DR. MEGHNAD SAHA COLLEGE

Recognized by UGC u/s 2(f) & 12 (B)
Affiliated to University of Gour Banga
Website: www.drmscollege.ac.in

NAAC Accredited 'B'
(CGPA 2.42 in Cycle 1)
At - Ranipur
P.O. - Tilna, P.S. - Itahar
Uttar Dinajpur District
West Bengal, India
PIN 733128

Reference No. :

Date:

TENDER NOTICE

For supplying Apparatus for Dept. Physics of the College

Tender Notice No.: MSC/Tender /17/2022-23

17.03.2023

Sealed quotation are invited from reputed organizations/ individuals suppliers separately for each items mentioned below for supplying Apparatus for Physics (Hons) Laboratory to reach the office of the Vice Principal of the college within 3 P.M on 23.03.2023.

Sl. No.	Material	Specification	Approximate purchase amount (including GST)
01	**Measurement of Planck's constant using black body radiation and photo detector. Make: Branded (Complete Set-up)**	See list of apparatus in **Annexure 1**	Rs. 60,000.00
02	**To determine the Planck's constant using LEDs of at least 4 different colours. Make: Branded (Complete Set-up)**		Rs. 6,000.00
03	**To determine the value of e/m by (a) Magnetic focusing or (b) Bar Magnet. Make: Branded (Complete Set-up)**		Rs. 30,000.00
04	**To determine the Boltzamann constant using V-I Characteristics of PN junction diode. Make: Branded (Complete Set-up)**		Rs. 12,500.00

Terms and conditions:-

01. All the quantities may be increased or decreased as per needs
02. All relevant documents (Pan, GST, Adhaar, Trade License, bank accounts) are to be submitted to the authority in office hours in opening days.
03. No defects materials will be accepted or to be supplied to the authority.
04. All payments will be given after delivery of the materials to the authority in due time.
05. The authority has every right to cancel the order without showing any reasons to the supplier concern.
06. All the materials will be supplied to the site as per direction of the authority.
07. The supplier will deliver the consignment within seven days from issue of supply order from the authority.

17/03/2023

Vice Principal
Dr.Meghnad Saha College
Ranipur, Itahar, Uttar Dinajpur

Vice-Principal
Dr. Meghnad Saha College
P.O. Tilna, Itahar (Ranipur)

Enclosed: Annexure -1

Annexure -1

Requisition of aparatus-Sem-IV

Sl No	Description
1	**Measurement of Planck's constant using black body radiation and photodetector.** **MAKE : Branded (Complete Set-up)** The apparatus consist of the following: 1. Photo Sensitive Device: Vacuum photo tube. 2. Light source: Halogen tungsten lamp 12V/35W. 3. Colour Filters: 635nm, 570nm, 450nm, 500nm & 460nm. 4. Accelerating Voltage: Regulated Voltage Power Supply. ➢ Output: ±15V continuously variable through multi-turn pot. ➢ Display : 3 ½ digit 7-segment LED ➢ Accuracy : ±0.2% 5. Current Detecting Unit: Digital Nanoammeter It is high stability low current measuring instrument. ➢ Range : 1000µA, 100µA, 10µA & 1µA & 1µA with 100 % over ranging facility ➢ Resolution : 1nA at 1µA range ➢ Display : 3 ½ digit 7-segment LED ➢ Accuracy : ±0.2% 6. Power Requirement: 220V±10%, 50Hz. or 110V±10%, 60Hz. as required. 7. Optical Bench: The light source can be moved along it to adjust distance between the light source and the phototube, scale length is 400mm. A tube is provided to install colour filter and a focus lens is fixed in the back end. The set-up is complete in all respect, no additional accessory required.
4	**To determine the planck's constant using LEDs of at least 4 different colours.** **MAKE : Branded (Complete Set-up)** The set-up is one Planck's Constant Apparatus – Inbuilt One digital voltmeter, one digital mA meter, Output terminal, One Various wave length LED complete with box inbuilt – Blue, Green, Yellow, Red, White, LED with input terminal.
7	**To determine the value of e/m by (a) Magnetic focusing or (b) Bar Magnet.** **MAKE : Branded (Complete Set-up)** The total Set up is Complete with the following: a) e/m by Thomson Method (bar Magnet) – To measure e/m of electron by bar magnet method. The actual measurement by students of the ratio of charge on the electron to its equally minute mass imparts a stimulating sense of achievement. Instrument is made so as to impart a perfect result as accurate as possible. With built in power supply. It is provided with other accessories such as wooden stand, Deflection magnetometer & pair of bar magnet. Very easy to handle & compact in size. Fully self-contained. Fully self-contained. a. Power Supply – b. CRT Tube – c. Compass with stand – d. Magnet -

1 4	**To determine the Boltzmann constant using V-I characteristics of PN junction diode** **MAKE : Branded (Complete Set-up)** BOLTZMANN'S CONSTANT OF PN JUNCTION TRAINER ➢ SCOPE OF LEARNING: • Study of Boltzmann's Constant in PN Junction. ➢ TECHNICAL SPECIFICATIONS: Digital Meters: • Two Digital Meters. • Power Supplies: • Regulated Power Supply. • Temperature controller for oven. • Components are mounted on the panels are: • Sample : PN Diode mounted • Voltage Control through Potentiometer. • Thermometer • SALIENT FEATURES: • Front panel built with high class insulated Printed Circuit Board sheet with well printed circuits and symbols. • Instruction manual. • Connections are brought out through Connectors. • The trainer is housed in Metal Cabinet. ➢ OPTIONAL ACCESSORIES: **Multimeter**