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 Shri Jitendra Dwivedi (9721456026).
Quotation are invited for procurement of the item as per the details given below-

Sr. No.	Package Name	Item Name	Specifications	Quantity	Last Date & Time of Submission of Quotation	Quotation Opening Date & Time
1	EE 1	The three phase power quality analyzer portable in nature and supplied with 4 Flexible clamp on **TEQIP-III/UP/hbti/3**	Measurement: · The analyzer should measure · Three phase and phase wise voltage, current, power, power factor, Cos Phi, · Energy and demand · Dips, Swells, interruptions, crest factor and unbalance · Transient detection upto 5µS, 6kV 200kHz on all phases simultaneously · Inrush current · Flicker · Phaser diagram and waveforms · Frequency · Harmonics for voltage, current and power upto 50^{th} order, Interharmonics · Upto seven power quality parameter in one screen according to EN 50160 · Min, Max and Avg value for all RMS measurements. · Power loss due to unbalance and Harmonics · Inverter Efficiency · Energy loss calculator Other feature · Graphical screen with display of measurement, waveform, trends and harmonic spectrum	1	05/02/2019 16:00 Hrs	06/02/2019 13:30 Hrs

			· Memory to store atleast two RMS values at user defined interval and wave form during sag/swell and transient ·Min. of 20screenshots to be stored in the memory · The instrument should comply to class A standard as per IEC 61000-4-30.			
2	EE 2	Single-phase Power Quality Analyzer **TEQIP-III/UP/hbti/4**	"Measurement: · True RMS voltage, current, power, power factor, Cos Phi, VA and Var · Dips, Swells, interruptions, K Factor · Transient detection upto 40µS or more · Inrush current · Frequency · Harmonics for voltage, current and power upto 50^{th} order and THD · Resistance, diode voltage , continuity, and capacitance Other feature · Graphical screen with display of measurement, waveform, trends and harmonic spectrum · Rechargeable battery with at least 6 hours of uninterrupted operation on Battery · Memory to store atleast two RMS values at user defined interval and waveform during sag/swell and transient · Minimum of 20 screen shots to be stored in the memory	1	05/02/2019 16:00 Hrs	06/02/2019 13:30 Hrs
3	EE 3	Multipurpose Three Phase Inverter Stack with Chopper **TEQIP-III/UP/hbti/5**	"(Three Phase diode rectifier + Three phase IGBT based inverter + chopper) Can work as the following: Single Phase Inverter, Three Phase Diode Bridge Rectifier IGBT based Buck Converter IGBT based Boost Converter Three Phase IGBT based inverter IGBT based Chopper Brief Specs: I/P AC Voltage:- 415 Volt DC link Voltage:- 600 Volt O/P AC Voltage:- 415 Volt AC Current:- 25 Amp Switching Frequency:- 2 kHz	1	05/02/2019 16:00 Hrs	06/02/2019 13:30 Hrs

			Fundamental Frequency:- 50 Hz Type of Cooling:- Forced Air Ambient Temp:- 45 Deg Duty Class:- Class I"			
4	EE 4	Three Phase IGBT Stack with chopper **TEQIP-III/UP/hbti/6**	"I/P AC Voltage :- 3-PH 480 V O/P AC Voltage :- 3-PH 440 V I/P DC Link Voltage :- 600 V O/P AC Current :- 30 A Switching frequency :- 20 kHz Switching frequency for Brake Chopper :- 5 kHz Fundamental O/P frequency :- 50 Hz Type of cooling :- Forced air Ambient Temp:- 45 Deg Duty Class:- Class I"	1	05/02/2019 16:00 Hrs	06/02/2019 13:30 Hrs
5	EE 5	3 - Level Diode Natural Clamped 3-phase IGBT based **TEQIP-III/UP/hbti/7**	"Maximum I/P DC Voltage :- 600 V O/P AC Voltage :- 3-PH 400 V O/P AC Current :- 14 A Switching Frequency :- 20 kHz Ambient Temperature :- 45 deg Fundamental O/P Frequency :- 50 Hz Type of cooling :- Forced Air Duty Class :- Class I"	12	05/02/2019 16:00 Hrs	06/02/2019 13:30 Hrs
6	EE 6	Five Level Inverter Stack **TEQIP-III/UP/hbti/8**	"DC link Voltage:- 600 Volt O/P AC Voltage:- 415 Volt O/P AC Current:- 14 Amp Switching Frequency:- 20 kHz Fundamental Frequency:- 50 Hz Type of Cooling:- Forced Air"	1	05/02/2019 16:00 Hrs	06/02/2019 13:30 Hrs
7	EE 7	Nine Level Cascaded 3 Phase Inverter Stack **TEQIP-III/UP/hbti/9**	"Each H Bridge Specifications DC link Voltage:- 200 Volt O/P AC Current:- 14 Amp Switching Frequency:- 20 kHz Fundamental Frequency:- 50 Hz Type of Cooling:- Forced Air	1	05/02/2019 16:00 Hrs	06/02/2019 13:30 Hrs

			Ambient Temp:- 45 Deg Duty Class:- Class I Total Stack consists of 3 legs . Each leg consists of 4 HBridges (16 IGBTs), Heat sink, 8 Drivers, DC Link capacitors, Fan, Busbar and Thermal trip etc. H-Bridge is isolated to each other. With all terminals brought out."			
8	EE 8	Eleven Level Cascaded 3 phase Inverter Stack **TEQIP-III/UP/hbti/10**	"Each H Bridge Specifications DC link Voltage:- 200 Volt O/P AC Current:- 14 Amp Switching Frequency:- 20 kHz Fundamental Frequency:- 50 Hz Type of Cooling:- Forced Air Ambient Temp:- 45 Deg Duty Class:- Class I Total Stack consists of 3 legs . Each leg consists of 5 HBridges (20 IGBTs), Heat sink, 10 Drivers,DC Link capacitors, Fan, Busbar and Thermal trip etc. H-Bridge is isolated to each other. With all terminals brought out."	1	05/02/2019 16:00 Hrs	06/02/2019 13:30 Hrs
9	EE 9	IGBT MODULE **TEQIP-III/UP/hbti/11**	This module consists of IGBT mounted on heat sink with gate driver. The gating signals are given as an input from an appropriate control module. Built in power supplies for the gate driver circuitry and the power circuit ±15V @ 1A and 24V @ 2A, The power suppliers are obtained through an isolation step down transformer after rectification and filtering Gating signals are isolated using opto isolators. Gate drive IC is used for driving the gate, Over current protection is provided through the gate drive IC All terminals of the devices and 24V power supply terminals are brought out to banana sockets mounted at the front panel. The IGBT is rated at 600V, 19A or more, Snubber circuit is to be provided for device to protect against high dv/dt, A hall effect current transducer can be provided for sensing the load current for control purposes as well as to provide protection.	24	05/02/2019 16:00 Hrs	06/02/2019 13:30 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)
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: _____