

Department of Ecology and Environmental Science

Pondicherry University

Puducherry-605014

PU/DEES/SPD/UGC-MRP-Project/Equipment Tender/2012

25.01.2012

Sealed quotations are invited for the purchase of the following laboratory equipments under UGC-MRP project. The quotations can be submitted for one or more equipments. The quotations duly signed and sealed should be submitted to **Dr.Suja P.Devipriya Assistant Professor, Department of Ecology and Environmental Sciences, Pondicherry University, Puducherry-605 014.**

The quotation should be sent by post (Speed/Registered/Courier) only. The price quoted should include all the costs such as delivery, installation, testing etc and also inclusive of all taxes. Warranty terms should be explicitly specified in your quotation. The technical specifications are given below. Last date for receiving quotation is **12.02.2012 by 4.00 PM.**

Name of the required items for UGC-MRP Project:

- | | |
|---|--------|
| 1. UV-Visible single beam spectrophotometer | : 1 no |
| 2. Refrigerator | : 1 no |
| 3. Bacteriological Incubator | : 1 no |
| 4. Hot Plate Rectangular | : 1 no |
| 5. Vertical Autoclave | : 1 no |
| 6. Variable volume Micropipettes as mentioned below | |
| A. 100 µl to 1000 µl | : 1 no |
| B. 500 µl to 5000 µl | : 1 no |

The detailed specifications of the individual equipments are given below:

1. UV-Visible Single Beam Spectrophotometer (with PC and printer): 1No

Single Beam PC operated UV-Visible spectrophotometer, Range: 190-1000 nm with facility for automatic concentration, % transmission, and Absorbance and K Factor measurements. Special software supports multi standard calibration with linear or nonlinear curve fitting for concentration measurements, besides the K-factor method. Operation model should be available for single wavelength, multi wavelength, wavelength scan and time scan. Facility should be provided for 100 sample data storage and interface with any printer.

Wavelength

Range: 200 to 1000 nm

:0.1 nm increment

Accuracy:± 1nm

Repeatability: 0.5 nm

Bandwidth: 2 nm

Photometric

Range: -0.3 to 2.5 A

: 0 to 100 % T

Accuracy: $\pm 0.005A$ at 1A

Repeatability: $\pm 0.002A$ at 1A

Stay light

Less than 0.1 % at 220 nm and 370 nm.

Base line

Automatic baseline correction

Source

1. Tungsten- Halogen Lamp
2. Deuterium lamp.

Measuring Modes

Absorbance, % transmission. Concentration (K- factor: multistandard upto 5 four curve fitting options)

Operation Modes

1. Single wavelength
2. Multi wavelength.
3. Scan
4. Time Scan

Scan Speed

Slow, medium and fast

Sample holder

Automatic 5 position sample changer for 10 nm cuvettes.

Data Processing

1. Peak pick
2. Zoom of spectra
3. Overlaying of spectra
4. 1st to 4th derivatives
5. Averaging of scans
6. Subtraction of two scans
7. Spectrum store/Recall

Computer System:

Pentium Dual core with 500 GB hard disk with 2 GB Ram.

Printer

Laser jet.

Detector

Wide range, solid state silicon photocell.

Data Presentation

Display of graphic and tabular data on computer monitor, permanent data storage on hard disk and printer.

Standard Accessories

2 matched 10mm quartz cuvette.

Power: 230

2. Double door frost free Refrigerator 240 liter capacity with stabilizer and stand: 1 NO

Gross Capacity should be (Litres) : 240

Net Capacity should be (Litres): 208

Refrigerator Capacity should be (Litres) :160

Freezer Capacity should be (Litres) :70

Defrosting System : Frost Free

Air Flow Type: i-SPIN COOL

No. of Doors: 2

Type of Door: Double

Shelves and Boxes

Number of Cabinet Shelves: 4

Number of Freezer Shelves: 2

Number of Refrigerator Door Shelves: 4

Large Bottle Shelf with Spill Guard

Material Used for Shelves

Toughened Glass

Moisture or Humidity Control

Freeze section: Freezer Lamp, quick Freezing Component, Chiller Tray

Power: Power Supply should be (Volts 135-290)

Machine Dimension: Width 560mm, Depth 671mm, Height 1461mm.

3. Bacteriological Incubator: 1NO

Double walled chamber, Inner chamber should be made of stainless steel sheets and outer made of cold rolled mild steel sheet and attractively finished in powder coating. Inter space in between walls must be tightly packed with superior grade pure white glass wool to minimize radiation heat loss. Inner chamber should accommodate easily removable stainless steel perforated trays. Door should have double viewing window to observe the sample placed inside the chamber without disturbing the thermal condition Temperature control by capillary thermostat with air ventilator fitted on both sides. Adjustable air ventilator must be provided at the top. Must be supplied with complete compact control panel accommodating pilot indicating lamps, On/Off switch, thermostat, cord and plug to work on 220/230 volts single phase A/C Supply.

Temperature Range: 37°C to 80°C with an accuracy of ± 1 °C

SL.NO	SIZE (L x D x H)	WATTS	TRAYS
1.	18" x 18" x 18"	400	2

4. Hot Plate Rectangular type : 1NO

Laboratory hot plates - rectangular shape. Body must be fabricated out of thick mild steel duly finished with powder coating. Heater should operate on 220V AC 50Hz single phase. Heat control by three point rotary switch with an indicator lamp.

SIZE	WATTS	Temperature
10" X12"	1 Kw	350 °C

5. Vertical Autoclave: 1 NO

Inner chamber must be made of Stainless Steel and Outer Wall covered by Stainless Steel Sheet. Head made of Mild Steel- S.S. Lid tightened by **radial Locking** System & should be lifted by paddle lifting device provided with

pressure gauge, safety device (Spring loaded), S.S. basket, water level indicator and neoprene rubber gasket. Pressure **15 to 20 (p.s.i. adjustable)**. All system hydraulically tested upto 40 p.s.i as a safety measure. Complete with cord & plug to work on Single Phase 220 / 230 volts A.C. supply.

SIZE	WATTS	Capacity
450X250 mm(10x18")	1.5 Kw	22 litre

6. Variable volume Micropipettes: 1 NO

100 µl to 1000 µl: 1 no



500 µl to 5000 µl: 1no

Ultra light weight & fully Autoclavable, Pipette Piston with highly resistant to heat, acids and alkalies, bleaches, aging, sunlight and abrasion. Viable calibration seal to indicate factory calibration not changed.

TERMS AND CONDITIONS

- 1. As per the university rules no freight or advance towards the cost of items are payable.**
- 2. The envelope carrying the quotation should be super scribed with last date and time of the quotation.**
3. The university has the right to accept or not to accept any quotation and has the right to restrict the quantity, number of items of purchase.
4. The university has the right to reject the quotation that has corrections in the rates and other figures quoted.
5. The supply should be made in the premises of Department of Ecology and Environmental Sciences, Pondicherry University, Kalapet, Pondicherry –14.
6. Indicate actual tax chargeable, since no 'D'Form will be issued.
7. Enclose the relevant catalogue/Manual for all the instruments quoted.

8. If the cost of the instrument exceeds more than one lakhs, an EMD of @ 2.5. % of the cost of the instrument should be given in the name of The Finance Officer, Pondicherry University, Payable at Pondicherry.
- 9 Only original equipment manufacturers are permitted to quote against the requirement. Original equipment manufacturers may, if they so desire, route their tenders/quotations through an authorized Indian agent. In the latter case, the tender must be on the Manufacturers letter head and duly signed by authorized personnel (with name and designation of the original company (Not by the Indian agent).
- 10 The total cost should be quoted for FOB (ex-port, Chennai, India) as well as CIF-Pondicherry, India.
- 11 The University has been granted the benefit or exemption from the payment of the Central Excise Duty and Customs Duty by the Department of Scientific and Industrial Research (DSIR), India, vide their Notification No. 10/97 dt. 01-03-1997.in respect of Scientific and technical instruments, apparatus, equipment including computer
- 12 A clear statement regarding availability of after-sales service and availability of spare-parts for next 5 to 10 years should be included
- 13 The taxes / duties / discounts, if applicable, are to be explicitly and separately shown in the bid and under no circumstances these components shall be added to the basic price and shown as single price. All the components of taxes, if applicable, should be shown explicitly and separately.
- 14 The prices quoted shall remain firm until equipment is supplied to the Pondicherry University.
- 15 **The validity of each quotation should be at least 90 days from closing date of the bid.**
- 16 The offers will not be considered if received after the bid closing date and time
- 17 The university shall not be responsible for delay / loss or non-receipt of tenders by post / courier service

- 18 If an order is placed with the firm, the purchase shall be governed by an agreement as per the University rules in force at this time
- 19 Infra-structural, power and any other requirement for satisfactory installation and commissioning of the whole system must be provided, at least 120 days in advance of the installation to be commenced.
- 20 Complete technical specifications and literature, including process flow, to be included with the quotation. Manufactures of various major parts/equipment must be mentioned explicitly
- 21 Additional terms and conditions may be incorporated in the purchase order to safe guard the interests of the University.
- 22 Warranty: The material covered under the purchase order, when installed, shall be warranted for the quality, workmanship, trouble free operation and performance for a period of **at least 36 months from the date of putting the system into operation** at the Pondicherry University.
- 23 In case of any dispute in respect of the tender, all legal matters shall be instituted within the jurisdiction of the place where the purchaser ordinarily resides

Dr. Suja P. Devipriya
Principal Investigator.