

MAHARSHI DAYANAND UNIVERSITY, ROHTAK

DEPARTMENT OF CHEMISTRY

Sealed Tenders are invited subscribed as “Tender for Equipment” for the supply of **Thermo Gravimetric Analyzer/ Differential Thermal Analyser (TGA/DTA)** as per details given on website along with earnest money equal to 2% of the quoted rates on the total amount involved in the shape of Bank Draft along with a separate draft of Rs. 1000/- as tender fee in favour of Finance Officer, M.D. University, Rohtak so as to reach the Head, Department of Chemistry up to 05.03.2015 at 5.00 P.M. The Tenders will be opened on 09-03-2015. at 11.30 A.M. For details may visit university website ***www.mdurohtak.ac.in***

REGISTRAR

TERMS AND CONDITIONS GOVERNING THE TENDERS FOR THE SUPPLY

1. Every tender shall be accompanied by the earnest money equal to 2% of the involved value. The earnest money should be deposited through Bank Draft in favor of the Finance Officer, M.D. University , Rohtak, payable at the State Bank of India, Maharshi Dayanand University , Rohtak.
2. The tender received without earnest money or after the due date shall not be Entertained except with the special approval of the competent authorities.
3. The supplies shall be executed within the time specified in the supply order which may be extended by the Registrar on other application of the supplier explaining reasons/circumstances due to which time limit could not be adhered to. In the event of the supplier failing to supply the material within time, he shall be liable to pay as compensation an amount equal to one percent or such small amount as the Registrar may decided on the said amount of the contract, for every day that the quantity remains incomplete, provided that the entire amount of compensation shall not exceed 10 percent of the total amount of the contract .An appeal against these orders shall however lie with the Vice Chancellor whose decision shall be final.
4. In case the contractor backs out of his contract, the earnest money deposited by him shall be forfeited besides any other action as may be considered necessary by the Vice -Chancellor.
5. All the charges including packing, forwarding and installation, taxes and other levies should be specified in the tender. The charges etc. not specified in the tender shall not be paid.
6. The quantity of material/supplies shall be subject to increase or decrease on the tendered rates. This increase or decrease shall be communicated by the University within 30 days of acceptance of the tender.
7. Supplies shall be made as per the schedule and within such time as is indicated in the supply order.
8. 100% payment will be made on receipt and inspection of goods to ensure the specifications and their good condition.

9. The rates accepted by the University shall be applicable up to 05.3.2015 at 5.00 P.M. and the Supplier shall have to make supply during the period as and when required.

10. The tenders shall be opened in the office of H.O.D. Chemistry on 09-03-2015 at 11.30 A.M. by the Purchase Committee in the presence of contractor/supplier and the Committee reserves the right for negotiation thereafter if considered necessary.

11. The Registrar reserves the right to reject or accept any offer without assigning any reasons.

12. All disputes subject to Rohtak jurisdiction

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13. Guarantee/warranty of items must be mentioned.

14. The University stands exempted from the payment of Central Excise Duty/Custom Duty. The rates be quoted keeping that fact in view, Necessary certificate will be provided by the University.

15. No tender documents will be issued and rates are to be offered on company's letter pad.

16. If a holiday occurs on the opening day, the tenders will be opened on the next Working day.

17. The tenders received not in proper sealed cover shall not be considered and will be liable for rejection in a straightway.

18. Rates for each item are to be quoted in a separate letter head and are to be sent in a separate cover

REGISTRAR

Specification for Simultaneous High Resolution Thermo Gravimetric Analyzer/Differential Thermal Analyser (TGA/DTA)

DTATGA should have Controlled Rate Thermal Analysis Mode that consists of operations such as Constant heating rate, Dynamic heating rate, Constant reaction rate and step wise isothermal.

Balance design: Ultra Micro Balance. Weight change measurements should not be dependent on sample positioning.

Furnace design: Horizontal. Both furnace and balance should be in horizontal Position.

Balance beam: Dual, differential and horizontal. Should be made up of ceramic material with user friendly plug-in/plug-out connection. Balance assembly should have thermos tating capability to minimize isothermal drift

Temperature range: Room Temperature to 1500°C

Weighing range: Upto 200mg without range switching

Maximum sample weight : 200mg

Accuracy/Resolution: 0.2µg above the noise level for the entire range from RT to 1500°C

DTA measurement range: + 1000 µV

DTA RMS Noise: 0.03 µV

DTA RMS Sensitivity: 0.06 µV

Temp accuracy: ±0.1°C

Temp reproducibility: ±0.15°C

Scan rate: 0. 1°C to 100 °C/min with secure and controlled purge arrangement

Cooling unit: Forced Air.1000°C to 50°C within 12-15 minutes

Purge gas facility:. The system should have capability of purging under reduced and corrosive gas atmosphere like hydrogen with separate port that doesn't affect balance mechanism

TG RMS Noise: 0.1µg. RMS noise should be related to both signal and noise power (or amplitude) which is measured at the same or equivalent points in a system, and within the same system bandwidth.

Software: Windows-based Thermal Analysis software for data collection and treatments. **Multitasking and multi modules software exploitation license under Windows for data acquisition and storage,**

The system should have Controlled Rate Thermal Analysis Mode that consists of operations such as constant heating rate, dynamic heating rate, constant reaction rate and step wise isothermal. The system should be able to operate under dynamic heating rates during isothermal decomposition studies to extrapolate kinetic parameters

Crucibles: Alumina (4 Nos.) and Platinum (4 Nos.)

Calibration Standards: TGA system should have facility for flexible calibration that is saving calibration with multiple combination of gas type, flow rate, crucible type etc. Also calibration of temperature should be possible with NIST certified metal standards. Also, NIST Certified standards for curie point temperature studies and weight loss measurement should be quoted along with system

Optional Spares and consumables: List of optional Spares/Consumables should be provided for problem free running of the equipment

Optional EGA Upgrade: System should be easily upgradeable to MS (any make) and FTIR (any make) coupling for evolved gas analysis.