

Himachal Pradesh University Shimla-171005 (INDIA) Department of Physics

E-TENDER

E-Tender Document for the purchase of equipment under SAP Grant in Department of Physics, Himachal Pradesh University, Shimla-5.

E-Tender No: 01/2019 - Physics/SAP-II
Through
Coordinator SAP
Department of Physics
Himachal Pradesh University
Shimla-171005 (INDIA)

(E-mail: bramans70@yahoo.co.in)

(Web site: www.hptenders.gov.in and www.hpuniv.ac.in)

Coordinator SAP

Department of Physics

HimachalPradeshUniversity **Shimla-171005 (INDIA)**

(E-mail: bramans70@yahoo.co.in)

(Web site: www.hptenders.gov.in and www.hpuniv.ac.in)

Phone: 0177-2830950Fax: 0177-2830950

NOTICE INVITING TENDER

Tender Reference No.: E-Tender No: 01 / 2019 - Physics / SAP-II Date: 03-12-2019.

E- Tenders are invited from the Manufacturers/ Authorized Dealers/ Distributors

for rate contract for supply of Net Work Analyzer, Dedicated DSC and Dedicated TGA, under SAP Grant in

the Department of Physics, Himachal Pradesh University, Shimla-5. The detailed tender document can be

viewed and downloaded from website: https://www.hptenders.gov.in, www.hpuniv.ac.in from 03-12-2019

to 24-12-2019 up to 05.00 PM. The Last date and time for submission & uploading of filled in tender

document is 24-12-2019 upto 05.00 PM. The bidders are advised to visit the aforesaid website regularly.

The undersigned reserve the right to reject any or all the tender offers without assigning any reason.

Coordinator SAP

Department of Physics

Himachal Pradesh University

Shimla-171005 (INDIA)

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E-TENDER SUMMARY

E-Tender No.	01 / 2019 - Physics / SAP-II
Description	E-Tender Document for the purchase of equipment, Net Work Analyzer,
	Dedicated DSC and Dedicated TGA, , under SAP Grant in the
	Department of Physics, Himachal Pradesh University, Shimla-5.
Estimated Cost	Rs. 1,00,00,000 (Rupees One Crore) Only
Earnest Money Deposit (EMD)	Rs. 5,00,000/-(Rupees Five Lac only) in the shape of FDR from
	nationalized bank Payable at Shimla, in favor of Chairman, Department of
	Physics, Himachal Pradesh University, Summer Hills, Shimla-171005.
Cost of Tender Document	*Rs. 1000/- in the shape Demand Draft in favor of Chairman, Department
	of Physics Payable at Shimla, Himachal Pradesh University, Summer Hill,
	Shimla-171005.
Date and Time of on-line	03. 12.2019, 10:00 AM
Publication	
Period for Downloading of E-tender	03.12.2019 to 24.12.2019 up to 05:00 PM
Document	
Period of uploading the tender on	15.12.2019 on 10:00AM
website/e-portal	
Date & Time for submission of cost	24.12.2019 by 5.00 PM
of tender document, Earnest Money	Venue: Chairman Office, Department of Physics, Himachal Pradesh
Deposit (EMD)	University, Summer Hill Shimla-171005
Date and Time for opening of	26.12.2019 at 11:00 AM
Technical Bid	Venue: Chairman Office, Department of Physics, Himachal Pradesh University, Summer Hill Shimla-171005
Date & Time for opening of	The date will be notified after the evaluation of the Technical Bid by
Financial Bid	Technical Committee
Validity of the Tender	Six months from the date of opening of "Financial Bid".
Time period for the supply of	45 days from the date of issue of supply order.
ordered items	

[➤] Bidder shall ensure that cost of E-Tender Document and Earnest Money Deposit be submitted in the Office or send by Post to Chairman, Department of Physics, Himachal Pradesh University, Summer Hill Shimla-171005 on or before the last date and time indicated above.

> If the date fixed for the opening of tender is declared a holiday, the tender shall be opened on the next working day at the same time as fixed for the original date for this purpose.

SECTION - I

INSTRUCTIONS FOR BIDDERS

The bidders are instructed to read the complete bid document carefully.

Coordinator SAP, Department of Physics, Himachal Pradesh University, Summer Hill Shimla-171005 invites E-Tenders on behalf of Registrar, Himachal Pradesh University, for the purchase of item (s) mentioned in the Form-A of the tender documents uploaded herewith. The tender document and other instructions can be downloaded or viewed from the portal https://hptenders.gov.in. Cost of tender document (non refundable) and Earnest Money Deposit as mentioned in the tender forms shall have to be deposited in the shape of FDR/Demand Draft in favor of Chairman, Department of Physics, Himachal Pradesh University, Summer Hill, Shimla-171005, payable at Shimla before the last date and time of submission of tender and proof thereof should be uploaded in Technical Bid of the tender document. Cost of tender document and Earnest Money Deposit in the shape of FDR and Demand Draft should be submitted in the envelope and should be sent to the Office of Department of Physics before the last date and time of submission of tender.

Instructions for E-bidding

- i. The bidders should register on website https://hptenders.gov.in & obtain User-ID and Password before tendering. In case of any problem; you may contact office of the Chairman, Department of Physics, Himachal Pradesh University, Summer Hill, Shimla, on Phone No.0177-2830950.
- ii. To participate in bidding process, bidders have to get "Digital Signature Certificate" (Class-II or Class-III) as per Information Technology Act-2000, to participate in online bidding. This certificate will be required for digitally signing the bid. Bidders can get above mentioned Digital Signature Certificates from any approved vendors. Bidders, who already possess valid Digital Signature Certificates, need not procure new Digital Signature Certificates.
- iii. The bidders have to submit their bids online in electronic format with digital Signatures. The bids without digital signatures will not be accepted. No proposal will be accepted in physical form. The Department of Physics will not be responsible for delay in online submission due to any reasons. Bidders should get ready with the scanned copies of documents for cover information including cost of documents & EMD as specified in the tender documents. The original documents in respect of cost of tender form, EMD and additional documents if required shall be submitted in favour of Chairman, Department of Physics, Himachal Pradesh University, Summer Hill, Shimla-171005before the date of opening of tenders. The firms registered with MSME are exempted from Tender Fee & EMD as per Govt. Notifications.
- iv. The tender documents shall be uploaded in two covers. Each cover shall contain separately the "TECHNICAL BID" and the "FINANCIAL BID". Cover -1 shall be "TECHNICAL BID" containing scanned copies of required documents as mentioned in the Terms & Conditions of tender. The "TECHNICAL BID" shall be

opened on the date of opening of tender(s). Cover-2 shall be "FINANCIAL BID" containing BOQ (Bill of Quantity)" of rates. After the evaluation and approval of the technical proposal, the "FINANCIAL BID" will be opened, of the technically qualified/accepted bids only. The financial bids found technically nonresponsive shall not be opened.

- **v.** Before submission of online bids, bidders must ensure that scanned copies of all necessary documents shall have been uploaded with the bid.
- vi. The process for e-tendering can be observed/practiced on demonstration site https://demoeproc.nic.in.
- vii. Bidders are advised to check/see website https://hptenders.gov.in regularly to check for any amendment/corrigendum in the tender document. All subsequent notifications/amendments/notices shall be published only on the aforesaid website only.
- **viii.** The bids shall be opened on the date and time mentioned in the E-Tender Summary in the presence of bidders who opt to be present. If the date fixed for the opening of the tender is declared a holiday, the tenders shall be opened on the next working day at the same time as fixed for the original date for this purpose.
- **ix.** The Department of Physics, Himachal Pradesh University, Summer Hill, Shimla-171005 reserves the right to accept or reject any or all tenders in part or whole without assigning any reason, what so ever.

The E-Tender Document shall be uploaded in two parts:

- i. Technical Bid: It shall contain scanned copies of Form "A" and Form "B" and all requisite documents, certificates etc. as specified in Form "A" and Form "B" duly filled in and digitally signed. All the documents must be scanned and uploaded in PDF format with 100 dpi with black and white option.
- **ii. Financial Bid**: It shall contain financial bid / BOQ uploaded in .xls format which will be available for bidders on website https://hptenders.gov.in .The financial bid / BOQ will not be accepted in physical form.

At the time of opening of tenders only Technical Bid containing proof of deposit of Cost of Tender documents, Earnest money deposit, certificates and documents, information as required in Form "A" and Form "B" would be opened and Financial bid/BOQ will be opened only of those bidder who fulfill eligibility criteria. Financial bid of technically qualified bidder will be opened for which date will be notified after evaluation of the technical bid.

General Instructions:

- i. The bid should be complete with all document duly signed by authorized person.
- ii. The Bids without deposit of cost of tender document and earnest money deposit shall be rejected out rightly.
- iii. At any time prior to the date of submission of the Bid, Tender Inviting Authority may either on its own initiative or in response to a clarification requested by a prospective Bidder, may modify any of the conditions in the Tender documents by issuing an amendment in writing. Such amendments will be binding on the bidders. The bidders should quote only for those products for which product permission meet the bids specifications.

- **iv.** Firms intending to participate in the rate contract should first ensure that they fulfill all the eligibility criteria as prescribed under the terms and conditions; otherwise the tenders will be summarily rejected. Bidder should quote only for the items for which they fulfill all the eligibility criteria.
- v. The Department Council/purchase committee, notified by the University, Department of Physics, Himachal Pradesh University, Summer Hill, Shimla-5, reserve the right to waive minor infirmity in a Bid. The decision of the Department Council/purchase committee, Department of Physics, Himachal Pradesh University, in this regard shall be final and binding on the bidders.
- **vi.** Bids will be accepted only from the Manufacturers/Direct Importer. Supply orders will be issued directly to the successful bidder(s) (Manufacturer(s)/Direct Importer(s).
- vii. Manufacturer/Direct Importer shall be responsible for any delay in execution of supplies by their authorized distributor, if any. The Authorized distributor, if any, shall also have to abide by the terms and conditions of the tender document and supply order.
- **viii.** Department of Physics, Himachal Pradesh University, Shimla will not be responsible for any payment dispute between manufacturer and authorized distributor nominated by the manufacturer/ Direct Importer.
- ix. In case of supply through Authorized distributor, the authorized distributor shall have to sign the agreement jointly with the Manufacturer/Direct Importer.
- x. It is mandatory upon the bidders to submit personally or send by post envelope containing demand draft/FDR towards Cost of tender document and Earnest Money Deposit duly superscripted "Tender for supply of Equipments to be opened on 26-12-2019" and marking complete postal address with mobile number of the bidder on the left hand side corner of the envelope in the Office of Department of Physics, Himachal Pradesh University, Shimla on or before last date and time for submission of the bid.
- xi. Bidders are requested to complete the process of online bid submission well before the closing date and time for bid uploading, in order to safe guard their own interest. It will be the sole responsibility of the bidder to scan and upload clear and legible documents for assessment failing which the tender will be liable for rejection.
- xii. Quote rates in BOQ for the Equipments exactly given in Annexure-G e.g. the rates should be quoted strictly as per specifications mentioned in the Financial bid/BOQ.
- xiii. In case a bidder does not wish to quote rate of any particular item, the column of such item should be left blank.

SECTION – II

FORM-A

Terms and Conditions for Participation in the E-Tender

1. Eligibility Criteria

- 1.1 Bids are invited, for and on behalf of Registrar, Himachal Pradesh University, Summer Hill, Shimla-5from established, reputed and experienced manufacturers or their authorized dealers/representatives for purchase of Equipments in, Department of Physics, Himachal Pradesh University, Summer Hill, Shimla as per the enclosed Technical Specifications. (Form-A).
- 1.2 Bidders are requested to study the tender document and terms & conditions carefully. Submission of tender shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications.
- 1.3 The scope of work shall include Supply, Installation, Commissioning, & Satisfactory Demonstration. This will also include testing, packing, transportation, scheduling of transportation, transit insurance, delivery at sites, unloading, storage, job site storage, insurance, installation and any other services associated with the delivery of the equipment and materials providing warranty of services and operation and maintenance of other related equipment/items required for complete installation. The successful bidder will assume full responsibility of the complete system until final acceptance.
- 1.4 It will be imperative on each bidder to fully acquaint himself with all the local conditions and factors which would have any effect on the performance of the System. No request for the change of price, or time, schedule of delivery of stores shall be entertained after the purchase on account of any local condition or factor.
- 1.5 The bidders will not form a part of the cartel and put in supporting quotations for some other company. This will debar the company for participating in other tenders floated or to be floated in by the purchaser. The authorities can compare the prices of other Bidders L2, L3 etc. also with the prices quoted in other tenders for same products and in case of discrepancy suitable action will be initiated.
- 1.6 No Gratification Clause: The bidders will give an undertaking that they will not try to gratify any person or use any other unfair means involved in the purchase of the quoted equipment. This will also debar the company for participating in other tenders floated or to be floated in by the purchaser and suitable action will be initiated against such defaulters.
- 1.7 Non Blacklisting Certificate: All the bidders will give an undertaking on Non- Judicial Stamp paper duly attested by the competent authority that neither they nor their principals or the manufacturers have been blacklisted by any State / Central Government Departments/other organizations.

- 1.8 The bidders shall also be required to submit the copies of PAN and income tax returns for the last three year along with the copy of TIN/ copy of registration of their firms with appropriate authority.
- 1.9 All the correspondences shall be addressed to the Coordinator SAP, Department of Physics, Himachal Pradesh University, Summer Hill, Shimla-171005.
- 1.10 The Bid Documents are not transferable and the cost of the documents is not refundable under any circumstances.
- 1.11 Information regarding installations in Government & Premier institutions in India and satisfactory service and maintenance may be forwarded with all the details for verification

2. Bid Security/Earnest Money

- 2.1 Bid Security/EMD amount should be enclosed along with the Technical Bid for an amount mentioned in E-Tender Summary in the shape of FDR/D.D. duly pledged in the name of "Chairman, Department of Physics, Himachal Pradesh University, Summer hill, Shimla-171005", failing which the tenders will be out rightly rejected. Bid Security/EMD, if already deposited against other tenders, shall not be adjusted against this tender.
- 2.2 The "Bid Security/Earnest Money", in case of successful Bidders, shall be retained by the Purchaser, up-to a maximum period of One year from the date of opening of the Bids or till the finalization of the tender, whichever is later. The Bid security shall be refunded to the unsuccessful tenders on their written request. No interest will be payable by the Purchaser on the Bid Security/EMD.
- 2.3 The Bid Security/Earnest Money shall be forfeited; (a) If a Bidder withdraws his bid during the period of bid validity specified by the Bidder in the Bid; or (b) if, at any stage, any of the information/declaration is found false.
- 2.4 Bid security/Earnest Money in respect of the finally selected Bidder(s) will be discharged upon the Bidder(s) after successful installation & training of the Equipments.

3. Bidder's Qualification

The "Bidder" as used in the tender document shall mean one who has signed the Bid Form. The Bidder may be the manufacturer of the equipment/machinery/material for which prices are quoted on the Price Schedule or his duly authorized representatives, in which case, he shall submit a certificate of authority as per **Annexure-B**.

4. Uploading of Documents

4.1 The bidder has to upload Documents such as Power of Attorney, Resolution of Board of Directors etc. authorizing an officer of the bidder to transact the business with Tender inviting Authority in technical bid and

such authorized officer of the bidder should sign the tender documents. The signature of such person should be attested with photograph.

- 4.2 The bidder has to upload the Check list as Annexure-A
- 4.3 The bidder has to accept and sign Form "A" and Form "B" of the tender and upload the same.
- 4.4 The bidder has to upload Manufacturer's Authorization Form (Annexure -B).
- 4.5 The bidder has to upload Forwarding letter (Annexure-C).
- 4.6 The bidder has to upload Bidders particulars (Annexure-D)
- 4.7 The bidder has to upload proof of Tender Fee
- 4.8 The bidder has to upload proof of Earnest Money Deposit
- 4.9 The bidder has to upload Performa of Guarantee for supply of spares during the post warranty period (Annexure -E)
- 4.10The bidder has to upload Bidder's profile (Annexure-F)
- 4.11 The bidder has to upload Undertaking for No gratification as per clause 1.6
- 4.12 The bidder has to upload Non-blacklisting certificate as per Clause 1.7
- 4.13 The bidder has to upload Undertaking on affidavit from the original manufacture as per Clause 16.8
- 4.14 The bidders has to upload the copies of PAN and income tax returns for the last three year along with the copy of TIN/ copy of registration of their firms with appropriate authority.
- 4.15 The bidder has to upload literature of equipment with detailed specifications.
- 4.16 The bidder has to upload any other certificates/undertaking as per check list.

5. Period of Validity of Bids

Bids shall remain valid for at least six months from the date of bid opening (price bid) prescribed by the Purchaser unless otherwise prescribed in other terms and conditions of this tender document. The Purchaser may reject a bid valid for a shorter period.

6. Purchaser's Right to accept any Bid and to reject any or all bids

The Purchaser reserves the right to accept any bid and to annul the tender process and reject all bids at any time, without assigning any reason, prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

7. Opening of Bids by Purchaser

7.1 The bids will be opened in the presence of Bidders/representatives who choose to attend on the scheduled date and time as mentioned. The Bidders/ representatives who are present shall sign a register evidencing their attendance. The Bidder's representatives shall furnish letter of authority from their principal to attend the bid opening. Financial bids of only those Bidders, whose bids are found technically suitable/qualified (after the presentation, demonstration etc., if any) will be opened. The decision of the Technical-committee on technical suitability shall be final and shall not be open for discussion. The bidders who do not qualify the technical

evaluation shall be informed separately and their EMD and unopened financial bid shall be returned after award of the contract.

8. Scrutiny of Bids

- 8.1 The Purchase committee will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required EMD has been furnished, whether the documents have been properly signed, and whether the bids are generally in order. The institute may waive any minor infirmity, nonconformity or irregularity in a bid that does not constitute a material deviation and that does not prejudice or affect the relative ranking of any Bidder as a result of the technical and financial evaluation.
- 8.2 Prior to the detailed evaluation, the Purchase Committee will determine whether each Bid is acceptable qualitatively, is generally complete and is substantially responsive to the Bid Documents. For the purposes of this determination, a substantially responsive Bid is one that conforms to all the terms, conditions and specifications of the Bid Documents without material deviations, objections, conditional ties or reservations. A material deviation, objection, conditionality or reservation is one (i) that affects in any substantial way the scope, quality of performance of the Contract; (ii) that limits in any substantial way and /or is inconsistent with the Bid Documents or the college's rights or the successful Bidder's obligations under the Contract; or (iii) whose rectification would unfairly affect the competitive position of other Bidder's who are presenting substantially responsive Bids.
- 8.3 Arithmetical errors, if any, will be rectified on the following basis: If there is a discrepancy between the unit price and the total unit price as declared in the Price Schedule the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the supplier does not accept the correction of the errors, its bid will be rejected.

9. Prices Bid

The prices must be quoted in **INR** only. All prices mentioned should be FOR destination at Department of Physics, Himachal Pradesh University, Summer hill, Shimla-5. Prices shall be quoted separately for each equipment. The bidders are required to quote the following prices:

- a) Cost of core equipment including accessories as detailed in the specifications with 3 years warranty;
- b) Cost of turnkey job, if required in the technical specifications.
- c) Cost of Consumables wherever applicable.

The price comparison shall be made on the basis of cost of equipment/material along with its accessories, cost of Turnkey job and buyback offer and cost of consumables, wherever applicable.

9.1 The bidder shall have to quote Basic Rate and GST % as required per Financial Bid/BOQ. The price quoted must be net per unit and inclusive of Freight, Loading, Unloading, Insurance, Road permits, Handling, Packing, Clearing charges, if any. No other charges & taxes will be paid extra.

- 9.2 The prices of equipment quoted by the Bidder and accepted by Department of Physics, Himachal Pradesh University, Summer hill, Shimla shall hold good till the completion of the works or satisfactory installation of equipment and no additional claims will be admissible on account of any price variation or fluctuation in market rates.
- 9.3 Payments made consequent to any notified change in sales tax and other statutory levies (both increase and decrease) shall be to the Purchaser's account. For such claims of variation, the Bidder shall produce the Government notification as documentary evidence. Price variation due to any other cause shall be on Bidder's account.
- 9.4 The finally selected Bidder will have to apply to the proper Government Authority for grant of requisite License for such items as required and the purchaser will only tender such assistance, as considered necessary.
- 9.5 The firm has to provide the break-up of expenditure of different quoted items as well as total expenditure clearly for the whole items.
- 9.6 Excise/Custom Duty, VAT, GST, Entry Tax and any other levy/surcharge in any shape or by whatever nomenclature may be included in the quoted amount unless it is specially mentioned separately.
- 9.7 The AMC/CMC charges per year shall be quoted in the BOQ and the amount shall be considered for evaluating the bidder as L-1.
- 9.8 The warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected.

10. Purchaser's Right to Vary Quantities at the time of Award

The Purchaser reserves the right to vary the quantities and/or services.

11. Negotiation/Award of Contract

Prior to the expiry of the period of bid validity, the Purchaser will notify the finally selected Bidder(s) in writing by registered letter or by cable or telex or fax, to be confirmed in writing by registered letter or by Hand in person, that its bid has been accepted. If need for extension of the bid validity period arises, it should be extended by mutual agreement. Before the award of contract, the Department of Physics may hold negotiations with the bidder, whose bid has been determined to be substantially responsive to the bid documents and whose offers are lowest one. The aim is to reach agreement on all points and sign a contract.

12. Signing of Contract

- 12.1 At the same time as the Purchaser notifies the finally selected Bidder(s) that its bid has been accepted, the finally selected Bidder(s) shall collect the supply order, agreement/ Contract Performa from the office of the Department of Physics, Himachal Pradesh University, Summer hill, Shimla-171005
- 12.2 Without prejudice to any legal remedy, failure of the finally selected Bidder(s) to comply with the requirement of Clause 2.3 (a) or Clause 2.3 (b) shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD, in which event the Purchaser may make the award to the next lowest evaluated Bidder or call for fresh bids.

13. Payment

Payment of equipment will be released in one installment as under:-

-100% after the satisfactory installation & functioning of the Equipment/material in the Lab/department and receiving of certificate to that effect from the concerned committee/Lab.

14. Other Terms and Conditions of Tendering Firms

14.1 Printed terms and conditions to the Bidder will not be considered as forming part of their Bids. In case terms and conditions of the contract applicable to this invitation of tender are not acceptable to any Bidder, he should clearly specify deviation in his Bid.

15. Inspection and Tests

The Purchaser shall have the right to inspect and/or test the equipment for its conformity with the given Specifications.

- 15.1 In case any inspected or tested Equipments fail to conform to the specifications, the Purchaser may reject them and the supplier shall either replace the rejected Equipments or make all alterations necessary to meet specification requirements free of cost to the Purchaser.
- 15.2 The supplier shall provide installation and standard tests for the individual equipment before the delivery of the system at site.
- 15.3 The supplier shall test each individual equipment and the complete system after installation at site and prepare a test report. This shall be compared with the factory test report to ensure that there is no deterioration in the equipment parameters during storage, transportation and installation.
- 15.4 Leaflets and literature should invariably be attached for ready references along with complete documentation of all the measurements conducted during installation period which shall be submitted by the supplier for future reference.
- 15.5 The technical problems faced during installation, testing and commissioning period and their solutions shall be submitted by the supplier at the time of handing over the completed works.
- 15.6 For the purpose of taking over the equipment/system supplied pursuant to this contract, an acceptance test shall be carried out at the Purchaser/Consignees destination site. The equipment which meets the acceptance test shall only be accepted by the Purchaser.
- 15.7 (a) Acceptance Test at site shall be conducted of individual equipment and complete system to ensure that individual equipment and complete system meets the technical specifications and other operational and technical requirements of tender.
 - (b) The Purchaser shall have the right to reject any individual equipment or complete system, if in its opinion the same does not meet technical specifications, operational or technical requirements. The decision of the purchaser in this regard shall be final.

(c) The delivery, installation or commissioning shall not be deemed to have been completed unless all the equipments and systems are accepted by the purchaser.

16. Warranty/CMC (After Sales Services)

- 16.1 The equipment shall be quoted with 3 years warranty. The warranty shall also cover the accessories supplied with the main equipment. However, it shall be noted that the warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected.
- 16.2 Incremental Cost (if any) for up-gradation, if required, should form part of the contract for the Warranty and Post Warranty period.
- 16.3 The Supplier (manufacturer) shall set-up a maintenance base to provide maintenance service, of the entire system being offered, at short notice during the warranty and post warranty period. The technical maintenance personnel of the supplier, responsible for supervision and maintenance, shall be available to reach the site(s) within 48 hour's notice.
- 16.4 If the performance of any individual equipment or system is not satisfactory, the same shall be replaced by the supplier free of cost.
- 16.5 If it is found that to meet the performance criteria, any extra equipment is required the same will be provided free of cost by the supplier.
- 16.6 Any lacuna or lacunae noticed in the functioning of the installation as a result of any design feature shall be rectified by the supplier free of cost.
- 16.7 The Supplier shall fully associate the engineers and technicians of the Institute during installation, testing, commissioning, operation and maintenance period.
- 16.8 The bidder shall attach an undertaking on affidavit from the original manufacturer that the AMC after warranty period shall be provided by the manufacturer OR his sole All India distributor directly on the rates and terms finalized with the bidder. The manufacturer shall be liable for the aforesaid service in case the dealership is changed/back out.

17. Spare Parts

- 17.1 The Bidder will undertake that supplies of necessary maintenance equipment and spare parts will be made available for all items/Equipments and for the complete system for at least twelve years on a continuing basis. An undertaking in this regard should be made available from the original manufacturer. However, this does not relieve the supplier of any warranty obligations under the Contract.
- 17.2 The Bidder shall include in his tender, the details of essential spares, and their quantity and unit prices as per schedule of requirements.

17.3 In addition to the essential spares, Bidder shall indicate additional recommended quantities of spares for efficient maintenance of the equipment and the systems for a period of 9 years, after the completion of warranty period, to ensure that the quality and reliability objective is achieved. The details on which unit price and the total cost or recommended spares is based shall be included in the tender as an option. However, the cost of such recommended spares shall not be considered for tender evaluation.

18. Previous Installations

- 18.1 The names and address of the institutions where the supplier has already installed/supplied the equipment indicating the dates of installations may be given. He should also attach performance certificates to indicate his prompt after sales service.
- 18.2 On site functional assessment of the similar installation and equipment of the short listed Bidders will be undertaken, if necessary, by the Committee duly constituted by the Department Council.

19. Delivery, Installation and Commissioning

- 19.1 Delivery of the goods at the Institute premises shall be completed by the Supplier within 08-12 weeks from the date of Supply Order.
- 19.2 The installation, testing and commissioning of the proposed system shall be completed within 12 weeks from the date of Supply Order, failing which necessary action as deemed fit under rules, will be taken against the defaulter.

20. Site Preparation

- 20.1 The site for installation of the equipment shall be provided by the purchaser as per the required specification and environmental conditions before the installation of System/equipment/machinery.
- 20.2 Any civil/electrical work or other related works if specified/detailed in the technical specification shall be prepared by the supplier keeping in view the actual condition of site.

21 Incidental Services

- 21.1 The supplier is required to provide at free of cost to purchaser all hardware and software up gradation from time to time, during warranty and CMC period.
- 21.2 Further, any bugs/shortcomings detected by the purchaser/user as well as the supplier himself shall be rectified at free of cost to purchaser even beyond warranty period.

22. Arbitration

Disputes, if any, shall be subjected to the sole arbitration of the Vice-Chancellor, Himachal Pradesh University, Shimla-171005, whose decision shall be final and binding on the parties.

23. Jurisdiction

The courts at Shimla will have the jurisdiction for trial of any matter, dispute or reference between the parties arising out of the contract. It is specifically provided that no court outside and other than Courts at Shimla shall have jurisdiction in the matter.

24. Force Majeure

Any failure of omission or commission to carry out the provisions of the contract by the supplier shall not give rise to any claim by either of the party to contract, if such failure of omission or commission arises from an act of God, which shall include all acts of natural calamities such as fire, flood, earthquake, hurricane or any pestilence or from civil strikes, compliance with any stature and/or regulation of the Government, lockouts and strikes, riots, embargo or from any political or other reasons beyond the supplier's own control including war (Whether declared or not) civil war or state or insurrection, provided that notice or the occurrence of any event by either party to the other shall be given within two weeks from the date of occurrence of such an event which could be attributed to Force Majeure conditions.

25. Termination for default

The purchaser may without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, terminate the contract in whole or in part.

- i) If the supplier fails to deliver or install system within the time period(s) specified in the contract, OR
- ii) If the supplier fails to perform any other obligation(s) under the contract.

26. Termination for Insolvency

The purchaser may at any time terminate the contract by giving written notice to the supplier, without compensation to the suppliers, if the supplier becomes bankrupts or otherwise insolvent (which shall be a breach of the contract on the part of the supplier), provided such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

27. Termination for Convenience

The purchaser may by written notice sent to the supplier terminate the contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience.

28. Up time guarantee:

The firm should provide uptime guarantee of 95%.

29. Downtime penalty Clause

29.1 During the comprehensive warranty period, the guarantee uptime as prescribed in Tender document/technical specification shall have to be ensured otherwise the penalty as specified shall be enforced. No discount will be given on account of public holidays/Sundays. The vendor must undertake to supply all spares for optimal upkeep of the equipment for at least Ten Years after handing over the unit to the Institute. If accessories/other attachment of the system are procured from the third party, in such case the responsibility to keep the items/equipment's in working condition shall be the sole responsibility of the vendor and the bidder itself will have to sign the CMC with the Institute if required

29.2 The principals or their agents are required to submit a certificate that they have satisfactory service arrangements

and fully trained staff available to support the uptime guarantee.

30.Price Fall Clause

The offer of rates by the tender will be subject to the price fall clause i.e. if any item is offered at a lower rate by

the tender in any other State/Place in India to any other person/Org./Institution, he shall forthwith notify such

reduction or sale to the coordinator SAP, Department of Physics, Himachal Pradesh University, Summer hill,

Shimla and the price payable for the Stores supplied to Department of Physics, H.P. University, Shimla after the

date of coming into force the such reduction or sale, shall stand correspondingly reduced even to Department of

Physics, H.P. University, Shimla.

31. The supplier shall furnish the following certificate along with each bill for payment for supplies made against in

Rate Contract Tender.

"I/We certify that the Stores of description identical to the Stores supplied to the Government under the contract

against Tender herein have not been offered/sold by me/us to any other person/organization/Institution upto date

of bill/the date of completion of supplies against all supply orders placed during the currency of the tender/rate

contract at the price lower than that of prices offered to the institute Under This Contract/Against Tender". The

bidders must attach copies of their existing rate contracts, if any, with DGS&D or any other State

Government/Institution.

NOTE:- Bidder must go through these terms and conditions very carefully and put his signature along with

stamp in token of acceptance of these terms and conditions. It shall also be noted that any further change

in the tender documents shall be intimated/published only through website of this institute.

Coordinator SAP,

Department of Physics, Himachal Pradesh University, Shimla-5

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Annexure-A

CHECK List duly filled in to be attached with the Technical Bid

S.N.	Particulars	
1.	Undertaking for No gratification as per clause 1.6	Yes/No
2.	Non-blacklisting certificate as per Clause 1.7	Yes/No
3.	Undertaking on affidavit from the original manufacture as per Clause 16.8	Yes/No
4.	Undertaking for the supply of spare part as per Clause 17.1	Yes/No
5.	Whether a list of institution/organizations where your firm has supplied this item recently is attached along with satisfactory performance certificate from those institution/organizations. As per Clause 18	Yes/No
6.	Certificate of having satisfactory service arrangement and fully trained staff as per Clause 29.2	Yes/No
7.	In case you are manufacturer, have you enclosed the certificate?	Yes/No
8.	Whether the prices has been quoted on the prescribed Performa.	Yes/No
9.	Whether all the undertaking as required in the tender document are enclosed.	Yes/No
10.	Whether EMD as asked has been attached.	Yes/No
11.	Whether Tender Document duly signed by the authorized signatory attached.	Yes/No
12.	Whether the technical specifications of the equipment are attached.	Yes/No
13.	PAN and copies of Income Tax Returns for the last three years.	Yes/No
14.	Copies of TIN issued/certificate of registration.	Yes/No
15.	Undertaking for supply of spare part during the subsequent twelve years (form-G)	Yes/No
16.	Any other certificate/undertaking as prescribed in the tender	Yes/No

Authorized Signatory	:
----------------------	---

Name of the firm/bidder:

Annexure-B

Performa for Authority from Manufacturers

No	Dated
То	
The Coordinator	
Department of Physics	
Himachal Pradesh University, Shimla-5	
Dear Sir,	
Sub: Tender No	
Wean established and reputed manufacturers of	_
(Name and Address of the Authorized representative) hereby authorize to represent conclude the contract on our behalf with you against Tender no	ent us, to tender, negotiate and
	Yours faithfully
	Signature and seal
	Name
	For & on behalf of M/s
	(Name of Manufacturers)

				_
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DI		ID.	N /I
BII	Η()K	ΙVΙ

	Dated:
То	
Sir,	
Having examined the Bidding Documents of Tender No	ke, if our bid isweeks calculated astallation, testing nables on the rates
Signature and Seal	
(In the ca	pacity of)
·	zed to sign bid
For and on behalf	
of	

Annexure-D

Bidder Particulars

Bid	der Serial Number Allotted on Tender Document:	
1.	Name of the Bidder:	
2.	Address of the Bidder:	
3.	Name of the Manufacturer(s):	
4.	Address(es) of the Manufacturer:	
5.	Name and address of the person:	
То	whom all references shall be made regarding this t	ender inquiry.
Tele	ephone:	
Tele	ex:	
Fax	:	
e-m	ail address:	
Wit	ness:	
Sign	nature	Signature
Nan	me	Name
Add	dress	Designation
		Company
Dat	e	Date
		Company Seal

Annexure-E

Proforma of Guarantee for Supply of Spares during Post Warranty Period

То	
Dear Sir,	
In consideration of the (hereinafter referred to as "Purchaser" which expression shall unless repugnan or meaning thereof include its successors, administrators and assignees) having M/s	awarded to after referred to its successors,
We the supplier hereby give a guarantee for the supply of all necessary spares demanded for the emergency maintenance of being supplied by us to for a period of not less than warranty period of 3 years and life time spares thereafter in case asked for by the purchaser. We further clarify that for the first years i.e. warranty period of years; by the warranty clause as mentioned. For the remaining period of Years and thereatime, a detailed list of spares will be supplied to the purchaser for the purpose of enabling him to needed for routine and emergency maintenance.	years after the we are covered fter for the life
Dated	
Witness:(Name of manufacturers)	
Signature and Seal	
(Signature)	
Name:	
For & on behalf of M/s	

Annexure-F

Bidder Profile

A) General Information		
(i) Location of Corporate Headquarters		
(ii) Date and Country of Incorporation		
(iii) Manufacturing facility(ies		
Location		
Size		
Capacity		
(iv) No. of service Facilities in India		
Location		
Strength		
Area covered		
(v) Average yearly turnover for last three years		
(Attach copy of proof)		
(vi) Geographical Distribution of the supplier		
No. of offices		
cocations		
staff Strength		
(vii)Total No. of installations of the system offered		
viii) No. of employees		
Cotal No. Manufacturing		
R&D Hardware Maintenance		
oftware Any Other (Pl. Specify)		
B) Reference of Major installation with similar products (Attach documents in support, if available)		
Customer Name, Address, Product Description,		
Celephone/Fax No. Signature		
Vame		
Designation		
Company		
Date Company Seal		

S.No	Dedicated DSC Specifications		
1.	Principle of operation	Heat Flux, System should provide raw data without mathematical treatment / deconvolution / smoothening / baseline correction	
2.	Temperature range	-75°C to 700°C or better (whole range in a single run)	
		True Temp ± 10°C	
3.	Temperature accuracy	0.5°C	
	Temperature precision	0.05°C	
4.	Furnace material	Low mass Furnace for rapid heating/cooling and resistant to corrosion. Strong enough to withstand at for the entire temperature range for long time.	
5.	Heating rate	0.5to 200°C/min or better	
	Cooling rate	0.5 to 50°C/min or better	
6.	Sensor	Chemical resistant, Corrosion resistant, exchangeable type heat flow measurement offering low signal time constant 3 seconds or better. Optional: Sensor should be easily replaceable. Not integral part of the furnace.	
7.	Calibration	No need to recalibrate the system for different heating rates or purge gases (inert to oxidizing atmosphere) in same experiment viz. OIT studies etc. Should have Inbuilt Gas switching facility	
8.	Resolution	0.05μW or better (real)	
9.	DSC Amplifier range	± 200mW or better	
10.	Enthalpy precession	< 0.5% or better	
11	Baseline Curvature	$<\pm10~\mu W$ or better	
12	Crucible materials	Aluminium, Platinum with a volume of 40 μl/ 70μl.	
13	Crimpling tool	To be used with aluminum crucible	
14	Specific heat Cp	Should be included	

15	Vacuum	<10 ⁻¹ mbar or upgradable to more than this vacuum
16	Chiller	Intraocular/chillar
17.	Gases	Three inlets for gas scanning (inert /reactive/ static)
18.	Calibration standards	Should be provided with the system covering full range of temperature.
19.	Computer and printer	Suitable & latest computer with i5core processor 8GB Ram with suitable colour Laser jet printer.
20.	Software	Windows based software should enable automatic / manual on-line data acquisition and display of running measurements, Calibration. The multi-tasking software should facilitate storage of both raw DSC data as well as deconvoluted data in the form of standard DSC curves. The s/w should have the facility of choosing different baseline e.g line, tangential, horizontal, spline, Integral tangential, polygon line etc for correct evaluation/integration of peaks. Options for Baseline correction, data smoothening, plot expansion, Curve overlay unlimited, Font selection etc. should be provided. Storage of results in tabular form (ASCII format) should be facilitated.
21.	Installation	Factory trained engineer
22.	Warrantee	36 Months
23.	Service Support	Factory trained Engineers available within 48 hours
24.	Application Support	Must have application Lab in India with qualified personnel to assist in case of application related queries.

Note: **Quote AMC for next Three years.** (Not included in the price)

Sr.	TGA Specifications						
No							
	Operating temperature range	Room Temperature to 1000°C (True Temperature) or better					
	Temp. Accuracy	±1ºC or better					
	Temp.Precision	± 0.4°C or better					
	Heating rate	0.5 - 200 °C/min or better (for entire range)					
	Cooling time 50 min from 1000°C to Ambient temperature						
	Furnace design Horizontalto/vertical to give stable weight signal with auto opening/closing of furnace and easy sample loading. Strong enough to wit at for the entire temperature range for long time.						
	Sample holder	Easily exchangeable type with Single beam design to minimize buoyancy effects and ensure sample temperature uniformity/homogeneity at the point of sample/crucible placement.					
	Balance capacity	1gm					
	Weighing accuracy	0.05 % or better					
	Weighing precision	0.02 % or better					
	Balance Repeatability	<0.01 mg or better					
	Minimum Weight	0.25mg or better					
	Micro Balance	Micro Balance weight change should not dependent on sample positioning. Thermo stated & electrically heated balance housing having auto calibration facility. Balance should have the facility for internal/external calibration with Certified weights.					
	Calibration of Balance	Should have fully Automatic Calibration capability with built-in calibration weights.					
	Balance protection	Thermostated Water cooled to minimize environmental influence & rapidly cool the furnace as well as protective inert gas to protect the balance from undesired decomposition gases/products.					

Balance Resolution	1μg Resolution (Not Digital) for the entire 1gm range without range switching					
TGA Blank curve reproducibility	Better than $\pm 20 \mu g$ over the whole temperature range					
Temperature Calibration	To be performed easily using Curie point standards with a fixed external position for placing magnet.					
Gas inlet	Reactive gas inlet is to be close to the sample for introducing reactive and non-explosive gas/gas mixtures. Should be programmable through Software and not separately introduced through a Gas inlet tube.					
Crucibles	20pcs of Alumina crucibles- 70uL or more					
Software	Running on Latest Windows version. TGA software supplied be standard with the system. Software allows you to carry out measurements, Evaluations and Compose Methods. 1st / 2nd Derivative Overlay of >10 TGA Curves simultaneously, Export of data in ASCII / TIF format etc.					
EGA Option Hyphenated techniques	TGA should be up-gradable to MS/FTIR/Sorption -Humidity of any standard make for EGA applications / requirements with same furnace.					
Computer and printer	Suitable & latest computer with i5core processor 8GB Ram with suitable colour Laser jet printer.					
Installation	Factory trained engineer					
Warrantee	36 Months					
Service Support	Factory trained Engineers available within 48 hours					
Application Support	Must have application Lab in India with qualified personnel to assist in case of application related queries.					

Note: Quote **AMC for next Three years.** (Not include in the price)

Specifications for Network Analyzer with magnetic material measurement software for complex permittivity and permeability measurements and Test Accessories for the application of antenna

S. No.	Parameter	Tender Specifications					
A	Network Analyzer with magnetic material measurement software for complex permittivity and permeability measurements especially at GHz Ranges						
1	Frequency Range 800MHz to 15 GHz						
2	No. of test ports	2 (Two) ports					
3	Test port connector	3.5 mm (male), 50 ohm, (nominal)					
4	Maximum Test Port Output Power	12 dBm(typ) for entire frequency range					
5	Power Accuracy	+/- 2dB for entire frequency range					
6	Power Sweep Range	37 dB for entire frequency range					
7	Frequency Reference Stability	± 1x10-6/year					
8	IF Bandwidth	1 Hz to 15 MHz					
9	Dimochivity	≥ 46 dB @ 10 MHz to 2 GHz					
9	Directivity	≥ 44 dB @ 2 GHz to 13 GHz					
10	Source match	≥ 40 dB @ 10 MHz to 2 GHz					
10	Source match	≥ 30 dB @ 2 GHz to 13 GHz					
11	Load match	≥ 46 dB @ 10 MHz to 2 GHz					
11	Load maten	≥ 42 dB @ 2 GHz to 13 GHz					

12	Transmission Tracking	≤ 0.1 dB for entire frequency range				
13	Reflection Tracking	≤ 0.007 dB for entire frequency range				
1.1	Drugonia Donos	≥ 104 dB @ 10 MHz to 50 MHz				
14	Dynamic Range	≥ 120 dB @ > 50 MHz to 13 GHz				
15	Cuses Tell: heterseen terre teet ment	≤ -80 dB @ 10 MHz to 50 MHz				
15	Cross Talk between two test port	≤ -110 dB @ 100 MHz to 13 GHz				
1.0	Dh N @ 10 L.L Off1	≤ -95 dBc/Hz @ 10 MHz to 2 GHz				
16	Phase Noise @ 10 kHz Offset	≤ -90dBc/Hz @ > 2 GHz to 26 GHz				
17	Test Port Noise Floor @ 10 Hz	≤ -82dBm @ 10 MHz to 50 MHz				
1/	IFBW	≤ -105 dBm @ > 100 MHz to 500 MHz				
10	Trace Noise Magnitude @ 1 kHz	≤ 0.005 dBrms @ 10 MHz to 100 MHz				
18	IFBW	≤ 0.002 dBrms @ 100 MHz to 13 GHz				
19	Trace Noise Phase @ 1 kHz IFBW	≤ 0.05degrms @ 10 MHz to 100 MHz				
19	Trace Noise Filase @ 1 KHZ IFBW	≤ 0.015 degrms @ 100 MHz to 13 GHz				
20	Test Port Input Power level	+ 30 dBm, 40 VDC				
21	Interfaces	GPIB, USB and LAN				
22	AC Power Supply	220 to 240 V, 50 Hz				
		Flexible test port cables				
23	Standard Cables and salibustics lit	N (m) to 3.5mm (m) adapter				
23	Standard Cables and calibration kit	N (f) to 3.5mm (f) adapter				
		mechanical calibration kit				

		36 Months Manufacturer should have NABL accredited				
24	Warranty	calibration and service centre in India which covers				
	25 Material Measurement Capability	more than 60 parameters for calibrations				
		Vendor should quote Material Measurement				
		Software for measuring intrinsic electromagnetic				
		properties of dielectric and magnetic materials in a				
		variety of formats: $\epsilon r'$, $\epsilon r''$, $\tan \delta$, $\mu r'$, $\mu r''$, $\tan \delta m$, and Cole-Cole.				
		and core-core.				
25	Material Measurement Capability	Software should control the VNA and should				
		directly calculate and display the complex				
		permittivity er* (or dielectric constant) and				
		permeability µr*, including the loss factor or loss				
		tangent. Results are displayed as a function of				
		frequency, with up to 1 or 2% typical accuracy.				
		() F (1 1210 211 0				
		(a) Four ports upgradeability with two independent source				
		(b) Time Domain				
26	Ontional faature / Future Ungradeable	(c) Gain Compression with frequency sweep				
20	Optional feature/ Future Opgradeable	(d) Internal four Pulse generators, Internal Pulse				
		Modulator with On / OFF Ratio 80dB				
		(e) Minimum pulse width, source modulators:33 ns				
		(f) Spectrum Analyzer capability				
	Accessories for calibration and fixturing to make Material Measurements					
В	Vendor should ensure that the calibration kit should be compatible with the VNA as suggested by HPU					
	NOTE: Quote AMC Charges for the next three years.					

- Note: Bidder/s must submit Brochure consisting of good quality original photographs of above equipments with complete technical details about apparatus and components.
- Bidder/s must also submit "Compliance Statement of the Technical Specifications".
- The Competent Authority has right not to place supply order for all items or few items or single item subject to the funds available.

^{*}The Department is not bound to purchase all equipments mentioned above. The purchase of these equipments will depend upon the final cost of the items subject to the available grant limit and will be finalized by Technical and Purchase Committees.

SECTION-III

FORM B

Format for Furnishing Information by the Bidder for the Supply of Tendered Items Etc. Tender to be opened on 15.01.2019 at 02.30 PM in the Department of Physics, Himachal Pradesh University, Shimla-5 PART-I General Name of the Bidder 1. Postal address Country State City Pin Code Telephone No. with STD Code a Mobile No b E-mail Id (Primary) c Alternative E-mail Id d Fax No. with STD Code e f Website GST No. g PAN h i TIN No. License No. Supplier Status k Turnover Last Financial Year (in Lakhs) Type of Supplier m (i) Manufacturer (ii)Direct Importer Account No. for e-banking n Name of the bank in which on-line Bank o Account is operating Bank Address p IFSC Code No. q MICR No. r Particulars of the Branch Office or Depot or Dump or C & F Agent or Authorized distributors of the 2. tenderer who will raise the bill(s) and where supply orders are to be sent and correspondence to be undertaken with regard to supplies, Please tick (✓) mark the agency and give name & full postal address hereunder:-

1.	Name of the Agency (Branch	
	office/Depot/Dump/C&F	
	Agent/Authorized Distributer	
	Postal address	
	Country	
	State	
	City	
	Pin Code	
a	Telephone No. with STD Code	
b	Mobile No	
c	E-mail Id (Primary)	
d	Alternative E-mail Id	
e	Fax No. with STD Code	
f	Website	
g	GST No.	
h	PAN	
i	TIN No.	
j	License No.	
k	Account No. for e-banking	
1	Name of the bank in which on-line Bank	
	Account is operating	
m	Bank Address	
n	IFSC Code No.	
0	MICR No.	
3a	Cost of tender Document	a. Amount INR
		b. In figure Rs
		c. FDR Nodated
		d. Name of issuing bank
3b	Earnest Money Deposit	a. Station
		b. In figure Rs
		c. FDR Nodated
		d. Name of issuing bank
	PAR	T-II
Declar	ration	
I/We		Prop./Partner/Director etc. (Please specify) of M/S
		hereby declare that the information given in
4		
this forn	n is true to the best of my knowledge and bri	let

Signature of the Principle Officer of the Company/firm with seal/stamp

Name:

Designation: **Aadhar No.**

Item Wise BOQ

TENDER INVITING AUTHORITY: Coordinator SAP, Physics Department, H P U Shimla.

Name Of work: Supply of Combined DSC-TGA and Net work Analyzer

Contract Number: Tender Documaent No.

N T	6.41									1
Name of the Bidder/Bidding Firm/Company										
				Dwine	Cahadula					
		(D	omestic Tender		Schedule		e (INP) on	1 _v)		
(This BO	O template		modified/repla						er filling the	e relevant
			to be rejected.)							
Number		ext	Text	Number	Text	Number	Number	Number	Number	Remark
Sr. No.	Item de	escription	Item	Quantity	Units	Basic	GST	Total	Amount	
			Code/Make			Ratein	in (INR)	Amount	in	
						Figures		(with	Words	
								taxes)		
1	1 Dedicated DSC			1	Nos					
	C1-4	-4-1 (1)								
	Subt	otal (1)								
2	Dedica	ted TGA		1	Nos					
2	Deurea	icu TOM		1	1105					
	Subt	otal (2)								
		` '								
2	Network	k Analyzer		1	Nos					
	G 14	4.1.(2)								
	Subt	otal (3)								
	Cron	d Total								
	Gran	u IVIAI								
			G Total Amo	unt	1		l		l	l
			In Figure:							
				In Words:						