

**DEPARTMENT OF CHEMISTRY  
ASSAM UNIVERSITY, SILCHAR**  
(A Central University constituted under an Act of Parliament)  
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**NOTICE INVITING TENDER**

No: AU/Chem/SERB/2016

Date: 03-11 -2017

Sealed tenders are invited from Manufacturers/Authorized Dealers having valid PAN and GST for urgent supply and installation of the following item for the Department of Chemistry, Assam University, Silchar. The quotation should be submitted in a sealed envelope superscripted as "TENDER FOR EQUIPMENTS OF SERB PROJECT" addressed to *Dr. Rajib Panchadhayee, PI, Department of Chemistry, Assam University, Silchar - 788 011:*

Item	Particulars of the item	Quantity
1	<b>Rotary Evaporator with accessories</b> (Annexure 1)	01
2	<b>Table top Immersion Cooler</b> (Annexure 2)	01
3	<b>Single Pan Balance</b> (Annexure 3)	01
4	<b>Magnetic Stirrer with Hot Plate</b> (a) Maximum stirring speed-1200 rpm with stepless speed control and good speed stability b) Heating Capacity - 600W c) Hotplate Size -175mm dia. d) Supply – 220/240V,50Hz, A.C e) Hotplate-Should be chemically resistant to acid and alkali f) Top Plate Material – Stainless steel g) Stirring Unit – Should be enclosed so that corrosive fumes do not enter it. h) Controls for both hotplate and stirrer should be provided with suitable indicators. i) Necessary electrical cables should be provided.	02
5	<b>Vacuum Pump</b> (a) Direct Drive, Ultimate vacuum 0.005 mm Hg (tor), capacity 300-500 lit/ min, single stage, 0.5 HP motor, maximum oil capacity 1.5 lit, Warranty:3 yrs.	01
6	<b>Refrigerator</b> (double door, 250 lit)	01
7	<b>UV Cabinet</b> Operation power supply 220 V $\pm$ 20 V, AC (50-60 Hz.), UV Tubes with wavelength 254nm and 365 nm, UV protective window for visual inspection.	01
8	<b>Dimerstat:</b> Single Phase Auto Transformer, 10Amp.	02
9	<b>Mobile Data Management System</b> Windows 10 OS 64 bit, i5 7 <sup>th</sup> generation processor, 8 GB DDR4 RAM, 1 TB HDD, pre installed software like MS Office, etc.	01

### **Important Information**

1. Last date &time of submission: November 27, 2017 12:00 Noon
2. Date &time of opening of quotation: November 27, 2017 2:00 PM
3. Terms of accomplishment of order: 15 days.
4. In case of any modification in specifications / terms and conditions / any clarification to the bid document, it will be hosted in the university website only and the bidders are requested to log in to our website from time to time and no separate notification/corrigendum will be issued in this regard.
5. **The price should include delivery and installation at the Department of Chemistry, Assam University, Silchar.**
6. The rate should be exclusive of taxes and applicable taxes should be clearly indicated.
7. The rates should be quoted along with supporting documents of specifications, technical features, list of users, catalogues and authorized dealership documents (if applicable).
8. Details of availability of after sales support will have to be furnished.
9. Special discount/rebate admissible to Educational Institution/Central University may be specifically indicated in the quotation
10. The university is exempted from paying Customs and Excise duty.
11. After completion of the supply and installation, the firm will submit bills in triplicate for payment, with a certificate of successful installation of the materials from the Head of Department, Department of Chemistry, Assam University, Silchar
12. Tenders not conforming to the terms and conditions and procedure so outlined are liable to be rejected summarily. The specifications mentioned are the minimum.
13. The University reserves the right to reject any, in part or all tender without assigning any reasons thereof.
14. All terms and conditions will be as per Assam University rules, regulations and decisions.

Dr. Rajib Panchadhayee

PI, SERB Project

Assistant Professor

Dept. of Chemistry, Assam University,

Silchar-11, Assam

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## **Annexure 1:**

### **Rotary Evaporator:**

- Instrument should include Rotary Evaporator, Heating bath, Vertical Condenser, 1 Lit Evaporation and 1 lit receiving flask, Solvent trap and all necessary accessories to make it functional.
- **Vertical Glass Condenser with minimum 1500 cm<sup>2</sup> cooling surface or higher for better recovery.**
- Rotation **speed range of 5-300 RPM** (with a control of 1 RPM preferred).
- Manual lift.
- Adjustable immersion angle with Easy exchange of flasks by clamp mechanism with push-out function.
- **Locking Mechanism for Vapor Tube with Color coated display for better safety function.**
- Heating Bath temperature: RT to 180°C with control accuracy of ±1 K, heat output 1300 watt.
- Lock function of heating bath temperature with Safety temperature circuit and Dry Run protection.
- Bath capacity: 3 liters to accommodate Flask size 50 to 3000 ml.
- Warranty : 5 yrs

### **Vacuum Pump:**

- Two stage diaphragm pumps made of PTFE for protection against aggressive solvents.
- Transparent front cover for detection of solvent build up for easy maintenance.
- **Two cylinders with Gas ballast valve.**
- **Input Pressure Minimum: 7 mbar and Max: 1050.**
- Pump rate or flow rate of 1.7 m<sup>3</sup>/h or more with speed range of 1350 to 1650 rpm.
- To be supplied with Vacuum Valve controller to allow for adjusting the set vacuum valve on the manometer.
- Warranty: 3 yrs

### **Chiller:**

- Temperature range upto -10°C
- Reservoir capacity of 4lit(s)(approx)
- Should have Environment friendly CFC free hermetically sealed compressor.
- Should be supplied with 1 met x 2Silicone tubing (8 x 11 mm) with insulation.
- Warranty 3 yrs

**SAFETY: Appropriate protection class as per the rule should maintain.**

### Annexure 2:

- Temp. Range: -85 to + 40<sup>0</sup>C
- Temp. Stability: +/- 1<sup>0</sup>C,
- Temp. Control: r PID,
- Temp Sensor: DIN (1/3A) Pt100,
- Temp. Indication: Digital LCD,
- Cooling Capacity: 340 W at + 20 deg C.
- Refrigeration: Dual stage, Air cooled
- Refrigerant: R23/R404a (no CFC)
- Power supply: 230 V/50 Hz
- Vacuum Jacketed, insulated vessel 2 liter capacity
- Warranty: 3 yrs

### Annexure 3:

- **Should be solid metal base, Reinforced body.**
- **Should have overload protection up to 100kg.**
- **Should give fast and reliable Date and time stamp (ISO/GLP).**
- **Available Internal adjustment, Intuitive interface, 10 built-in applications.**
- Rounded edges and smooth surfaces are easy-to-clean.
- Maximum Capacity: 120 gm
- **Weighing platform dimensions Ø: 120 mm**
- **Readability: 0.001 gm**
- **Repeatability: 0.01 gm**
- **Linearity: 0.002 gm**
- **Setting Time: 1.0 s**
- **Sensitivity temperature drift: 3.0 ppm<sup>0</sup>/C**
- **Weight of balance: 4.6 kg**
- Calibration: Internal Calibration
- Warranty: 3 yrs