



**BIRLA INSTITUTE OF TECHNOLOGY**  
A Deemed University u/s 3 of UGC Act, 1956  
MESRA 835215, RANCHI (INDIA)

Phone: 0651-2276030/2276290

Email : [purchase2@bitmesra.ac.in](mailto:purchase2@bitmesra.ac.in)

Website: [www.bitmesra.ac.in](http://www.bitmesra.ac.in)

**SHORT TIME TENDER**

**BIT/PUR/STT/UP/22-23/IC000987/2022**

**DATE:01/02/2023**

To,

M/s. ....

Dear Sir,

Subject : Request for Quotation for Procurement of

You are requested to submit most competitive rates(s) for the following item(s) as per details given below (Sealed Quotations may be sent by hand or by post):

Last date and time for submissions of complete Quotations by ( Password protected) Email to <a href="mailto:ar.purchase1@bitmesra.ac.in">ar.purchase1@bitmesra.ac.in</a> , <a href="mailto:purchase2@bitmesra.ac.in">purchase2@bitmesra.ac.in</a> sealed quotations can be submitted to the under mentioned address.	<b>20.02.2023 15:00 Hrs.</b> ( If all LTE Vendors submit the quotation prior to the submission date, the quotations will be opened prior to last date of submission.)
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Sr.No.	Item Description	Quantity
1	<b>ICE PLANT TRAINER</b> i.) Compressor : Hermetically sealed, approx. 1.0Ton cooling capacity. ii.) Air cooled condenser: Suitable for above compressor with suitable cooling fan. iii.) Expansion device : Capillary tube. iv.) Evaporator coil : Suitable for above compressor immersed in immersed brine solution tank/commercial glycerol. v.) Brine tank : Made of 16 SWG SS sheet with proper insulation and covering complete with brine agitator of matching capacity. vi.) Ice Canes : 3 Nos. (make of thick GI sheets) vii.) Refrigerant : Freon-12 viii.) Energy meter : For power measurement of compressor ix.) Pressure gauges : 2 Nos. for high pressure for low pressure. x.) Digital Temperature Indicator 5 channel. xi.) Temperature sensor (Thermocouple) : 5 Nos. xii.) Service valve : 3 Nos. Needle type xiii.) Ammeter : 1 No. xiv.) Voltmeter : 1 No. xv.) Thermostat : 1 No. xvi.) Filter/Drier : 1 No. xvii.) Brine solution/commercial glycerol. The equipment is mounted on a sturdy frame with control panel.	<b>01 Nos.</b>
2	<b>WINDOW AIR CONDITIONING TEST RIG</b> Actual model fitted on wooden base and Iron stand - consisting of - Compressor, condenser, evaporator, motor, fan, capillary, capacitor, relay, air-duct.	<b>01 Nos.</b>
3	<b>PRESSURE MEASUREMENT TUTOR</b>	<b>01 Nos.</b>



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	<p>Pressure measurement trainer</p> <p>i) Range : 0 to 10 kg/cm<sup>2</sup></p> <p>ii.) Display : 3-1/2 digit LED</p> <p>iii.) Resolution : 0.1 kg/cm<sup>2</sup></p> <p>iv.) Excitation : 5 Volts DC</p> <p>v.) Analog output : 2 Volts, DC</p> <p>vi.) Power source : 230V +/-10%, 50 Hz.</p> <p>v.) Hydraulic Pressure Generating Pump with pressure gauge of 10 kg/cm<sup>2</sup></p> <p>vi.) Test Point also provided.</p> <p>Complete with Operating Manual.</p>	
4	<p>ELECTRICAL, ELECTRONIC &amp; PNEUMATIC CALIBRATION</p> <p>5 Electrical, Electronic &amp; Pneumatic Calibration test rig 4 precision pressure gauges, -1 - 0, 0 - 1.6, 0 - 4 and 0-10, class 0.25%</p> <p>1 manual control station, complete with precision pressure gauge</p> <p>3 precision pressure reducers</p> <p>12 pressure outputs</p> <p>2 differential pressure glass manometers, height = 1000 mm, Stainless steel sleeve</p> <p>Digital multimeter, accuracy ±0.03%, current range 20 A, Voltage range 1200 V</p> <p>Signal generator: 4 - 20 mA</p> <p>Power supply: 12-24-48 V D.C.</p> <p>Voltage control: 0 - 200 V</p> <p>Thermocouples simulator</p> <p>RTDs simulator</p> <p>Power required for operation</p> <p>230V, 60Hz, 1 phase</p>	<b>01 Nos.</b>
5	<p>TORQUE MEASUREMENT SYSTEM</p> <p>10 Torque measurement Trainer Torque Cell Reaction type. Strain gauge based. 1 Kg-M Capacity.</p> <p>Indicator</p> <p>3½ digits to read upto ±1999 counts.</p> <p>Bridge Excitation</p> <p>10V DC</p> <p>Resolution</p> <p>0.01 Kg-M</p> <p>Accessories</p> <p>Fulcrum arm (IM), Pan, 100gX10 No. Dead Weights,</p> <p>Power required for operation</p> <p>230V, 50Hz, 1 phase</p>	<b>01 Nos.</b>
6	<p>DEFLECTION OF BEAM APPARATUS WITH DIAL GAUGE</p> <p>A bench mounted beam apparatus to allow students to investigate the deflections and reactions in simply supported and cantilevered beams</p>	<b>01 Nos.</b>
7	<p>CREEP TESTING MACHINE</p> <p>Capacity 5</p> <p>Furnace The machine should be equipped with a furnace to carry out the tests at high temperatures in the range 200DegC to 900DegC with an accuracy of +/-2 Deg C. With PID controller</p> <p>Automatic Load</p> <p>Lever Beam Device Automatic load lever beam levelling</p>	<b>01 Nos.</b>



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	<p>Device with over travel trips is required.</p> <p>Strain Measurement System The specimen elongation (strain) has to be measured by an attachment of extensometer</p> <p>Data Storage Continuous temperature and strain measurements and also storage and analyse software required through computer controlled data acquisition system</p> <p>Automatic Shutdown There must be a provision to automatically shut off the electrical power to the machine when the Specimen breaks.</p> <p>Operating Power The operating power for the whole control cabinet and the furnace should be of 230 volts single phase 50Hz±2Hz/220Volts±10Volts</p> <p>Foundation Design of the machine is such that it requires no special foundation.</p> <p>Computer Software User-friendly software package to run creep and other facility through software data acquisition and analysis.</p>	
8	<p><b>UNIVERSAL VIBRATION APPARATUS</b></p> <p>Apparatus can perform following experiment</p> <ol style="list-style-type: none"><li>1]oscillations of simple pendulum.</li><li>2] oscillations of compound pendulum.</li><li>3]radius of gyration of bi-filler suspension.</li><li>4] undamped torsional vibrations of single rotor system.</li><li>5] damped torsional vibrations of single rotor system.</li><li>6] torsional vibration of double rotor system</li><li>7] free vibrations of helical coiled spring.</li><li>8] free vibrations of spring mass system.</li><li>9] forced damped vibrations of spring mass system .</li><li>10] verification of dunkerley's rule .</li><li>11] forced damped vibrations of simply supported beam at various amounts of damping.</li></ol> <p>All the experiment units and accessories can be suitably fitted to a stud</p>	<b>01 Nos.</b>
9	<p><b>BALL BEARING TEST RIG</b></p> <p>Complete Set ball bearing test rig</p> <ol style="list-style-type: none"><li>1. Bearing Mounting Fixture a Consist of a set of bearing races for bearings from 6201 to 6204 with parallelogram loading attachment.</li><li>2. Drive motor a 1 HP, 6000 rpm DC motor</li><li>3. Lever and spring balance for applying the load, maximum loading capacity 10000N</li><li>4. Electronic revolution counter with digital indicator.</li><li>5. Torque arm with dead weights for measurement of friction torque</li></ol> <p>Fixture for measuring bearing radial clearance</p>	<b>01 Nos.</b>

Sealed Quotation may be submitted superscribed with reference number as appended hereunder:-



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Quotation for Supply of ----

Ref.No. ----- **BIT/PUR/STT/UP/22-23//IC000987/2022**

To,

Asst. Registrar (Purchase)  
Birla Institute of Technology  
Mesra , Ranchi , Jharkhand - 835215

From :

M/s-----

Address : -----

Contact No. -----

Email ID-----

1. Original bills in triplicate along with the warranty card will have to be issued by the party to whom order is issued.
2. HSN code of the material should be mentioned in quotation.
3. All entries in the quotation should be typed or computer printed without any ambiguity and should be free from correction etc. Hand written offers will be rejected.
4. Late and delayed tenders will not be considered. In case any unscheduled holiday occurs on prescribed closing date the next working day shall be the prescribed date of closing.
5. The quotation should be submitted with descriptive literature & drawing. The make of the items offered should be clearly specified.
6. Material should be confirming to our specification. The deviations if any should be clearly indicated in the quotations.
7. Successful bidder has to furnish the OEM test certificates along with the materials (if applicable).
8. Rate /Price: The offered price shall be on **FOR BIT Mesra on Door Delivery basis**.
9. **No Advance payment will be considered at any circumstances.**
10. If offered Price Term is other than the FOR-Destination term, approximate Freight & forwarding charges along with the applicable Insurance charges may be mentioned.
11. GST and PAN certificate should be furnished along with quotations.
12. **Road Permit: The supplier shall arrange Road Permit on his own for transportation material to BIT Mesra and any additional tax liability on this account shall be borne and paid by the supplier.**
13. Purchaser will not pay separately for transit insurance/taxes (if any) and the supplier will be responsible until the stores arrive in good condition at the destination.
14. Warranty: Period of warranty should be clearly mentioned and also the parts covered under it. Warranty will be applicable from the date of successful installation.
15. Service Facility: Supplier must mention about the service set up in India & confirm effective after sales service.
16. BIT Mesra is not bound to accept the lowest or any quotation for whatsoever reason and reserve its right to accept or reject in whole or in part any or all the quotations received without assigning any reason.
17. Applicable taxes shall be quoted separately for all items and levies payable by the supplier under the contract shall be included in the unit price.
18. Each bidder shall submit only one quotation and sealed quotation to be submitted / delivered at the address. (Alternatively it can be email ( Password protected ) at [purchase2@bitmesra.ac.in](mailto:purchase2@bitmesra.ac.in) or [ar.purchase1@bitmesra.ac.in](mailto:ar.purchase1@bitmesra.ac.in)) or deliver by hand.



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19. Training clause ( if any )to be mentioned.
20. Delivery period should be mentioned clearly in the quotation. If a firm accepts an order and fails to execute the order in full as per the terms and conditions stipulated therein, it will be open to this Institute to recover liquidated damages from the firm at the rate of 0.5% to 1% per week of the order value subject to a maximum of 10% of the order value.
21. Conditional tenders will not be considered.
22. Authorized dealership certificate should be submitted in case principal manufacturing company is not quoting directly.
23. Copy of Purchase Orders for similar equipment supplied to any other organization desired.
24. Annual turnover of company for last 3 year / CA Certificate to be provided.
25. Declaration required by the vendor that the price quoted are lowest that I have supplied to any other organization.
26. Customs Duty: The Institute is exempted from payment of Customs Duty Vide GOI Notification No. 51/96 Customs, dated 23.07.1996 & No.24/2007-Customs dated 01.03.2007 with registration no 11/161/1990-TU-V dated 23.03.2022.

Sd/-

Assistant Registrar Purchase

BIT Mesra Ranchi-835215