



**DEPARTMENT OF PHYSICS**

COLLEGE OF BASIC SCIENCE AND HUMANITIES  
OUAT, BHUBANESWAR – 751003

No-17/PHY /BSC

Date 30.01.2019

**QUOTATION**

Sealed quotations are invited for supply of the items as at Annexure-1 from the suppliers/vendor/reputed manufactures fulfilling the condition indicated below.

Interested Supplier / Firms should submit their quotation indicating their rates and GST/taxes if any along with other terms and condition in a sealed cover for supply of the items. The quotation should reach the undersigned on or before 11.02.2019. The quotation should include installment charge of the equipments.

**Conditions**

1. The firms must be registered under the OUAT Act-2004 and submit the Xerox copy of TIN Certificate along with the quotations.
2. The articles should reach F.O.R Bhubaneswar (College of Basic Science & Humanities) OUAT, Bhubaneswar.
3. The transporting charge will be borne by the supplier
4. Payment will be held up if defective material are supplied
5. The authority reserves the right to cancel or change the quotation without assigning reason
6. Warranty for a period of 36 months (3years) towards any manufacturing defects.

Sd/-  
HOD, PHYSICS

**ANNEXURE-1**

**Quotation to be called for purchase of instruments for the year 2018-19**

**Name of the college/establishment— Department of physics, College of Basic science and Humanities, OUAT---Bhubaneswar-751003-----**  
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<b>Sl.no</b>	<b>Course</b>	<b>Item</b>	<b>Detailed technical specification</b>	<b>No.of units</b>
1	P.G	Michelson Interferometer Model based on Hilger and watt Determination of wavelength of monochromatic light and thicknes of thin mica film.	Optical mirror mount, Beam splitter, compensating plate. Sodium light source with complete set. White light source , mica sheet	01
2	P.G	Michelson Interferometer Based on Bread Board Model. Determine of wavelength , refractive index Of transparent material, Thickness of transparent sheet	Optical bread board, He-Ne Laser., Laser stand , Beam Splitter,	01
3	P.G	Michelson Interferometer Model mounted on heavy iron base. Determination of thickness of mica sheet, Determination of wavelength of monochromatic light.	L.C .01 mm, reading telescope of magnification 3x , Ramsdens eye piece (20x objective for He-Ne Laser.	01
4	P.G	Verification of Malus Law using a plane glass plate and polaroid Study of polarisation of light By reflection and verification of Brewster's law. Verification of Malus law using two polaroids. Verification of Malus Law using two glass plate.	Digital ammeter 0-20 micro amp. mains supply -9v, Detector-photodiode, Polaroid-26 mm , measuring scale-0-360 Incandescent lamp- 40 wattage, mains supply -230volts.  Determination of Plane of Polarisation.	01

5	P.G	Polarisation using quarter waveplate	Quarterwave plate,He-Ne laser,Optical bench,,Polarisor and analyser,Detector with Digital Meter. Stand of He-Ne Laser.	01
6	P.G	Diffraction using Double slit	Sodium light set with auto Transformer, Double slit or He-Ne Laser and stand Optical bench,Screen ,Detector with digital meter,	01
7	P .G	Velocity of ultrasonic wave in a medium at different temperature.(liquids and solids)	Liquid tank,Solid ,Crystal with holder. Frequency meter	01
8	P.G	Hysteresis loop tracer	Variable magnetic field,solenoid coil oscilloscope	01
9	P.G	Ferromagnetic transition point or Curie temperature of FERROMAGNETIC MATERIAL.	Variation of B-h curve with temperature. Oven ,Ferromagnetid material	01
10	P.G	Verification of Richardson Law		01
11	P.G	R C Coupled Amplifier with frequency Generator.	Frequency response curve, Gain Band width produc, C ommon Emitter amplifier. With Ac F Oscillator	01
12	P G	Digital storage oscillator.		02
13	U.G	Searles Viscometer	Measurement of coefficient of viscosity of highly viscous liquid,Stop clock,Vernier callipers and Physical weight.	01
14	U.G	Stokes apparatus for measurement of coefficient of Viscosity.	Stop clock ,glass funnel,,screw Gauge ,Glycerine,,Steal balls of iffereent size and measuring tape,Rubber band of different colour.	01

15	U.G	Measurement of young's modulus by bending beam method	Vernier Calipers,,Galvanometer,,Stabilised power supply,,Variable Potentiometer.,Slotted weights and Measuring tape.	01
16	U.G	Tracing Lissajous figure.	Lissajous figure apparatus with Dual trace scope	01
17	U.G	Mechanical equivalent of heat by Joules Calorimeter	Joules Calorimeter, Step Down Transformer 0-20volt/3amp,Rheostat,stop clock AC Ameter-5A,Connecting wires AC voltmeter,Thermometer,balance	01
18	U.G	Thermal conductivity by Lees method	Lees Disk apparatus Two Thermometer 110x1/10 ,stop clock ,screw gauge Vernier callipers, Hot Plate ,Steam boiler	01
19	U,G	Amplitude modulation Demodulation apparatus	To study A M and demodulation preferably with D S O	01
20	U.G	Polarisation of light by reflection and determination of polarising Angle for air-glass interface		
21	U.G	Refractive index of liquid by Total internal reflection using Wolston air film method		
22	U.G	Spin coater	120-6000 rpm, 12vV---20KV dc power	
23	U.G	Ball Miller	0.5 Litre, 19 mm width diameter steal ball.	
24	General	Slide Calipers	IME type,Stainless Steel,L.c-.01 08 inch	20
25	General	Screw Gauge	Stainless Steel,L.c-0.1 & 0,05 25x1mm	20

26	General	Rubber Pad	Anti vibration rubber pad	10
27	General	Plumb Line	225g. Complete with 18m of nylon line, steel body	10
28	General;	Prism	(3x3)cm, each side 3cm	25
29	General	Concave mirror	Focal length-15cm,18cm & 20cm	10
30	General	Thermometer	Scale:0-100 <sup>0</sup> c	05
31	General	Base Pl;ate	Square type/circular type	15
32	General	Beaker	250ml & 500ml	15
33	General	Determine the internal resistance of given primary cells using potentiometer	Potentiomete((10 wire)with jockeyr, Two primary cells	02
34	General	Compare the EMF of two given primary cells using potentiometer	Potentiometer(10 wire) with jockey, two cadmium cells/digita cell	02
35	General	Characteristics of a common emitter /base npn or pnp transistor.(Analog Version)	Four meter for reading .To study input and output charecterstics.Transfer characteristics.high quality connecting wire Metal box	02
36	General	Weight box, Brass	Minimum weight-1gm & maximum weight-100gm.Brass/steal weights in nicely teak polished wooden box with forcep and fractional weights.	03

