

## INVITATION FOR QUOTATION

TEQIP-III/2018/geca/Shopping/31

20-Dec-2018

To,

M/s

### 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	"Deflection of beam	1	45	Govt. Engg. College, Ajmer N.H. 8, Barliya Circle, Near Nareli Temple, Ajmer	On-site installation and testing & Commissioning required. Price must be included in quotation.
2	"Portal Frame	1	45		
3	"Suspension Bridge	1	45		
4	Apparatus for Verification of Clarke's Maxwell Reciprocal Theorem	1	45		
5	Behaviour of Column and Struts Apparatus	1	45		
6	Curved Member Apparatus	1	45		
7	Data Logger with Software & PC	1	45		
8	Deflection of Truss Apparatus	1	45		
9	Digital table top Weighing machine	2	45		

10	Elastic Properties of Deflected Beam Apparatus	1	45		
11	Redundant joint apparatus	1	45	Govt. Engg. College, Ajmer N.H. 8, Barliya Circle, Near Nareli Temple, Ajmer	On-site installation and testing & Commissioning required. Price must be included in quotation.
12	Steel bar cut off / chopsaw machine	1	45		
13	Three Hinged Arch Apparatus	1	45		
14	Two hinged arch apparatus	1	45		
15	Unsymmetrical Bending Apparatus	1	45		

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 III** 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 - 90% of total cost**

**Satisfactory Acceptance - 10% of total cost**

10. All supplied items are under warranty of **60** months from the date of successful acceptance of items.

11. You are requested to provide your offer latest by **12:30** hours on **18-Jan-2019**.

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

13. Training Clause (if any) **N A**

14. Testing/Installation Clause (if any) **On-site installation and testing & commissioning required. Price must be included in quotation**

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,

N.H.8 , BARLIYA CIRCLE, NEAR NARELI TEMPLE, AJMER

17. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation

**Annexure I**

<b>Sr. No</b>	<b>Item Name</b>	<b>Specifications</b>
1	Apparatus for Verification of Clarke's Maxwell Reciprocal Theorem	<ol style="list-style-type: none"><li>1. Apparatus should consist of a mild steel beam 100cm long and 1.25cm x 4mm in cross section with graduation at every 10cm along the length.</li><li>2. It should be supported on two knife edge metallic supports 70cm apart with a 30cm overhang on one side.</li><li>3. Reciprocal theorem can be verified by direct measurements of the deflections of various points with the help of a dial gauge due to a load placed at the reciprocal points.</li><li>4. Instead of dial gauge, One LVDT and One Load cell with digital indicator will be affixed one supplied with the apparatus.</li><li>5. Apparatus to be supplied should be complete with a supporting metal stand with strong base and a set of required weights.</li></ol>
2	Two hinged arch apparatus	<ol style="list-style-type: none"><li>1. The mild steel model has a span of 100cm and rise 25cm. Both ends should have hinge but one of the ends should also be free to move longitudinally.</li><li>2. A lever arrangement may be fitted at this end for the application of known horizontal inward force for measuring the horizontal thrust. Along the horizontal span of the arch various points are marked at equidistant for the application of load. This being a statically indeterminate structure of the first degree.</li><li>3. Instead of dial gauge, One LVDT and One Load cell with digital indicator will be affixed should be supplied with the apparatus. This model is complete with a supporting stand and a set of weights.</li></ol>
3	Three Hinged Arch Apparatus	<ol style="list-style-type: none"><li>1. The mild steel model has a span of 100cm and rise 25cm with hinges at supports and crown. One of the ends should rests on rollers. Along the horizontal span of the arch various points are marked at equidistant for the application of load.</li><li>2. This being a statically determinate structure, the horizontal thrust developed under the action of any load system can be theoretically calculated and will also be measured directly by neutralizing the outward movement of the roller end.</li><li>3. Instead of dial gauge, One Load cell with digital indicator will be affixed be supplied with the apparatus. Apparatus is complete</li></ol>

		with a supporting metal stand with strong base and a set of weights.
4	Deflection of Truss Apparatus	<ol style="list-style-type: none"> <li>1. Apparatus consists of 4 panels of a PRATT truss, each panel being 40cm in horizontal direction and 30cm in vertical direction.</li> <li>2. Load can be applied on each panel point. All tension members are provided with detachable springs so as to obtain appreciable deformation of the member.</li> <li>3. Direction of the diagonal members may be changed. Apparatus can be used to illustrate visually the nature of forces set up in various members of the Truss.</li> <li>4. Instead of dial gauge, Three LVDT with digital indicator will be affixed one with the apparatus. Apparatus is supplied complete with a supporting stand and a set of weights.</li> </ol>
5	Curved Member Apparatus	<ol style="list-style-type: none"> <li>1. The apparatus consists of a steel bar which is used to make the different curved members Viz. circle, semicircle with straight arm, a quadrant of a circle and quadrant of a circle with straight arm. The bottom ends of the members are fixed to the base. Under the application of load at free end, its horizontal and vertical deflection can be measured with the help of dial gauges.</li> <li>2. Apparatus is supplied with a supporting metal stand and One LVDT and One Load cell with digital indicator will be affixed.</li> </ol>
6	Behaviour of Column and Struts Apparatus	<ol style="list-style-type: none"> <li>1. The apparatus consists of four high quality spring steel columns which are put along a vertical wooden board.</li> <li>2. These four columns have different end conditions as below: <ul style="list-style-type: none"> <li>➤ Both ends pinned;</li> <li>➤ Both ends fixed;</li> <li>➤ One end pinned and other fixed;</li> <li>➤ One end fixed and other end free.</li> </ul> </li> <li>3. Apparatus should supplied with a supporting metal stand and a set of weights.</li> <li>4. A digital Weighing Balance of 6 kg capacity.</li> </ol>
7	Unsymmetrical Bending Apparatus	<ol style="list-style-type: none"> <li>1. The apparatus consists of a mild steel angle of size 1" x 1" x 1/8" or in equivalent metric units of length 80cm is tied as a cantilever beam.</li> <li>2. The beam should be fixed at one end such that the rotation of 450 intervals can be given and clamped such that the principal axis of its cross-section may be inclined at any angle with the horizontal and vertical planes. Also arrangement may be provided to apply</li> </ol>

		<p>vertical load at the free end of the cantilever and to measure horizontal and vertical deflection of the free end.</p> <p>3. Instead of dial gauge, Two LVDT with digital indicator will be supplied with the apparatus.</p> <p>4. Apparatus should supplied with a supporting stand and a set of weights.</p>
8	Redundant joint apparatus	<p>1. The apparatus consists of three suspension members (spring balances) of different stiffness which are jointed at a point to form the redundant joint. The upper end of the suspension members being tied in a position to a vertical wooden board.</p> <p>2. Arrangement is provided to apply a vertical load at the joint and to measure its horizontal and vertical displacement on a paper and also elongations and forces in the suspension members by the help of dial gauges.</p> <p>3. Instead of dial gauge, Two LVDT and One Load cell with digital indicator will be affixed with a supporting metal stand and a set of weights.</p>
9	Elastic Properties of Deflected Beam Apparatus	<p>1. The apparatus consists of a rust proof mild steel beam 2.5cm x 3mm in cross section and 100cm long, pinned to two supports 70cm apart situated symmetrically.</p> <p>2. One of the ends can be fixed or given a known slope by applying a known moment at the end with the help of suspended loads. At the other end also a known moment can be applied.</p> <p>3. Vertical loads can be applied at various points along the span of the beam.</p> <p>4. Instead of dial gauge, Two LVDT with digital indicator will be affixed with the apparatus.</p> <p>5. Apparatus should be supplied complete with a supporting strong metal stand with thick base and a set of required weights.</p>
10	Deflection of beam Apparatus	<p>1. Working model with dial gauge and magnetic base of weight set, complete all accessories with operating manual.</p> <p>2. One Set Dial gauge (Mercer-Make) 25mm travel &amp; Magnetic Base.</p>
11	Portal Frame Apparatus	<p>1. Working model with dial gauge and magnetic base of weight set, complete all accessories with operating Manual.</p> <p>2. Model should demonstrate the behavior of portal frame under vertical loading placed at different points of this span. Under a central point load, the deflected form of the portal should illustrate the presence of hogging moment near the top corner and</p>

		<p>sagging moment under</p> <p>3. Load as well as in the two legs of portal. There shall be no side sway. If the load is placed eccentrically the frame sways to the opposite side and there will be some change in curvature of the members indicating changes in the size of the moment.</p> <p>4. One Set Dial gauge (Mercer-Make) 25mm travel &amp; Magnetic Base.</p>
12	Suspension Bridge Apparatus	<p>1 Apparatus should consist of two mild steel cables 0.5 cm diameter in cross section and 150cm long, pinned to two supports 90cm apart situated symmetrically.</p> <p>2. One of the ends can be converted to a roller by applying a known load at the end with the help of suspended pulley system. Vertical loads can be applied at various points along the span of the beam.</p> <p>3. A dial gauge (Mercer-Make) with 25mm travel (with a magnetic base) may be supplied with the apparatus.</p> <p>4. Apparatus to be supplied should be complete with a Supporting stand and a set of weights.</p>
13	Data Logger with PC and Software	<p>Any equipment connected with LVDT and Load cell can be connecting through data logger and the data can be transfer to the PC with suitable software (window base).</p> <p>Software is capable to store the data/calculate the data and draw the graph as the requirement of experiment.</p>
14	Digital table top Weighing machine	<p>1. Weighing machine which can measure 100 kg maximum weight with 5-gram precision. It should consist a rechargeable battery for best in minimum 48 hours of battery backup and directly plug-in 220 V power cord.</p> <p>2. Size of weighing platform should be minimum 300mm x 300mm</p> <p>3. Machine should be crafted with a durable heavy duty mild steel with rust proof coating or stainless steel</p> <p>4. A large LED display with wide 180 degree viewing angle.</p>
15	Steel bar cut off / chop saw machine	<p>1. A powerful 14" cutting machine with chop saw design, useful for heavy duty industrial cutting of metal bars and angles with motor of 220V and 2000-2200 watt</p>

**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)
<b>Total Cost</b>							

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: \_\_\_\_\_