

Pondicherry University
Centre for Pollution Control & Environmental Engineering

Quotation Notice No CPEE/P-9/2012 of 03.03.2012

Sealed quotations are invited for the purchase of the items given in the attached list for this centre, so as to reach the undersigned on or before 14.03.2012, 3 PM. In all major items the necessary specifications have been itemized. When quoting please follow the pattern and indicate how your offer matches item to item.

This notification is subject to the following terms and conditions:

- a) Your tenders must be sealed ones and **our reference and due date must be mentioned on the covers**. ATTACH PAMPHLETS OF THE QUOTED ITEMS WITHOUT FAIL. Quotations without full specifications and without the manufacturer's pamphlets of the quoted items WILL BE CONSIDERED INVALID.
- b) Prices quoted by you should clearly indicate all the taxes/duties applicable. For any item that qualifies for DGS&D rates or any other duty concessions applicable to governmental organizations or educational institutions, this fact must be indicated prominently and such concessional rates must be quoted along with the normal ones.
- c) Make sure that dates, rates etc are correctly put. Avoid overwriting. If in a rare case you have to make a correction, please do initial it (the initial must be by the same person who signs the tender response).
- d) Your responses must reach us by the due time. Please therefore ensure that you send them well in advance by speed post or reliable courier. Alternatively they should be delivered in person. **Late tenders shall not be accepted under any circumstances.**
- e) The items are to be delivered and installed at our premises by you with no extra cost. Payment as per the university's terms would be commenced as soon as the items are received in good condition and installed satisfactorily. No advance payment prior to supply is possible.
- f) All items must accompany a minimum of 1 year warranty (unless larger period is specified) and written commitment that any item if found unusable due to manufacturing defect or past shelf life during the warranty period shall be replaced at no extra cost.
- g) Price validity: The base price quoted by you should be valid against any upward revision for at least 90 days from the date of your quotation.
- h) For any clarification please contact undersigned on e-mail <Prof.S.A.Abbasi@gmail.com>.

Puducherry
Date: 03.03.2012

Prof S. A. Abbasi, Head
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, Pondicherry University
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Center for Pollution Control and Environmental Engineering

List of equipment associated with the Quotation Notice No CPEE/P-9/2012 of 03.03.2012

S. No	Item	Indicative quantity required
1.	<p>UV-Visible Double Beam Spectrophotometer</p> <ul style="list-style-type: none"> a) Wavelength range: 190 – 1100 nm; b) Spectral bandwidth: 5, 2, 1, 0.5nm; c) Wavelength display: ± 0.1nm, d) Wavelength accuracy: atleast ± 0.3 nm; e) Wavelength reproducibility: atleast ± 0.2 nm; f) Power requirement: 230V\pm 10%, 50Hz; g) Path length: 10 mm; h) Built-In Windows Based PC Control; i) At least two Cuvettes j) 4 extra cures,es, k) 2KVA UPS. l) <i>Interface able laptop with</i> Genuine Windows® 7 Home Premium (64-bit), at least 8GB DDR3 RAM, Intel® Core™ i7 Processor 2630QM (2.00Hz, 6MB), at least 750 GB SATA hard disk of speed 5400 rpm, Display 39.6cm LED HD NVIDIA® Geforce™ GT 540M (Optimus) Graphic processor, with at least 2GB DDR3 graphic memory, Bluetooth V3.0. (Samsung NP-RC530-S01IN or equivalent). 	1 No
2.	<p>Microcentrifuge</p> <ul style="list-style-type: none"> a) The maximum speed should be atleast 16000 rpm; b) Max rcf: atleast 17500 'g'; c) WxDxH: about 380x460x305 mm; d) Must have temperature control in the range: -10°C to 40°C or better; e) Dual row rotor with screw-on lid. f) Stepless speed regulator, g) Safety Lid interlocks to prevent cover opening during centrifugation. h) Digital speed meter and 0-15 minutes digital countdown timer. i) Press Switch for quick acceleration to full speed. j) Brushless Induction motor with frequency drive, Stable speed output even under unstable voltage conditions, k) Atleast 7 segments LED display of speed, l) Digital countdown timer, m) Dynamic brake for quick deceleration, n) Imbalance & Inverter fault detection with auto shutdown, o) Alphanumeric LCD display of speed & RCF, p) Selection of 3 acceleration & deceleration profiles, q) Automatic door opening through gas hinges. r) Should be supplied with 2KVA UPS. s) Separately quote for spares and other accessories. 	1 No
3.	<p>Water bath</p> <ul style="list-style-type: none"> a) Double walled stainless steel inside and outside of S.S/Mild steel sheet, finished in powder coating. b) The gap between the outer and inner walls should be insulated with special grade glass wool. c) The top of the bath and concentric rings should be of stainless steel. d) Should have temperature controllable from ambient to 110 °C with a control accuracy of ± 0.5 °C. e) Built in front panel with two pilot lamps, concentric rings on/off switch, wire and plug to work on 230 V AC. f) Chamber size: about 405 x 300 x 150 mm. 	2 No

S. No	Item	Indicative quantity required
	g) Oscillating tray on rollers with variable speed motor, Oscillation speed should have the range of atleast 40 to 140 cycles per minute, h) Should be able to hold test tube or conical flask of 25 to 1000ml capacities.	
4.	Ultra sonicator a) Frequency : 20 - 25 KHZ; Power: 100 – 950 W; b) Capacity: 0.5 – 900 ml; c) Optimal Variable Amplitude lever: 2, 3,8,12,15,18; d) Duty ratio: 0.1 99.99%; e) Supply: 220/110/+_5%; N/W: about 23Kgs , G/W: about 27Kgs.; f) Automatic tuning.	1
5.	Cylindrical oil bath Double walled inner chamber of stainless steel ;Capacity: 1000ml and 500watts Temperture max. 300C;Controlled by thermostat	5
6.	Vortex mixer Variable speed mixing upto 3200rpm;Digital type;Neoprene cup impart vigorous agitation to tubes with touch on/off switch.	1
7.	Hot plate Max Temperature: 450 °C; Top plate: almunium; Shape: Round/Rectangle; Stirrer speed 100 to 1500 rpm Requirement: 120V.	2
8.	Teflon beaker Capacity: (1- 100) ml; Temperature range: (-265°C – 315°C).; Chemical Resistant; Flat bottom	6
9.	UV lamps 24 inches; 20 watts	2
10.	Refrigerator a) Frost free refrigerator, b) 320 L capacity,: with door cooling technology, c) freezable microwave box and one touch ice tray, d) star rating: 5; mechanical temperature control, e) free stabilizer, antibacterial gasket, shelf type – toughened glass, deodorizer – Fresherizer with silver ions.	1
11.	Hot – cold chamber a) Should be of heavy duty robust construction with inner chamber made of stainless steel and outer made of S.S / cold rolled mild steel sheets finished in powder coating. The inner chamber should accommodate stainless steel shelf at adjustable height. Double walled door, provided with Glass Window which should allow inspection of samples without disturbing the inner chamber temperature. b) The inner space between the inner and outer wall should be tightly packed with special grade glass wool or polyurethane foam (PUF) packed in blocks for effective insulation. c) Cooling by a hermetically sealed compressor with cascaded two-stage refrigeration system. Heating by Air heaters for dry heating with heat distributed evenly on the three sides. d) The uniformity of the temperature should be maintained by an air circulation arrangement. e) The control panel with Microprocessor based Digital PID Temperature Controller, Pilot lamp, Air break magnetic contactor, MCB, Mains Switch, Other control switch etc; should be provided. f) Power Supply: 220/230 volts A/C supply. g) Chamber size about 500 x 500 x 500 (mm); h) Temperature range: - 30 °C to +200 °C	1

S. No	Item	Indicative quantity required
12.	Micro Pipette Specifications 1) 0.2 to 2 ul 2) 0.5 to 10 ul 3) 100 to 1000 ul 4) 1 to 10 ml	 2 2 2 2
13.	Mini chopper Specifications: Ac 220V-240V/50Hz; With safety lock function; Easy to clean ,use; Power 100 watts; Powerful stainless steel blade; Press to operate switch; With transparent bowl and lid.	1
14.	Rocker Vacuum pump 300, 1/8 HP, 110 V – 60 Hz, light weight	
15	Solvent filtration assembly Glass funnel 47 mm, 300 ml	
16	Flame photometer a) Microprocessor based instrument b) Should simultaneously analyze Na, K, Li, Ca and Ba in single aspiration of the sample with proper removal of interferences c) Instrument should also be interface able with a printer d) Optional PC compability with RS232C Interface e) Samples data storage facility f) Advanced features like automatic ignition, automatic gas shut off in case of a power failure g) Self ignition through push button h) Linearity at least 2%	1