

GOVT. COLLEGE OF ENGINEERING & TECHNOLOGY, BIKANER

SCHEDULE - G

NIT NO. :-CET/STORE/2014-15/01

Tender for :-Measurement Lab Equip. for Electrical Engg. Dept. Estimated Cost:- Rs. 10,00,000/-

Sale of Tender :- Up to 12 Noon 12/8/2014

Earnest Money:-Rs. 20,000/-

Last date of Tender Submission:-2.00 PM, 12/8/2014

Tender Cost:- Rs. 200/- (By Hand)

Opening Date of Tender:- 3.00PM, 12/8/2014

Tender Cost:- Rs. 240/- (By Post) (D.D.)

Bid Validity: 90 days from bid opening date

Delivery period:- 45 Days from order

S.No.	Specification	Qty	Rate
1.	<p>Working bench for De Sauty Bridge</p> <p>Features</p> <ul style="list-style-type: none"> - Work bench with two nos. of almirah made of wooden - The size of system should be not lesser than 7'X3'X4' - Each almirah consist of three shelves each. - Should be having power supply sockets of 230 V Single Phase AC with multipin sockets 5 Nos. with switches. - Supplied with circuit breaker and LED Lamps for Indication - Should be equipped with AC Bridges for measurement of Unknown Capacitances - De Sauty Bridge for Unknown capacitance measurement with power supply 230V AC, 50 Hz Frequency 1 KHz and Amplitude- 5Vpp, Digital Null detector, EP socket provide to connect external Headphone or DSO. – 2 Nos. - All should be supplied with adequate no. of patch chords and user manuals with line diagram of power supply too. - Should be provided with measuring unit capable upto 70 MHz of Analog and mixed signals for display of waveforms and accurate measurements of voltages and frequency - Bandwidth at least 70MHz, and future upgradable to 200MHz - Sampling rate: 2GSa/s or better - Record Length: 100 Kpts or better - Inbuilt Math and FFT Capability. - Very fast waveform update rate of 50,000 waveforms per second. - Interface connectivity: USB - Should have facility to include integrated Function Generator, 3 – digit digital voltmeter and frequency counter. 	1	
2.	<p>Working bench for Anderson's Bridge</p> <p>Features</p> <ul style="list-style-type: none"> - Work bench with two nos. of almirah made of wooden - The size of system should be not lesser than 7'X 3'X4' - Each almirah consist of three shelves each. - Should be having power supply sockets of 230 V Single Phase AC with multipin sockets 5 Nos. with switches. - Supplied with circuit breaker and LED Lamps for Indication - Should be equipped with AC Bridges for measurement of Unknown Inductance - Anderson's Bridge for unknown inductance measurement with Power supply requirement : 230V AC, 50 Hz.Built in IC based regulated Power supply - 5 V DC/200 mA. Frequency 1 KHz and Amplitude- 5Vpp.Digital null detector, EP socket provide to connect external Headphone/DSO.-2 Nos. - All should be supplied with adequate no. of patch chords and user manuals with line diagram of power supply too. - Should be provided with measuring unit capable upto 70 MHz of Analog and mixed signals for display of waveforms and accurate measurements of voltages and frequency - Bandwidth at least 70MHz, and future upgradable to 200MHz - Sampling rate: 2GSa/s or better - Record Length: 100 Kpts or better - Inbuilt Math and FFT Capability. - Very fast waveform update rate of 50,000 waveforms per second. - Interface connectivity: USB - Should have facility to include integrated Function Generator, 3 – digit digital voltmeter and frequency counter. 	1	
3	<p>Working bench for Slide Wire Potentiometer setup</p> <p>Features</p> <ul style="list-style-type: none"> - Work bench with two nos. of almirah made of wooden - The size of system should be not lesser than 7'X 3'X4' - Each almirah consist of three shelves each. - Should be having power supply sockets of 230 V Single Phase AC with multipin sockets 5 Nos. with switches. - Supplied with circuit breaker and LED Lamps for Indication - Should be equipped with 2 sets of slide wire potentiometers - 10 meter resistive wire wounded on wooden board. - 2 nos. of measurement board equipped with power supply voltmeter ammeter galvanpmetre and known and unknown resistances on board - Power supplies for primary circuits and standard electronic cells each for both sets. - All should be supplied with adequate no. of patch chords and user manuals with line diagram of power supply too. 	1	
4	<p>Working bench for Crompton Potentiometer setup</p> <p>Features</p> <ul style="list-style-type: none"> - Work bench with two nos. of almirah made of wooden - The size of system should be not lesser than 7'X 3'X4' - Each almirah consist of three shelves each. - Should be having power supply sockets of 230 V Single Phase AC with multipin sockets 5 Nos. with switches. 	1	

	<ul style="list-style-type: none"> - Supplied with circuit breaker and LED Lamps for Indication - Should be equipped with 2 sets of Crompton's potentiometers - Main dial slide dial and terminals for galvo and switches mounted on high quality Bakelite and in wooden box. - 2 nos. of measurement board equipped with power supply voltmeter ammeter galvanmeter and known and unknown resistances on board - Power supplies for primary circuits and standard electronic cells each for both sets. - All should be supplied with adequate no. of patch chords and user manuals with line diagram of power supply too. 		
5	<p>Working bench for calibration of Energy meter and phantom loading</p> <ul style="list-style-type: none"> - Work bench with two nos. of almirah made of wooden - The size of system should be not lesser than 7'X3'X4' - Each almirah consist of three shelves each. - Should be having power supply sockets of 230 V Single Phase AC with multipin sockets 5 Nos. with switches. - Supplied with circuit breaker and LED Lamps for Indication. - Should be capable to cater calibration of single phase energy meter, 15 A variac, rheostat 10 amp 10 ohm, Voltmeter, Ammeter, ISI Marked Energy meter Continuously variable Auto Transformer, Power factor meter. - High quality digital meters selec make. - Necessary arrangement to introduce power factor in the circuit. - Should be provided with measuring unit capable upto 70 MHz of Analog and mixed signals for display of waveforms and accurate measurements of voltages and frequency. - Bandwidth at least 70MHz, and future upgradable to 200MHz - Sampling rate: 2GSa/s or better - Record Length: 100 Kpts or better - Inbuilt Math and FFT Capability. - Very fast waveform update rate of 50,000 waveforms per second. - Interface connectivity: USB - Should have facility to include integrated Function Generator, 3 – digit digital voltmeter and frequency counter. 	1	
6	<p>Working bench for measurement of very low resistances</p> <ul style="list-style-type: none"> - Work bench with two nos. of almirah made of wooden - The size of system should be not lesser than 7'X3'X4' - Each almirah consist of three shelves each. - Should be having power supply sockets of 230 V Single Phase AC with multipin sockets 5 Nos. with switches. - Supplied with circuit breaker and LED Lamps for Indication. - Setup for kelvin's double bridge with high quality dial gauges and null detectors (spot deflection galvanometer) . – 2 Nos. - Main Dial : it consists of 10 coils of 0.01 ohms - Slide wire : it also of 0.01 ohms divided into 500 equal parts having least count 0.00002 ohms - Multiplying ratio : a single dial having ratios of 0.01 , 0.1, 1 , 10 and 100 ohms - Current reversing switch and spot deflection galvanometers. - DC source for 10 amp rating. – 2 Nos. - Should be provided with measuring unit capable upto 70 MHz of Analog and mixed signals for display of waveforms and accurate measurements of voltages and frequency - Bandwidth at least 70MHz, and future upgradable to 200MHz - Sampling rate: 2GSa/s or better - Record Length: 100 Kpts or better - Inbuilt Math and FFT Capability. - Very fast waveform update rate of 50,000 waveforms per second. - Interface connectivity: USB - Should have facility to include integrated Function Generator, 3 – digit digital voltmeter and frequency counter. 	1	
7	<p>Working bench for 3 phase power measurement</p> <ul style="list-style-type: none"> - Work bench with two nos. of almirah made of wooden - The size of system should be not lesser than 7'X3'X4' - Each almirah consist of three shelves each. - Should be having power supply sockets of 230 V Single Phase AC with multipin sockets 5 Nos. with switches. - Supplied with circuit breaker and LED Lamps for Indication. - Complete experimental setup nicely mounted on Bakelite Sheet with MS cubical for easy mounted on the working bench. Comprising of the following:-Wattmeter UPF 5/10A, 150/300/600V – 3 Pcs. DIGITAL Voltmeter - 3 no, Digital Ammeter - 3 nos - 3 phase loading arrangement.1KW - 1nos - MCB, TPN for control circuit protection provided in the panel - Should be provided with measuring unit capable upto 70 MHz of Analog and mixed signals for display of waveforms and accurate measurements of voltages and frequency - Bandwidth at least 70MHz, and future upgradable to 200MHz - Sampling rate: 2GSa/s or better - Record Length: 100 Kpts or better - Inbuilt Math and FFT Capability. - Very fast waveform update rate of 50,000 waveforms per second. - Interface connectivity: USB - Should have facility to include integrated Function Generator, 3 – digit digital voltmeter and frequency counter. 	1	
8	<p>Measurement of Earth Resistance Trainer using fall of potential</p> <p>An exclusive training system showing in details the principle of fall of potential between two stationary and one moving electrode to find out resistance of earth</p> <p>The system should consist of electrodes, mallet , and long wires upto 8-10 mts. With a variable power supply of 0-12 V / 2A and good quality meters for exact measurements</p> <p>Mimic diagram of circuit with line diagram and symbols printed on system</p> <p>Should be supplied along with extensive user manual</p> <p>Provided with a carrying case</p>	2	

9	Tong Tester Specification: <ul style="list-style-type: none"> • 1000A True RMS AC current measurement • Small body and large jaw size up to 52mm • One-hand operation • Peak-hold with in-rush current measurement • Large backlit dual display • Capacitance measurement • Manual and auto-ranging for all measurements • CAT III 1000V and CAT IV 600V safety protection • Compatible with U1177A/U1117A IR-Bluetooth adapter for remote monitoring & datalogging 	2	
10	PF Meter Specification: State of Art Microcontroller Based Design. Built in Solid state selector switch for phase selection Super bright LED display for crystal clear long distance day light viewing Built in Transducer True RMS measurement System: 3 Phase 4 Wire / 3 Phase 3 Wire / 1 Phase Aux. Supply : 230V/110VAC 50Hz (-20% + 15%) Burden on Aux. : < 3 VA Voltage Input : 110 / 415 / 440 VAC (L - L) 500 V max Current Input : 1 Amps / 5 Amps Burden on CT : < 0.2 VA Temp : 0 - 55°C Humidity : < 95% RH (non condensing) Accuracy : ± 1° Electrical Resolution : 0 .01 count	2	
11	Phase Shifting transformer	2	
12	Hand-held Insulation Tester Specification: Checks new installations for proper insulation Checks existing installations and motor windings for breakdowns in insulation Test Voltage: 250/500/1000V Insulation Resistance: 0 - 4.000/40.00/400.0/4000 MΩ Continuity: 0.01 - 20.00 Ω Resistance: 0 - 200.0 Ω AC Voltage: 0 - 600.0 V DC Voltage: 0 - 600.0 V	1	

Terms and conditions:-

- All page of tender should be signed and stamped.
- STCC is compulsory. Party may be asked for the sample/demo.
- Tenderer must be manufacturer / Authorized Dealer/ Supplier having authorization of said make.
- Mention basic rate of items & taxes if any separately.
- Rate includes loading & Unloading at concerned lab./ workshop & FOR College of Engineering & Technology, Bikaner
- Tender will be finalized item wise.
- Successful firm has to submit agreement on stamp paper of Rs. 500 (Form 17) along with SD money @ 5% of order value.
- Committee has right to cancel tender of all or any item.
- In case of any clarification same can be clarify from store.
- Without EMD tender will be rejected.
- EMD and form charges should be in favor of Principal College of Engineering & Technology, Bikaner in shape of DD/Banker Cheque only.
- Order will be given in installment as or when required.
- Conditional Tender will not be accepted.

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