

Dibrugarh University Institute of Engineering & Technology, Dibrugarh, Dibrugarh University, Dibrugarh, Assam- 786004., Assam

PURCHASE ORDER

Package Code: TEQIP-III/AS/duie/35

Current Date: 08-Jan-2020

Package Name: DUIET/TEQIP28/BSC SCI/PHYSICS LAB

Method: Shopping Goods

PO Reference No:

TEQIP-III/AS/duie/35

Date of Issue:

08-Jan-2020

Subject:

DUIET/TEQIP28/BSC SCI/PHYSICS LAB

Purchaser:

Dibrugarh University Institute of Engineering & Technology,

Dibrugarh, Dibrugarh University, Dibrugarh, Assam-786004., Assam

Supplier Name:

H.P Industries,

Ultadanga Road Kolkata,

Kolkata,

WestBengal-700004

With reference to our correspondence, Dibrugarh University Institute of Engineering & Technology, Dibrugarh, Dibrugarh University, Dibrugarh, Assam- 786004., Assam, is pleased to award this detailed Purchase Order to for supply of items as per the details given below at a total cost (Contract Value) of Rs. 1458350.20(In Words:Fourteen Lakhs Fifty Eight Thousands Three Hundred Fifty And Paise Twenty Only)

Sr. No	Item Name	Quantity	Place of Delivery	Installation Requirement (if any)
1	Impedence Analyser (1 Unit)	1	Office of the Director, DUIET, Dibrugarh University, 786004	Yes
2	Hall Effect Apparatus(01 Unit)	1	Office of the Director, DUIET, Dibrugarh University, 786004	Yes
3	Faraday law apparatus (3 units)	3	Office of the Director, DUIET, Dibrugarh University, 786004	Yes
4	Micro Balance	1	Office of the Director, DUIET, Dibrugarh University, 786004	Yes

Total price (without taxes):

Rs. 1235890

Total applicable taxes:

Rs. 222460.20

Total price (with taxes):

Rs. 1458350.20

Director 20
Dibrugarh University Institute
of
Engineering & Technology Dir

Total Octroi& Other Charges:

Rs. 0

Delivery:

Dibrugarh University Institute of Engineering & Technology,

Dibrugarh, Dibrugarh

University,

Dibrugarh,

Assam-

786004.,Assam

Testing/Installation Clause (if any):

Required

Training Clause (if any):

Required

Technical Specifications:

As per Annexure - 1

Delivery Period:

Within 30 days from the date of issue of Purchase Order

Warranty (In Months):

36 Months

Liquidated Damages Per Day Min %

0.01

Liquidated Damages Max %:

10

Performance Security:

Performance security amount Rs 0 at the rate of (%) of the

Total contract value to be submitted in form of Bank

guarantee of any Nationalized. Bank only within 21 day from

the date of issue of PO.

Payment Terms:

Below are the payment terms-

Satisfactory Delivery & Installation - 90% of total cost

Satisfactory Acceptance - 10% of total cost

*The buyer may have the right to cancel the procurement process if the specified items/equipment's are not delivered within the above mentioned period.

01/08/2027

Director Dibrugarh University Institute

(Authorized Signatory)

Engineering & Technology, DU

Name & Designation: Prof. Pramathesh Bhattacharyya, Director.

Accepted by Signature:

Date:08.01.2020

Address: Office of the Director, DUIET, Dibrugarh University, 786004

Annexure I

Sr. No	Item Name	Specifications
1	Impedence Analyser (1 Unit)	Measurement modes: LCR mode, Analyzer mode (sweeps with measurement frequency and measurement level), continuous measurement mode. Measurement parameters: Z Impedance L, C, R –(Inductance, capacitance, Resistance) θ Phase angle D (tanδ) loss coefficient = tanδ(δ= delta) Q factor (Q = 1/D) Measurement range: 100 mΩ to 100 MΩ, 12 Display ranges: Z, Y, Rs, Rp, Rdc, X, G, B, Ls, Lp, Cs, Cp: ±(0.000000 [unit] to 9.999999G [unit] Absolute value display θ : ±(0.000° to 999.999°) D: ±(0.000000 to 9.999999) Q: ±(0.00 to 99999.99) Δ %: ±(0.0000% to 999.9999%) Measurement frequency: 4Hz to 5MHz (10 mHz to 100 Hz steps) (5 digits setting resolution, minimum resolution 10mHz) Measurement signal level: Normal mode: V mode/CV mode: 5 mV to 5 Vrms (up to 1 MHz), 10 mV to 1 Vrms (1.0001 MHz to 5 MHz), CC mode: 10 μA to 50 mArms (up to 1 MHz), 10 μA to 10 mArms (1.0001 MHz to 5 MHz), Low impedance high accuracy mode: V mode/CV mode:5 mV to 1 Vrms (up to 100 kHz), 1 mVrms steps CC mode:10 μA to 100 mArms (100 mΩ and 1Ω ranges of up to 100 kHz), Output impedance: Normal mode: 100 Ω, Low impedance high accuracy mode: 10 Ω Display:5.7-inch color TFT Functions: DC bias Measurement, Comparator, BIN measurement, Panel loading/saving, Memory function Interfaces: RS-232C, GP-IB, USB communication, USB memory, LAN Power supply: 90 to 264 V AC, 50/60 Hz, 150 VA max. Accessory: Power cord, Instruction manual, PC communication instruction manual (CD-R) 4-Terminal Probe Proper power
2	Hall Effect Apparatus(01 Unit)	Cables and accessories Computer compatible with the instrument Hall Probes a. Hall Probe (Ge Crystal) Material: Ge single crystal n or p-type as desired Resistivity: 8-10Ω.cm Contacts: Spring type (solid silver) Zerofield potential: < 1mV (adjustable) Hall Voltage: 25-35mV/10mA/KG b.Hall Probe (InAs) Contacts: Soldered Rated Control Current: 4mA Zero Field Potential< 4 mV Linearity (0-20KG): ±0.5% or better Hall Voltage: 60-70mV/4mA/KG Hall Effect Set-up (Digital) a. Digital Millivoltmeter SPECIFICATIONS Range: 0-200mV (100μV minimum) Accuracy: ±0.1% of reading ±1 digit b. Constant Current Power Supply Current: 0-20mA Resolution: 10μA Accuracy: ±0.2% of the reading ±1 digit Load regulation: 0.03% for 0 to full load Line regulation: 0.05% for 10% variation Electromagnet Field Intensity: 7.5KG at 10mm air-gap with flat pole pieces Pole Pieces: 50mm diameter Energising Coils: Two, each with a resistance of about 3.0Ω Power Requirement: 0-30Vdc, 4A, if coils are connected in series Constant Current Power Supply Current Range: Smoothly adjustable from 0–4A Load Regulation: 0.1% for load variation from 0 to max. Line Regulation: 0.1% for ±10% mains variation Display: 3½ digit, 7 segment LED DPM Digital Gaussmeter Range: 0-2KG & 0-20KG Resolution: 1G at 0-2KG range Accuracy: ±0.5% Temperature Upto 50oC Display: 3½ digit, 7 segment LED DPM with auto polarity and over flow indication Power: 220V ±10%, 50Hz Transducer: Hall Probe – InAs Should Indicate the direction of the magnetic field Proper power cables and accessories

3	Faraday law apparatus (3 units)	Faraday's law setup with 1. Acrylic block with 1" slot, 2¾ "× 3¾ " × ½ " 2. Bar Manet (Al Ni Co) 3. Magnetic wire coil 100 turns, Magnetic wire coil 300 turns, Magnetic wire coil 1000 turns 4. Low current ammeter(0-15 mAmp) 5. Proper power cables and accessories
4	Micro Balance	Maximum capacity: 120 gm, Readability: 0.1 mg, Readability fine range 0.01 mg,Repeatability: at nominal load 0.08 mg, fine range (at nominal load) 0.03 mg,fine range (at low load) 0.02 mg (20 mg) Linearity deviation: 0.15 mg,Linearity deviation (within 10 g) 0.02 m, Minimum sample weight: (U=1 %, k=2) 3 mg, Settling time 4 s