Government College of Engineering
Station Road, Osmanpura, Aurangabad – 431 005

Phone : (0240) 2366101,2366110,111
E-Mail – principalgeca@yahoo.com
Fax : (0240) 2332835
Web – http://www.geca.ac.in

No. GECA/EED /2019-20/3522 Date 5 NOV 2019

To,

GECA Notice Board/ GECA Website

Subject :- Quotation for Equipment of Electrical Department.

Dear Sir, You are requested to send your competitive quotations for the supply of the following items subject to the following conditions.

Terms & Conditions -

1 Rates quoted should be FOR AURANGABAD or free delivery at the Institute inclusive of all lead and Lift.
2 Detailed specifications of the articles you intend to supply should be given. If not according to the specification, laid down here under.
3.The material should be supplied within (07) days from the date of order. List of material is given below.
4.The earliest delivery period should be quoted if you cannot supply within the period mentioned above.
5.Quotation should be in sealed cover and superscripted as **"Quotations" for Equipment of Electrical Department.** Due on : 14 - 11 -2019 , at 5.00 P.M.
6.Quotation should be valid for 31.03.2020
7.Right to reject any or all quotations are reserved with the under signed.
8.Rates quoted must be inclusive of All applicable Taxes.
9.Delivery of the material will be carried out free of cost at our institute in EED Dep. 1st Floor in
10 **Installation of the material will be carried out free of cost at our institute by the supplier.**
11. Demonstration & Training Must be given to Staff
12. No advance shall be paid and No part payment shall be made.
13.Quotation not complying with the above conditions and incomplete once will not be considered

5 in 1 Testlab		
The unit shall comprises of several instruments in One Package Dual Trace Oscilloscope, Component Tester/Comparator, Triple Output DC Power Source, Frequency Counter and Function Generator.		
The following are the required specifications-		
DUAL TRACE OSCILLOSCOPE		
VERTICAL DEFLECTION	Deflection Coefficient (CH1 & CH2)	1mV/div to 20V/division. 5mV/div to 20V/div in 12 calibrated steps in 1-2-5 sequence. x5 Magnification increases the sensitivity to 1mV/div & 2mV/div (LED indication)
	Accuracy	±3%.
	Bandwidth	DC - 30MHz (-3dB), dc coupled. 10Hz - 30MHz (-3dB), ac coupled. 20MHz (-3dB) in x5 MAG
	Rise Time	11.6ns or Less, 17.5ns in x5 MAG
	Display Modes	CH1, CH2, CH1 & CH2 Alternate or Chop mode, Algebraic addition CH1+CH2, Algebraic subtraction CH1-CH2, CH2 Inverted and X-Y
	Input Impedance	1MΩ and 25pF (approx)
	Maximum Input Voltage	400V (dc + peak ac)
TIME BASE	Sweep Speed	18 calibrated steps. 0.5µs/div to 0.2s/ div in 1, 2 & 5

		sequence
	Sweep Magnifier	x5Magnification extends the sweep speed to 100ns/div. x5 Magnification indication with LED
	Accuracy	±3%
	Variable	Uncalibrated continuously variable control between steps, extends fastest sweep speed to 40ns/div (approx). (Uncal LED indication)
	Hold-off Time	4:1 (approx.) variable control
TRIGGER SYSTEM	Triggering Mode	Automatic or Normal with Level control
	Source	CH1 / CH2 / LINE / EXT
	Slope	Positive or Negative
	Coupling	ac / dc / HF reject or TV-V / TV-H
	Trigger Sensitivity	Internal : AUTO 1 div 30Hz - 30MHz NORM 1 div 3Hz - 30MHz External : AUTO 1Vp-p 30Hz-30MHz NORM 1Vp-p 3Hz-30MHz(Typical 40MHz at 2 div)
HORIZONTAL DEFLECTION	Deflection Coefficient	Same as CH2
	Bandwidth	DC-1MHz (-3dB)
	Input Impedance	1MΩ and 25pF (approx.).
GENERAL	Cathode Ray Tube	140mm Rectangular Screen, Internal Graticule, 8 x 10 cm, P31 phosphor
	Accelerating potential	2 kV
	Trace Rotation	Front Panel Control, allows +5O of trace adjustment
	Z-Modulation	TTL Level
	Calibrator	Provides 0.2V ±2%, 1KHz square-wave output for probe compensation
DUAL COMPONENT TESTER / COMPARATOR		
	Test Voltage	8.6V rms
	Test Current	28mA max
	Test Frequency	50Hz or 60Hz (MAINS)
TRIPLE OUTPUT DC SOURCE The unit shall comprises of three independent regulated DC outputs +5V, ±12V, +5V at 1A max. and ±12V at 200mA max. continuous: (common floating wrt ground)		
	Line / Load Regulation	±2%.
	Ripple	Less than 8mV r.m.s
	Termination	2mm Jacks on the Front Panel
0.02Hz - 2MHz FUNCTION GENERATOR		
	Frequency Range	0.02Hz to 2MHz in 8 Decade ranges
	Output Waveform	DC, sine, triangle, square
	DC Offset	±5V (across 50Ω), ±10V (open circuit)
	Maximum Output	10V p-p for all functions (with Voltage 50 Ω loads). 20Vp-p open circuit. (DC + AC PK not exceed 10V across 50 ohms)
	Output Impedance	50 Ω (nominal).
	Attenuator	0dB to 40dB in steps of 20dB, 20dB fine attenuation by amplitude control. Accuracy : ±0.5dB per 20dB step at 1KHz
	Sine Distortion	Less than 3% upto 200 KHz
100MHz DIGITAL FREQUENCY COUNTER		
	Frequency Range	20Hz to 100MHz (Usable)
	Gate Time	0.01, 0.1, 1 or 10 sec (switch selectable).Accuracy : ±1 count ± Time Base Accuracy
	Time Base	10MHz Crystal Oscillator. Accuracy : ±20 ppm at 25OC. Stability : ±30 ppm over 0OC to 50OC range
	Inputs (Switch	General: Frequency of Function Generator

	Inputs (Switch Selectable)	General: Frequency of Function Generator. Scope : Signal through triggered channel of scope. Ext : External signal through BNC connector
	Sensitivity	Scope Input : Min. 4 div p-p swing on oscilloscope. Ext Input : 20mV rms over 10Hz to 50MHz. 50mV rms over 50MHz to 100MHz max. 5V p-p
	Input Impedance	Ext Input : 1MΩ / 30pF
	Display	7 segment LED display indicates freq-uency in Hz, KHz.& MHz
GENERAL		
	Power Requirement	230V AC ±10%, 47-65Hz, 90VA. or 115V AC ± 10%
	Dimensions	235 (H) x 315 (W) x 420 (D) mm (approx.).
	Weight	10 Kg. approx
	Accessories	Instruction Manual - 1 No. Input Lead BNC to Crocodile - 2 Nos. Component Test Lead (Set) - 1No. 50 ohms Termination - 1 No. BNC to BNC Lead - 1 No.
Make	**Aplab /L&T /Systronics Only**	

Yours faithfully

Head of Electrical Engineering
Govt. College of Engineering
Aurangabad