

GOVT. COLLEGE OF ENGINEERING & TECHNOLOGY, BIKANER

SCHEDULE - G

NIT NO. :-CET/STORE/2014-15/02

Tender for :- EEE Lab Equip. for Electrical Engg. Dept.

Estimated Cost:- Rs. 10,00,000/-

Sale of Tender :- Up to 12 Noon 10.9.2014

Earnest Money:-Rs. 20,000/-

Last date of Tender Submission:-2.00 PM, 10.9.2014

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

Opening Date of Tender:- 3.00PM, 10.9.2014

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

Bid Validity: 90 days from bid opening date

Delivery period:- 45 Days from order

S. No.	Items Specification	Qty	Rate
01.	<p>Working Bench for Component Training Systems</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 Component Training System • Set up included five nos. of Component Training System • Dual DC 0 to 30V, variable on-board power supply • Basic component study like Resistors, Capacitors, Inductors and Potentiometer • 6 Different types of diode characteristics study like general purpose Diode, Ge-Diode, LED and Varactor Diode • 5 Different types of transistor characteristics study like BJT, JFET, MOSFET, UJT, and PUT • 4 Different types of Power components Study like DIAC, TRIAC, SCR and IGBT • Opto-Coupler and Relay study • Resistors bank with Different wattages • Capacitor bank • Inductors potentiometer • Diodes • On board Bread board facility also provided. • Covers Basic Semiconductor Devices such as Diodes, BJT, FET, JFET, MOSFET, UJT, PUT, DIAC, TRIAC, SCR, IGBT, LDR, VDR, various Diodes, Opto-Coupler, Relay and Fundamental components like R, C and L • On-board resources such as Resistor, capacitor, Diode and potentiometer banks of different values are available • On-board regulated variable positive and negative power supply • Multimedia base interactive e-manual • Included list of experiment <ul style="list-style-type: none"> Characteristics Experiments • Study the working of Resistors, Capacitors, Inductors, Potentiometer, Relay • Study the Frequency response Working of Opto-Coupler • Characteristics Study of Si-Diode, FSD-Diode, Ge-Diode, Zener Diode, LED, Varactor Diode, VDR • Characteristics study of BJT in CE, CB and CC mode • Characteristics Study of JFET, MOSFET, UJT. PUT, DIAC, TRIAC, SCR, IGBT Application Experiments <ul style="list-style-type: none"> • To find the value of unknown resistance • Study of Ohm's law • Study of Kirchhoff's voltage and current law • Study voltage and current divider rule • Diode capacitance variation 	01	

	<ul style="list-style-type: none"> • Diode clipper and clamper • Diode half wave and full wave rectifier • Logic gate using diode • Voltage Multiplier • Zener diode regulator • Power supply filter • Effect of frequency on R, L,C • RC integrator and differentiator • RC filters • Time constant of a series RC circuit • Transient response of series RC • Transient response of Series RL • RLC series and parallel resonance 		
02.	<p>Working Bench for Transistor Training System</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 Transistor Training System • Set up included five nos. of Transistor Training System • Dual DC 0 to 30V variable on-board power supply • Application study of different types of Transistor includes NPN, BC-107, 2N2222 and BD-138 PNP Transistor and power Transistor like SL-100 • Also other types of Transistor such FET (BFW-10), MOFET (IRF-Z44N) and UJT (2N-2646) are available on-board • Resistor, Capacitor, Inductor bank • Potentiometer bank • Diodes bank (Rectifier Diode, Zener Diode and LED) <p>EXPERIMENTS</p> <ul style="list-style-type: none"> • To identify and check type Transistor NPN, PNP, • BJT as Switch • Logic gates sing BJT • BJT as a DC amplifier Amplifier • CE amplifier-frequency response, signal handling capacity, input and output impedance • Cascade amplifier – frequency response, signal handling capacity , input and output impedance • Single stage CB amplifier gain versus frequency Feedback amplifier • Voltage series Feed back (negative) amplitude, frequency response, input and output impedance calculation • Voltage shunt feedback (negative) amplitude, frequency response, input and output impedance calculation • Current series feedback (negative) amplitude, frequency response, input and out impedance calculation • Class-A / Class-B power amplifier • Fixed bias amplifier using BJT • Design and construct BJT common emitter amplifier using voltage divider bias (self-bias) with and without bypass emitter resistors • Design and construct BJT common collector amplifier using voltage divider bias (self-bias) • RC coupled amplifier • Emitter follower amplifier • Darlington amplifier • Oscillator • Multi-vibrator 	01	

	<p style="text-align: center;">Regulator</p> <ul style="list-style-type: none"> • Series and shunt regulator, calculate ripple factor <li style="padding-left: 20px;">FET/MOSFET • FET common source amplifiers, gain versus frequency, bandwidth, input/output impedance and maximum signal handling capacity • Common drain FET amplifier, frequency response, signal handling capacity , input and output impedance • FET biasing circuit (self, voltage divider, fixed) • UJT relaxation oscillator /UJT saw-tooth generator • Construct different bias circuit and analyzer the wave form a) fixed bias b) Emitter bias c) Voltage divider bias • Transistor as switch with timing calculation • Verify digital logic gate using transistor (NOT, NAND, NOR) • DC amplifier • Transistor time delay circuit • Schmitt trigger circuit • Frequency response of single tuned coupled circuit (tuned class C) • Bootstrap sweep circuit • Sweep wave generator 		
03.	<p>Economy Multipurpose Lab Solution having 70 MHz DSO with 20 MHz Function Generator & Digital Voltmeter, Handheld Digital Multimeter, Electronic Instrumentation Training Kit with pre written labs</p> <p>A: General Specifications:</p> <ol style="list-style-type: none"> 1. Requirement is for Electronic Teaching Laboratory Station comprising of an integrated set of Test Equipment and Training kit capable of performing typical Education Experiments on following: <ul style="list-style-type: none"> • Electronic equipments: Oscilloscope, Function generator, Power supply, Digital multimeter • The lab includes Electronic Instrumentation training board with 8 – selectable mode of operation and Instruments comes with teaching material, lab exercise and assessments. 2. Electronic Teaching laboratory Station should have provision for generating wide range stimulus of standard or arbitrary waves and standard modulated outputs. 3. Electronic Teaching laboratory Station should have provision of generating standard power inputs for powering up various electronic devices, both digital as well as analog. 4. Electronic Teaching laboratory station should have provision for capturing and analyzing signals. 5. Manufacturer should have National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited calibration facility in India. <p>B: Detailed Specifications: Electronic Teaching Laboratory Station & their broad specifications should comprises of following:</p> <ol style="list-style-type: none"> 1. Oscilloscope: <ul style="list-style-type: none"> • Should be a Digital Storage Oscilloscope capable of simultaneous viewing of at least 2 analog channels and facility to upgrade in digital channels. Also capable of viewing Main window as well as zoom window simultaneously. • 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. • Display : 8.5” Large high resolution color display • Standard warranty – 5 years 2. Built – in Function Generator in DSO: 	02	

	<ul style="list-style-type: none"> Should generate signals like Sine, Square, Ramp, Triangle, Pulse, noise and DC etc. Frequency range : up to 20 MHz Modulation: AM, FM and FSK <p>3. Digital Multimeter:</p> <ul style="list-style-type: none"> 6000 count handheld with Built-in LED torchlight to illuminate test area Flashing backlight as visual alert during continuity tests in dim areas Vsense to perform non-contact voltage detection Data logging capability (stores up to 10 readings) IR connectivity to transfer data to PC for record Basic measurements (Voltage, Current, Resistance, Diode, Capacitance, Frequency) Compatible with IR-Bluetooth adapter for remote monitoring & datalogging <p>4. Electronics Instrument Trainer Kit:</p> <ul style="list-style-type: none"> Electronic Instrumentation training board with 8 – selectable mode of operation to study the generate of different types of waveform, temperature measurement and buzzer experiment etc. Should have pre-written Labs and Procedures so that students get acquainted with the features of various electronic components / instruments. <ul style="list-style-type: none"> Should help students in understanding the fundamentals and governing principles of basic electronics instruments. <p>Make:- Agilent/ Dynalog/ Keysight</p>																																															
04.	<p>DC Power Supply</p> <p>Features</p> <ul style="list-style-type: none"> High-resolution, 10mV, 1mA. High-stability, low-drift. Software to control it remotely. OVP, OCP & OTP to protect power supply. Output rating storage facility. <p>Output Voltage Range: 0 ~ 30V Output Current Range: 0 – 3A Make:- Agilent/ Dynalog/ Keysight</p> <table border="1" data-bbox="315 1163 1135 1990"> <tr> <td rowspan="2">Load Effect</td> <td>Voltage</td> <td>0.01% + 3mV (I ≤ 3.0A)</td> </tr> <tr> <td>Current</td> <td>0.2% + 3mA (I ≤ 3.0A)</td> </tr> <tr> <td rowspan="2">Power Effect</td> <td>Voltage</td> <td>0.01% + 3mV</td> </tr> <tr> <td>Current</td> <td>0.01% + 3mA</td> </tr> <tr> <td rowspan="2">Resolution</td> <td>Voltage</td> <td>10mV</td> </tr> <tr> <td>Current</td> <td>1mA (2mA when rate current > 3A)</td> </tr> <tr> <td rowspan="2">Set Accuracy (25±5°C)</td> <td>Voltage</td> <td>≤ 0.1% + 20mV</td> </tr> <tr> <td>Current</td> <td>≤ 0.5%+5mA (+10mA when rate voltage > 3A)</td> </tr> <tr> <td rowspan="2">Ripple (20Hz~20MHz)</td> <td>Voltage</td> <td>Ripple ≤ 1mVrms(≤2mVrms>3A)</td> </tr> <tr> <td>Current</td> <td>≤ 3mArms(≤ 6mA when rate current > 3A)</td> </tr> <tr> <td rowspan="2">Temp. Coefficient (0~40°C)</td> <td>Voltage</td> <td>300PPm+3mV</td> </tr> <tr> <td>Current</td> <td>300PPm+3mA</td> </tr> <tr> <td rowspan="2">Output Resolution</td> <td>Voltage</td> <td>10 mV</td> </tr> <tr> <td>Current</td> <td>1mA(2mA when rate current > 3A)</td> </tr> <tr> <td rowspan="2">Read-back temp. coefficient</td> <td>Voltage</td> <td>≤300PPm+10mV</td> </tr> <tr> <td>Current</td> <td>300PPm+10mA</td> </tr> <tr> <td rowspan="2">Drift</td> <td>Voltage</td> <td>300PPm+10mV</td> </tr> <tr> <td>Current</td> <td>300PPm+10mA</td> </tr> </table>	Load Effect	Voltage	0.01% + 3mV (I ≤ 3.0A)	Current	0.2% + 3mA (I ≤ 3.0A)	Power Effect	Voltage	0.01% + 3mV	Current	0.01% + 3mA	Resolution	Voltage	10mV	Current	1mA (2mA when rate current > 3A)	Set Accuracy (25±5°C)	Voltage	≤ 0.1% + 20mV	Current	≤ 0.5%+5mA (+10mA when rate voltage > 3A)	Ripple (20Hz~20MHz)	Voltage	Ripple ≤ 1mVrms(≤2mVrms>3A)	Current	≤ 3mArms(≤ 6mA when rate current > 3A)	Temp. Coefficient (0~40°C)	Voltage	300PPm+3mV	Current	300PPm+3mA	Output Resolution	Voltage	10 mV	Current	1mA(2mA when rate current > 3A)	Read-back temp. coefficient	Voltage	≤300PPm+10mV	Current	300PPm+10mA	Drift	Voltage	300PPm+10mV	Current	300PPm+10mA	03	
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05.	<p>Clamp Meter</p> <ul style="list-style-type: none"> • Handle large current - safely • 1000A DC and True RMS AC current measurements • Small body and large jaw size up to 52mm • One-hand operation • Peak-hold with in-rush current measurement • Large backlit dual display • Temperature and 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 <p>Make:- Agilent/ Dynalog/ Keysight</p>	01	
06.	<p>LCR Meter</p> <ul style="list-style-type: none"> • 20,000 counts resolution • 0.2% accuracy • Wide LCR ranges with 3 selectable test frequencies (100Hz, 120Hz and 1kHz) • Auto identification(Ai) which automatically determines and displays component type and measurements • Detailed component analysis with ESR, Z, D, Q, θ functions • Battery life of 16 hours/AC-powered • IR-to-USB connectivity for data logging to PC <p>Make:- Agilent/ Dynalog/ Keysight</p>	01	
07.	<p>Working Bench for Analog Design & Development Board with virtual measuring systems</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 Analog Design & Development Board with virtual measuring systems • Set up included five nos. of Analog Design & Development Board with virtual measuring systems. • Three TL082 OP-Amps are available on the board. Each IC has two amplifiers which are labeled A and B. OP-Amps Type II can be configured to act as inverting or non-inverting. • Three TL082 OP-Amps are available on the board. Each IC has two amplifiers which are labeled A and B. OP-Amps Type I can be connected in the inverting configuration only. • Three TL082 OP-Amps are available on the board. Each IC has two amplifiers which are labeled A and B. OP-Amps Type III can be used as voltage buffers. • Low dropout linear voltage regulator is capable of 200Ma output current at 5V fixed output voltage level. It is a low quiescent current, low noise, high PSSR, fast start-up LDO. • TPS40200 is a non-synchronous buck converter which can be used to provided a resistor-selected 3.3V or 5V output, that delivers up to 2.5A from up to 16V input bus. • Board comes with 2N3906 PNP and 2N3904 NPN general purpose bipolar transistors as well as BD250 P-channel MOS FET transistor. • Breadboard Area: General Purpose Area with 2.54mm/100mil pad spacing can be used to place additional components and expand set of exercises with new experiments. • The kit has screw terminals to connect +/-10V power supply. All the lcs on the board are internally connected to power supply. • We have included two diode sockets on the board, which can be used as 	02	

	<p>rectifiers in custom laboratory experiments. Two 1N4448 small signal diodes are delivered with the board.</p> <ul style="list-style-type: none"> • There are two 1Kω trimmers in the kit to enable the designer to obtain a variable voltage if needed for a circuit. These operate respectively in range from 0V to +10V, and -10V to 0V. • There are two digital-to-analog converters (DAC) provided in the kit. Both are DAC7821 from Texas Instruments. They are 12-bit, parallel-input multiplying DACs. • Three analog multipliers are included in the kit. These are wide-bandwidth from Texas Instruments (MPY634). Each multiplier is a 14-pin IC and operates on internally provided +/-10V supply. • Two fully differential channels; 14-bit converters; 100 MSPS real-time sample rate • 500uV to 5V/division; 1MΩ, 24pF inputs with 5MHz analog bandwidth • Input voltages up to $\pm 25V$ on each input ($\pm 50V$ differential); protected to $\pm 50V$ • Up to 16k samples/channel buffer length • Advanced triggering modes (edge, pulse, transition types, hysteresis, etc.) • Trigger in/trigger out allows multiple instruments to be linked • Cross-triggering with Logic Analyzer, Waveform Generator, Pattern Generator or external trigger • Selectable channel sampling mode (average, decimate, min/max) • Mixed signal visualization (analog and digital signals share same view pane) <ul style="list-style-type: none"> • Real-time FFTs, XY plots, Histograms and other functions always available • Multiple math channels support complex functions • Cursors with advanced data measurements available on all channels • All captured data files can be exported in standard formats • Scope configurations can be saved, exported and imported • Arbitrary Waveform Generator • Two channels; 14-bit converters; 100 MSPS real-time sample rate • Single-ended waveforms with offset control and up to $\pm 5 V$ amplitude • 5MHz analog bandwidth and up to 16k samples/channel • Easily defined standard waveforms (sine, triangle, sawtooth, etc.) • Easily defined sweeps, envelopes, AM and FM modulation • User-defined arbitrary waveforms can be defined using standard tools (e.g. Excel) • Cross-triggering between Analog input channels, Logic Analyzer, Pattern Generator or external trigger • Logic Analyzer • 16 signals shared between analyzer, pattern generator, and discrete I/O • 100 MSPS, with buffers supporting up to 16K transitions per pin • LVCMOS logic level inputs • Multiple trigger options including pin change, bus pattern, etc. • Trigger in/trigger out allows multiple instruments to be linked • Cross-triggering between Analog input channels, Logic Analyzer, Pattern Generator or external trigger • Interpreter for SPI, I2C, UART, Parallel bus • Captured signals can be saved and exported in standard file formats • Digital Pattern Generator • 16 signals shared between analyzer, pattern generator, and discrete I/O • 100 MSPS, with buffers supporting up to 16K transitions per pin • Algorithmic pattern generator (no memory buffers used) • Custom pattern editor supports up to 16K transitions per pin • 3.3V outputs • Data file import/export using standard formats • Customized visualization options for signals and busses • Digital I/O • 16 signals shared between analyzer, pattern generator, and discrete I/O 		
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	<ul style="list-style-type: none"> • LVCMOS (3.3 V) logic level inputs and outputs • PC-based virtual I/O devices (buttons, switches & displays) drive physical pins • Customized visualization options available • Power Supplies • Two fixed power supplies derive power from USB port • +5V up to 50mA and -5V up to 50mA (100mA total) • Network Analyzer • •Waveform generator drives circuits with swept sine waves up to 10MHz • •Input waveforms settable from 1Hz to 10MHz, with 5 to 1000 steps • Settable input amplitude and offset • Analog input records response at each frequency • Response magnitude and phase delay displayed in Bode, Nichols, or Nyquist formats • Voltmeters • Two independent meters (shared with Analog input channels) • Automatic measurements include DC, AC RMS and True RMS values • Single-ended and differential measurement capability • Up to $\pm 25V$ on each pin ($\pm 50V$ max peak-peak) • Auto-range feature selects best gain range • Spectrum Analyzer • Performs FFT or CZT algorithm on analog input channels and displays power spectrum • Frequency range adjustments in center/span or start/stop modes • Linear or logarithmic frequency scale • Peak tracking option finds peak power and adjusts display to keep peak in center of display • Vertical axis supports voltage-peak, voltage-RMS, dBV and dBu display options • Windowing options include rectangular, triangular, hamming, Cosine, and many others • Cursors and automatic measurements including noise floor, SFDR, SNR, THD and many others • Data file export using standard formats • Other features • USB powered; all needed cables included • High-speed USB2 interface for fast data transfer • Software Development Kit provided for custom applications • Waveform Generator output can be played on stereo audio jack • Two external trigger pins can link triggers across multiple devices • Cross triggering between instruments • Help screens, including contextual help • Supported by MATLAB and the MATLAB student edition • Instruments and workspaces can be individually configured; configurations can be exported • 		
08	<p>Working Bench for Digital Development System</p> <ul style="list-style-type: none"> • Work bench with two nos. of almira made of wooden • The size of system should be not lesser than 7'X 3'X4' • Each almira 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 Digital Development System • Set up included five nos. of Digital Development System • A versatile standalone trainingkit helps the student to perform unique and handson training and provides facilities for experience to various experiments DIGITAL CIRCUIT TRAINER. • The experiments are designed to each student's fundamental concepts and at the same time introducing them practical application that will 	01	

	<p>enable them to design new circuits and independently implement the same.</p> <ul style="list-style-type: none"> • ON BORAD TECHNICAL SPECIFICATION: • Indicators: 16 TTL/CMOS logic Level inputs with Dual Color LED Indication for Logic low and high 16 LED for output Indication. • AUTO Clock Generator: 1Hz, 10Hz, 100Hz,1KHz, frequency Variable knob. • MANUAL PULSE using Debouncing Circuit. • Bread Board Area: Two Distribution Strip of 100 tie points each totaling 200tie points. • Two terminal Strip of 630 tie points. • Separate Ground and +5v for Bread Board it is at bottom centre. • Display: • 2- Digit 7-segment LED Display • ZIF (ZERO INSERTION FORCE) • 2 ZIF Socket ,Separate Ground (i.e. GND) for each ZIF socket. It is at bottom centre. and Separate Power (i.e. +5v) for each ZIF socket. It is at TOP centre • Power Supply: • On board Power Supply Specification: • Fixed DC Power Supply +5v and + 12v. • Output 5V ,12V 750mA.Input 230V ac,50Hz. • Enclosure: • Attractive Wooden Enclosures of Light Weight • Manual: User's Manual with Sample Experiments. • Interconnections: 3MM patch cords are provided onboard to perform various digital lab experiments. • EXPERIMENTS: • Basic Gates and verification of their truth tables (NOT, OR, AND, NOR, NAND, EX-OR, NOR). • Half Adder, Full Adder • Half Subtractor,Full Subtractor • Even/Odd Parity Checker • Multiplexer, De-Multiplexer, • Binary to Gray & Gray to Binary Converters. • BCD Converter DCB Converter • D-Type Flip-Flops 74LS173 • J-K Flip-Flop (74LS73) • Parallel Load 8-bit Shift Register (74LS166) • Quad S-R Latches (74LS279) • 9-bit Odd/Even Parity Generator (74LS280) • Positive Edge Trigger D-Type Flip-Flop (74LS79) • 16-1 Multiplexer (74LS151) • 4-Bit Magnitude Comparator (74LS85) • 2-4 Decoder Demultiplexer (74LS139) • 8-Bit Magnitude Comparator(74LS682) • Serial Adder and Subtractor (74LS385) • 2- Decoder and Demultiplexer(74LS154) • 16-Channel Multiplexer(CD4067) • 4-Bit Binary Ripple Counter (74LS93) • Synchronous 4 Bit Binary Counter (74LS163) • 4-Bit Synchronous UP/Down Binary Counter(74LS169) • 4-Bit Decade Counter (74LS90) • 4-Bit Asynchronous Binary Counter (74LS197) • Bi-Directional Buffer (74LS245) • Unidirectional Buffer (74LS244) • 4-Bit Parallel Access Shift Register (74LS95) • 4-Bit Binary Adder (74LS283) • BCD to Decimal Decoder Counter (74LS45) • 8-Bit Binary Counter (74LS393) 		
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	<ul style="list-style-type: none"> • Decade counter (10 Decade Outputs) (4017) • 3-8 Decoder (Demultiplexer)(74HC138) • 4-Bit Binary UP/DOWN Counter (74LS193) 		
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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.
- SSI unit EMD & Tender cost assumption should be as per Raj. Govt. rule

HOD STORE