

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR**  
**DEPARTMENT OF CHEMISTRY**

DATED: 07/02/2012.

Kindly send us urgent sealed quotations for the following items. Quotations should be addressed to Dr. J. K. Bera, Chemistry Department IIT Kanpur and must reach on or before Friday, the **10/02/2012**.

Items	Specifications
1. Single Crystal X-Ray Diffractometer	Single Crystal X-Ray Diffractometer with low temperature arrangement with self generated Nitrogen cooling system, Microfocus Source with CMOS detector
2. Microscope with polarizer attachment	<ol style="list-style-type: none"><li>1. Microscope based on Common Main Objective (CMO) optics stain free design.</li><li>2. Zoom range 7.5x to 60x with 1.0x objective &amp; 10x eyepiece.</li><li>3. Eight locking zoom levels.</li><li>4. Objective 1.0x &amp; eyepiece 10x with field of view (FOV) 20.</li><li>5. Resolution of 308 lp/mm.</li><li>6. Transmitted light stand with pol. Attachments.</li><li>7. Additional objective 2.0x to get 120x magnification (optional).</li><li>8. Reflected/Incident LED illumination.</li></ol>
3. 10 KVA On-line UPS	<ol style="list-style-type: none"><li>1. Technology &amp; Topology Fully Microprocessor with PWM technology with IGBTs.</li><li>2. Online Double conversion Type</li><li>3. Input Source Mains/Local Make DG Set ( UPS should be compatible to take input from local DG Set)</li><li>4. Active Power Factor Correction In built design</li><li>5. Input power factor Better then 0.93</li><li>6. Input Frequency Range 46-54 Hz</li><li>7. Output power factor VA at 0.8 power factor output</li><li>8. Input (Voltage)</li></ol>

	<p>160 V to 270 V</p> <p>9. Output (Voltage) 230V +/- 5 % ( both for load and supply variations)(Base Voltage adjustable)</p> <p>10.Frequency 50 Hz +/- 0.1% (Constant frequency Output)</p> <p>11.Waveform (Output) Sine Wave form with TDH less than 3%</p> <p>12.Isolation Transformer Inbuilt double coil wounded type at output</p> <p>13.Transient response Less than 40 MS for 0 to 100% step load change.</p> <p>14.Minimum metering</p> <p>15.Backup available</p> <p>16.Battery low audio alarm.</p> <p>17.Output OK indicator.</p> <p>18.Input/ Output voltage meters.</p> <p>19.Load Utilization Indicator</p> <p>20.UPS on Mains/Battery</p> <p>21.Output frequency</p> <p>22.Inverter efficiency Greater than 94%</p> <p>23.Size As compact as possible.</p> <p>24.UPS type On line (to act as power conditioner as well as Backup)</p> <p>25.Inverter technology Switch mode (PWM with IGBT SWITCHES)</p> <p>26.Battery charger Current limited, maximum voltage equal to 2.33 V/Cell.</p> <p>27.Certifications ISO9001,ISO14001,CE,EMC</p> <p>28.Back up desired Quote for 2 hour Battery system should have full load for specific Period of 2 hr.of the 100% rated capacity.</p> <p>29.Nominal DC Bus of UPS 192V</p> <p>30.Battery type SMF- Vendor has to supply &amp; install at least 100 AH rating batteries.</p> <p>31.Battery make &amp; VAH</p>
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	<p>EXIDE 19200</p> <p>32.Overload capacity (1 hrs) 110% for 60 min. 125% for 10 min. 150% for 1 min.</p> <p>33.Service centre Must be at Kanpur with standby facility</p> <p>34.Noise level &lt;60db at 1 Meter</p> <p>35.Protection MCB, Fast acting Fuse, Electronic Overvoltage, under voltage, short circuit, Battery under voltage protection</p> <p>36.UPS Warranty Period Minimum 2 years</p> <p>37.Battery Warranty Period Minimum 2 years.</p>
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Dr. J. K. Bera

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