**SHORT TIME TENDER**

**BIT/PUR/STT/CE/20-21//IC000467/2020 DATE:31/12/2020**

To,

 **M/s. ..............................................**

Dear Sir,

Subject : Request for Quotation for Procurement CATALYTIC FIXED BED TUBULAR REACTOR

You are requested to submit most competitive rates(s) for the following item(s) as per details given below (Sealed Quotations may be sent by hand or by post):

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| Last date and time for submissions of complete Quotations by Email to dr.purchase@bitmesra.ac.in, purchase.sanjay@bitmesra.ac.in sealed quotations can be submitted to the under mentioned address. | **18.01.2021 15:00 Hrs.**( If all LTE Vendors submit the quotation prior to the submission date, the quotations will be opened prior to last date of submission.) |

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| Sr.No. | Item Description | **Quantity** |
| 1 | CATALYTIC FIXED BED TUBULAR REACTORMACHINE DETAIL:DESIGN CONSIDERATION Reactor Module 1.Reactor : Type: Flanged End Qty 1Dimension : 21.5 mm OD x 15.5 mm ID x 350 mm Length Design Pressure: 50 Bar G Design Temperature: 600 Deg C. MOC: INCONEL 8002. Furnace:Furnace Type: Split TYPE QTY 1Suitable for Reactor Design Temperature: 600 Deg C. Zone : Single ZoneGas Feed Module 1. Mass Flow Controller Gas: Hydrogen QTY 1 Flow: 5 ml to 100 ml/min Gas: Carbon Dioxide QTY 1 Flow: 5 ml to 100 ml/min Details for MFC Design Pressure: 0 to 50 Bar G Operating Temperature: 0 to 50 Deg C MOC/ WETTED PART: SS316 Power Supply: 0-5 VDC Communication: RS 232 serial Least flow rate will be confirmed during final detailing. Make : Brooks /Bronkhrost2. Premixer cum PreheaterType:Tube type Closed End QTY 1Diameter ( OD): 21.5 mm Diameter ( ID): 15.5 mm Length: 300 mm L MOC: SS 316 Design Pressure: 50 Bar G Operating Temperature: 300 Deg C Design Temperature : 400 Deg C 3. Pad Heater  Type : Split Type QTY 1 Suitable for Premix-er  Design Temperature: 400 Deg C.  MOC: SS 316 Liquid Module 1. Feed Vessel Type : Closed End QTY 1Capacity : 1 Liter Design Pressure: Atmosphere Design Temperature: Ambient MOC: SS 316 2. Feed Pump Type : HPLC QTY 1Flow : 0.01 to 10 ml/min Design Temperature : Ambient Design Pressure : 50 Bar G Make : SSI USA/Equivalent Outlet Module1. Condenser QTY 1Type : Spiral Tube Design Pressure: 50 Bar G MOC: SS 316 2. Gas Liquid Separator QTY 1Type: Closed End Capacity: 1 Liter Design Pressure: 50 Bar G MOC: SS 316 Outlet Module 1. Pressure Gauge QTY 4Type: Bourdon tube type Range: 0-60 Bar G MOC: SS 316 Make : Baumer /Equivalent 2. Pressure Transmitter QTY 1Range: 0-60 Bar G Input: 4-20 m Amp MOC: SS 316 Make : Baumer/Festo/Equivalent3. Thermocouple QTY 3Type: k type MOC: Inconel 600 Range: 1 to 1100 Deg C Make : Watlow USA4. Pressure Safety Valve QTY 1Pressure range: 350 to 750 psi Type: Spring Type MOC: SS 316 Make : Thomas & Brian/Plok5. Rupture Disk QTY 1Burst Pressure: 50 Bar G MOC: SS 316 Make : BS&B /Fike6. Back Pressure Regulator QTY 1Type : Manual Range: 0-50 Bar G Make : Jordan Valves, Tubing & Fittings 1. Isolation Valve QTY 3Type: Two way MOC: SS 316 Design Pressure: 50 Bar G Make : Thomas & Brian/Plok 2. Isolation Valve QTY 2Type: Three wayMOC: SS 316 Design Pressure: 50 Bar G Make : Thomas & Brian/Plok 3. Check Valve QTY 3Type: One way 1/3 PSI Cracking Pressure MOC: SS 316 Design Pressure: 50 Bar G Make : Thomas & Brian/Plok4. Needle Valve QTY 1Type: Throttling Type MOC: SS 316 Design Pressure: 10 Bar G Make : Thomas & Brian/Plok 5. Tubing Qty : As per Requirement 1/4" OD: 30 Meter 6. Fittings As per P&ID Make : Thomas & Brian/Plok 7. Filter QTY 3Type: Inline 7 Micron MOC: SS 316 Design Pressure: 60 Bar G Make : Thomas & Brian/Plok Control Panel & SCADA1. PID Panel QTY 1Microprocessor PID Based Control Panel. All safety interlocks, SMPS, Panel, SSR, SPR, MCB, Buzzer, Indications, HRC fuse etc. Other necessary accessories, Line Filters, Wiring, cables, All other accessories as per the system requirement.Structure Module 1. Structure QTY 1Modular construction ( 2d Dimensional) MOC: Aluminum 2. Tool Kit QTY 1Suitable for System dismantling & RemovingMake: Taparia/ Equivalent3. Safety As per requirement and Std PracticeWarranty: Warranty for the system for 12 months from the date of successful installation & Commissioning of system against any manufacturing defects. | **01 Nos.** |

Sealed Quotation may be submitted superscribed with reference number as appended hereunder:-

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| Quotation for Supply of ---- Ref.No. -------- **BIT/PUR/STT/CE/20-21//IC000467/2020** To,Dy. Registrar (Purchase) Birla Institute of Technology From : M/s----------------------------------------Mesra , Ranchi , Jharkhand Address : ----------------------------------------835215 Contact No. ------------------------------------- Email ID---------------------------------------  |

GST Exemption: The Institute is partially exempted from the payment
of GST vide GOI Notification No.45/2017-Central Tax (Rate), dated
14.11.2017 and 47/2017-Integrated Tax (Rate), dated: 14.11.2017 the applicable IGST will be at the rate of 5%. Necessary documents (DSIR) and related certification will be provided.

1. HSN code of the material should be mentioned in quotation.
2. All entries in the quotation should be typed or computer printed without any ambiguity and should be free from correction etc. Hand written offers will be rejected.
3. Late and delayed tenders will not be considered. In case any unscheduled holiday occurs on prescribed closing date the next working day shall be the prescribed date of closing.
4. The quotation should be submitted with descriptive literature & drawing. The make of the items offered should be clearly specified.
5. Material should be confirming to our specification. The deviations if any should be clearly indicated in the quotations.
6. Successful bidder has to furnish the OEM test certificates along with the materials (if applicable).
7. Rate /Price: The offered price shall be on **FOR BIT Mesra on Door Delivery basis**.
8. If offered Price Term is other than the FOR-Destination term, approximate Freight & forwarding charges along with the applicable Insurance charges may be mentioned.
9. Details of GST registration, PAN No. should be furnished along with quotations.
10. Road Permit: The supplier shall arrange Road Permit on his own for transportation material to BIT Mesra and any additional tax liability on this account shall be borne and paid by the supplier.
11. Purchaser will not pay separately for transit insurance/taxes (if any) and the supplier will be responsible until the stores arrive in good condition at the destination.
12. Warranty: Period of warranty should be clearly mentioned and also the parts covered under it. Warranty will be applicable from the date of successful installation.
13. Service Facility: Supplier must mention about the service set up in India & confirm effective after sales service.
14. BIT Mesra is not bound to accept the lowest or any quotation for whatsoever reason and reserve its right to accept or reject in whole or in part any or all the quotations received without assigning any reason.
15. Applicable taxes shall be quoted separately for all items and levies payable by the supplier under the contract shall be included in the unit price.
16. Each bidder shall submit only one quotation and sealed quotation to be submitted / delivered at the address. (Alternatively it can be email at purchase.sanjay@bitmesra.ac.in or dr.purchase@bitmesra.ac.in) or deliver by hand.
17. Training clause ( if any )to be mentioned.
18. Delivery period should be mentioned clearly in the quotation.
19. Conditional tenders will not be considered.
20. Authorized dealership certificate should be submitted in case principal manufacturing company is not quoting directly.
21. Customs Duty: The Institute is exempted from payment of Customs Duty Vide GOI Notification No. 51/96 Customs, dated 23.07.1996 & No.24/2007-Customs dated 01.03.2007 with registration no 11/161/90-TU-V dated 24.07.2019. Sd/-

Dy. Registrar Purchase

BIT Mesra Ranchi-835215