

## INVITATION FOR QUOTATION

TEQIP-II/2016/ GJ1G07/shopping /

25-February -2016

To,

Sub: Invitation for Quotations for supply of Goods

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Brief Description	Quantity	Delivery Period(In days)	Place of Delivery	Installation Requirement (if any)
1	Advance Electronics Workbench	2	60	GOVERNMENT ENGINEERING COLLEGE, SECTOR-28, GANDHINAGAR	YES

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the Technical Education Quality Improvement Programme[TEQIP]-Phase II Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
3. Quotation,
  - 3.1 The contract shall be for the full quantity as described above.
  - 3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
  - 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.

3.4 Applicable taxes shall be quoted separately for all items.

3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

3.6 The Prices should be quoted in Indian Rupees only.

4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than 55 days after the last date of quotation submission.

6. Evaluation of Quotations,

The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which

6.1 are properly signed ; and

6.2 confirm to the terms and conditions, and specifications.

7. The Quotations would be evaluated for all items together.

8. Award of contract:

The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.

8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.

9. Payment shall be made in Indian Rupees as follows:

Delivery and Installation - 0% of total cost

Satisfactory Acceptance - 100% of total cost

10. All supplied items are under warranty of 36 months from the date of successful acceptance of items.

11. You are requested to provide your offer latest by 15:00 hours on 19-march-2016

12. Detailed specifications of the items are at Annexure I.

13. Training Clause (if any) Training and demonstration should be provided as per the requirements after successful installation at the institute.
14. Testing/Installation Clause (if any) SUCCESSFUL INSTALLATION & SATISFACTORY INSPECTION.
15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
16. Sealed quotation to be submitted/ delivered at the address mentioned below,  
Government Engineering College Nr. Animal Vaccine Institute Sector-28 Gandhinagar
17. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation

#### Annexure I

Sr. No	Item Name	Specifications
1	Advance Electronics Workbench	AS PER ANNEXURE

#### Annexure

##### Specifications for Advance Electronics Workbench

The workbench with following instruments with 5 amp plugs (total- 07), 16 amp plugs (total-02), 230 V AC supply, 04 drawers to put components/probe, materials etc. ELCB must be provided for whole workbench. It also consisting of instrument Panel and working area made up of antistatic material. It must have ergonomically designed instrument panel in vertical position and with sufficient work area for working. Wheel (with locking mechanism) must be provided at all the four leg of work station so that it can be easily moved. At a time at least 1 and maximum 2 students should work on this.

##### 1. Mixed Signal Oscilloscope

Sr.No.	Parameters	Specifications
1.	No. of Channels	Minimum 4 Analog channels and minimum 16 Digital Channels
2.	Analog Bandwidth	Minimum 200 MHz or higher

3.	Sampling Rate(Analog)	1 GS/s on each analog channel or better
4.	Sampling Rate(Digital)	Minimum 1GS/s for 0-7 channels and minimum 500MS/s for 8 to 15 channels
5.	Threshold setting	Channel adjustments in a group of one/two/four.
6.	Horizontal Zoom	Automatic/Manually
7.	Noise Removal	Remove unwanted noise above frequency of interest.
8.	Input Impedance	Minimum 1 MΩ or higher
9.	Input Coupling	AC,DC
10.	Vertical Resolution	Analog:8 bit or better Digital: 1 bit
11.	Time base range	5 ns/div to 50 sec/div or better
12.	Vertical Sensitivity	2 mV/div to 5 V/div at 1 MΩ input impedance or higher i/p impedance
13.	Record Length	1 Mpts per channel or higher
14.	Waveform Capture rate	5000 waveforms/sec or higher
15.	Trigger Types	Edge, Pulse width, Video, Runt, Logic, Setup/Hold, Rise time/Fall time, Serial Bus Triggering, , SPI, Pattern ( any five should be available)
16.	Automatic Measurements	Voltage & Time Measurements include: Period, Frequency, Delay, Rise Time, Fall Time, Positive Duty Cycle, Negative Duty Cycle, Positive Pulse Width, Negative Pulse Width, Burst Width, Phase, Positive Overshoot, Negative Overshoot, Peak to Peak, Amplitude, Top value, Bottom, Value Max, Min, Mean, Cycle Mean, AC RMS, DC RMS, Cycle RMS, Positive Pulse Count/ Rising Edge Count, Negative Pulse Count/ Falling Edge Count, Area and Cycle Area etc. ( any 16 Automatic Measurements should be available)
17.	Wave form operations	Add, Subtract, Multiply and FFT
18.	Display	Minimum 6.5 inch LCD/LED/TFT color display
19.	Data Storage port	USB port
20.	Counter	Refer Note:1
21.	Warranty	03 years minimum

## 2. Arbitrary Function Generator

1. No. of output channels: Minimum 02
2. Waveform: Sine, Square, Pulse, Ramp, Arbitrary etc.
3. Frequency  
Sine -Minimum 1μHz to Minimum 20 MHz  
Square/pulse – Minimum 1μHz to Minimum 10 MHz or more  
Pulse Width – Minimum 20 ns or better

- Other waveform –  
DC Offset (into 50Ω/60Ω) – -5V to +5V
4. Ramp/ Triangle: 1 MHz or better
  5. Arbitrary Waveform: Sample rate Minimum 100 MSample/sec; Resolution 10 bit or higher
  6. Amplitude into 50Ω/60Ω: Minimum 10 mVp-p to minimum 10 Vp-p
  7. Available units: Vp-p, V<sub>RMS</sub>
  8. O/P impedance: 50Ω/60Ω
  9. Modulation: AM, FM, FSK  
-Source: Internal/external
  10. Sweep: Linear or Logarithmic  
-Sweep time: 10 ms to 400 sec or better
  11. Burst: Manual or Internal or External
  12. Auxiliary Modulation i/p channel: dual channel, DC to Minimum 20 kHz
  13. Power Source: 230 V, 1-phase, 50 Hz compatible at GECG-Sec-28.
  14. Display: Minimum 3 inch TFT/LED/LCD
  15. Waveform generation: Arbitrary waveforms shall be possible to generate from Laptop/ PC /CRO/DSO/MSO.
  16. Accessories: BNC to BNC cable per channel, User manual, Calibration certificate shall be provided
  17. Warranty: 03 years minimum
  18. Counter: Refer Note: 1

Note 1:- Minimum 5 digit Counter facility should be available in MSO or Arbitrary Function Generator. This Counter facility should be provided in built in MSO/AFG or through software & hard ware Combination.

### 3. Multi output Programmable DC Power Supply

DC Output Rating ( Minimum 3 channel output)			
	Channel 1	Channel 2	Channel 3
Voltage	Minimum 0 V- Minimum 30 V	Minimum 0 V- Minimum 30 V	Minimum 0 V- Minimum 5 V
Current	Minimum 0 amp- Minimum 3 amp.	Minimum 0 amp- Minimum 3 amp.	Minimum 0 amp- Minimum 3 amp.
Load Regulation			
Voltage	Less than or equal to 0.03%+ 5mV or better		
Current	Less than or equal to 0.3%+ 4mA or better		
Line Regulation			
Voltage	Less than or equal to 0.03%+ 5mV or better		
Current	Less than or equal to 0.3%+ 4mA or better		
Ripple and Noise			

Voltage	$\leq 2 \text{ mVrms } / \leq 5 \text{ mVp-p}$
Current	$\leq 6 \text{ mArms}$
Resolution	
Voltage	10 mV
Current	10 mA
Accuracy	
Voltage	$\leq 0.3\% + 20 \text{ mV}$
Current	$\leq 0.3\% + 10 \text{ mA}$
Read back Accuracy	
Voltage	$\leq 0.07\% + 20 \text{ mV}$
Current	$\leq 0.3\% + 10 \text{ mA}$
Warranty	03 years minimum
Power Supply	230V, 50 Hz, 1- $\phi$
Display	LED/LCD/TFT/Vacuum fluorescent type Voltage & Current At least two decimal point digit display for voltage range At least one decimal point digit display for current range.

#### 4. 5.5 Digit Digital Multimeter

Sr. No.	Parameter	Required Specifications
1.	Display	Dual
2.	Resolution	5.5 Digit or better
3.	V <sub>DC</sub>	200 mV to 700 V with minimum 1 $\mu\text{V}$ resolution (Higher range & higher resolution preferable)
4.	V <sub>AC</sub>	200 mV to 700 V <sub>peak</sub> with 1 $\mu\text{V}$ resolution (Higher range & higher resolution preferable)
5.	Resistance	200 $\Omega$ to 100M $\Omega$ with 1 m $\Omega$ resolution (Higher range & higher resolution preferable)
6.	A DC	10 mA to 10A with 100 nA resolution (Higher range & higher resolution preferable)
7.	A AC	1A to 10 A with minimum 10 $\mu\text{A}$ resolution (Higher range & higher resolution preferable)
8.	Frequency	For Voltage: Minimum 30 Hz to minimum 250 kHz or higher For Current: Minimum 20 Hz to minimum 5 kHz or higher
9.	Capacitance Measurement	Minimum 10 nf to minimum 100 microF with +/- 2% of reading accuracy

10.	Diode & Continuity Test	Should be available
11.	Math Functions	min/max, dB and dBm testing etc.
12.	Interface	optional
13.	Safety	Comply with safety standard
14.	Accessories	Test leads, Power cord, USB cable, Software, etc.
15.	Warranty	03 years minimum

Soldering & De soldering Station

- Supply : 230 V, 50 Hz
- Cord : 3 wire silicon cord

	Parameter	Required Specification
1	Temperature range:	50°C - 450°C +
2	Power consumption:	Minimum 80 W to maximum 110 W or higher
3	Channels:	1
4	Protection class:	class I
5	Temperature accuracy:	± 10°C
6	Temperature stability:	± 5°C
7	Display:	LED/LCD/TFT/Fluorescent
8	Ground	hard grounded
9	Mode and power cut-off mode	-sleep mode available in minutes -Power cut off mode available in minutes
10	Heating output:	Minimum 70 W to 90 W
11	Voltage (heater):	24 V AC
12	Heat-up time:	approx 15 s
13	Temperature range:	Up to 400°C or higher
14	Fume extractor	facility should be available
15	Soldering Tip	standard
16	Soldering Stand	Safety rest with cleaning sponge Required

Note 2: If the bidder is dealer/distributor/channel partner, bidder should provide Authorization certificate only for MSO, AFG, Power supply and Digital multi meter on the letter head of Manufacturer along with tender documents. Otherwise Quotation shall be rejected. Better specifications for above instruments are acceptable.

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: \_\_\_\_\_