

**TENDER DOCUMENT FOR THE PURCHASE OF X-RAY
DIFFRACTOMETER SYSTEM**



**GOVT. V.Y.T.P.G. AUTONOMOUS COLLEGE, DURG
491001(C.G.)**

(Former Name – Govt. Arts & Science College, Durg)

NAAC Grade-A+, CPE Phase-III, DBT-Star College

Ph.: 0788-2359688, Fax: 0788-2359688

Website: www.govtsciencecollegedurg.ac.in

TENDER FORM FEE Rs. 1000/-

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OFFICE OF THE PRINCIPAL
GOVT. V.Y.T.P.G. AUTONOMOUS COLLEGE, DURG 491001(C.G.)
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SHORT TENDER NOTICE

TENDER NOTICE No2505/GVYTPGAC/TENDER/2021

Dt.13-12-2021

TENDER NOTICE FOR THE SUPPLY OF X-RAY DIFFRACTOMETER SYSTEM

Govt. V.Y.T.PG College Durg invites sealed tender from reputed manufacturer/authorized dealers for purchase and supply of the following items.

Item Name	Earnest money (3% of expected cost)	Last date/time of submission of tender form	Date/Time of opening of Technical Bids
<u>X-RAY DIFFRACTOMETER SYSTEM</u>	125000/-	13.01.2022 3:00pm	13.01.20224:00pm

Interested firm may submit their sealed tender in two bid form as per term and condition of tender documents. The filled-in tender form for each item with **tender fee of Rs. 1000/- and earnest money Rs.125000/-** both by demand draft in favor of **Principal, Govt.V.Y.T.PG Autonomous College Durg** should reach to the office upto above date. The tender documents may be downloaded from our website www.govtsciencecollegedurg.ac.in.



Principal
Govt.V.Y.T.PG Autonomous College
Durg

Copy to:-

1. Director, Jansampark Chhattisgarh with request to please publish this notice on 02 national level, 03 state level and 05 local news papers.
2. Convenor, College Website Committee with instruction to upload the notice on college website.
3. Notice Board



Principal
Govt.V.Y.T.PG Autonomous College
Durg

Terms and conditions

1. Sealed tender should reach **Office of the Principal Govt.V.Y.T.PG Autonomous College,Durg, 491001** on or before **13.01.2022, 3:00PM**.
2. Suppliers should send their tender through **Registered Post/Speed** post only. No other mode will be accepted.
3. The tender document may be downloaded from College Website: www.govtsciencecollegedurg.ac.in Bidders using downloaded tender forms from College website must submit cost of tender document by demand draft drawn in favour of Govt. V.Y.T.PG Autonomous College, Durg Payable at Durg along with technical bid. The bid form downloaded through College website submitted without tender fees will not be accepted.
4. The bidders enrolled under MSME are exempted from EMD submission and relevant documents shall be submitted as proof of the same.
5. **The tender without EMD, Less EMD and document fee will summarily be rejected.**
6. Company/firm should be **registered manufacturer/supplier** of the item.
7. The tenderer must enclose adequate documents to prove **their authorization claim**.
8. **Minumum 3 years warranty with 2 years additional AMC is mandatory for XRD, chiller and complete system. Thesupplier will maintain repair the equipments during the warranty period free of cost at college.**
9. The College at its discretion may extend the last date of submission of tender and opening of tenders.
10. Late and **delayed tenders will not be considered** and shall be returned unopened to the Bidder.
11. If tenderer give wrong information, college reserves the right to reject such bid at any stage and forfeit the Earnest Money Deposit.
12. Bids submitted without supporting documents bare liable to be rejected.

13. In financial bid the rate of item should be inclusive of **all taxes, packing, forwarding, transit etc.**
14. The rate both in words and figures without any corrections or over writing should be quoted for each individual item separately. **The rates must be valid up to March 31,2022.**
15. **Quoting merely the lowest price does not confer any right to any bidder for award of supply order.** The Purchase Committee, reserves the right to select the equipment any bid under the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service backup support & training, offer of additional / special features, compatibility with the existing System, etc.
16. On the acceptance of the rates as per the approved tender, the supply order will be placed by the Head of the office of college.
17. The college will reserve the full right to open/consider the second envelope if and only if the college is satisfied with information contents in envelope No.1.
18. **The college has the right to accept or reject any tender partly or fully without arising any reason thereof.**
19. The items have to be supplied in standard packing at the premises of Govt. V.Y.T.PG Autonomous College, Durg-491001Chhattisgarh.
20. In event of any loss, damage, breakage or leakage or any shortage the bidder shall be liable to make good condition such loss and shortage found at the checking/inspection of the supplied Instrument/Equipment. "No extra cost" on such account shall be admissible.
21. Delivery has to be made **within 30days** from the date of receipt of supply order.
22. **Each item should be strictly as per the specification.** In case of any deviation the college has the right to reject the item.
23. Installation, successful demonstration of equipment in the respective department is obligatory.

24. The training should be provided by the supplying companies for a minimum period of two days from the date of installation with an expert team.
25. If any item covered under warranty fails, the same shall be replaced free of cost including all the applicable charges including shipping cost both ways.
26. Final payment of Instrument/Equipment will be made only after installation and successful demonstration at the respective department of the college
27. If the tenderer fails to comply with supply order within the specified period his order will be cancelled and EMD will be forfeited.
28. All the Tenders should be addressed to:



**Principal,
Govt. V.Y.T.PG Autonomous College,
Durg-491001, Chhattisgarh**

Instructions to be followed by the Supplier/Tenderer

(A)Submission of tender bid (sealing and marking of bids)

Bid should be submitted in two envelopes as mentioned below: -

1. Envelope -1 Technical Bid (duly sealed) should contain

- (a) Application form (as per Annexure-I)*
- (b) Tender fee in the form of demand draft of Rs.1000*
- (c) EMD of Rs 125000/-in the form of demand draft for each instrument separately.*
- (d) Technical bid form (as per Annexure-II) duly filled.*
- (e) Copies of all certificate/documents in support of technical Bid.*

NOTE:-Above (a) to (e) not enclosed , The envelope 2 will not be opened.

2. Envelope –2 Financial Bid (Duly Sealed) Should contain

- (a) Financial bid form (as per Annexure-III) duly filled.*
- (b) The supplier should quote the rate inclusive of all expenses, charges, taxes, duties, transportation, packing and forwarding, insurance etc.*
- (c) The rate in both words and figure without any correction or over writing should be quoted in financial bid.*

3. Envelope –3 (Duly Sealed): Should contain

- (a) Both Envelope 1&2*
- (b) This envelope must bear the following Identifications:*
 - (i) Tender for Purchase & Supply X-ray Diffractometer systemfor the F.Y.(2021-22)*
 - (ii) Tender Reference No. 2505//GVYTPGAC/TENDER/2021
DT. 13-12-2021*
 - (iii)Name & Address of the Tenderer*

TENDER APPLICATION FORM

To,

Principal

Govt. VYTPG(Auto.) College, Durg

Sir,

With reference to your Notice Reference No. **2505/GVYTPGAC/TENDER/2021 DT. 13.12.2021** I am hereby submitting my tender for the supply, installation and maintenance of **X-ray Diffractometer system** accepting the terms & conditions mentioned in the tender document.

1	Name of the Bidder/Company name (Person to be contacted)	
2	Full Postal Address	
3	Telephone Nos./Mobile Nos./Fax Nos. name of the Person Post Held	
4	Email ID	
5	PAN No.	
6	GST No.	
7	Bidding submitted for the Brand (Please specify)	
9	EMD Demand Draft No. & date	
	Issuing Bank Details	
	Amount (in INR)	

Undertaking

I, the undersigned certify that I have gone through the terms & conditions mentioned in the bidding document and undertake to comply them.

The rates quoted by me are valid and binding upon me for the entire validity period and it is certified that the rates quoted are minimum and rational as per existing market rate.

I give the rights to the competent authority of the Office of The Principal, Govt. V.Y.T.P.G. Autonomous College, Durg 491001(C.G.) to forfeit the Earnest Money Deposit (EMD)/security Deposit by me/us if any delay occurs on my/agents part or fail to abide by the provision of the bidding document.

I hereby undertake to execute the work/supply order as per direction given in the tender document within stipulated period.

Date :

(Signature of the Bidder)

Place :

Name –

Designation –

Registration No. of supplier/tenderer

(Official seal of the Bidder)

TECHNICAL BID**Instrument/Equipment/ItemName.....**

		Enclosed Yes/No
1	Name of the Bidder/Company name (Person to be contacted)	
2	Contact address, Telephone No., Mobile No., Name of the Bank, Account Details.	
3	Company/firm Registration No. (Copy to be enclosed)	
4	GST registration certificate/ return certificates for last two years	
5	Experience Certificate in this field (Attach separate sheet)	
7	Annual Turnover (Copies to be enclosed)	
10	Certificate of Sole Manufacturer/authorized dealers of manufacturers/authorized supplier	
11	Original catalogs, pamphlets/picture of the appliances offered. Documents in support to reveal capacity to provide service after sale.	
12	EMD Demand Draft No. and date	
	Issuing Bank details	
	Amount (in INR)	
	EMD Exemption certificate (if applicable)	

We agree with all the terms and conditions of the tender.

Name & Signature with Seal of the supplier

Format for quoting the rates of the Instruments/Equipments(financial Bid)

Name of the bidder/tenderer

Item Name.....

Make/Model No.....

Sr.No	Price details	Price per Unit
1.	Cost of instrument/equipment with essential accessories	
2.	GST payable	CGST
		SGST
		IGST
3.	Packing and forwarding charge upto station of dispatch	
4.	Transportation and insurance charges upto destination	
5.	Installation, commissioning and training charges if any	
6.	Any other charges, if any	
	Total Price inclusive all charges and tax (Sum of 1 to 6)	

Total Bid price in figures.....

In words.....

Seal and signature of bidder

Note:-Price should be quoted in prescribed format only as per above.

Acceptance of terms & conditions of tender(Must be on Letter Head)

Date:

To,

The Principal

Govt. V.Y.T.PG Autonomous College, Durg (Chhattisgarh) 491001

Subject: Acceptance of Terms & conditions of Tender.

Tender ref. No.: No. 2505//GVYTPGAC/TENDER/2019 DT.13-12-2021

Dear Sir,

1. *I/We have downloaded/obtained the tender document(s) for the above-mentioned Tender enquiry no. from the Website: www.govtsciencecollegedurg.ac.in*

2. *I/We hereby certify that I/we have read entire terms & conditions of the tender documents from Page01 to 15 (including all documents like annexure, schedules etc.) which form part of the tender document and I/we shall abide by the terms & conditions/clauses contained therein.*

3. *The corrigendum(s) issued from time to time by Govt. V.Y.T.PG Autonomous College Durg (Chhattisgarh) to have also been taken into consideration, while submitting this acceptance letter.*

4. *I/We hereby unconditionally accept the tender conditions of above-mentioned tender document(s)/corrigendum(s) in totality/entirely.*

5. *In case any provisions of this tender are found violated, Govt. V.Y.T.PG Autonomous College Durg(Chhattisgarh) shall be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely and we shall not have any claim/right against Govt. V.Y.T.PG Autonomous College Durg (Chhattisgarh) in satisfaction of this condition.*

6. *I/We confirm that we or our Proprietor/Director/Partner have not been blacklisted or debarred or declared ineligible for corrupt/fraudulent practices either indefinitely or for a particular period of time by any Government or other agency. I/we further declare that no criminal case is registered or pending against the firm/company or its owner/partners/directors anywhere in India. Also, there are no contractual restrictions or legal disqualifications or other obligations which prohibit the applicant from entering into tender process.*

-

(Seal & Signature of the bidder)

Technical Specification

Generalised Specification for Desktop X-Ray Diffractometer system for phase identification and standardless quantification.

The system should be compact, light weight Benchtop X-Ray Diffractometer suitable for use in broad range of area in R&D and quality control for qualitative and quantitative analysis of powder sample including clay, minerals etc. The XRD system should be capable of doing profile analysis using Rietveld method or measurement of organic/inorganic materials, etc. The bidder must include the necessary accessories for complete installation like chiller, ICDD data base, computer & printer and UPS etc.

The benchtop XRD must include the following technical parameters:

1. X-Ray Generator:

Maximum continuous rated output: 600 Watt or better.

Rated Tube voltage: 20 to 40kV with 1kV step.

Rated Tube Current: 2 to 15mA with 1mA step.

Stability: Within $\pm 0.01\%$ for $\pm 10\%$ input variation.

Focal point adjustment: ± 1 mm, continuously variable.

Safety features: Continuously monitoring of tube voltage, current, load, flow rate and other status.

Auto shut-OFF of X-ray generation with alert by lamp and audible alarm.

Display: X-Ray generation and shutter open-close status by LED.

X-Ray Tube: Copper with normal focus with Ni-filter. Optionally Co, Fe to be offered

2. Goniometer:

The Goniometer should be of high precision and high reproducibility type with functions for real time angle correction and must correct for mechanical errors

Type: Vertical $\theta/2\theta$ Type.

Scanning axis: $\theta/2\theta$ coupled.

Minimum Goniometer Radius: 150 mm or better.

Scanning method: Equal interval pulse (step) motor controlled.

Scanning Range: -3° to 145° or better.

Scanning Speed: 0.01° to 100/min (2θ) or better.

Minimum step width: 0.005° (2θ).

Incident side and receiving side sollar slit: 2.5° or better.

Hybrid type incident slit: The Hybrid Incident slit must function in combination of both fixed and

variable mode to perform high sensitivity measurement which should be possible by keeping the

area of illumination constant for low angle measurement.

Anti-scatter slit: Suitable anti-scatter slit should be supplied.

Receiving slit width: minimum 0.3mm or better.

Detector:

Suitable Scintillator Counter with NaI (Tl) photo-multiplier with preamp effective minimum window diameter: φ 23 mm and with suitable HV/PHA unit to Set energy counting range by baseline and window.

The system should be supplied with standard sample holder made of different materials aluminium and glass.

The system Software must include;

- *Real time angle calibration with system environment setting: System Condition setting.*
- *Integrated Intensity calculation; background calculation and subtraction, profile smoothing, Kα₂ calculation and removal, Peak Search, LPA calibration, Integrated Intensity calculation.*
- *Standard measurement: User settable conditions, sample name, sampling width (step size), Scanning range, Scanning speed, Measurement mode (continuous , step scan, integral measurement, skip scan, Manual measurement Peak search: Background calculation and subtraction, Profile Smoothing, Kα₂ calculation and removal, Peak Search, LPA calibration, Integrated Intensity calculation. Application Software should be offered optionally for Rietveld analysis, Crystallinity analysis, Lattice constant refinement and crystal size & lattice strain analysis. The latest ICDD database PDF-4 (licensed version) with single users license should be offered separately.*

Following Indigenous items should be offered:

Compatible re-circulating water chiller, compatible PC with deskjet printer and UPS 5KVA.