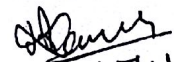


MAHARSHI DAYANAND UNIVERSITY ROHTAK
UNIVERSITY INSTITUTE OF ENGINEERING & TECHNOLOGY
SHORT TERM TENDER NOTICE

Sealed tenders super-subscribing "Tender for Physics Lab Equipments" are invited for the purchase of various Physics Lab Equipments latest by 04.02.2015 alongwith earnest money equal to 2% of involved value in the shape of Demand Draft in favour of **Finance Officer, M.D.University, Rohtak**. For more details visit www.mdurohtak.ac.in. Tenders will be opened on 05.02.2015 at 2:30 p.m. in the office of the Director, UIET, M.D.University, Rohtak




20/11/15
REGISTRAR


15/11/15

Subject: - Quotation/ TENDER

Sir,

TERMS + Conditions.

The articles/material as per specification given below/ attached are required to be purchased for UIET. You are requested to kindly quote your rate for the same. The terms and conditions for quoting/tendering the rates are given below, may kindly be kept in view while you do so. Your quotation will interalia be subject to the following conditions:-

1. All charges payable by the University should clearly be stated.
2. The quotation should submitted only if the material is available in your ready stock or can be supplied within 3 days after the order is placed.
3. Sealed tenders/quotations should reach the office of the undersigned on/before 4.12.15 quoting our reference and due date of opening on the envelope.
4. The quotation/tender will be opened on 5.12.15 at 2:30 PM in the presence of the parties or their representatives who so ever like to be present.
5. An amount equal to 2% of quoted amount in the shape of Bank Draft in favour of the Finance Officer, Maharshi Dayanand University, Rohtak as earnest money should accompany the quotation/tender, in absence of which the tender/quotation will not be entertained.
6. As far as possible the rates should be quoted for the make and specification of the items given. In case any alternative/equivalent item is offered, its specification and leaflets may be sent with the tender/quotation. The sample of material should accompany the tender/quotation for record.
7. The acceptance of goods is subject to the approval of Inspection Committee.
8. Dispute, if any, will be subject to Rohtak Jurisdiction.
9. The University reserves the right to reject any or all quotations/tenders without assigning any reason thereof.
10. If your rates are approved by D.G.S. & D. and other Central/State Agency, the rates of the same must be quoted and the copy of the rate contract be attached.

11. Supplies shall be executed within the time specified in the supply order which may be extended by the registrar on the application of the supplier explaining reasons/circumstances due to which time limit could not be adhered to. In the event of the supplier failing to supply the material within time, he shall be liable to pay as compensation an amount equal to one percent or such small amount as the Registrar may decide on the said amount of the contract, for every day that quantity remains incomplete, provided that the entire amount of compensation shall not exceed 10 percent of the total amount of contract. An appeal against these orders shall however lie with the Vice-Chancellor whose decisions shall be final.
12. In case the contractor backs out of his contract, the earnest money deposited by him shall be forfeited besides any other action may be considered necessary by the Vice-Chancellor.
13. The quantity of material/supplies shall be subject to increase or decrease on the tendered rates. This increase or decrease shall be communicated by the University within Days of acceptance of the tender.
14. Guarantee period for equipment/machines should be clearly specified.
15. 100% payment will be made on receipt and inspection of goods to ensure the specifications and their good conditions.
16. The rates accepted by the University shall be applicable up to and the supplier shall have to make supply during the period as and when required.
17. The Registrar reserves the right to reject or accept any offer without assigning any reason.

DIRECTOR (UIET)

Specification of Equipments for Physics lab

S.No	Description/Specifications	Qty
01.	<p>Post office box Trainer. The trainer should have: On Board DC Power Supply : 5V Galvanometer ; Deflection : 30 – 0 – 30 ;Resistance : 80 W Unknown Resistance Type : Variable ;Range : 0 – 10 KΩ Wire Samples : Constantan : 1 meter ;Nichrome : 1 meter Mains : 230 V AC \pm 10%, 50 Hz Fuse : 500 mA</p>	06
02.	<p>Stewart and Gee's Apparatus. DC Power Supply : 5V, 2.6A ; DC Ammeter : 0 - 3A Tangent Galvanometer: Type : Stewart and Gee ; Scale : 50 - 0 - 50 cm Magnetometer : Pointer : Aluminum ; Quadrant : 0° - 90° (Four) Coil : Bobbin : Aluminum ; Diameter : 19 cm ; Wire : Insulated copper Turns : 0 to 5, 50, 100, 200, 500 Mains Supply : 230V \pm10%, 50Hz</p>	05
03.	<p>Photo Vacuum tube Apparatus. DC Power Supply : 0-5 V Filters : Colors : Violet, Royal Blue, Tokyo Blue, Green, Yellow, Red Light Source : Halogen lamp 50 W Rail : 50 cm DC Voltmeter; Type :LCD ; Display : 3½ digit ; Range : 200 mV - 200 V DC Ammeter ; Type : LCD ;Display : 3½ digit ;Range : 2 μA - 200 mA Mains : 230 V \pm10%, 50 Hz Fuse : 0.5 A</p>	03
04.	<p>Four probe method apparatus. Contacts : Spring loaded ; Space between Probes : 2 mm \pm2% ; Probes : Collinear Sample :Material : Germanium Crystal ;Type : P type Oven :Maximum Temperature : 200°C;Heater Resistance : 37V ; Heater Voltage : 45 V (approx.) Measurement Unit :Display : LCD 16 x 2 Characters ;Range : 0-2 V Constant Current Generator : Current Range : 0 to 20 mA ; Resolution:1 mA Open Circuit Voltage : 18 V Oven Power Supply :Input : 230 V AC \pm10%, 50 Hz</p>	03
05.	<p>Newton's Rings Setup. Sodium vapour lamp as the monochromatic (5893Å) and broad light source Lens: Type : Plano – convex. ;Focal Length : 100 cm ;Diameter : 6 cm Newton's Ring Microscope Magnification : 30X ;Weight : 5.7 kg ; Horizontal Movement Limit : 9 cm Least Count of Circular Scale : 0.001 cm Sodium Vapour Lamp Light source enclosed in a metal case with</p>	05

	holes for cooling. Wavelength : 5893 Å ;Operating Wattage : 35 W Mains Supply : 230 V ±10%, 50 Hz	
06.	Fresnel Biprism setup. Optics bench: Length : 1.5 m Biprism :Dimension : 50 x 40 mm ;Material : Glass ; Refractive index : 1.54 Convex Lens :Type : Double Convex ; Focal Length : 100 mm; Dia : 50 mm Micrometer Eyepiece : Range : 30-0-30 mm ;Least Count : 0.005 mm Screen: Horizontal Scale : 100-0-100 mm ;Vertical Scale : 85-0-85 mm Light Source : Sodium Vapour Lamp . Wavelength : 5893 Å ;Operating Wattage : 35 W Mains Supply : 230 V ±10%, 50 Hz	04
07.	refractive index of a prism. Spectrometer Base: Type : Cast iron ;Circle dia : 150 mm. (6") Scale : Type : Stainless Steel ;Main scale : 0 - 360° ; Vernier scale : 30 div ; Collimator : Tube length : 160 mm. Focal length of Achromatic lens :: 175 mm. (approx.) Telescope : Tube length : 185 mm. Focal length of Achromatic lens : 175 mm. (approx.) Prism :Geometry : 50 X50 mm. equilateral ; Refractive index : 1.51 Hollow prism : 50 X 50 mm. equilateral Plane transmission grating : 15,000 l/inch Light source : Mercury lamp enclosed in a metal case Output Power : 160 W. Wavelength : 400 - 800 nm	04
08	Michelson's Interferometer Interferometer Base : Machined MS base of 6 kg with rubber sheet attached at bottom to reduce vibration Micrometer : Least count : 0.001 mm ;Range : 0 - 25 mm Beam Splitter : Type : Cubic ; Size (mm) : 15 x 15 x 15 R%/T% : 50 / 50 ; Flatness : λ/4 (at 632 nm) Mirror : Type : Circular Diameter : 25 (5mm thick) Second Mirror : Fabricated on Beam Splitter Source I: Sodium Vapour Lamp Wavelength : 5893 Å ;Operating Wattage : 35 W Mains Supply : 230 V ±10%, 50 Hz SourceII : Diode LASER (Battery operated) 630nm	02
09	Polarimeter Circular scale graduated from 0° to 360° Sodium vapour lamp light source Polaroid :Thickness : 0.1 mm. ;Diameter : 26 mm Type : Nitrocellulose polymer Half wave plate :Wavelength : 589 nm ;Type : Quartz Objective lens :Type : Double Convex ;Focal length : 50 mm Eye piece : Type : Double Convex ;Focal length : 200 mm Polarimeter tube : Length : 100 mm ;Material : Borosilicate Volume : 23 ml Sodium Vapour Lamp Light source Wavelength : 5893 Å ;Operating Wattage : 35 W Mains Supply : 230 V ±10%, 50 Hz	06
10	Desauty's Bridge Setup Variable decade resistance rotary switch, Variable capacitance using gang type capacitor, Digital null detector 3.5 digit LED , with high- low sensitivity selector with 1KHz bridge oscillator having short circuit protection. Test capacitors: Air & dielectric medium parallel plate aluminum sheet stag type capacitors	08

11.	Sonometer Length of wire : 88cm ;Weight of wire : 0.0018kg (approx.) Weight (6 nos.) : 0.5kg (each) Power Supply : 230V \pm 10%, 50Hz AC Power Supply : 6V, 500mA Coil : No. of Turn : 800 ; Wire dimension: 0.404 Maximum current : 0.363 Amps ;Inductance (apprx) : 9.2 mH	06
12.	Ultrasonic Interferometer Ultrasonic Interferometer Quartz Crystal Diameter : 20 / 14 mm ;Thickness : 1.4 mm ;Frequency : 2 MHz Liquid Cell Optimum Quantity of Liquid : 12 cm Max. Displacement : 25 mm of the Reflector Least Count of Micrometer : 0.01 mm Distance Measurement : Ultrasonic Transducer : 28 cm to 1.0 m (approximately) Clock Generator : 40 kHz Amplifier : 60 dB Threshold Detector : 0 to 9 V DC Buzzer Indicator : 1.5 - 15 V DC Mains Supply : 230 V \pm 10%, 50 Hz Fuse : 500 mA Display : LCD	03
13.	High resistance-(Leakage Method) DC Power Supply : 12V Ballistic Galvanometer Type : Moving Coil Suspension Wire : Phosphor Bronze Reflector : Concave Mirror Coil Resistance : 500 Ω Lamp & Scale Lamp : Laser Light Source Scale : 30-0-30cm Unknown Resistances : Selectable by rotary switch R1 = 20M Ω ; R2 = 40M Ω ; R3 = 60M Ω ; R4 = 80M Ω Capacitors : Selectable by rotary switch 0.22 μ F ; 0.33 μ F ; 0.47 μ F Mains Supply : 230V \pm 10%, 50Hz	04
14.	Solar Cell Solar Panel : Consists of 6 solar cells Maximum Voltage of each solar cell : 1.5V Maximum Current of each solar cell : 150mA On Board Voltmeter : 0 -10V ; On Board Ammeter : 0 - 500mA Potentiometer : 5K 2 AA Rechargeable NiCd Battery : 1.2V On board Applications like : Bulb : 1.2V, 270mA Fan : 1.5V, 400mA ; FM Band Radio : 12V Mains Supply : 230V \pm 10%, 50Hz	05
15.	P-N diode Characteristics On Board DC power supply : +12V DC Ammeter & voltmeter A Range : Multi range 1 μ A to 200mA 3 ½ digit LCD V Range : Multi range 1mV to 200V 3 ½ digit LCD Mains : 230V AC \pm 10%	08
16.	Hall effect Experiment setup Specifications : Gauss and Tesla meter Microcontroller Based Alphanumeric LCD Display for Measurement of Magnetic Field in Gauss and Tesla, With PC Interface facility.	04

	<p>Sensor : InAs for better sensitivity ;Range : 0-5 kG Mains : 230 V AC $\pm 10\%$, 50 Hz 2) Measurement unit Microcontroller Based Alphanumeric 4 line LCD Display Probe Current : 20 mA (max.) ; Heater current : 0-700 mA Temperature : 0-100°C ;Mains : 230 V AC $\pm 10\%$, 50 Hz PC interface : RS232/USB A) Hall probe Crystal : p-type lightly doped Resistivity : As on probe ; Thickness : As on probe B) Temperature Sensor : PT-100 3) Constant Current Power Supply Current range : 0 to 3.5 A ; Output Voltage : 20 V Display : Microcontroller based LCD, 16 x 2 line ; Mains : 230 V AC $\pm 10\%$, 50 Hz 4) Electromagnet Poles : 25 mm diameter ;Coils : 2 Nos. ;Resistance : 5 Ohms (approx)</p>	
17.	<p>B-H curve Tracer Magnetic field measurement unit Display : 3½ digit LCD Mains Supply : 230 $\pm 10\%$ / 50 Hz Sample :Type : Nickel, Hard Steel,Soft Steel Length : 39 mm each ;Diameter : 1.2 mm each Diameter of pickup coil : 3.21 mm Oscilloscope: 30 MHz dual trace with microcontroller based LCD display for V/div & Time/div. XY mode.</p>	03
18.	<p>Michelson's Interferometer using He- Ne Laser Light source Micrometer : Least count : 0.001 mm ;Range : 0 - 25 mm Beam Splitter : Type : Cubic ; Size (mm) : 15 x 15 x 15 R%/T% : 50 / 50 ; Flatness : $\lambda/4$ (at 632 nm) Mirror : Type : Circular Diameter : 25 (5mm thick) Second Mirror : Fabricated on Beam Splitter Source : He-Ne LASER (630 nm) with power supply.</p>	02
19.	<p>Traveling Microscope Base : Iron ; Scale : Stainless Steel Vertical Scale Main Scale : 0-150mm ; Vernier Scale : 0-1mm ; Least Count : 0.01mm Horizontal Scale Main Scale : 0-180mm ; Vernier Scale : 0-1mm ; Least Count : 0.01mm Eyepiece : 10x (Ramsden)</p>	03
20.	<p>Sodium light source with Power Supply Sodium Vapour Lamp. Wavelength : 5893 Å ;Operating Wattage : 35 W Mains Supply : 230 V $\pm 10\%$, 50 Hz</p>	05
21.	<p>Mercury Lamp Light Source. Light source : Mercury lamp. Output Power : 160 W. Wavelength : 400 - 800 nm Mains supply : 230 V $\pm 10\%$, 50 Hz</p>	05
22.	Table top Ammeter	06
23.	Table top Voltmeter	06
24.	Table top Galvanometer	06