



INDRAPRASTHA INSTITUTE *of*
INFORMATION TECHNOLOGY
DELHI

SHORT TENDER NOTICE

**TENDER FOR PURCHASE OF
OSCILLOSCOPE WITH FUNCTION GENERATOR AND POWER SUPPLY
FOR CAMPUS OF THE INSTITUTE AT
OKHLA PHASE-III, NEW DELHI-110020**

(Tender no. IIITD/S&P/17/2016-17)

INVITATION FOR BIDS

1. Indraprastha Institute of Information Technology (IIITD), Delhi a State University created by an Act of Govt. of NCT of Delhi, invites sealed financial bids for purchase of 40 in number oscilloscope (combination of Oscilloscope, Function generator and Power supply (as per specification mentioned under Scope of Work below) for its campus at Okhla Phase-III New Delhi-110020.
2. An amount of Rs.50,000/- (Rupees Fifty Thousand only) towards earnest money (EMD) must be deposited in the form of demand draft in favor of IIIT-Delhi, payable at New Delhi. No interest shall be payable on the earnest money deposited by the bidder. Tender Document without earnest money will be summarily rejected.
3. Please enclose non-refundable Tender Document Fee of Rs.1,000/- (One Thousand only) in the form of Demand draft drawn in favor of IIIT-Delhi payable at New Delhi.
4. The last date for submission of bids is 21st July, 2016 up to 3:00 PM. The Tender Document should be addressed to:

Registrar,
Indraprastha Institute of Information Technology-Delhi
Okhla Phase-III
(Behind Govind Puri Metro Station)
New Delhi-110020.

5. The Technical bid shall be opened on the same day i.e. 21st July, 2016 at 3:30 PM. Bids must be submitted in two sealed envelopes-one containing the Technical specification of the system being offered. The second should contain financial bid as per prescribed format. The technical bid must also specify the make and model along with warranty offered with after sales service.
6. The Financial bid will be opened after evaluation of the technical bid. The date, time of opening of financial bid will be communicated later.

Bid Evaluation

A weightage of 70% is assigned to technical bid (including demonstration of the product) and 30% to the financial bid. Combined weightage will be considered for award of the Order.

SCOPE OF WORK

Supply of 40 in number oscilloscope (combination of Oscilloscope, Function generator and Power supply) as per description and quantity below:

1. Electronic Work Station : should have

- **CRO : 30MHz** with trigger bandwidth **60MHz**, invert facility on both channel
- **Function Generator : 0.3 Hz to 3 MHz** Function Generator Waveforms : Sin Square, Triangle, DC Offset Adjustment, Internal Sweep and FM Modulation with Digital Display
- **Frequency Counter: 15MHz** Frequency Counter with Digital Display
- **DC Triple Power Supply : Dual DC : 2 x15V, 1A (with Digital Display) Fixed : 5V,1A**
- **Component Tester**
- **Calibrator : Two level,0.2V & 2V, 1KHz**

Detailed Specification

a. Oscilloscope

Deflection coefficients : 5 mV/div to 20 V/div, multiple calibrated steps.

Accuracy : $\pm 2\%$

Bandwidth : DC-30 MHz (-3 dB) DC coupled , 10 Hz to 30 MHz (-3 dB)AC coupled

Sawtooth output : 5 Vpp (approx.)

TRIGGER SYSTEM

Trigg. Modes : Auto or variable level

Triggering source :CH I, CH II, Alternate, Line, Ext.

Trigger Coupling : AC, DC, HF, LF

Bandwidth : DC-3 MHz(-3dB)

Component Tester

Test voltage : max. 8.5 Vrms (open circuit)

Test current : max. 8 mArms (short circuit)

Test frequency : 50 Hz (line Freq.)

Z- modulation : Positive TTL level

Calibrator : Square wave 0.2 V & 2 V $\pm 1\%$, 1 kHz for probe compensation

b. Function Generator :

Operating Modes : Sine, Square, Triangle, DC, Free running, internal sweep or external frequency modulation, with or without DC offset,

Frequency Range : 0.3 Hz to 3 MHz

Frequency Stability : $<0.5\%$

Sine wave Distortion : 0.3 Hz - 100 kHz : max. 0.5 % 0.1 MHz-0.5 MHz : max

1.5% **0.5 MHz - 3 MHz** : max. 3%

Square Wave Rise time : typ. <40 ns Overshoot : < 5%

Output Voltage : 10 Vpp into 50 Ω , max. 20 Vpp open circuit

Attenuation : max. 60 dB

DC Offset : Variable offset range : max. ± 2.5 V into 50 Ω ,
max. ± 5 V open circuit

Frequency Modulation :

Frequency Change : 1 : 100 approx. Input Impedance : 50 k Ω || 25pF

FM Internal (Sweep) :

Sweep Speed : 20 ms to 4 s

Sweep Range : approx. 1 : 100

Frequency Counter, Should be able to read external Frequency

Frequency Range : 10 Hz to 15 MHz

Input Sensitivity : 50 mV_{rms}

Display : 4 digits for Function Generator and 5 digit for Frequency

Counter, 7 Segment LED display

c. **DC Power Supply** :

DC Power Supply with Digital Display for Voltage and Current

Output voltage : 2 \times 15 V, 1 A, Adjustable from 2 to 15 V

+5 V, 1 A, Adjustable from 4.5 to 5.5 V All supplies should be isolated from ground

Output current : 1 A each

Regulation : $\pm 1\%$

Ripple and Noises : ≤ 10 mV_{rms}

Display : 3 digit , switchable , simultaneous display of voltage and current

Display Accuracy : $\pm (1\% + 1d)$

Overload indication to be provided. Outputs should be short circuit protected.

The bidder is required to demonstrate the product for Technical Evaluation, as and when called for.

TERMS AND CONDITIONS

1. The financial bid should be valid for a period of not less than 30 days from the date of opening of bid i.e. 30 days from 21st July, 2016
2. The product is to be supplied within a period of 3-4 weeks from the date of issue of Purchase Order (PO) by the Institute.
3. The bidder should Authorized Dealer Certificate along with the bid.
4. Bids will be opened in the presence of bidder's representatives, who choose to attend on the specified date and time. Only one representative shall be allowed to attend.
5. Sealed bid can be sent either by post or by messenger. The responsibility of delivery of bid lies entirely with the bidder.
6. Payment will rereleased after successful commissioning as certified by Officer in Charge of the Institute.
7. In the event of dispute, Director, IIIT-Delhi shall be the sole arbitrator and his decision shall be final and binding on both the parties.
8. IIIT-Delhi does not bind itself to accept the lowest or any other offer and reserves the right to accept or reject any or all the offers either in full or in part without assigning any reason.
9. In case the bidder is not able to execute the Order, EMD amount of Rs.50, 000/- (Rupees Fifty Thousand only) shall be forfeited.

PROFORMA FOR FINANCIAL BID

S. No.	Item Name	Quantity	Base Cost (Rs.)	Taxes (Rs.)	Total Cost (Inclusive) (Rs.)
1.	Oscilloscope: -as described above Function Generator: -as described above DC Power Supply: -as described above 5 years' Maintenance and Warranty Total In Figures In Words	40			

We accept that the rate quoted above shall remain valid for a period of 30 days from the date of opening of bid i.e. 30 days from 21.07.2016. The items shall be supplied & installed within a period of 3-4 weeks from the date of issue of Purchase Order (PO) by the Institute.

(Signature of Authorized Representative
with seal of the Company)

Date: