INVITATION FOR QUOTATION

TEQIP-III/2018/deia/Shopping/8 **17-Jul-2018**

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	Advanced Polarimeter	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
2	Beam Interference	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
3	Centripetal Force and Moment of Inertia	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra	Yes

				(U.P) 282005	
4	Coupled Pendulum Oscillation	1	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
5	Diode Laser Diffraction Experiment	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
6	Ethernet Shield for Arduino Uno and Mega	5	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
7	Faraday Effect Experiment	1	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
8	Four Probe Method	2	60	Applied Physics Lab, Faculty of	Yes

				Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	
9	Galileo Gen 2 Development Board	5	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
10	Hall Effect Experiment	1	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
11	IoT Commercial Developer Kit	5	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
12	IoT Gateway Technology	5	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational	Yes

				Institute, Dayalbagh, Agra (U.P) 282005	
13	Kits for telematics/autonomous car	1	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
14	Magnetic Field along the Axis	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
15	Millikan's Oil Apparatus	1	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
16	Moment Experiment	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes

17	Newton’s Ring Apparatus	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
18	Open Node	4	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
19	Planck's Constant	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
20	Polarization of light by quarter-wave plate	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
21	Precision Interferometer Setup	1	60	Applied Physics Lab, Faculty of Engineering,	Yes

				Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	
22	Premittivity of Air Experiment	1	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
23	Quad Store(TM) - 37 in 1 Sensor Modules Kit for Arduino Uno R3, Mega 2560, Raspberry Pi with box	5	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
24	Raspberry Pi Model B RASP-PI-3 Motherboard	5	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
25	SDR	1	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute,	Yes

				Dayalbagh, Agra (U.P) 282005	
26	Smart Video Gateways	5	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
27	Spectrometry Setup	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
28	Study of Resistance, Diode & Transistor with Deep	1	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
29	Thermal & Electrical Conductivity of Metals with Data Logger and Sensors	1	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes

30	Two Beam Interference	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
31	UNO R3 Development Board	5	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	Yes
32	Variable 'g' Pendulum	2	60	Applied Physics Lab, Faculty of Engineering, Dayalbagh Educational Institute, Dayalbagh, Agra (U.P) 282005	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 **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 **12** months from the date of successful acceptance of items.
11. You are requested to provide your offer latest by **16:00** hours on **10-Aug-2018 .**
12. Detailed specifications of the items are at Annexure I.
13. Training Clause (if any) **Software training after the installation is desirable.**
14. Testing/Installation Clause (if any) **Purchaser will test the equipment after completion of the installation and commissioning at the site of the installation. In case equipment fails, the purchaser reserves the right to get equipment replaced by supplier at no extra cost.**
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,
    Dayalbagh, Agra - 282005, Uttar Pradesh
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	Advanced Polarimeter	Compact Quartz Polarimeter Measuring range of optical rotation : +/- 180 Division Value : 1o Least count : 0.05o Magnifying factor of the magnifying glass : 4 times Monochromatic light source : 5893Ao Power line voltage : 220V, 50 Hz Working current : 1.3A Discharging power : 20W Stabilization time(approx.) : 5 minutes Polarimeter Tube With Central Bulb
2	Beam Interference	OPTICAL BENCH: Material : Aluminum extrusion Type : Triangular shape Scale : 0-100cm Least count : 1mm This optical bench is rigid, heavy, stable and long

		lasting. It has four levelling screw and flexible feets. FRESNEL'S MIRROR: Size : 100x50mm Mirror : 50x45mm (LxW) Flatsness : ?/6 Coating : Front coated Mirror angle : 3° approx. Mounting rod : 10mm HE -NE LASER Wavelength : 632.8 nm Working current : 4mA ~ 6mA Output power : > 2mW Continuous working time : > 8 hrs. Working Voltage : 220 V AC“ 50 Hz Input Power : <2 W
3	Centripetal Force and Moment of Inertia	Centripetal Force Base Unit Base Dimension : 150 X 410mm (length X Width) Vertical Shaft : 450mm, Mounted In Ball Bearing Threaded Rod : 340mm (length) With Four Wing Nut Digital Timer & Photogate Display : 2 Line Lcd Type : Micro Controller Based Time Resolution : 0.1 Milli Second Mode : Time, Speed & Acceleration Photogate : 2 Nos. Interface : Usb Operating Voltage : 5v Dc Photogate Detector : Infra-Red Accessories Weight : 500gm, 60 X 40 Mm Dimension Counter Weight : 500gm, 50 X 40mm Dimension Rod With Thread : 340mm (length) Boss Head Object Type : Square & Round Shape Object Size : Up-To 13mm Dia Material : Aluminium Alloy Object Can Be Held Both Vertically And Horizontally. Slotted Mass Set Material : Brass Total Weight : 1000gm Accuracy : ±1.0gm
4	Coupled Pendulum Oscillation	DATA LOGGER Computer connection : Micro USB & Bluethooth Maximum sampling rate : 100,000 samples per second Inputs channels : 4 Power : Micro USB Memory : Up to 250k samples Resolution sampling : 12 bits External sensors : +65 ROTARY MOTION SENSOR Range : ±128 ° Accuracy : ±0.125 ° Maximum Speed : 1

		m/s Pulley Radius : 0.025 m, 0.015 m, 0.005 m Direction of Motion : Indicates Input Type : Digital SUPPORT BEAM Material : Mild steel Support Rod : 2 Nos, 12.7mm diameter, M6 Beam Hole : 4.2mm diameter Hole position : Both side from center at 100, 125,150mm PENDULUM ROD & WIGHT Material : Mild steel
5	Diode Laser Diffraction Experiment	OPTICAL BENCH TRIANGULAR Material : Aluminum extrusion Type : Triangular shape Scale : 0-100cm Least count : 1mm This optical bench is rigid, heavy, stable and long lasting. It has four levelling screws and flexible feets SETOF13 OBJECTS It consists of 13 Objects : Single slit, double slit, multiple slit 3, multiple slit 4, multiple slit 5,single tapered slit, fine grating, 4 holes, circular opaque spots. gray filter, mesh, coarse grating & grid pattern. Frame Size : 50mm x 50mm DIODE LASER Peak wavelength : 635nm Operating voltage : 5V DC Operating current : 250mA Optical power : 0.4-0.8mW Laser product : Class II Operating temp. : 0 - 40°C Storage temp. : -10 to 50°C PIN HOLE PHOTO DETECTOR Detector : Silicon photocell Terminals : 4mm safety socket Aperture : 1 mm Rod : 10 mm diameter CROSS WIRE / SINGLE WIRE Frame size : 50mm x 50mm Clear aperture : 15 mm dia. (approx.) Wire thickness : 0.5mm (approx.) DIGITAL MULTIMETER Resistance :200W, 2000W, 20k, 200k & 2000k W. D.C.Voltage : 200 & 2000 mV : 20, 200 & 600V A.C.Voltage : 200 & 600V D.C.Current : 200 & 2000mA : 20 & 200mA : 10 A Testing : Diode & transistor Battery : 9V
6	Ethernet Shield for Arduino Uno and Mega	Ethernet Shield for Arduino Uno and Mega or higher
7	Faraday Effect Experiment	OPTICAL BENCH TRIANGULAR Material : Aluminum extrusion Type : Triangular shape Scale : 0-100cm Least count : 1mm This optical bench is rigid, heavy, stable and long lasting. It has four levelling screw and flexible feets. POWER SUPPLY 0-30V DC Input Voltage : AC 220V

		±5% Output Voltage : 0-30V Output Current : 0-10Amp Voltage Display : 3½ Digit LED Current Display : 3½ Digit LED DIGITAL GAUSS METER Range : 200 G & 2 kG Resolution : 1G at 0 - 200G Power : 220 V, 50 Hz AC Hall probe : InAs ELECTROMAGNET UNIT Coils : 300 turns. Current : 10Amp (Max.) Wire : 18SWG, Cu. Connection : 4mm safety socket. U Core : 150x130mm(LxH), 40x40mm cross section Pole piece : Length=80mm Material : Ferromagnetic. POLARIZER / ANALYZER Angle : Adjustable (0°-90°) Aperture : 21mm dia. Frame : 130mm dia. blackened , to avoid scattering of light Rod : 10 mm dia. TRANSLUCENT SCREEN Material : Translucent, Acrylic. Size : 300 x 300 mm Rod : 10 mm diameter He-Ne LASER Wavelength : 632.8 nm Working current : 4mA ~ 6mA Output power : > 2mW Working time : > 8 hrs. Working voltage : AC 220 V ± 22 V Input Power : <2 W
8	Four Probe Method	Four Probe Power Supply Voltmeter Display : 3½ digit, 7segment LED, auto polarity& decimal indication. Voltage Range : X1 (0-200.0mV DC) & X10 (0-2.00 V DC), 4mm socket Current/Temperature : 3½ digit, 7segment LED Display Temperature Range : -10 to +200°C @ 1°C Current Range : 0-20mA DC, 4mm socket Oven Supply : 60V AC Oven Connector : 5 Pin, DIN type Input Voltage : 220V, 50Hz AC Fuse : 1A, 250 V P-Type Ge Crystal Crystal : Ge Wafer, P type Crystal Size : 12 x14 x 0.5mm (LxWxThickness) Resistivity : 1~ 10 ohm-cm Orientation : <100> Four Probe Crystal Housing Material : Steel metal, Nylon Pillar : Spring loaded Height can be adjusted using three screw mounted on top Oven Heating Element : 35 ohm, 75 Watt Oven Supply : 60V AC Oven Connector : 5 Pin, DIN type Connector Make : MX Ambient Temperature : 50°C Fuse : 2A Temperature Range : -10 to +200° C Least Count : 1° C Length : 300mm approx. Four Probe Cable Pin : Spring loaded Probe Spacing : 25mm Connection : 4mm safety socket

9	Galileo Gen 2 Development Board	Galileo Gen 2 Development Board or higher.
10	Hall Effect Experiment	CONSTANT CURRENT SOURCE Current Display : 0-20 mA DC Voltage Display : 0+200mV@0.1mV Resolution : 10 micro ampere Current Adjust : 10-turns potential meter Power : 220V ± 10%, 50 Hz AC Display : 3½ digit LED POWER SUPPLY Voltage : 0-20V DC continuously variable & stabilized Voltage display : 3½ digit LED Ripple : Less than 25mV Overload : Current limiting protection Current : 5 A continuously variable, 10% to full rating Current display : 3½ digit LED Working voltage : 230V AC, 50 Hz single phase HALL EFFECT APPARATUS Coils : 500 turns. Coil Current : 8.5Amp (Max.) Connection : 4mm safety socket. U Core : 150x130mm2(LxH), 40x40mm2 cross section. I Core : Length=150mm, 40x40mm2 cross section. Core material : Ferromagnetic. DIGITAL GAUSS METER Range : 200 Gauss & 2 k Gauss Resolution : 0.1Gauss at 0 - 200 Gauss
11	IoT Commercial Developer Kit	IoT Commercial Developer Kit, latest professional kit for R&D.
12	IoT Gateway Technology	IoT Gateway Technology: with following specifications or higher Programmable IoT gateway with 10/100 Base-T RJ45 with Ethernet interface Accelerate time to market, scalable, manageable, 8KV contact discharge, 15KV air discharge ESD Supports standard 2FF plastic SIM as well as optional MFF2 embedded SIM HSPA+ / EDGE / GSM / GPRS air interface, B1 / B2 / B5 / B6 / B8 / B19 3G UMTS/HSPA+ 850 / 900 / 1800 / 1900 2G EDGE/GSM/GPRS and A-GPS, GLONASS, GALILEO location services
13	Kits for telematics/autonomous car	Kits for telematics/autonomous car, latest professional kit for R&D
14	Magnetic Field along the Axis	Power Supply Voltage : 0-20v Dc Continuously Variable & Stabilized Voltage Display : 3½ Digit Led Ripple : Less

		Than 25mv Overload : Current Limiting Protection Current : 5 A Continuously Variable, 10% To Full Rating Current Display : 3½ Digit Led Working Voltage : 230v Ac, 50 Hz Single Phase Gauss Meter With Axial Probe Range : 200 Gauss & 2 K Gauss Resolution : 0.1gauss At 0 - 200 Gauss Offset : By Potentiometer To Set Zero Display : 3½ Digit Led Input Voltage : 220 V, ± 5 %, 50 Hz Ac Axial Hall Probe : Inas Induction Coil Sets Material : Copper Od(Mm) L (mm) N R (O) L (Mh) I Max 40 75 165 0.7 0.5 2a 40 100 220 1 0.71 2a 40 125 275 1.2 0.91 2a 32 75 165 0.6 0.36 2a 32 100 210 0.8 0.51 2a 32 125 275 1 0.66 2a Optical Bench Material : Aluminium Alloy Type : Hexagonal Section Scale : 0-50cm Least Count : 1mm Axial Probe Holder Material : Pvc With 4mm Knob Rod : Ms 10mm Dia
15	Millikan's Oil Apparatus	Input voltage : AC 220V, 50Hz Output power : 5W. Plate voltage : 0~500V DC Change over switch : Between +ve, -ve and 0 field Plate distance : 5±0.2mm. Total Magnification : 30X Linear field of vision : =3mm. Scale division : 2±0.01mm. Objective lens : 100 lines/mm. DIGITAL STOP WATCH Display : 6 Digit Accuracy : 0.01sec Digit size : 5mm Mode : Start, Stop & Reset Necklace length : 2 feet
16	Moment Experiment	“A” base assy. Spring balance 2N Spring balance 1N Cylindrical base Disc assy. Movable clamp Slotted weight set Cotton thread Retort rod Meter rule Boss head
17	Newton’s Ring Apparatus	Spherometer (DISC Brass) Types : 3 legs Vertical scale : 6mmx6mm (WxT) Micrometer : Dia. 40mm, Brass Lower disc : Dia. 60mm Range : 10-0-10mm Least count : 0.01mm SODIUM LIGHT SOURCE Starting Voltage : 470 Volts Input Voltage : 220V, 50 Hz Lamp House : 300x85mm(Lx?) Aperture dia. : 25mm REFLECTOR ASSEMBLY Housing : PVC, Finish : Matt black painted Glass plate : Mounted at 45° Dimension : 108x92x96mm BRIDGE TYPE MICROSCOPE Eyepiece :

		Ramsden 10x Objective : 3x Scale length : 110 mm Least count : 0.01 mm LENS ARRANGEMENT Material : PVC Inner Dia. : 62mm Outer Dia. : 81.5 mm
18	Open Node	Open Node: With following specifications or higher WSN430 Open Node.
19	Planck's Constant	Planck's Constant Apparatus or Switch : V-I And T-I Experiment or Switch At V-I Position :- Voltmeter Display : 3½ Digit, 7segment Led, Auto Polarity& Decimal Indication. Voltage Range : 0.000-2.000v Current Display : 3½ Digit, 7segment Led Current Range : 0-2000ma or Switch At T-I Position :- Current Display : 3½ Digit, 7segment Led Current Range : 0-20ma Temperature Display : 3½ Digit, 7segment Led Temperature Range : Room Temperature To 60.0°C Oven : Heater Pin 4 & 5. Temperature Pin 1 & 2 Oven Connector : 5 Pin, Din Type Led Connector : 3 Pin, Din Type Input Voltage : 220v, 50hz Ac Fuse : 1a, 250 V Oven With Temperature Sensor Heating Element : 20 Ohm Oven Connector : 5 Pin, Din Type Ambient Temperature : 60° C Temperature Sensor : Pt100 Output Pin : Heater Pin 4 & 5. Temperature Pin 1 & 2
20	Polarization of light by quarter-wave plate	OPTICAL BENCH TRIANGULAR Material : Aluminum extrusion Type : Triangular shape Scale : 0-100cm Least count : 1mm This optical bench is rigid, heavy, stable and long lasting. It has four levelling screw and flexible feets POWER SUPPLY 12V AC/DC Output : 2,3,4,5,6,8,10 & 12VAC full wave rectified, unsmoothed & unregulated D.C. Overload : Resettable thermal trip. Input : 230 V AC,50 Hz POLARIZER / ANALYZER Angle : Adjustable (0°- + 90°) List count : 1° Aperture : 21mm dia. Frame : 130mm dia., to avoids scattering of lights Rod : 10 mm dia. QUARTER WAVE PLATE Angle : Adjustable (0°-90°) Aperture : 15mm dia. Frame : 130mm dia., to avoids scattering of lights Polarization : Circular polarized Rod : 10mm dia. YELLOW LIGHT FILTER Yellow (light) : 505 - 515 nm Dia. : 25-30mm

		DATA LOGGER Computer connection : Micro USB & Bluethooth Maximum sampling rate : 100,000 samples per second Inputs channels : 4 Power : Micro USB Memory : Up to 250k samples Resolution sampling : 12 bits External sensors : +65 HALOGEN LIGHT SOURCE Halogen bulb : 12V, 50W Operating voltage : 12V, 5A Safety sockets : 4mm Rod dia : 10mm LIGHT SENSOR Range :0 to 600 lx;0 to 6,000 lx; 0 to 150 klx Accuracy : ±4 % over entire range
21	Precision Interferometer Setup	1 Interferometer main frame 2 He-Ne laser 3 Laser holder 4 Ground glass screen 5 Holder for beam expander 6 Extension arm 7 Two-in-One observation screen 8 Transparent slice samples 9 Transparent slice clamp 10 Sodium-Tungsten lamp 11 Air chamber and pump with gauge Flatness of beam splitter & compensator plate :0.1l Minimum travel reading : 0.00025mm Travel of moving mirror : 0.625mm (travel of fine micrometer: 25mm) Sodium-tungsten lamp Sodium: 10W, Tungsten:15W He-Ne laser output 0.7 ~ 1nW@632.8nm
22	Premittivity of Air Experiment	High current power supply. High voltage DC power supply. Very sensitive coulomb and current balance. Diode laser based optical lever. COULOMB AND CURRENT BALANCE A Base dimension : 30cm x 35.5cm Leveling : 2 nos. threaded knobs Connection : 4mm safety socket Lever position : 25.5cm A sensitive balance with adjustable counterweight and an optical lever for measuring tiny forces by the null method. B Straight conductor : L=33.5cm, dia.=3mm, Aluminium Straight conductor : L=26.5cm, dia.=3mm, Aluminium (U type) Max. current : 20Amp C Parallel plate : 12.5cmx12.5cmx0.8mm (LxWxT) Material : Aluminium Max. current : 20Amp Scope of supply : Complete with base unit, pair of straight straight conductor, pair of parallel plates and plane mirror. POWER SUPPLY 0-30V DC, 0-20A Input Voltage : 220V, ±5%, 50Hz AC Output Voltage : 0-30V Voltage Resolution : 0.1V Voltage

		Display : 2½ Digit LED Output Current : 0-20 Amp Current Resolution : 0.1 Amp Current Display : 2½ Digit LED Protection : Current-Limiter Primary fuse : 8 Amp DIODE LASER Peak wavelength : 635nm Operating voltage : 5V DC Operating current : 250mA Optical power : 0.4-0.8mW Laser product : Class II Operating temp. : 0 - 40°C Storage temp. : -10 to 50°C HIGH VOLTAGE POWER SUPPLY Input Voltage : 220V, ±5%, 50Hz AC Output Voltage : 0-600V DC Voltage Resolution : 10V Voltage Display : Analog Short Circuit Current : 100µ Amp WEIGHT BOX Weights : 1mg to 50gms (set of 8) Material : Nickel plated brass Fractional : Aluminium, CYLINDRICAL BASE Material : Ferrous Mount : Rod 10-14mm dia : Flat object up to 10mm Groove (LxW) : Slide object, 30x10mm
23	Quad Store(TM) - 37 in 1 Sensor Modules Kit for Arduino Uno R3, Mega 2560, Raspberry Pi with box	Quad Store(TM) - 37 in 1 Sensor Modules Kit for Arduino Uno R3, Mega 2560, Raspberry Pi with box Or higher
24	Raspberry Pi Model B RASP-PI-3 Motherboard	Raspberry Pi Model B RASP-PI-3 Motherboard or higher.
25	SDR	SDR latest professional kit for R&D
26	Smart Video Gateways	Smart Video Gateways: with following specifications or higher Smart Video Gateway (Smart ViG) provides audio / video transport to the 4G and 3G Mobile switching centre and uses 3G-324M protocol. It has transcoding and proxy functions for call signaling, command control, and voice and video transcoding between multimedia systems protocols including 3G-324M/H.324M, ITU-T H.323 and the IETF SIP. The Smart ViG provides transcoding tailored to end-terminals such as mobile phones, PDAs, and IP terminals. Supports a variety of voice and video coding standards and connects end-terminals on circuit switched, packet switched networks, wireless networks and GSTN. The Smart ViG

		does transcoding in real-time and on-the-fly between major voice and video standards and protocols including the GSM-AMR, G.723.1, and G.711 voice codecs; H.263 and MPEG4 video codecs. The BTT gateway complies with all protocol requirements as defined by the 3GPP 3G-324M ITU-T H.324, H.324m, H.323, and the IETF RTP and SIP protocols.
27	Spectrometry Setup	Spectrometry Setup
28	Study of Resistance, Diode & Transistor with Deep	Circuit Board 1 Lead (100cm) 8set Data Logger with Current Booster 1 Power Unit 1 Diode Module 1 Zener Diode 3.9V Module 1 Zener Diode 5.1V Module 1 LED Module 1 Resistor Module 100O 1 Resistor Module 10O, 10W 1 Resistor Module 1kO 1 Resistor Module 10kO 1 Transistor Module 1 Voltage Sensor ± 1V 1 Voltage Sensor ± 10V 1 Current Sensor ± 1mA 1 Current Sensor ± 10mA 1 Current Sensor ± 100mA 1 Current Sensor ± 1A 1 Software
29	Thermal & Electrical Conductivity of Metals with Data Logger and Sensors	THERMAL AND ELECTRICAL CONDUCTIVITY OF METALS CONDUCTIVITY ROD Rod dimension : 435 x 25.4mm2 (Length x Diameter) Current Connection : 4mm socket Temperature Point : 2 Nos Jacket Dimension : 350 x 50mm2 DATA LOGGER Computer connection : Micro USB & Bluethooth Maximum sampling rate : 100,000 samples per second Inputs channels : 4 Power : Micro USB Memory : Up to 250k samples Resolution sampling : 12 bits External sensors : +65 POWER SUPPLY 0-30V Input Voltage : 220V, ±5%, 50Hz AC Output Voltage : 0-30V Voltage Resolution : 0.1V Voltage Display : 2½ Digit LED Output Current : 0-20 Amp Current Resolution : 0.1 Amp Current Display : 2½ Digit LED Protection : Current-Limiter Primary fuse : 8 Amp TEMPERATURE SENSOR Range : –40 to 140°C Accuracy : ±2% Resolution : 0.03 °C Response Time : 20 seconds in liquid 40 to 60 seconds in air DIGITAL WEIGHING SCALE Body : Plastic Capacity : 700g. Least count : 0.1g LOWER CALORIMETER VESSEL Height : 170mm Outer Dia. :

		160mm inner Dia. : 105mm Inner height : 111mm Water capacity : 1 L DIGITAL THERMOMETER Display : 3 ½ digit LCD Range : -50 to +199.90C Accuracy : +0.20C + 1 digit till 2000C, 10C + 1 digit beyond 2000C Resolution : 0.1/10C upto +199.90C, 10C beyond 2000C Ambient : 0 to 500C Low battery control : Replace 9V battery if LCD shows “1" DIGITAL MICRO VOLTMETER Operating voltage : 230V, 50Hz Operating range : 0-20mV, 0-200mV, 0-2000mV, 0-2V Accuracy : ± 0.01mV least count : 0.001mV HEAT CONDUCTIVE PASTE Quantity : 20mg It transfer the maximum heat through it
30	Two Beam Interference	OPTICAL BENCH: Material : Aluminum extrusion Type : Triangular shape Scale : 0-100cm Least count : 1mm Optical bench must be rigid, heavy, stable and long lasting. It must have four levelling screw and flexible feets. FRESNEL’S BIPRISM (RECTANGULAR) Material : Glass Size : 40x30mm (L x W) Prism angle : 178° approx. SODIUM LIGHT SOURCE: Starting Voltage : 470 Volts Operating Voltage : 220 Volts, 50 Hz. Lamp House : Excluding Rod (300 x 85 mm dia.) Aperature Dia : 25mm ADJUSTABLE SLIT SELF CENTERING: Slit Width : 0-2 mm Height : 6 mm Frame : 120mm dia., to avoids scattering of light Rod : 10mm dia. MICROMETER EYEPIECE: Eyepiece : 10X, Ramsden Pitch : 0.5mm Least count : 0.01mm Displacement : 20mm CONVEX LENS IN HOLDER: F. L : 200mm Lens : 50mm dia. Frame : 130mm dia, to Rod

		: 10mm dia. MICROSCOPE OBJECTIVE Objective : 10X Diameter : 25mm(approx) UNIVERSAL LENS HOLDER Object : upto 60mm Jaws : 3 no. at 90° Frame : 100 mm dia. Rod : 10mm dia. Rotation : By knurled screw
31	UNO R3 Development Board	UNO R3 Development Board: With following specifications or higher UNO R3 Development Board ATmega328P ATmega16U2
32	Variable 'g' Pendulum	SUPPORT BASE & SUPPORT ROD “A” shape base : Cast iron Support rod : Mild steel Mounting rod : Mild steel Circular disk : PVC BAR PENDULUM Rod : Al pipe, 360 x 10 mm Weight : 30 x 10 mm (outer x inner dia.) Material : Mild steel DIGITAL TIMER & PHOTOGATE Display : 2 line LCD Type : Micro controller based Time resolution : 0.1 milli second Mode : Time, Speed & Acceleration Photogate : 1 No. Interface : USB Operating voltage : 5V DC Photogate detector : Infra-Red Microcontroller based and in-built test functions.

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: _____