INVITATION FOR QUOTATION

TEQIP-III/2019/seip/Shopping/60 **11-Jan-2019**

To,

The CONCERNED

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	Angular acceleration a and torque t of flywheel experimental set up	1	40	NPSEI Pithoragarh	Yes
2	Characteristics of metal-oxide-field-effect ransistor	1	40	NPSEI Pithoragarh	Yes
3	Compare the moment of inertia of a solid sphere and hollow sphere or solid disc of same mass with the torsional pendulum experimental set up	1	40	NPSEI Pithoragarh	Yes
4	Curie temperature of the given ferrite material experimental set up	1	40	NPSEI Pithoragarh	Yes
5	Dielectric constant of the given dielectric material experimental set up	1	40	NPSEI Pithoragarh	Yes
6	e/m of an electron by Thomson Method experimental set up	1	40	NPSEI Pithoragarh	Yes
7	Elastic Constants/Young's Modulus	1	40	NPSEI	Yes

	of a Wire by Searle's method experimental set up			Pithoragarh	
8	g by Bar Pendulum experimental set up	1	40	NPSEI Pithoragarh	Yes
9	Height of an object using a Sextant experimental set up	1	40	NPSEI Pithoragarh	Yes
10	Inverse square law of radiation using Photo voletic cell effect experimental set up	1	40	NPSEI Pithoragarh	Yes
11	Kater's Pendulum experimental set up	1	40	NPSEI Pithoragarh	Yes
12	Lissajous patterns for various frequency ratios experimental set up	1	40	NPSEI Pithoragarh	Yes
13	Measurements of length (or diameter) using verniercaliper, screw gauge, and travellingmicroscope	3	40	NPSEI Pithoragarh	Yes
14	Moment of Inertia of a Flywheel experimental set up	1	40	NPSEI Pithoragarh	Yes
15	Moment of inertia of an irregular body about an axis through its C.G with the torsional pendulum experimental set up	1	40	NPSEI Pithoragarh	Yes
16	Planck's constant and photoelectric work function experimental set up	1	40	NPSEI Pithoragarh	Yes
17	To determine the frequency of a tuning fork using sonometer. experimental set up	1	40	NPSEI Pithoragarh	Yes
18	To determine the Modulus of Rigidity of a Wire by Maxwell's needle experimental set up	1	40	NPSEI Pithoragarh	Yes
19	To determine the Young's Modulus of a Wire by Optical Lever Method	1	40	NPSEI Pithoragarh	Yes
20	To draw the V-I characteristics of a silicon controlled rectifier.	1	40	NPSEI Pithoragarh	Yes
21	To find the capacitance and permittivity of the given material	1	40	NPSEI Pithoragarh	Yes
22	To find the refractive index of the material of given prism using spectrometer experimental set up	1	40	NPSEI Pithoragarh	Yes
23	To investigate resonance in forced	1	40	NPSEI	Yes

	oscillations and to find the spring constant			Pithoragarh	
24	To study the Motion of a Spring and calculate (a) Spring Constant (b) Value of g and (c)	1	40	NPSEI Pithoragarh	Yes
25	To study the variation of time period with distance between centre of suspension and centre of gravity for a bar pendulum and to determine: (i) Radius of gyration of the bar about an axis through its C.G. and perpendicular to its length. (ii) The val	1	40	NPSEI Pithoragarh	Yes
26	To verify that fundamental frequency of vibration of a steel bar clamped at one end is inversely proportional to the square of its length and measure the Young's modulus of bar. (Electrically tunning fork complete)	1	40	NPSEI Pithoragarh	Yes
27	Wavelength of Diode laser by Michelson-interferometer experimental set up	1	40	NPSEI Pithoragarh	Yes
28	Wavelength of He-Ne laser by diffraction method experimental set up	1	40	NPSEI Pithoragarh	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 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 **30** 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 - 50% of total cost

   Satisfactory Acceptance - 50% of total cost
10. All supplied items are under warranty of **12** months from the date of successful acceptance of items.
11. You are requested to provide your offer latest by **12:00** hours on **28-Jan-2019 .**
12. Detailed specifications of the items are at Annexure I.
13. Training Clause (if any) **Yes**

14. Testing/Installation Clause (if any) **Yes**
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 **THROUGH INDIAN SPEED POST ONLY** at the address mentioned below,

    NANHI PARI SEEMANT ENGINEERING INSTITUTE PITHORAGARH

    (Erstwhile Seemant Institute of Technology, Pithoragarh)

    GIC Campus, Link Road, Pithoragarh-262 502, Uttarakhand
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	Angular acceleration a and torque t of flywheel experimental set up	Angular acceleration a and torque t of flywheel experimental set up: 1. Complete experimental set up. (A fly wheel , a stop watch, a meter rod, a vernier calliper)
2	Characteristics of metal-oxide-field-effect ransistor	Characteristics of metal-oxide-field-effect ransistor: experimental set up: 1. Inbuilt fixed and variable power supply(DC Fixed Power Supply : -5V, +15V, +35V DC Variable Power Supply :1.5V to 14 V) 2. Toggle switch for ion of variable power supply. 3. Inbuilt Ammeter and Voltmeter (Voltmeter: 0-200V Ammeter: 0-200mA). 4. Bread Board(Dimension (mm) : 175 x 61 x 10 Distribution strips : 2Distribution holes : 200 Terminal Strips : 1 Terminal holes : 640).5. Resistor Bank (M.F.R. 100E 1W (3 Nos.) M.F.R. 470E 1W (3 Nos.) M.F.R. 1K 1W (3 Nos.). 6. Variable Resistances (5 K? Ten turn Potentiometer (1 No.) 10 K? Ten turn Potentiometer (1 No.) 5 K? Single turn

		Potentiometer (1 No.). 7. Fuse : 500 mA, slow blow.
3	Compare the moment of inertia of a solid sphere and hollow sphere or solid disc of same mass with the torsional pendulum experimental set up	Compare the moment of inertia of a solid sphere and hollow sphere or solid disc of same mass with the torsional pendulum experimental set up: 1. 1 shaft with bracket, coiled spring, support rod and mount for test bodies 1 cross bar 2 weights, circular disc (Restoring torque of the spring: 0.028 Nm/rad Height of the torsion axle: approx.. 200 mm Cross bar: Length: 620 mm Mass: pprox.. 135 g, Weights: 260 g each Circular disc: Diameter: 320 mm, Mass: 495 g, Boreholes: 9 Borehole spacing: 20 mm) 2. Hollow Sphere and solid sphere(metal) (Diameter: 146 mm Mass: pprox.. 1190 g Moment of inertia: 0.51 kgm2)
4	Curie temperature of the given ferrite material experimental set up	Curie temperature of the given ferrite material experimental set up: 1.Ferri-magnetic (or ferrites) materials are complex oxides of iron and other metals. The Unit enables one to trace the B-H loop (hysteresis) of a ferromagnetic specimen using a C.R.O. A measurement of the area of the loop leads to the evaluation of energy loss in the specimen. As the temperature of the sample is increased, the area of the loop decreases. At Curie temperature, the loop becomes a straight line, indicating zero loss. Curie Temperature Kit consists of: i) Main Unit ii) Hot Air Oven with Digital Temperature Indicator &Thermocouple. iii) Ferrite samples iv) Silicon Oil 6. Ferromagnetic samples 6 pcs (60 °C ± 3 °C and 80 °C ± 3 °C respectively, each 3 pcs) Supply WITH without CRO
5	Dielectric constant of the given dielectric material experimental set up	Dielectric constant of the given dielectric material experimental set up: The dielectric constant is of interest particularly to the Physicists and Engineers. A simple experimental set up is designed to measure the dielectric constant of solid samples in both range- LOW & HIGH The experimental set-up consists of : i) Main Unit having audio oscillator (1 KHz), digital voltmeter (0 – 9.99 V dc), standard capacitance and electronic

		circuitry. ii) Dielectric Cells: 75 mm Gold plated brass discs (1 set) and 25 mm Gold plated brass discs (1 set). iii) Samples : Low Range : Glass, Backelite .Hi Range : PZT DISC
6	e/m of an electron by Thomson Method experimental set up	e/m of an electron by Thomson Method experimental set up: 1. Microcontroller based power supply instrument for CRT (Cathode Ray Tube Distance between Plates : d=1.4cm Length of Plates : l=3.23cm Distance between Screen : L=14.5cm and Plates (edge)). 2. Focusing adjustment and Intensity adjustment provided (Focusing Voltage : Variable 0 – 300V DC Intensity Adjustment Voltage : Variable 0 – 60V DC) 3. Deflection magnetometer (Deflection Voltage : Variable 0 – 50V) 4. Octal socket provided on the front panel of power supply for connecting CRT (Scale : 0 – 30cm each side CRT connection : Octal socket LCD : 16 x 2 Characters) 5. Pair of bar magnet and Compass Box (Deflection magnetometer : 0 to 90°)
7	Elastic Constants/Young's Modulus of a Wire by Searle's method experimental set up	Elastic Constants/Young's Modulus of a Wire by Searle's method experimental set up: 1. Searle's apparatus consists of two wires (control wire and test wire) of equal length attached to a rigid support. 2. Screw Gauge. 3. Vernier Calliper. 4. Weight: 500g (6 Nos.)
8	g by Bar Pendulum experimental set up	g by Bar Pendulum experimental set up: 1. Bar pendulum, stop watch and meter scale
9	Height of an object using a Sextant experimental set up	Height of an object using a Sextant experimental set up: 1. Sextant 2. Measuring tape 3. A rigid clamp stand
10	Inverse square law of radiation using Photo voletic cell effect experimental set up	Inverse square law of radiation using Photo voletic cell effect experimental set up: 1. Sliding stand with precise measurement (optical bench length 1 meter) 2. Light Source with height adjustment (Incandescent Lamp Wattage : 100W) 3. Photo detector with height adjustable facility (Photo voletic cell), Multimeter
11	Kater's Pendulum experimental set up	Kater's Pendulum experimental set up: 1. Kater's pendulum, a wedge , a stop watch and

		a meter rod
12	Lissajous patterns for various frequency ratios experimental set up	Lissajous patterns for various frequency ratios experimental set up: 1. Inbuilt Sine wave Generators 2. Inbuilt DC Supply : +12 V, 500 mA 3. Signal Generators Frequency : 10 Hz to 100 kHz Amplitude : 0 to 5Vpp 4. Cathode Ray Oscilloscope 5. Lissajous Pattern Trainer Kit (Dimensions (in mm) : W 300 × D 65 × H 230).
13	Measurements of length (or diameter) using verniercaliper, screw gauge, and travellingmicroscope	Measurements of length (or diameter) using verniercaliper, screw gauge, and travelling microscope
14	Moment of Inertia of a Flywheel experimental set up	Moment of Inertia of a Flywheel experimental set up: 1. A fly wheel, a few different masses, hanger, a strong and thin string, a stop watch, a meter rod, a vernier calliper
15	Moment of inertia of an irregular body about an axis through its C.G with the torsional pendulum experimental set up	Moment of inertia of an irregular body about an axis through its C.G with the torsional pendulum experimental set up: 1. Torsional pendulum 2. Inertia Table, irregular body, regular body, stop watch, sprit level, physical balance, weight box and Vernier callipers.
16	Planck's constant and photoelectric work function experimental set up	Planck's constant and photoelectric work function experimental set up: 1. Photo Electric cell and Light Source (Filters Colors : Blue, Yellow, Green, Red, Orange Light Source : Halogen lamp 50W)2. Optical Bench : 50cm3. DC Power Supply : 0-5V, DC Voltmeter Type : LCD Display : 3½ digit Range : 200mV – 200V, DC Ammeter Type : LCD Display : 3½ digit Range : 2 μA – 200mA
17	To determine the frequency of a tuning fork using sonometer. experimental set up	To determine the frequency of a tuning fork using sonometer. experimental set up: 1. Sonometer (One metre long, made of soft wood and well-polished. Fitted with two metre scale graduated in centimetres.) 2. Tuning fork (Set of eight, small size, made of steel, nickel plated. Frequencies are 256, 288, 320, 341, 384, 420, 480 and 512 Hz). 3. Slotted weights: 1/2 Kg set of 5 including hanger. 4. Rubber pad for tuning fork. 5. Step down

		transformer.
18	To determine the Modulus of Rigidity of a Wire by Maxwell's needle experimental set up	To determine the Modulus of Rigidity of a Wire by Maxwell's needle experimental set up:
19	To determine the Young's Modulus of a Wire by Optical Lever Method	To determine the Young's Modulus of a Wire by Optical Lever Method
20	To draw the V-I characteristics of a silicon controlled rectifier.	To draw the V-I characteristics of a silicon controlled rectifier.
21	To find the capacitance and permittivity of the given material	To find the capacitance and permittivity of the given material
22	To find the refractive index of the material of given prism using spectrometer experimental set up	To find the refractive index of the material of given prism using spectrometer experimental set up: 1. Prism. 2. Material : Gun Metal / S.S. / Brass / Aluminium 3. VernierScale : 1 Min / 30 Sec 4. Spectrometer Size:6 inch/ 7 inch
23	To investigate resonance in forced oscillations and to find the spring constant	To investigate resonance in forced oscillations and to find the spring constant
24	To study the Motion of a Spring and calculate (a) Spring Constant (b) Value of g and (c)	To study the Motion of a Spring and calculate (a) Spring Constant (b) Value of g and (c) Modulus of rigidity.
25	To study the variation of time period with distance between centre of suspension and centre of gravity for a bar pendulum and to determine: (i) Radius of gyration of the bar about an axis through its C.G. and perpendicular to its length. (ii) The val	To study the variation of time period with distance between centre of suspension and centre of gravity for a bar pendulum and to determine: (i) Radius of gyration of the bar about an axis through its C.G. and perpendicular to its length. (ii) The value of g in the laboratory.
26	To verify that fundamental frequency of vibration of a steel bar clamped at one end is inversely proportional to the square of its length and measure the Young's modulus of bar. (Electrically tunning fork complete)	To verify that fundamental frequency of vibration of a steel bar clamped at one end is inversely proportional to the square of its length and measure the Young's modulus of bar. (Electrically tunning fork complete)
27	Wavelength of Diode laser by Michelson-interferometer experimental set up	Wavelength of Diode laser by Michelson-interferometer experimental set up: 1. Michelson interferometer setup. 2. Base : Machined MS base of 6kg with rubber sheet attached at bottom to reduce vibration. 3. Micrometre(Least count : 0.001 mm Range : 0-25 mm) 4. Beam Splitter Type : Cubic Size (mm) : 15 x 15 x 15 R%/T% : 50 / 50 5. Mirror

		Type : Circular Diameter (mm) : 25 (5 mm thick) Second Mirror : Fixed on Beam Splitter. 6. LASER Type : Diode LASER (Battery operated) Wavelength : 650nm.
28	Wavelength of He-Ne laser by diffraction method experimental set up	Wavelength of He-Ne laser by diffraction method experimental set up: 1. A comprehensive and self-contained Optics System(Optics Bench Dimensions (mm) : L 1000 x W 50 x H 50). 2. A complete system with Light Source, Bench and Sliding stand for precise arrangement (Fixed Stand : 2 Nos. Sliding Stand : 1 Nos. 3. Diffraction Grating : 300L / mm or 600L /mm or 15000L / inch. 4. Helium Neon LASER Input supply : 230V +/- 10%, 50Hz Output power : 2mW Wavelength : 632.8nm Beam diameter : 0.5 mm Beam divergence : 1.7 mrad.

Additional Terms & Condition:

1. The manufacturer/authorized dealer should submit three purchase order along with satisfactory work completion certificate for similar types of items supplied to other Engineering colleges/organizations.
2. All manufacturer/authorized dealer need to mention the make and model no for the item quoted and authorized dealer has to submit the recent valid authorization certificate from the original manufacturer.
3. Pre dispatch inspection may be carried out if necessary for certain goods at the manufacturer site.
4. At the time of technical evaluation of products, the vendor may be called for the demonstration if required.
5. Quotation will be evaluated for the whole package.
6. FREE installations and FREE Demonstration at College.
7. The manufacturer/authorized dealer should provide catalog/leaflet in support of the quoted product.

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: _____