**HALDIA INSTITUTE OF TECHNOLOGY**

**HIT CAMPUS, ICARE COMPLEX, P.O. H.I.T., HALDIA, PURBA MEDINIPUR,**

**PH. NO.: (03224)-252900 / 253061**

**Website: www.hithaldia.in**

Tender No.: HIT/TEN/CSIR-HRDG/ME/02/2019-20 Dated: November 14, 2019

**NOTICE INVITING QUOTATIONS**

Sealed Quotations are invited from reputed suppliers for supplying of Equipment under **CSIR-HRDG sponsored research project** (File No: 22(0105)/19 & Sanction Reference Letter No-22(0804)/19/EMR-II dated 25/07/2019) grant for Mechanical Engineering Department of Haldia Institute of Technology.

Specifications along with required quantity are detailed below.

Rate should be quoted in the following format **including Tax & delivery charges up to Haldia Institute of Technology.**

**Successful bidders have to deposit 5% of order value during acceptance of the Purchase Order.**

You are requested to provide your offer latest by 25 November, 2019 up to 4 PM. Quotation shall be submitted in a sealed envelope super scribing with “**Quotation for supply of Equipment under CSIR-HRDG grant for ME Department**” to the **Principal, Haldia Institute of Technology, P.O. HIT, Haldia, Dist. Purba Medinipur, West Bengal, Pin – 721657**, within 20.11.2019 up to 4 PM.

**Principal**

Haldia Institute of Technology

**Tender for procurement of equipments under CSIR sponsored project (File no: 22(0105)/19, Sanction Letter No.: 22(0804)/19/EMR-II dated 25/07/19)**

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| --- | --- | --- | --- | --- | --- | --- |
| **Item No.** | **Name of the Instrument** | **Specification** | **Unit** | **Rate** | **GST amount** | **Total amount including GST** |
| **1** | **Pin-on-Disc Tribo tester with Lubrication module & Environment Chamber** | * Disk size
* diameter – 160 - 170 mm
* thickness – 8 - 10 mm
* Pin diameter
* 3 – 10 mm
* Ball Diameter
* 10 mm
* Wear track diameter (Variable)
* Disk rotation speed
* 100 to 2000 rpm
* Normal load
* Up to 200 N (Accuracy: 1% of Full Scale)
* Frictional force
* Up to 200 N
* Wear measurement range
* +/- 2000 µm

**Instrument shall have the following capabilities:****1.** Must comply to ASTM G99 standard**2.** Shall record and display: 2.1. Frictional force 2.2. Compound wear 2.3. Rotational speed (rpm)**3.** Online Data Acquisition System.**4.** ACACA signal processing.**5.** Lubrication Recirculation module: Tank capacity-3 litres, flow rates-0-1 litres/min, viscocity range-90 SAE max**6.** Environmental Chamber: Should be capable of performing test in presence of inert gases**7.** Computer controlled interventions**8.** Advanced compare view reporting for comparison of multiple test results.**9.** Instrument shall be CE certified. Certificate of the same or equivalent must be provided.**10.** Safety interlocks to ensure safe operations at all times within manufacture’s permissible maximum limits shall be provided.**Scope of supply**1 Basic machine: 1 no.2 Electronic controller: 1 no.3 Data acquisitions software: 1 no.4 Wear disc 165 mm x 8 mm thick – EN31: 2 no.5 Pin holder for dia 3, 6, 10 mm: 1 Set Each6 Pin samples of dia 3, 6, 10mm (Material: Brass, MS, Aluminum): 2 no’s each7 Ball holder of dia 10 mm: 1 set Each8 Ball samples of dia 10 mm: 2 nos.9 Operating & maintenance manual: 2 no’s10 Tool kit: 1 Set11 Dust cover for Machine: 1 Set**Must provide***Warranty– 1 year from the date of installation (Non Negotiable) 1 year**Installation, commissioning and training 1-2 day’s* | **1** |  |  |  |
| **2** | **Digital weighing balance** | * Digital display
* Measurement range
* Min.: 1 mg/0.1 mg
* Max.: 200 g
* Supply connection
* 230 V, 50 Hz
* Pan dia.: 120 mm
* With Tare facility
 | **1** |  |  |  |
| **3** | **Hot plate cum Magnetic stirrer** | * Stainless steel heating plate
* Diameter of Heating Zone 120 mm
* Min./Max. Speed: 100 to 1100 revolutions/min
* Stirring volume: 5 L
* Temperature control: possible between 25 to 200 0C
 | **1** |  |  |  |
| **4** | **Voltage stabilizer compatible to equipment no 1** | * Operating frequency: 50 Hz
* Input power: 160V – 260V
* Output power: 210V – 240V
 | **1** |  |  |  |

**Vendor qualifications: (Only vendors meeting the following requirements will qualify)**

1. If required we will request vendors for demonstration, vendor should arrange for demonstration at the customer place.

2. Vendor must be ISO 9001: 2015 certified and similar certificate copy must be submitted along with offer.

3. The vendor must be an Original Equipment Manufacturer. The certificate of the same must be provided along with the bid.