

# West Bengal University of Technology

## Tender Form FABRICATION LABORATORY

Notice No: VLSI/FO/10-11/23

Date: 16.03.2011

D.D. No. for the Tender Price :

Address: BF-142, Sector-I,  
Salt Lake City,  
Kolkata-700064

Tele-Fax No: (033) 2334-1034

Phone No.: (033) 2321-1345

# Tender Paper for FABRICATION LABORATORY

Ref: VLSI/FO/10-11/23

dated: 16.03.2011

1. a) Name & Address of the Firm :
  - b) Telephone No:
  - c) Mobile No.:
  - d) Fax No:
2. Name of the items for which the Firm is interested:
3. Name of the Proprietors/partners/directors etc:
4. Trade License No (With Photocopy):
5. Professional License No:
6. Service Tax Registration No (With Photocopy):
7. Additional Information if the party wants to include:
8. Copies of Testimonials/credentials/certificates regarding services/experience etc:

Signature with Stamp

# FABRICATION LABORATORY

Sl.No	Item Description	Qty.
01	<p style="text-align: center;"><b>Cylindrical Annealing Furnace Temp. Range: 1050°C</b></p> <p>Alumina Tube 500 MM Long, 60 MM ID, Quartz Tube 40 MM ID 750 MM long with both end aluminum assembly with gas IN/OUT let, Maximum Temperature 1050 Deg 'C', Thermocouple will be from outer surface of Alumina Tube at centre of Hot zone.</p> <p>Heating Load: 2 KW Max. Control Panel: Temperature Control Through PID Controller with Thyristor Power pack and adjustable pot. A Control panel consisting of Ammeter, PID, MCB, Thyristor with Heat Sink, control Switches, Indicating lamp, K Type Sensor will be from outer surface of Alumina Tube Special feature: The Quartz Tube will have Aluminum Fixture to have Gas in let, Thermocouple In let from one side and gas out let from other side. The Furnace will have Rectangular shape duly insulated with ceramic Fiber Blanket, Kanthal embodied Heating Element will be provided to Heat the Quartz tube(UK make) up to 1050 Deg 'C'. The Rate of heating can be controlled by adjusting through PID or adjustable pot. The pressure gauge and valve is not with in our scope and can be connected at the Gas cylinder end. <b>With Thyristorised Temp. Control Panel - 2KW</b> Control Panel By PID Temperature Controller With Digital Display, Power - 230V, Ammeter &amp; Volt Meter 72X72mm Power Pot, MCB - 15A, HRC Fuse-10A Max. Load Current 20Amps, Input - 4-20 mA</p>	01
02	<p><b>Programmable Spin Coater with Microsoft Windows PC and oil-free vacuum pump and gas inlet system(Nitrogen)</b></p> <p><b>Specification of spin-coater:</b></p> <ul style="list-style-type: none"> <li>● Rotating speed :500 RPM to 6000 Rpm</li> <li>● Speed Accuracy: 99% across the full range</li> <li>● No. of steps and setting: can be programmed to multiple no. of steps</li> <li>● Acceleration /Deceleration rate: programmable in every step</li> <li>● Limiting Acceleration /Deceleration value: 1000 RPM/sec</li> <li>● Display: Real-time display of RPM</li> <li>● Real time display of all program functions in the computer monitor.</li> <li>● Spinning time: Any time can be programmed</li> <li>● Instrument calibration: Automatic</li> <li>● User friendly Microsoft Windows based software</li> <li>● Power supply: 230V AC/50Hz</li> <li>● wattage: 250W</li> <li>● Slide mounting: vacuum suction facility</li> <li>● substrate holder size: upto 2" diameter</li> </ul>	01

	<ul style="list-style-type: none"> <li>● Dimension(LXBXH):17"X 10"X10"</li> </ul> <p><b>Specification of oil-free vacuum pump:</b></p> <p>Power: 220-240V/50,60Hz</p> <p>Max power consumption(W): 190</p> <p>Max current(A): 1.0</p> <p>Max vacuum: 730mm Hg= 97.33KPa= 30Torr</p> <p>Max flow rate: 33 l/min</p> <p>Horse-power : 1/4HP</p> <p>Pole: 4P</p> <p>Net Wt.: 7.6 Kg</p> <p>Gross wt.: 8.6 Kg</p> <p>Portb thread: 5/16"</p> <p>Noise level: 52 dB</p>	
03	<p><b>Muffle Furnace with Thyristor Temp. Control Panel:</b></p> <p><b>Specification:</b>  Laboratory Model - Muffle Furnace Rectangular horizontal electrically operated furnace, is wound with high quality resistance wires fitted in metallic cabinet and insulated with Cerwool Insulation. Outer metal cabinet of heavy gauge dully painted with heat resistance paint specially developed for such equipment. Unit is fitted with thermal fuse which melt and break circuit to the heating element (Safety) when working temp. Exceeded. Sunvic Energy Regulator is fitted for precise controls.</p> <p>Temperature Range: <b>1050°C</b>  Unit Works on <b>230 volts AC single phase.</b>  Temp. Controls: <b>Digital PID Temp. Controller.</b>  Power : <b>230 V, 50 Hz, AC Mains</b></p>	01
04	<p><b>Millipore Consumables:</b>  MILLIPAK GP NON STERILE  PE TANK MILLIPAK FILTER  MX CARTRIDGE 1 MICRON  MX CARTRIDGE 5 MICRON  PROGARD 2S ALONE  QGARD 1  QUANTUM EX  SANITIZATION TABLET 45/pk</p>	01 01 06 06 01 01 01 01

## **General conditions:**

1. The tenderers are required to deposit the tender forms along with relevant papers (mentioned in the form) in sealed cover.
2. The university reserves the right to accept or reject any tender without showing any reason.
3. Tenderers may submit tender papers for all or any number of jobs mentioned in the notice.
4. Tender fee of Rs. 200/- has to be deposited along with the tender papers.
5. All payments should be made through demand drafts in favour of the 'West Bengal University of Technology' payable at Kolkata.
6. The last date of receiving of tender paper in the office of the finance officer is 24<sup>th</sup> March 2011 before 12.00 noon. The paper will be opened on 25<sup>th</sup> March 2011 at 2.00 pm.
7. Incomplete tender shall be summarily rejected.
8. Subcontracting in any form will not be entitled by the university.
9. All legal disputes shall be subject to jurisdiction of Calcutta High Court.