate | AR grade | Ammonium hydroxide | AR grade |
| Ninhydrin | | ctdna | |
| Tri chloric acid | | Perchloric acid | |

Infrastructure/ Furniture

| Sl. No. | Name | Specification |
|---------|------------------------------------|---|
| 1. | Water supply to lab and work bench | Stainless Steel Sink (32" x 42" x 30") |
| 2 | Laboratory work bench | Granite surface, 32"H x 42"B x 30"D, top and storage racks below |
| 3 | Almirah | Steel shelving cabinet 1980mm H×486mm D×916mm W excluding leveler, with 4 adjustable shelves made out of 0.7mm thick CRCA for shelf, 0.8mm thick CRCA for doors and back and 0.9mm thick CRCA for other components as per IS513, with door handle, epoxy powder coated 50 microns |
| 4 | Storage Racks | 72"H x 35½"B x 14½"D with 6 adjustable shelves, 40 mm x 40 mm slotted angles grey enamel paint finish |

DEPARTMENT OF PHYSICS

LAB EQUIPMENTS

1. To determine work function of material of filament of directly heated vacuum diode.
Technical specifications- A directly heated diode with base mount and electrode connections. P.O Box, Rheostats, Milliammeter, 10 wire potentiometer with jockey, galvanometer, DC power supply 200-300V, DC power source 6V, standard cell.
2. To determine the wavelength of a laser source using diffraction of single slit and double slit.
Specifications- a laser source with mount, single slit, double slit, convex lens of focal length 1m or above, optical bench.
3. To study V-I characteristics of a pn junction diode and light emitting diode with pn junction diode and LED mounted on board and connected to two terminals, power supply unit(0-3V) for forward bias and (0-30V) for reverse bias i.e. two DC outputs, milliammeter(0-20mA), micro ammeter(0-500 μ A).
4. To determine the hall coefficient of a semiconductor sample.
Technical specifications- power supply-Dual digital(0-20V), 5A with dual DC continuously variable & stabilized voltage display, 3 0.5 digit LED, Ripple less than 25 mV, overload current limiting protection, current 5A continuously variable, 10% to full rating, current display 3 0.5 digit LED
Constant Current Source-Dual display 0-20mADC, Resolution- 10 μ A , Power-220V+10% to 50 Hz AC, 3 0.5 digit LED Digital Gauss meter- Range 200Gauss & 2k Gauss, resolution 0.1 Gauss at 0- 2000 Gauss, 3 0.5 digit LED. Compact design hall effect apparatus. With p-type PBC crystalcoil-400 turns, coil current-405Amp (max). Connection-4m safety socket, U core- 150 \times 130(L \times H), 40 \times 40mm cross-section. Core material- Ferromagnetic, base dimension-360 \times 180 \times 33mm
5. Babinet's compensator only without any other accessories.
6. To determine Boltzmann constant using V-I characteristics of pn junction diode.
Specifications- Boltzmann setup via PN- junction, selector switch at V-I position, Voltmeter Display-3.5 digit 7 segment LED, auto polarity voltage range(0-1.999V) Current Display-3.5 digit ,7 segment Led, current range(0-20mA) Oven with Temp Probe-heating element – 35 ohm, Oven connector 5 pin DIN type, Ambient temp-353K, temp sensor –PT100 output pin-heater pin 4&5 temp. pin 1&2, Transistor NPN type-BC109 PN-junction diode-type IN5402 with connector 4mm plug-in- socket.
7. To study GM counter system. GM stand, end window GM detector, radioactive kit counting Specifications- paralysis time- 1-99.9 sec Resolving time 0.1 sec. Preset time- 1 to 99.9sec.
8. To measure the dielectric constant of a dielectric material with frequency
Specifications-R.F oscillator with variable output power. A variable calibrated capacitor(10-5000PF). A parallel plate capacitor in which a dielectric can be inserted of width (3mm, 4.5mm & 6mm). VTVM/AC multivoltmeter, inductance.
9. To draw BH Curve of Fe using Solenoid and determine energy loss from Hysteresis.
Specification-Deflection Magnetometer, Magnetizing coil of about 100 turns in the ohm of a solenoid, A compensating coil of about 100 turns, a given specimen, DPDT Switch, battery.
10. To measure the resistivity of a semiconductor (Ge with temp by Four-Probe method(room temp to 150 $^{\circ}$ C), specimen Germanium, Four-Probe set up, Oven, constant current generator, Temp sensor to measure temp digitally.

11. To verify law of Malus for plane polarized light.
Specifications-Optical Bench, Halogen Lamp, double convex Lens, Polarizer, Analyzer fitted at the ends of metallic tube with graduated circular scale capable of rotating about its own axis, photo-voltaic cell & microammeter.
12. To determine the specific rotation of sugar solution using Polarimeter.
Specifications-Laurent's half-shade Polarimeter with Polarimeter tubes, Sodium lamp
13. To verify the Stefan's law of radiation and to determine Stefan's constant.
Specifications- Regulated variable dc power supply(0 to 10v dc at 2A) Digital Voltmeter(0 to 20V dc), Digital Ammeter(0-2A), Incandescent lamp.

FURNITURE

1. Steel Almirah(Steel shelving cabinet 1980mm H×486mm D×916mm W excluding leveler, with 4 adjustable shelves made out of 0.7mm thick CRCA for shelf, 0.8mm thick CRCA for doors and back and 0.9mm thick CRCA for other components as per IS513, with door handle, epoxy powder coated 50 microns.)
2. Storage Racks (72”H x 35¹/₂”B x 14¹/₂”D with 6 adjustable shelves, 40 mm x 40 mm slotted angles grey enamel paint finish)

**DEPARTMENT OF MATHEMATICS
LAB EQUIPMENTS**

| Sl. No. | Name of the Item | Item Description | Quantity | Preferred Brand |
|---------|------------------|--|----------|----------------------------------|
| 01 | Desktop | Core i5-7 th Generation / 4GB RAM / 1 TB HDD / DVD R/W / USB keyboard and mouse / Win 10 professional (original) / 3 years onsite warranty with Quick Heal antivirus | 02 | Dell/HP and Equivalent |
| 02 | UPS | 750 VA UPS | 02 | APC / Numeric & equivalent |
| 03 | Printer | Print / Scan / Copy with Duplexing | 01 | Cannon/HP/Brother & equivalent |
| 04 | Projector | Resolution: WXGA (1280X800) Brightness: 4000AL Through ratio: 1.55 – 1.7 Lamp Life: normal 5000 hrs / economic 10000 hrs / smart eco 10000 hrs / lamp save mode 15000 hrs. Interfaces: HDMI X 2 | 01 | Sony / Epson / BenQ & equivalent |

INFRASTRUCTURE

| Sl. No. | Name | Specification |
|---------|---------|---|
| 1 | Almirah | Steel shelving cabinet 1980mm H×486mm D×916mm W excluding leveler, with 4 adjustable shelves made out of 0.7mm thick CRCA for shelf, 0.8mm thick CRCA for doors and back and 0.9mm thick CRCA for other components as per IS513, with door handle, epoxy powder coated 50 microns |

Department of Zoology

| Instrument | Specification |
|-------------------------------|--|
| HAEMOCYTOMETER | |
| SAHLI'S HAEMOGLOBINOMETER | |
| SPHYGMOMANOMETER | |
| AGAROSE GEL ELECTROPHORESIS | Small |
| DIGITAL SPECTROPHOTOMETRY | 200-700 nm |
| WATER BATH | |
| BOD BOTTLE | 300ml |
| PH METER | |
| MICROTOMY | |
| MICROWAVE | |
| MICRO PIPETTE | 1-20 μ L,20-200ML,100-1000 μ l |
| PETRIPLATES | 12mm,15mm,20mm |
| TEST TUBE AND TEST TUBE STAND | |
| BURRETTE AND BURRETTE STAND | |

| Chemicals | Specification |
|---------------------|---------------|
| TRYPTONE POWDER | AR Grade |
| AGAR-AGAR | AR Grade |
| YEAST EXTRACT | AR Grade |
| ANTIBIOTIC DISK | AR Grade |
| GRAM STAIN KIT | AR Grade |
| ETHANOL | AR Grade |
| METHANOL | AR Grade |
| XYLENE | AR Grade |
| SAFRANIN | AR Grade |
| ACETONE | AR Grade |
| DCPIP | AR Grade |
| ETHIDIUM BROMIDE | AR Grade |
| HYDROGEN PEROXIDE | AR Grade |
| PH PAPER | AR Grade |
| AMMONIUM HYDROXIDE | AR Grade |
| GLACIAL ACETIC ACID | AR Grade |
| NITRIL GLOOVES | AR Grade |

| | |
|----------------------|---|
| dil. SULPHURIC ACID | AR Grade |
| Conc. SULPHURIC ACID | AR Grade |
| dil. HCl | AR Grade |
| Conc. HCl | AR Grade |
| POTASSIUM HYDROXIDE | AR Grade |
| SODIUM HYDROXIDE | AR Grade |
| AMMONIUM CHLORIDE | AR Grade |
| Slides | Pharynx, Gizzard and Intestine of Earthworm Whole mount of Euglena, Amoeba, Paramecium |
| Bones | Rabbit, Varanus, Fowl |

Infrastructure

| Item | Specification if required |
|-----------------------------------|---|
| Chemical Rack | 72"H x 35 ¹ / ₂ "B x 14 ¹ / ₂ "D with 6 adjustable shelves, 40 mm x 40 mm slotted angles grey enamel paint finish |
| Water Connection on working table | Stainless Steel Sink (32" x 42" x 30") |
| Working table | Granite surface, 32"H x 42"B x 30"D, top and storage racks below |

TERMS AND CONDITIONS

1. The sealed quotation duly filled and signed in all respect shall reach the undersigned with copies of relevant documents on or before 22/02/2019 by 4.00 PM by speed post / regd. Post / courier failing which the quotation shall be rejected. The authority shall not be responsible for any postal delay.
2. The sealed quotations received incomplete in any respect shall be summarily rejected.
3. The bidders who qualify for the bid will be eligible for commercial comparison and the bidders who do not qualify will have their quotations rejected.
4. The firm is required to enclose copies of valid GSTIN and GSTIN Clearance Certificate, PAN, Authorized Dealership Certificate (mandatory) with the quotation papers.
5. The quoted prices must be according to the concessional rates and taxes applicable for educational institutions.
6. All quotations will be evaluated and compared on the basis of following order / manner:
 - a. Compliance with the instructions and general conditions of the quotation.
 - b. Conformity with the specifications.
 - c. Proof of ability.
 - d. Delivery period.
 - e. Guarantee / warranty / expiry period offered
 - f. Quality / price / past experience.
 - g. Authorization letter from Manufacturer
7. Any dispute arising out of transaction shall be subjected to the jurisdiction of the Sonapur court.
8. Quotations will be opened on 22/02/2019 at 4.30 PM in the Office chamber of the Principal, MDC, Sonapur in the presence of the bidders (if present) and Purchase Committee Members.
9. If selected, the items will be delivered and installed at the college site at the cost of the firm.
10. For further details please contact college office during working hours.
11. The authority is not bound to accept the lowest or any other quotations and reserves the right to waive of any formalities thereof or reject any or all quotations received without assigning any reason thereof.

Sd
Principal
MDC, Sonapur