

Quotation should be addressed to the **Registrar, HBTU, Kanpur, Uttar Pradesh-208002**. The envelope should be super scribed with **Quotation for TEQIP-III Package Name – “.....”(As Applicable)** . For any query contact to Prof. Onkar Singh (9415114011).

Quotation are invited for procurement of the item as per the details given below-

Sr. No	Package Name	Item Name & Package Code	Specifications	Quantity	Last Date & Time of Submission of Quotation	Quotation Opening Date & Time
1	ME 40	Conduction - Composite cylinder experiment (TEQIP-III/UP/hbti/60)	<p>The apparatus should consists of a pair of M.S. plates, Bakelite, brass/aluminium in series on either side of the heater to form a composite wall and whole unit be mounted on table duly clamped in a frame, which can be viewed through the Perspex sheet. The thermocouple tapings should enable to find out the conductivity and resistance of the composite walls.</p> <p>SPECIFICATIONS:</p> <p>1.Heater- Mica healer of dia. 250 mm.</p> <p>2.Plates-</p> <p>a) M.S. plates of thickness 25mm & dia. 250mm.-2 nos.</p> <p>b) Bakelite plates of thickness 10mm & dia. 250mm.-2 nos.</p> <p>c) Brass/Aluminium plates of thickness 15mm & dia. 250mm.-2nos</p> <p>3.Dimmerstat - 2 A capacity.</p> <p>4.Measurements -</p> <p>a) Voltmeter and an Ammeter to measure input power.</p> <p>b) Multichannel digital temperature indicator to measure temperatures at- various points.</p> <p>3. Mounted on good Table with sun mica top</p> <p>4. Technical manual with standard test results from the unit.</p>	1	02/11/2018 15:00 Hrs	02/11/2018 16:00 Hrs

2	ME 41	<p>Experiment on Stefan's Law, on radiation determination of emissivity</p> <p>(TEQIP-III/UP/hbti/61)</p>	<p>Stefan Boltzman Apparatus: The apparatus should be capable of determining Stefan Boltzmann constant and consist of a hemisphere surrounded by hot water. Hot water is obtained from a water-heating tank. When the blackened disc is ed at the center of hemisphere, heat be transferred into the disc from hemisphere by radiation and its temperature begin to rise, and from temperature raise rate being measured at the intervals of 5 sec., the Stefan Boltzmann constant be determined.</p> <p>SPECIFICATIONS: Water heating tank provided with electric immersion heater. Hemisphere made of copper sheet, 200mm. dia. Surrounded water jacket of 250mm. Dia. Test disc made of copper 20mm. dia. provided with thermocouple at the center. Multichannel digital temperature indicator 0-200 C with 0.1C least counts to measure the temperature of hemisphere and disc. Audible buzzer with timer to ring at every 5 secs. 3. Mounted on good Table with sun mica 4. Technical manual with standard test results from the unit.</p>	1	02/11/2018 15:00 Hrs	02/11/2018 16:00 Hrs
3	ME 42	<p>Heat exchanger - Parallel flow experiment</p> <p>(TEQIP-III/UP/hbti/62)</p>	<p>Experimental setup should have provision for heat transfer from one fluid to another. The apparatus should consist of a tube in tube type concentric tube heat exchanger where hot fluid flows through inner tube and cold water flows over the tube. It should have provision to change the direction of cold fluid flow from parallel flow to counter flow arrangement. It should have capability of minimum following experiments</p> <p>a) Determination of overall heat transfer coefficient for a tube in tube type heat transfer</p> <p>b) Determine rate of heat transfer, theoretical overall</p>	1	02/11/2018 15:00 Hrs	02/11/2018 16:00 Hrs

		<p>heat transfer coefficient</p> <p>c) Compare the performance of parallel flow and counter flow heat exchanger</p> <p>Complete setup should be suitably mounted on Iron frame as per requirement</p> <ol style="list-style-type: none"> 1) Length of Heat Exchange 1.6 m 2) Outer light material G.I. ID. - 27.5mm O.D. - 33.8mm 3) Inner tube material - Copper O.D, 12.7mm 4) Suitable Temperature measurement system (Thermometers - 0 to 500C - 2nos.10 to 1000C - 2nos) 5) Geyser - Instantaneous type. 3 kw capacity - 1 no. 6) Measuring flask - 1000 ml with stop clock 7) Power measurement setup 8) Technical manual with all specifications and standard test results 9) Mounting of the setup by the supplier 			
--	--	---	--	--	--

FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: _____

To:

Sl. No.	Description of goods (with full Specifications)	Qty	Unit	Quoted Unit rate in Rs. (Including Ex Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
Total Cost							

Gross Total Cost (A+B): Rs. _____

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. _____ (Amount in figures) (Rupees _____ amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of _____ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: _____

Address: _____

Contact No: _____