

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) .

**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	ET 1	PCB prototype machine TEQIP-III/UP/hbti/82	Machine should have following specifications: Working area: 200 X 150 x 15 mm Min drill hole size : 0.3 mm Min cutting trace/space : 0.1 mm (4 mil) X/Y travel speed : 50 mm/sec (MAX) Spindle speed (RPM): 25000 rpm Milling depth sensing : Micrometer Spindle Motor: Brushless Motor Machine base: Cast Aluminium Tool change: Manual Change Tool holder: 1/8 inch Front to back registration : By Registration Pin X/Y driver : Stepping Motor Sound/Dust Enclosure : Integrated PCB design software (Single User): G-Code export of PCB designs for creating control files for milling machines, 3D View of PCB Design , Extended PCB footprint catalogue, library for more than 20000 components, Bread Board 3D View of	2	10/08/2018 15:00 Hrs	10/08/2018 16:00 Hrs

			Designed Circuit, Electronics circuit design and simulation 3 years on site warranty.			
2	ET 3	Frequency Modulation Transmitter and Receiver Kit  TEQIP-III/UP/hbti/83	<p>Generator :</p> <p>Waveforms: Sine</p> <p>Amplitude: Adjustable from 0 - 4 Vpp</p> <p>Frequency: Adjustable from 0.1 to 1 KHz &amp; 1 to 10 KHz</p> <p>VCO 1:</p> <p>Output signal: Sine</p> <p>Frequency: 400 KHz to 1500 KHz</p> <p>Amplitude: Adjustable from 0-2 VPP</p> <p>Inputs: Modulating signal</p> <p>VCO 2:</p> <p>Output signal: Sine</p> <p>Frequency: Switching on 2 ranges 400 KHz to 500 KHz and 500 KHz to 1500 KHz</p> <p>Amplitude: Adjustable from 0- 2 VPP</p> <p>Input: Modulating Signal, Marker</p> <p>RF Detector: Input level adjustable</p> <p>Balanced Modulator: Adjustable output amplitude &amp; Adjustable carrier null</p> <p>Filter: Central frequency 455 KHz</p> <p>Bandwidth: <math>3 \pm 1</math> KHz</p> <p>Low pass filter : Cut off frequency 10 KHz</p> <p>PLL Detector: 1 Nos.</p> <p>Interconnections: banana sockets, Test Points</p> <p>Power Supply: 230 V <math>\pm 10</math> %, 50 Hz</p> <p>Learning material: Hard Copy (Theory, procedure, reference results, etc), Online</p> <p>Functional Blocks Indicated On Board</p> <p>The detailed technical specification of the model with images should be available to public on OEMs official website for</p>	2	13/08/2018  15:00 Hrs	13/08/2018  16:00 Hrs

3	ET 4	<p>Amplitude Modulation Transmitter and Receiver Kit</p> <p>TEQIP-III/UP/hbti/84</p>	<p>Self-contained platform with built in power supply</p> <p>On-board sine generator</p> <p>On board DSB, DSBSC, SSB, modulators and demodulators</p> <p>Crystal controlled carrier frequency generator</p> <p>Envelope detectors</p> <p>On board low pass filters</p> <p>Input-output &amp; test points provided on board</p> <p>Switched faults</p> <p>2 Year Warranty</p> <p>Manual including details of experiments (Hard Copy)</p> <p>Functional Blocks Indicated On Board</p> <p>The detailed technical specification of the model with images should be available to public on OEMs official website for verification.</p>	2	<p>13/08/2018</p> <p>15:00 Hrs</p>	<p>13/08/2018</p> <p>16:00 Hrs</p>
4	ET 5	<p>70 MHz Digital Storage Oscilloscope</p> <p>TEQIP-III/UP/hbti/85</p>	<ul style="list-style-type: none"> <li>• Bandwidth: 70 MHz</li> <li>• No. Of Channels: 04</li> <li>• Memory Depth: 12 M Points</li> <li>• Sampling Rate: 1 GSa/s</li> <li>• Display: 7 Inch TFT Color</li> <li>• Waveform Capture Rate: 30,000 fms/s</li> <li>• Time base Range: 5 ns/div ~ 50s/div</li> <li>• Trigger Modes: Edge, Video, Pulse width, Slope, nate</li> <li>• Vertical Resolution: 8 bits</li> <li>• Vertical Sensitivity: 1 mV/div ~ 10V/div</li> <li>• Maximum Input Voltage: All inputs 1M<math>\Omega</math>    15pF 300V RMS CAT I</li> <li>• Input Coupling: DC, AC, GND</li> <li>• Roll Range: 500ms/div ~ 50s/div</li> <li>• Cursor Measurements: Manual, Track and Auto Measure modes</li> <li>• Math: A+B, A-B, AxB, A/B, FFT, &amp;&amp;,   ,</li> </ul>	10	<p>13/08/2018</p> <p>15:00 Hrs</p>	<p>13/08/2018</p> <p>16:00 Hrs</p>

			$\wedge$ , $\int$ , intg, diff, sqrt, lg, ln, exp, abs • Connectivity: USB Device, USB Host, LAN			
5	ET 6	Function Generator TEQIP-III/UP/hbti/86	• Standard waveforms : Sine, Square, Triangle, Ramp, Pulse, TTL • Frequency Range : 1mHz–10 MHz (Sine), 1mHz – 3 MHz(Others) • Frequency Display Accuracy : + 0.5 % • Sinewave Distortion : 0.2% (500 KHz),1% (3MHz)typical • Rise / Fall Time : = 30ns • Triangle Non-Linearity : =1 % (typical) • Pulse Duty Cycle : 5% - 95% Variable • Output Level : 10Vpp into 50 Ohm, 20Vpp OC • Output Impedance : 50Ohm • Attenuation : 20dB, 40dB, 60dB & 20dB Variable in between (80dB Max.) • Level Flatness : +1.5dB typical • Amplitude Display Accuracy : + 5% + 1 digit • DC Offset : + 5V adjustable • Internal Sweep : 1ms - 100 s • Internal Modulation : FM • Frequency Counter Frequency Range : DC to 50 MHz Sensitivity : 0.5Vrms Input Impedance : 1 M? Max. Input Voltage : 200 V (DC + AC Peak)	20	13/08/2018 15:00 Hrs	13/08/2018 16:00 Hrs
6	ET 7	Circuit Development board TEQIP-III/UP/hbti/87	Bread Board: Tie points 660 Built in Power supply: + 5 V fixed, 1 Amp, + 12 V Fixed 0.5 amp, 0-25 V DC Variable, 0.5 Amp Built in AC source: 6-0-6 V, Clock,: TTL Clock, 1 Hz and 0.1 Hz, Level Switches: 8 switches for logic low and high with 2 mm	10	13/08/2018 15:00 Hrs	13/08/2018 16:00 Hrs

			<p>output socket BCD Decoder, on board common anode seven segment display and driver IC 7447, Potentiometer: Two (10 K, 47 K) on front panel Power 220 V AC + 10%, 50 Hz.</p>			
7	ET 9	<p>Software for Antena design TEQIP-III/UP/hbti/88</p>	<p>5 User "1. 3D electromagnetic solution both in time domain and frequency domain 2. Industry standard full wave 3D method of moment EM simulation implementation. 3.Support MMIC, RFAC, LTCC, HTS circuit,RFID Antenna, Patch antenna, slot antenna, wire antenna, and other wireless antennas 4. Flexible input mode both in 2D or 3D shall support to all major CAD formats such as GDS, DXF, and ACIS, Built-in optimization and parameterization/fastEM schemes</p> <ul style="list-style-type: none"> <li>• Automatic magnetic current formulation enhances usability</li> <li>• Unlimited number of layers and ports</li> <li>• Finite dielectric or different dielectric portions within the same layer</li> <li>• EM and circuit co-simulation of structureswith active devices or lumped elements</li> <li>• Lumped element equivalent (RLC) extraction</li> <li>• Turn s-parameters into time-domain response using MD-Spice</li> </ul> <p>. lifetime support . Research license</p>	1	07/08/2018 15:00 Hrs	07/08/2018 16:00 Hrs

**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)
<b>Total Cost</b>							

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: \_\_\_\_\_