

Done  
27/5/2020



HARYANA STATE POLLUTION CONTROL BOARD  
C-11, SECTOR-6, PANCHKULA  
Ph-2577870-73 E-mail: [hspcbaircell@gmail.com](mailto:hspcbaircell@gmail.com)

No. HSPCB/SSC/2020/

Dated:

To

The Director General,  
Information, Public Relations  
& Cultural Affairs Department,  
Haryana, Chandigarh.

**Subject: Publication of Advertisement regarding supply, installation, Demonstration, training of Laboratory Equipment/Instruments (Gas Chromatography Mass Spectrometry (GCMS), inductively coupled plasma optical emission spectrometry (ICP-OES) with Microwave Digestion system.**

I have been directed to enclose herewith an advertisement notice regarding subject cited above for publication in the following Hindi/English leading newspapers:

1. Four National daily English Newspapers.
2. Two National Daily Hindi Newspapers.

This advertisement should appear on or before 28.05.2020 in the above mention leading newspapers and bill on DAVP rates alongwith original newspaper may be sent to this office for payment.

**DA/Tender Notice for advertisement**

Senior Scientist (HQ)  
For Chairman

No. HSPCB/SSC/2020/ 4146-4150

Dated: 26/5/2020

A copy of the above is forwarded to the following for information please.

1. The Additional Chief Secretary, Environment & Climate Change Department, Haryana for information please.
2. P.S. to Chairman, HSPCB
3. P.A to Member Secretary, HSPCB
4. The Sr. Account officer, HSPCB
- ✓ 5. The Nodal Officer IT Branch for uploading the notice/tender on the website of the Board.

**DA/Tender Notice for advertisement**

Senior Scientist (HQ)  
For Chairman

Fms  
22-323

### Tender Notice

Sr. No.	Name of Board	Name of Work notice tender	Opening date Closing date	Amount/EMD (Approx.) in Rupees	Website of the Board	Nodal Officer/Contact Detail /Email
1.	Haryana State Pollution Control Board Panchkula.	Supply, Installation, Demonstration, Training & Commissioning of Laboratory Equipment/Instruments (Gas Chromatography Mass Spectrometry (GCMS), Inductively coupled plasma optical emission spectrometry (ICP-OES) with Microwave Digestion system.	Opening date.29.05.2020 (16:00 Hrs.) Closing date 26.06.2020 (17:00 Hrs)	Rs. 2 lakh for GCMS. Rs. 2 Lakh for ICP-OES	<a href="https://etenders.hry.nic.in">https://etenders.hry.nic.in</a>  <a href="http://www.hspcb.gov.in">www.hspcb.gov.in</a>	Sr. Scientist (HQ) Mob: 9818773849  hspcbaircell@gmail.com

**E-TENDER FOR SUPPLY, INSTALLATION, DEMONSTRATION, TRAINING AND  
COMMISSIONING (GCMS) AND (ICP-OES) WITH MDS FOR  
LABORATORIES OF HARYANA STATE POLLUTION CONTROL  
BOARD, PANCHKULA**



**Haryana State Pollution Control Board  
(C-11 Sector-06 Panchkula.  
Haryana – 134109. India  
hspcbho@gmail.com**

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HSPCB

**HARYAN POLLUTION CONTROL BOARD**  
**C-11, SECTOR-6, PANCHKULA**  
**Ph. 0172-2577870-73**  
**Email:hspcbho@gmail.com**

**NOTICE INVITING E-TENDER**

The e-tender is hereby invited on behalf of Haryana State Pollution Control Board under Two Bid (cover) system for the following works to be carried out from the eligible parties as per details given below

Tender Ref. No.	HSPCB/e-tender/2019/Instruments GCMS/ICP- OES
Description of Item	Supply, Installation, Demonstration, Training and Commissioning of Laboratory Equipment/Instruments (Gas Chromatography Mass Spectrometry (GCMS), inductively coupled plasma optical emission spectrometry (ICP-OES) with Microwave Digestion system
Estimated Value	Rs 2 crore for GCMS Rs. 2.5 crore for ICP-OES
Earnest Money	Rs. 2 Lakh for GCMS Rs. 2 Lakh for ICP-OES
Tender Fee (Non-refundable)	Rs. 5000/-
e-service Fees (Non –refundable)	Rs. 1000/-
Start date and time of Bid preparation & submission on e-procurement portal	29.05.2020 (16:00 Hrs.)
Expiry date and time for Bid preparation & submission by bidders	26.06.2020 (17:00 Hrs.)
Date and time of Tender Opening (Technical Bid Part-I)	30.06.2020 (15:00 Hrs.)
Date and time of Tender Opening (Financial Bid Part-II)	Will be intimated later on

The complete bidding document, fee details, technical specifications and key dates can be viewed /downloaded from the portal/website <https://etenders.hry.nic.in>. and [www.hspcb.gov.in](http://www.hspcb.gov.in). Bid through any other mode shall not be entertained. Please note that Chairman, HSPCB reserves the right to accept or reject the tendering process at any stage without assigning any reason whatsoever.

**Chairman**  
**Haryana State Pollution Control Board**

## Section-I

### DETAIL NOTICE INVITING TENDER

#### ➤ Information to bidders

The Bidders can download the tender documents from the portal:  
<https://etenders.hry.nic.in>.

#### ➤ Instructions to bidders on Electronic Tendering System:-

##### I. Registration of bidders on e-procurement Portal:-

All the bidders intending to participate in the tenders process online are required to get registered on the centralized e - Procurement Portal i.e. <https://etenders.hry.nic.in>.

Detailed instructions may be seen under “Help for Contractors” option available on Home Page of NIC e-procurement Portal i.e. <https://etenders.hry.nic.in>.

##### II. Information about Digital Certificate:-

- a. The Bids submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the bidder bidding online. These Digital Certificates are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, Government of India.
- b. A Digital Certificate is issued upon receipt of mandatory identity (i.e. Applicant's PAN Card) and Address proofs and verification form duly attested by the Bank Manager / Post Master / Gazette Officer. Only upon the receipt of the required documents, a digital certificate can be issued. For more details please visit the website – <https://etenders.hry.nic.in>.
- c. The bidder may obtain Class-II or III digital signature certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities or may obtain information and application format and documents required for the issue of digital certificate from.
- d. Bid for a particular tender must be submitted online using the digital certificate (Encryption & Signing), which is used to encrypt data and sign the data during the stage of bid preparation. In case, during the process of a particular tender, the user loses his digital certificate (due to virus attack, hardware problem, operating system or any other problem) he will not be able to submit the bid online. Hence, the users are advised **to keep a backup of the certificate** and also keep the copies at safe place under proper security (for its use in case of emergencies).
- e. In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no-objection certificate /power of attorney / lawful authorization to that User. The firm has to authorize a specific individual through an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the

certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the firm in the department tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.

- f. In case of any change in the authorization, it shall be the responsibility of management / partners of the firm to inform the certifying authority about the change and to obtain the digital signatures of the new person / user on behalf of the firm / company. The procedure for application of a digital certificate however will remain the same for the new user.
- g. The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.
- h. Detailed instructions may be seen under “Information about DSC” option available on Home page of NIC e-procurement portal i.e. <https://etenders.hry.nic.in>

### **III. Online Viewing of Detailed Notice Inviting Tenders:**

The bidder can view the detailed N.I.T and the time schedule (Key Dates) for all the tenders floated through the single portal e-procurement system on the Home Page at <https://etenders.hry.nic.in>.

### **IV. Download of Tender Document:**

The tender document can be downloaded free of cost from the e-Procurement portal <https://etenders.hry.nic.in>

### **V. Key Dates:**

The bidders are strictly advised to follow dates and times as indicated in the online Notice Inviting Tenders. The date and time shall be binding on all bidders. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the online Notice Inviting Tenders.

### **VI. Important Instructions & Help manual for online bidding:-**

Detailed instruction maybe seen under “Bidders Manual Kit” option available on Home page of NIC e-procurement portal i.e. <https://etenders.hry.nic.in>.

### **VII. Other General Issues:-**

Solutions of general queries may be seen under “FAQ” option available on Home Page of NIC e-procurement Portal i.e. <https://etenders.hry.nic.in>.

### **VIII. Instruction about online payment of tender document fee/e-service fee/earnest money:**

- a. The Bidders shall have to pay for the tender documents fee, EMD fee & e-service fee online by using the service of secure electronic payment gateway. The secure electronic payments gateway is an online interface between bidders and online payment authorization networks.
- b. Intending bidders will be mandatorily required to be sign-up online (create user account) on the website i.e. <https://etenders.hry.nic.in> to be eligible to

participate in the e-tender. He/She will be required to make online payment **of Rs. 2 Lakh for GCMS and 2 Lakh for ICP-OES** towards EMD fee in due course of time. In case the intended bidder fails to pay tender fee, e-service fee and EMD fee (combined together) under the stipulated time frame, he/she shall not be allowed to submit his/her bids for the respective event/tenders.

- c. In case of payment of tender fee, e-service fee and EMD fee through RTGS/NEFT, the interested bidders must remit the funds at least T+1 working day (Transaction day + One working Day) in advance i.e. on or before 16.04.2020,, 16:00 Hrs and make payment via RTGS /NEFT to the beneficiary account number specified under the online generated challan. The intended bidder / Agency thereafter will be able to successfully verify their payment online, and submit their bids on or before the expiry date & time of the respective events/Tenders at <https://etenders.hry.nic.in>.
- d. However, the details of the EMD, tender document fee & e-service fee are required to be filled/provided at the time of online Bid preparation.
- e. The bidder must have net banking account in order to pay tender document fee and e-service fee.
- f. **Payment of tender fee:-** The Payment for the tender document fee shall be made by the interested bidder online directly through net banking with the available bank at e-GRAS e-Payment Gateway.
- g. **Payment of e-Service Fee:-** E-Service fee payment shall be made separately by the interested bidders/contractors online directly through net banking account.
- h. **Payment of EMD:-** The intending bidders should pay along with bids an Earnest Money Deposit. The EMD will be deposited through online on e-tender portal govt. of Haryana where Account No. 38832584374, IFSC – SBIN0050708, MICR 160002140, Branch Code -50708 of HSPCB is already registered.
- i. Online Technical Envelope-Reference details of the Earnest Money Deposit, Tender Document Fee & E-Service Fee instrument and scanned copies of supporting documents and QR/technical criteria with proper index and page numbering on all the documents have to be provided.
- j. If the tenders are cancelled or recalled on any grounds, the tender document fee and e-service fee will not be refunded to the bidder.
- k. Bidders have to pay earnest money deposit (EMD), tender document fee & e-service fee online only as applicable. For detailed instructions refer to



FAQ for online payment available at Home page of NIC e-procurement portal [e-tender](#) portal govt. of Haryana.

**IX. Bid Preparation and submission (Technical & Financial)**

- The bidders shall upload their technical offer containing documents, qualifying criteria, technical specification, schedule of deliveries, and all other terms and conditions except the rates (price bid). The bidders shall quote the prices in price bid format.
- Submission of bids will be completed by submission of the digitally signed & sealed bid as stated in the time schedule (Key Dates) of the Tender.
- After the submission of bid by the bidders, the bidding round will be closed. Once the online tender is closed, no new Vendor can bid in the tender.

➤ **Helpdesk Support:-**

- The detail may be seen under “Contact Us” option available on Home Page of e-tender portal govt. of Haryana i.e. <https://etenders.hry.nic.in>., Telephone No. 0172-2700275.
- In addition, for support related to Haryana State Pollution Control Board, Haryana in addition you may also contact no. 09216849305. Email ID:- [hspcbaircell@gmail.com](mailto:hspcbaircell@gmail.com).

**Key Dates**

Sr. No.	Bidder's Stage	Remarks	
1.	On-line Submission of Tender Fee+e-Service Fee & EMD-cum-Security Deposit	Through Net Banking and Debit Card	On or before 26.06.2020 upto 16:00 hrs. (Noon)
2.	Start date and time of Bid preparation & submission by bidders	29.05.2020 upto 16:00 Hrs.	
3.	Expiry date and time for Bid preparation & submission by bidders	26.06.2020 upto 17:00 Hrs.	
4.	Date and time of Tender Opening (Technical Bid)	30.06.2020 15:00 Hrs	
5.	Date and time of Tender Opening (Commercial/Financial Bid)	Will be intimated later on	

**Important Note:**

- 1) The Applicants/bidders have to complete 'Application / Bid Preparation & Submission' stage on scheduled time as mentioned above. If any Applicant / bidder failed to complete his / her aforesaid stage in the stipulated online time schedule for this stage, his / her Application/bid status will be considered as 'Applications / bids not submitted'.

- 2) Applicant/Bidder must confirm & check his/her Application/bid status after completion of his/her all activities for e-bidding.
- 3) Applicant/Bidder can network on his/her bids even after completion of 'Application/Bid Preparation & submission stage' (Application/Bidder Stage), subject to the condition that the rework must take place during the stipulated time frame of the Applicant/Bidder Stage.
- 4) Bidder participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online tender at the portal <https://etenders.hry.nic.in>.
- 5) For help manual please refer to the 'Home Page' of the e-procurement website at <https://etenders.hry.nic.in> and click on the available link 'How to..?' to download the file.

**Table-I**

<b>Sr. No.</b>	<b>Item code</b>	<b>Type of Equipment/Instrument</b>	<b>Number of Units required</b>	<b>Earnest Money Deposit (Rs.)</b>
1		Gas Chromatography Mass Spectrometry (GCMS)	4	02 Lakh
2		inductively coupled plasma optical emission spectrometry ( <b>ICP-OES</b> ) with Microwave Digestion system	4	02 Lakh

**SECTION - II**  
**INSTRUCTIONS TO BIDDERS**

**2.1 Introduction**

2.1.1 Haryana State Pollution Control Board (HSPCB) invites e -tenders from eligible and qualified Bidders for supply, installation, commissioning of Laboratory Equipment/ Instruments (Gas Chromatography Mass Spectrometry (GCMS) and inductively coupled plasma optical emission spectrometry (ICP-OES ) with Microwave Digestion system) to carry out day-to-day analytical works in the Laboratories of Haryana State Pollution Control Board as detailed in Section IV “Schedule of Requirements” and which meet the pre-qualification criteria, specifications, technical details, quality assurance, etc. as indicated in Section IV & Annexure-I.

2.1.2 This section gives instructions to Bidders regarding preparation and submission of tenders and explains the mode and procedure to be adopted for receipt and opening, scrutiny and evaluation of tenders and subsequent placement of contract.

2.1.3 Failure to provide the required information and/or failure to comply with the instructions in these tender documents or give false/incorrect information may result in rejection of its tender.

**2.2 Definitions**

**2.2.1** The following terms used in these documents shall have the meaning as indicated below:

**2.2.2** Definitions:

- i. “Bidder” means Bidder who has submitted valid bid in this tender.
- ii. “Contract” means the written agreement entered into between the Purchaser and the Supplier together with all the documents mentioned therein and including all attachments, annexures, etc.
- iii. “Consignee” means the person to whom the goods are required to be delivered as specified in the Contract. If the goods are required to be delivered to a person as an interim consignee for the purpose of dispatch to another person as provided in the Contract then that “another” person is the consignee, also known as ultimate consignee.
- iv. “Contract price” means the price provided in Section II of the tender document.
- v. “Day” means calendar day.
- vi. “Delivery” means supply of systems or stores in finished and completely ready-for-use condition. The delivery shall be deemed to take place on delivery of the

systems or stores at the places of installation in accordance with the terms of the Contract after taking over the systems and issuance of delivery & acceptance certificate to the Supplier of the same at the sites and approval of the same by the jurisdictional Commissioners of the Department or the Inspecting Authority.

- vii. "Goods" means the goods indicated in the Schedule of Requirements (Section IV).
- viii. "Earnest Money Deposit" (EMD) means monetary guarantee to be furnished by a Bidder.
- ix. "Inspection" means activities such as measuring, examining, testing, gauging one or more characteristics of the product or service and comparing the same with the specified requirement to determine conformity.
- x. "Inspecting Authority" means the authorized representative of the Department to act as Inspecting Authority for the purpose of this contract and for the purpose of ascertaining the progress of the deliveries under the contract.
- xi. "L1" means the Bidder whose tender is the lowest;
- xii. "Material" means anything used in the manufacture or assembly of Equipment/ Instruments or its parts.
- xiii. "Maintenance Contractor" means the contractor entrusted with the responsibility of maintaining the goods in warranty and post warranty period.
- xiv. "Original Equipment Manufacturer" means the firm which manufactures, assembles/ integrates and supplies the offered Equipment/ Instruments.
- xv. "Performance Security / Security Deposit" means monetary guarantee to be furnished by the Supplier for due performance of the terms of contract.
- xvi. "Purchaser" means the Haryana State Pollution Control Board .
- xvii. "Services" means services allied and incidental to the supply of goods, such as transportation installation, commissioning, provision of technical assistance, training, after sales service, maintenance service, product support and other such obligations of the Supplier covered under the contract.
- xviii. "Specification" means the document / standard that prescribes the requirement with which the goods or service have to conform and include;
  - a. Specifications / Requirements
  - b. Drawings / Data and other relevant information for the turn key execution of contract
  - c. Proprietary mark or brand means the mark or brand of a product, which is registered by an industrial Bidder.
  - d. Any other details governing the construction, manufacture or supply of goods as may be prescribed in the Contract.

- Xix** . “Supplier” means the individual, company or the firm supplying the goods and services, to which the award has been issued under this tender.
- xx.** “E-Tender/Tender” means quotation/bid submitted online.
- Xxi** “Bidder” means individual, company, firm offering the tender.
- Xxii** “Technical specification” includes-
- a. Specifications, Drawings, Documents and certificates as referred in Annexure -II.
  - b. Any other details governing the construction, manufacture or supply of stores as may be prescribed in the contract.
- Xxiii** "Test / Trial" means such tests as are prescribed in specifications to be made by the Purchaser or his nominee.
- Xxiv.** “User Laboratory /Commissioner ” mean those Offices under whose jurisdiction the Equipment& Instruments are to be installed and accepted as detailed in Section IV.
- xxv.** “Board” means Haryana State Pollution Control Board,

### **2.3 Abbreviations:**

“AERB”	Atomic Energy Regulatory Board of India
“AMC”	Annual Maintenance Contract
“BG”	Bank Guarantee
“CD”	Custom Duty
“CIF”	Cost, Insurance & Freight
“CIP”	Carriage and Insurance Paid
“HSPCB	Haryana State Pollution Control Board
“DD”	Demand draft
“DDP”	Delivery Duty Paid
“EMD”	Earnest Money Deposit
“FOR”	Free on Road
“NIST”	National Institute of Standards & Technology
“NIT”	Notice Inviting Tender
“OEM”	Original Equipment Manufacturer
“USEPA”	United States Environmental Protection Agency

## **2.4 Language of tender**

2.4.1 The tender and all subsequent correspondence shall be in English. If any literature submitted by the Bidder is any other language, an authenticated English translation thereof should also be submitted and in such a case, the English translation shall be considered for interpretation of the tender.

## **2.5 Eligible Bidders**

2.5.1 Only Bidders who fulfill the pre-qualification criteria specified in Section V are eligible to apply.

## **2.6 Tendering Expense**

2.6.1 The Bidder shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its tender including preparation, mailing and submission of its tender and for subsequent processing the same. The Purchaser will, in no case be responsible or liable for any such cost, expenditure etc. regardless of the conduct or outcome of the tendering process.

## **2.7 Amendments to Tender Documents**

2.7.1 Purchaser may, at any time prior to the deadline for submission of tenders, for any reason, whether at his own initiative or in response to a clarification requested by a potential Bidder, modify the Tender Documents by issuance of Addenda or Corrigenda. They can be downloaded from the website <https://haryanaeprocurement.gov.in> and [www.hspcb.gov.in](http://www.hspcb.gov.in).

2.7.2 All such amendments shall be binding on the Bidder. The tender Documents shall be deemed to be amended only by way of the amendments mentioned above. Any other communication issued to the Bidders shall not be construed as an amendment to the Tender Documents.

2.7.3 In order to give the potential Bidder reasonable time to prepare their tenders as per the amendment, the Purchaser may, at its discretion extend the deadline for the submission of tenders and other allied time frames, which are linked with that deadline.

## **2.8 Clarifications on Tender Documents**

2.8.1 In case the Prospective Bidders seeking any clarifications regarding the tender documents. They are requested to submit their queries through email at [hspcbaircell@gmail.com](mailto:hspcbaircell@gmail.com).

2.8.2 In case of Pre-Bid conference, only two authorized representative will be allowed to attend the meeting. They should also bring letter-head of the firm with an undertaking that any decision/negotiation taken by them would be accepted by firm.

## **2.9 Documents Comprising the Tender**

2.9.1 The Tender shall be submitted online in two covers, First cover will contain Technical Bid and second cover will contain Price Bid.

2.9.2 Technical Bid i.e. first cover, shall, inter alia, contain the following:

- a. Scanned copy of Earnest money furnished in accordance with clause 2.16 of Section II or, documentary evidence as per Section II for claiming exemption from payment of earnest money.
- b. Tender Form as per Form-1 of Section VII.
- c. Documentary evidence, establishing that the Bidder is eligible to submit the tender and, also, qualified to perform the contract if it's tender is accepted. The documentary evidence needed to establish the Bidders qualifications shall be:
  - (i) In this tender either the Indian Agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product. The supplier/ authorized Indian agent/Authorized Representative should have minimum two years' continuous agency /partnership/joint venture/participation or collaboration with their principal foreign supplier/OEM. The documentary proof of such agency ship /authorization/MOU should be submitted along with the technical part as per Form - 2 of Section VII in this document. The bid of the firm does not contain the proof of such nomination/authorization as Indian agent/authorized representative will be rejected.
  - d) Documents and relevant details to establish that the goods and the allied services to be supplied by the Bidder conform to the requirement of the tender documents. These include documents such as technical data, literature, drawings, etc.
  - e) Power of Attorney of firm / resolution of Board of Directors of company for person or persons authorized to sign the Tender;
  - f) Power of Attorney / Authorization letter by the Manufacturer to Indian company/ firm/ representative to represent the Manufacturer in India;
  - g) Copies of documents defining constitution and legal status of the Bidder; Supplier of Lab equipments should have been in existence for a minimum period of 10 years on the date of tender notice. Consortium in any form is not allowed.
  - h) Documents indicating agreement with the OEM (if the Bidder is not an OEM itself);
  - i) Certified published annual reports for the last three continuous years showing the turnover and financial results of the Bidder (this information is to be provided as per Form - 7 of Section VII;)
  - j) Documentary proof (Purchase Orders and Performance Certificate) to show that the Bidder has supplied the quoted instruments during the past three years to any Govt. Ministries/Department/Public Sector Undertaking/Scientific Institute of National Repute (this information is to be provided as per Form - 8 of Section VII).
  - k) Certificate for 05 years Comprehensive on-site warranty as per Form - 11 of Section VII.



- l) List of Spares and Consumables required for 10 years of trouble-free operation and maintenance (this information is to be provided as per Form - 12 of Section VII).
- m) Performance certificates for the offered equipment/ instruments, from the Govt. Ministries/Department/Public Sector Undertaking/Scientific Institute of National Repute.

2.9.3 Price bid shall be submitted on the format prescribed as per Section-VI (Price Schedule). It shall be ensured that Price bid is only submitted online, on the specified form.

2.9.4 Indication of the bid price in the Technical bid directly or indirectly will render the entire bid invalid.

2.9.5 A bidder, who does not fulfill any of the above requirements and/or gives evasive information / reply against any such requirement, shall be liable to be ignored and rejected.

## **2.10 Tender currencies**

2.10.1 Equipment / Instrument price should be quoted in Indian rupees FOR destination. The prices should be quoted both in figures and in words, in such a way that interpolation is not possible.

## **2.11 Contract Price**

2.11.1 The Contract Price of the equipment/ instrument shall be the price of equipment/ instrument chargeable for delivery at the place of installation. This price shall be firm and fixed and not subject to any variation except in cases where the rate of applicable taxes payable in India or at the place of delivery undergoes a change. These taxes shall be paid as per actual. The contract price shall also include the cost of installation & commissioning, insurance, inspection & survey charges, test and trials, delivery, training, services of manufacturer's for five years Comprehensive Warranty period.

2.11.2 If Purchaser is required by Indian Law to deduct or withhold any other taxes or other amounts, the gross amount payable by Purchaser shall be paid after making such deductions or other withholdings. Necessary certificate for the deductions so made will be issued by the Purchaser.

2.11.3 The Contract Price shall not be subjected to any adjustment in respect of rise or fall in the cost of labour, materials, currency rate variation, devaluation or any other matter having implication on the cost of the execution of the Contract and adjustments for subsequent legislation, statute, ordinance, decree, law, regulation that may occur in the country in which the equipment/ instrument is being manufactured.

2.11.4 Further, during the period of delivery systems, in case the supplier delivers equipment/ instrument having same quoted model at less price to any other party (price being the sole consideration in the supply), the contract price will be deemed to have been

reduced by the difference between the price offered to the Purchaser and the other party. Any difference in the terms of supply shall be duly accounted in the process.

## **2.12 Duties and Taxes**

2.12.1 The Bidder should indicate duties and taxes in the Performa as applicable. However, payment of duties and taxes shall be made as per actual and the statutory variations in taxes and duties shall be allowed during the delivery period as agreed in terms of the Contract. The Purchaser shall get the benefit if duties and taxes get reduced and if there is upward revision in the rates of taxes/duties on the contracted items, same will be not borne by the Board. However, the variations shall not apply to any duties or taxes on the raw material/components/inputs.

2.12.2 The Supplier shall intimate to the Purchaser the anticipated delivery date of the equipment/ instrument, 15 (Fifteen) days in advance of the anticipated date of delivery.

## **2.13 Terms and Mode of Payment**

2.13.1 Terms of Payment: 100 % Payment will be released on after 30 days of delivery, satisfactory installation, commissioning, demonstration, training of the items and submission of performance guarantee.

2.13.2 The agencies /contractors shall have no claim in case of delayed payment due to non-availability of funds or other reasons and no interest will be paid for the delayed payment.

2.13.3 No advance payment shall be made.

2.13.4 Haryana State Pollution Control Board will pay for negotiated rates only. No extra payments/costs/ expenditure will be borne by the Board for other formalities if any.

## **2.14 Earnest Money Deposit (EMD)**

2.14.1 The earnest money is required to protect the Purchaser against the Bidder's withdrawing or altering its bid during the validity period. Hence an EMD amount as specified in Table-I, Section-I must accompany with the tender. EMD is required to be submitted in original separately-item wise on or before the last date of submission of bid as per the NIT. Scanned copy of EMD is required to be uploaded along with Technical bid.

Manufacturing Micro and Small Enterprises (MSEs) (including Khadi & Village Industries /units) are exempted from the payment of earnest money who have filed Entrepreneur Memorandum in Haryana in respect of the quoted items, participate directly in the tender and not through any intermediaries (their dealers/agents/distributors), will not subcontract to any other firm and to carry the entire manufacturing at their enterprises. {Concerned MSE will be required to submit the copy of Entrepreneurs Memorandum in respect of its category of Micro/Small issued to the firm by the industries Department Haryana as part of Technical Bid}

2.14.2 The earnest money shall be valid for a period of 180 days beyond the validity period of the tender.

2.14.3 Unsuccessful Bidder's earnest money will be returned, without any interest, to them not later than 45 days after the expiry of the tender validity period. Successful Bidder's earnest money will be returned without any interest, after receipt of performance security from that Bidder.

2.14.4 Earnest money of a Bidder will be forfeited, if the Bidder withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender. The successful Bidder's earnest money will be forfeited if it fails to furnish the required performance security within the specified period.

**2.15 Relaxation of Terms & Conditions:** HSPCB reserves the right to relax any terms and conditions in the Govt. interest with the approval of Competent Authority.

### **2.16 Tender Validity**

2.16.1 The tender shall remain valid for acceptance for a period of 180 days (one hundred eighty days) from the date of tender opening prescribed in the tender document. Any tender valid for a shorter period shall be treated as non-responsive and rejected.

2.16.2 In exceptional cases, the Bidder may be requested by the Purchaser to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by e-mail or fax followed by signed hard copy delivered by hand/post/courier. The Bidders, who agree to extend the tender validity, are to extend the same without any change or modification of their original tender and they are also to extend the validity period of the EMD accordingly.

2.16.3 In case the day up to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the Purchaser, the tender validity shall automatically be extended up to the next working day.

### **2.17 Compliance with Tender and its Technical Specification**

2.17.1 The Bidders shall submit their tenders in accordance with this Tender Documents. The tendering firm will also submit an undertaking that the product offered by them is as per technical specification of the tender as per Form no. 10 section –VII.

### **2.18 Alteration and Withdrawal of Tender.**

2.18.1 The Bidder, after submitting its tender, is permitted to alter / modify its tender so long as such alterations / modifications are done within the deadline for online submission of tenders. Any alteration/ modification in the tender thereafter is not permitted.

2.18.2 No tender can be withdrawn after the deadline for online submission of tender and before expiry of the tender validity period. If a Bidder withdraws the tender during this period, it will result in forfeiture of the earnest money furnished by the Bidder in its tender.

### **2.19 Opening of e-Tenders and Scrutiny.**

2.19.1 The Purchaser will open on-line the Technical bids on prescribed date and time. In case the specified date of tender opening falls on / is subsequently declared a holiday or closed day for the Purchaser, the tenders will be opened at the appointed time and place on the next working day.

2.19.2 Physical presence of the bidder at the time of opening of tender will not be essential in the e-tendering process. At the appointed time, the bid openers would open the bids online and the details of technical bids offered by the bidders would be known to all.

2.19.3 The first cover, i.e. technical bids will be opened online, first and evaluated by the TEC to assess that the goods and services offered are as per the Pre -qualification Criteria, Schedule of Requirements and as per the Technical Specifications.

2.19.4 The second cover, i.e. price bids of only technically qualified offers shall be opened online and evaluated..

## **2.20 Preliminary Scrutiny of Tenders.**

2.20.1 The tenders will first be scrutinized to determine whether they are complete and meet the essential and important requirements viz, pre -qualification criteria, conditions, etc. as prescribed in the Tender Document. The bids, which do not meet the basic requirements, are liable to be treated as non-responsive and rejected.

## **2.21 Discrepancy in Prices**

2.21.1 If, in the price structure quoted by a Bidder, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless the Purchaser feels that the Bidder has made a mistake in placing the decimal point in the unit price, in which case the total price as quoted shall prevail over the unit price and the unit price corrected accordingly.

2.21.2 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail.

## **2.22 Purchaser's Right to accept any Tender and to reject any or All Tenders**

2.22.1 The Purchaser reserves the right to accept in part or in full any tender or reject any tender without assigning any reason or to cancel the tendering process and reject all tenders at any time prior to award of contract, without incurring any liability, whatsoever to the affected Bidder or Bidders.

## **2.23 Evaluation and Award Criteria**

2.23.1 Separate evaluation of Bids received for each type of tendered equipment/ instrument will be carried out.

2.23.2 Technical bids will be evaluated on the basis of information and data provided in the bids as well as the actual performance of the equipment/ instruments being offered. Technical bids of the Bidders, who fulfill qualification criteria laid down in Section V, shall be evaluated first in terms of requirements/specifications given in Section IV & Annexure-I of the tender document. If the details/data given in the technical bids are found in conformity with the technical specification prescribed in Annexure-I, testing of the models offered by the Bidders may be carried out by the Tender Evaluation Committee, if required to ascertain the actual performance of the equipment/ instrument. Bidder, will arrange, at his cost, the demonstration of the equipment/ instruments.

**2.23.3 Price bids of the Bidders, whose technical bids are qualified, shall only be opened.**

2.23.4 The lowest Bidder (L1) shall be determined on the basis of Price quoted by the bidder altogether for Supply, Installation, & Commissioning which will be inclusive of the Training, Demonstration, Testing etc.

**2.23.5 Negotiations of Rates** – The negotiations in rates will be done as per instructions of issued by Govt. of Haryana from time to time.

#### **2.24 Letter of Award**

2.24.1 Before expiry of the tender validity period, the successful Bidder(s) will be intimated in writing, by registered / speed post or by fax/ telex/cable. The successful Bidder(s) must furnish to the Purchaser the performance security within twenty one (21) days from the date of the letter of award in Form-3 of Section VII (details of the performance security are in clause 3.5 of Section III).

#### **2.25 Issue of Contract**

2.25.1 Within twenty one days from the date of the award, the successful Bidder and Purchaser shall sign contract on the contract form (Form-4 of Section VII) as per the mutually convenient date.

#### **2.26 Non-Receipt of Performance Security and Contract by the Purchaser**

2.26.1 If the successful Bidder fails to provide performance security within the specified time or fails to sign the contract, his EMD will be forfeited and further actions as deemed necessary by the Purchaser will be taken against him.

#### **2.27 Integrity Pact**

2.27.1 Prospective bidders have to sign a Integrity Pact as per the format given in Form-6 of Section VII and submit it along with the Technical Bid. Bidders are advised to read the Integrity Pact carefully, fill in the required details, sign and affix the seal and submit along with the technical bid. The bid which does not contain the Integrity Pact will be summarily rejected.

#### **2.28 Concession to MSEs of State**

The concession the Haryana based MSMEs and KVIs will be given as per the State Govt. policy claiming the relevant concessions like tender fee, performance security of turn over condition, the bidders are required to submit the documentary proof from Government authorities showing that they come under Haryana based MSMEs and KVIs units as the case may be e.g. Entrepreneurs' Memoranda in Haryana bidder's name. The concession would be admissible only if the concerned Enterprises participate directly in the tender and not through any intermediates i.e. their deals / agents & distributors.

**2.29 Authenticity of Documents:-** All the documents of the bidder must be attested by the signing authority of the bidder. All the documents of the manufacturers must be attested by the signing authority of manufacturers as well as by the signing authority of the bidder. The bidder as well as the concerned manufacturer will be responsible for the genuineness/correctness/authenticity of the details/documents provided alongwith the bid as well as subsequently.

## SECTION - III

### GENERAL CONDITIONS OF CONTRACT

#### **3.1 Application**

3.1.1 The following General Conditions of Contract shall be applicable for this purchase.

#### **3.2 Use of contract documents and information**

3.2.1 The Bidder shall not, without the Purchaser's prior written consent, disclose the contract or any provision thereof including any specification, drawing, sample or any information furnished by or on behalf of the Purchaser in connection therewith, to any person other than the person(s) employed by the Bidder in the performance of the contract emanating from this Tender Document. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for the purposes of such performance for this contract.

3.2.2 The Bidder shall not, without the Purchaser's prior written consent, make use of any document or information mentioned in sub-clause 3.2.1 above except for the sole purpose of performing this contract.

3.2.3 Except the contract issued to the Bidder, each and every other document mentioned in sub-clause 3.2.1 above shall remain the property of the Purchaser and, if advised by the Purchaser, all copies of all such documents shall be returned to the Purchaser on completion of the Supplier's performance and obligations under the contract.

#### **3.3 Patent Rights**

3.3.1 The Supplier shall, at all times, indemnify and keep indemnified the Purchaser, free of cost, against all claims which may arise in respect of goods & services to be provided by the Supplier under the contract for infringement of any right protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trademarks etc. being made against the Purchaser, the Purchaser shall notify the Supplier of the same and the Supplier shall, at his own expenses take care of the same for settlement without any liability to the Purchaser.

#### **3.4 Country of Origin**

3.4.1 All goods and services to be supplied and provided under the contract shall have the origin in India or in the countries with which the Government of India has trade relations.

3.4.2 The word "origin" incorporated in this clause means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed or from where the services are arranged.

#### **3.5 Performance Security**

3.5.1 Within twenty one days after the issue of letter of award by the Purchaser, the Bidder, shall furnish performance security to the Purchaser for an amount equal to ten per cent of the total value of the contract. This Security shall remain valid up to 90 days after the date of completion of all contractual obligations by the Supplier. The Haryana based manufacturing micro and small enterprises shall be entitled to concession on deposit of security amount as per the Haryana Govt. policy. This concession would be admissible

only if the concerned enterprises participate directly in the tender and not through any intermediate i.e. their dealers/agents & distributors.

3.5.2 The Performance security shall be in the form of Bank Guarantee issued by a scheduled bank in India, in the prescribed form as provided in Form-3 of Section VII of this document.

3.5.3 If Bidder fails to fulfill its obligations in terms of the contract, the amount of the performance security shall be payable to the Purchaser as compensation and the Purchaser can invoke the said Performance Bank Guarantee.

### **3.6 Technical Specifications and Standards**

3.6.1 The Scientific Instruments/Equipments to be provided by the Supplier under this contract shall conform to the technical specifications and quality control parameters mentioned in 'Technical Specification' under Annexure-I of this document. The tendering firm will also submit an undertaking that the product offered by them is as per technical specification of the tender as per Form no. 10 of Section –VII.

### **.7 Packing and Marking**

3.7.1 The Bidder should pack the goods in strong and durable packing which can withstand, without limitation, the entire journey during transit including transshipment (if any), rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the goods and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.

### **3.8 Enquiry, Inspection and Quality Control**

3.8.1 The Purchaser and/ or its nominated representative(s), in order to satisfy itself, may enquire, inspect and/or test the ordered goods and the related services to confirm their conformity to the tender qualification criteria, specifications and other quality control details incorporated in the tender/contract at the cost of the purchaser.

3.8.2 The equipment must fulfill all legal regulations on safety and health requirements (radiation, electrical, electro-magnetic, mechanical, etc.) and shall comply with the Electricity Acts, Rules, Codes & Standards as existing in India.

### **3.9 Terms of Delivery**

3.9.1 The bidder to quote the prices on FOR Destination (HSPCB, Haryana) Basis. The Board will provide the required certificate and other documents.

3.9.2 The Equipment shall be delivered within 60 days from the date of letter of award as per the provisions/conditions of the purchase order unless otherwise prescribed. If the bidder fails to deliver the Equipments or perform the service by the specified date, penalty at the rate of 1% per week of the total order value subject to the maximum of 10% of total order value will be deducted.

3.9.3 The incidental expenses towards sending the instruments to the designated locations mentioned in section -IV such as arranging transport, insurance, labour, including charges to the custom clearing agent etc. to be borne by the supplier/their authorized Indian

representative. The Indian agent/ their representatives should be responsible for the safety of the instruments during the transit from airports to the designated locations.

### **3.10 Insurance**

3.10.1 The Supplier shall, in his own interest, insure the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery. The Supplier shall be responsible till the entire stores contracted for arrive in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured. The insurance cover shall be obtained by the Supplier in its own name and not in the name of the Purchaser or its Consignee.

### **3.11 Clearance / Receipt of Goods**

3.11.1 The Supplier shall make his own arrangements for clearance of goods through customs and their receipt and onward dispatch for the site of installation after obtaining the necessary custom exemption certificate from the purchaser.

### **3.12 Warranty**

3.12.1 Bidders must give the comprehensive on-site warranty of at least five years (5 years) from the date of successful installation of Equipment and also give the warranty declaration that “everything to be supplied by us hereunder shall be free from all defects and faults in material, workmanship and shall be of the highest quality and material of the type ordered, shall be in full conformity with the specification and shall be complete enough to carry out the experiments, as specified in the tender document”.

3.12.2 In case of any claim arising out of this warranty, the Purchaser shall promptly notify the same in writing to the Supplier. Upon receipt of such notice, the Supplier shall, with all reasonable speed and within the time period prescribed in clause 4.9 of Section IV, repair / replace the defective goods or parts thereof, free of cost, at the ultimate destination. The Supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the Purchaser for such replaced parts/goods thereafter.

3.12.3 If the Supplier, having been notified, fails to rectify/replace the defect(s) within a reasonable period the Purchaser may proceed to take such remedial action(s) as deemed fit by the Purchaser, at the risk and expense of the Supplier and without prejudice to other contractual rights and remedies, which the Purchaser may have against the Supplier.

### **3.13 Assignment**

3.13.1 The Supplier shall not assign to anyone, either in whole or in part, its contractual duties, responsibilities and obligations to perform the contract, except with the Purchaser’s prior written permission.

### **3.14 Sub-contracts**

3.14.1 The Supplier shall notify the Purchaser in writing of all sub-contracts awarded under the contract. Such notification, in its original tender or later, shall not relieve the Supplier from any of its liability or obligation under the terms and conditions of the contract.

3.14.2 Sub-contract shall be only for bought out items, sub-assemblies & maintenance of goods and for the goods as a whole.

3.14.3 Sub-contracts shall also comply with the provisions of Clause 3.4 (“Country of Origin”).



### **3.15 Delay in the Supplier's performance.**

3.15.1 The Supplier shall deliver the goods and perform the services under the contract within the time schedule specified by the Purchaser in the Schedule of Requirements and as incorporated in the contract.

3.15.2 Subject to the Force Majeure provision under clause 3.18 of this section, any unexcused delay by the Supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the Supplier liable to any or all of the following sanctions:

- i) imposition of liquidated damages,
- ii) forfeiture of its performance security and
- iii) termination of the contract for default.

3.15.3 If at any time during the currency of the contract, the Supplier encounters conditions hindering timely delivery of the goods and performance of services, the Supplier shall promptly inform the Purchaser in writing about the same and its likely duration and make a request to the Purchaser for extension of the delivery schedule accordingly. On receiving the Supplier's communication, the Purchaser shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of Supplier's contractual obligations by issuing an amendment to the contract.

### **3.16 Liquidated damages.**

3.16.1 Subject to Clause 3.18 of this Section (Force Majeure), if the Supplier fails to complete the installation and commissioning of the equipment within the time fixed under the contract, the Purchaser shall without prejudice to any other rights and / or remedy as may be available to the Purchaser under the Contract, shall deduct from the Contract price as an agreed Liquidated damages amount @ 1% of value of undelivered goods per week or part thereof until actual delivery or performance, subject to a maximum of 10% of the contract price.

3.16.2 If the delay exceeds two months from the scheduled date of supply, the Purchaser shall have the right to terminate the contract at the risk and cost of the Supplier.

3.16.3 The amount of Liquidated damages may be adjusted or set-off against any sum payable to the Supplier under this or any other contract with the Purchaser.

### **3.17 Termination for default and insolvency**

3.17.1 The Purchaser may, without prejudice to any other contractual rights and remedies available to it (the Purchaser), by written notice of default sent to the Supplier, terminate the contract in whole or in part, if the Supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Purchaser.

3.17.2 If the Supplier becomes bankrupt or otherwise insolvent, the Purchaser reserves the right to terminate the contract at any time, by serving written notice to the Supplier without any compensation, whatsoever, to the Supplier, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the Purchaser.

### **3.18 Force Majeure**

3.18.1 Vendor shall not be considered in default if delay in delivery occurs due to causes beyond his control such as acts of God, natural calamities, civil, wars, strikes, fire frost, floods, riots and acts of usurped power. Only those causes which have a duration of more than 7 calendar days shall be considered cause of force majeure. A notification to this effect duly certified by the Local Chamber of Commerce/Statutory Authorities shall be given by the Vendor to the buyer by registered letter. In the event of delay due to such cases a length of time equal to the period of force majeure or at the option of the buyer, the order may be cancelled. Such cancellation would be without any liability whatsoever on the part of buyer. In the event of such cancellation the vendor shall refund any amount advanced by the Purchaser and deliver back any material issued to him by the Purchaser and release facilities, if any, provided by the Purchaser.

### **3.19 Resolution of disputes**

3.19.1 In the event of any dispute or difference(s) between the parties hereto, such disputes or differences should be resolved amicably by mutual consultation. If such resolution is not possible, then the unresolved dispute or differences shall be replaced to arbitration of sole arbitrator, to be appointed by Chairman, HSPCB. The provisions of Arbitration & Conciliation Act, 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall be applicable to arbitration. The venue of such arbitration shall be at Haryana. The Language of arbitration proceedings shall be in English. The arbitrator shall make a written & reasoned award (the "Award") which shall be final & binding on the parties. The cost of arbitration shall be shared equally by the parties to the agreement. However, expenses incurred by each party in connection with the preparation presentation shall be borne by the party itself. It will not be an objection to any such appointment that the arbitrator are the government servant and had any interest in the board or the contract entered into directly or indirectly.

### **3.20 Applicable Law and Jurisdiction**

3.20.1 The contract shall be governed by the laws of India for the time being in force.

### **3.21 Injury and Damage**

3.21.1 Injury or Death of Persons - The Supplier shall be liable for and shall indemnify the Board against any liability, loss claim or proceedings whatsoever arising under any statute or law in respect of personal injury death or any disability caused by the carrying out the Works unless due to any act or neglect of the Board, or of any person for whom the Board is responsible.

3.21.2 Damage to Property - The Supplier shall be liable for and indemnify the Board against and insure and cause any Manufacturers and subcontractors to insure against any expense, liability, loss claim or proceedings in respect of any damage whatsoever to any real or personal property for any one occurrence in so far as such damage arises out of or in the course of or by reason of the carrying out of the Works and is due to any negligence, omission or default of the Supplier or any person for whom the supplier is responsible or

any Manufacturers and subcontractors or person whom the Manufacturers and subcontractors are responsible.

## **SECTION - IV**

### **SCHEDULE OF REQUIREMENTS**

#### **4.1 Scope of Work**

- i) Supply of Equipment/ Instrument (with essential accessories, spares, consumables, etc.), including site works (related to installation, as required), and installation & commissioning;
- ii) Obtaining regulatory/statutory clearances, as necessary, and Training of staff of User Commissionerate;
- iii) Maintenance during Comprehensive warranty period of 5 (five) years including supply of spare parts and consumables of all items;
- iv) Product Support for ten years after expiry of warranty period, undertake AMC if required by the user and provide upgrades from time to time.

#### **4.2 Delivery Schedule**

4.2.1 Equipment/ Instrument should be supplied, installed and commissioned within 4 (Four) months from the date of award of order.

#### **4.3 Terms of Delivery**

4.3.1 Any loss or damage to the equipment due to mishandling, transportation, till such time the equipment is delivered at the site shall be to Bidder's account. The Bidder shall be responsible for preferring of all claims and make good for the damage of loss by way of repairs and/or replacement of the portion of equipment damaged or lost.

4.3.2 Upkeep of the Equipment/ Instrument till the time of their commissioning and delivery shall be the responsibility of the Bidder. No extra cost for upkeep of machine shall be payable to the supplier if the installation & commissioning of the machine at particular destination(s) is delayed for reasons not attributable to the Govt.

4.3.3 The successful Bidder shall be responsible to ensure the following:

- i) Sound packing of the items.
- ii) Shipment of the items
- iii) Insurance
- iv) Custom clearance and handling of items at port of entry in India or in the place of Installation, if any.
- v) Forwarding and transshipment of items up to the destination.
- vi) Insurance for inland transportation and payment of duties.
- vii) Receipt of equipment at the site.
- viii) Installation & commissioning of equipment at the site. (This includes all requisite site works.)
- ix) Comprehensive Maintenance of the equipment during the warranty period.
- x) Software up-gradation

#### **4.4 Locations for Commissioning**

4.4.1 Locations for installation of Equipment/ Instrument shall be as per the table give hereunder:

## Locations of Delivery and Installation of the Instruments / Equipments

Sr. No.	Name of the instruments	Total Quantity required	Location (required 01no. for each lab)
1	Gas Chromatography Mass Spectrometry (GCMS)	4	HSPCB Lab Panchkula.
			HSPCB Lab Faridabad.
			HSPCB Lab Gurugram.
			HSPCB Lab Hisar.
2	Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES ) with Microwave Digestion system	4	HSPCB Lab Panchkula.
			HSPCB Lab Faridabad.
			HSPCB Lab Gurugram.
			HSPCB Lab Hisar.

### 4.5 Facilities by the Purchaser

4.5.1 Purchaser will provide air-conditioned room with instrument platform/ table. Electrical and water connections may also be available, wherever, required. All other provisions for the installation, commissioning and operation of the equipment/ instruments shall be made by the Supplier.

### 4.6 Site Restrictions

4.6.1 Supplier and his employees shall not trespass beyond the boundary limits of the site on to any adjoining area and the Supplier shall take necessary action to prevent trespassing and shall follow all security regulations and access control as enforced at site by the concern Laboratory, concerned government authorities or their representatives in regard to men & material movement.

4.6.2 It is likely that equipment / instruments being supplied by the Supplier need to be installed in a room / area where already other equipment / instruments are under operation. The Supplier and his employees shall ensure that the operation of existing equipment / instruments is not affected during the installation and commissioning of equipment / instruments under supply. Instructions and guidelines provided by the Laboratory-in-charge/Purchaser's representative shall be adhered to at the site of installation.

### 4.7 Product Support / Long Term availability of Spares

4.7.1 The Bidder must submit an undertaking to give product support for at least 10 years. Contract with condition to provide product support for the period of 10 years from the date of expiry of warranty period will be submitted by the bidder, before release of bank guarantee for 10% balance payment.

4.7.2 The Bidder shall provide a part catalogue covering complete range of spares/ components/consumables for the Equipment / Instruments and support structure.

4.7.3 Comprehensive list of spares shall be indicated in the Technical bid. Bidder shall also provide recommended list of critical spares and test equipment for at least 10 years of trouble free operation and maintenance.

### 4.8 Software and Software Upgrades

4.8.1 The Supplier shall agree to provide copies of as -built software in executable code that are installed in the system at all levels. It shall also state the Hardware that needs to be in place for implementation ensuring that the Equipment/ Instrument un-availability is minimal. The Supplier shall also comply and guarantee software upgrades for the service life of the Equipment/ Instrument.

4.8.2 Taking into account the operational requirements of the Purchaser, there may be a need to customize some portion of the software. Supplier should agree for such customization, which is expected to be limited, at no extra cost.

4.8.3 Any software upgrades developed by the Supplier during the warranty and the post warranty period should be made available to the Purchaser at no extra cost and should be delivered and installed in a prompt and efficient manner. The Supplier should install and train the operator with software upgrades.

#### **4.9 Warranty Maintenance**

4.9.1 Warranty maintenance should include complete equipment/ instrument and accessories.

4.9.2 During warranty period, the Supplier shall set right the machine immediately on receipt of complaint within maximum time limit of 48 hours in India.

4.9.3 Preventive Maintenance shall be carried out at least once in six months during warranty period.

#### **4.10 Training of Staff**

4.10.1 Training is to be provided in the operation & general upkeep of the equipment/ instrument after installation & commissioning at the site. Training should also be imparted on sample analysis. Standard operating procedure (SOP) for the equipment/ instrument should be prepared and provided to the Purchaser's staff at site.

4.10.2 Bidder shall train 2 to 4 persons after installation and shall also provide training to the laboratory personal as & when required during the warranty period. The cost for providing such training shall be deemed to have been included within the cost quoted.

#### **4.11 Post Warranty Maintenance**

4.11.1 The bidder shall provide Post Warranty Services and post contractual support i.e. AMC, repair, maintenance, etc. and assure supply of consumables and spare parts for 10 years from the date of installation. The bidder will take up the post warranty AMC when asked to do so.

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**SECTION - V**  
**PRE QUALIFICATION CRITERIA**

**Bidders who can Bid**

5.1 Only those bidders who fulfill the following eligibility as well as the qualifications criteria can submit tenders.

**ELIGIBILITY**

5.2 To be eligible, the Bidder should have not been banned or suspended from Government transactions due to any reason including corrupt and fraudulent practices.

**QUALIFICATION**

5.3 Original Equipment Manufacturers (OEM) may bid directly. OEM should be internationally/nationally reputed manufacturer/branded company. OR

5.4 An authorized agency/representative nominated by the OEM, who have minimum two years continuous agreement with OEM, may also bid. Relevant documents along-with tender specified Authorization Form indicating the Bidder is an authorized agency/representative of the OEM for bid submission shall be enclosed with tender bid. The OEM shall give an undertaking to supply components / parts/ consumables during warranty & post-warranty periods as well as continued supply of components/ spare parts for the period of product support. OEM shall also assure full technical back-up and support in the matter of providing maintenance including software up-gradations. Copy of agreement between OEM and the agency/representative confirming the above requirements and nomination from the OEM for supplying stores shall be enclosed with the tender. Only one nomination from the OEM shall be accepted. [NB: In the event of the bid submitted by authorized agency/representative nominated by the OEM becoming successful, the contract shall be placed on the OEM, on whose behalf the bid has been made].

5.5 Average annual turnover of the Bidder should be at least 3 times the cost of item quoted, during last three financial year's i.e.1<sup>st</sup> April 2016 to 31<sup>st</sup> March 2019 and should have made profit (profit after tax) in each of these years alongwith detail in form 7 of Section -VII. Certified and published annual audit reports of the past three years are to be submitted along with the tender.

5.6 The Bidder should have supplied at least two (02) numbers for the quoted/similar Equipment/Instrument in the last five years to Govt. Ministries/Department/Public Sector Undertaking/Scientific Institute of National/International Repute. The details of such institutions and the cost with name of equipment may also be supplied with the bids. Purchase Orders and Performance Certificates (at least one) from the users of such supplies must be given in the Technical Bid by the bidder. The Purchaser and/ or its nominated representative(s), in order to satisfy itself, may enquire the performance of similarly supplied goods from other Govt. or Private users. The user may also inspect and/or test the quoted/ordered goods and the related services to confirm their conformity

to the tender qualification criteria, specifications and other quality control details incorporated in the tender/contract at the cost of the bidder.

5.7 Only one bid will be accepted from OEM or through authorized agency/representative nominated by OEM for any type of equipment/ instrument detail in form 2 of Section -VII. In case if more than one bid for any type of equipment/ instrument is received from OEM or through authorized agency/representative nominated by OEM, all such bids shall be summarily rejected.

5.8 Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specifications, contradiction between bidder specification and supporting documents etc. may lead to rejection of the bid.

5.9 Furnishing of wrong/ambiguous information in the compliance statement may lead to rejection of bid and further black-listing of the bidder, if prima -facie it appears that the information in the compliance statement was given with a malafide/fraudulent intent.

**SECTION – VI  
PRICE SCHEDULE**

**Price Bid for purchase of GCMS/ICP-OES**

<b>Description</b>	<b>Amount in Rs.</b>	<b>Amount in words</b>
Unit base price		
Cost of Installation & Commissioning		
Cost of transportation upto installation site		
Cost of training		
IGST/GST Applicable for unit		
Unit Price, FOR Basis		
Total Price for 04 Nos. Items FOR Basis		

**Signature with date & stamp  
of the bidder**



## SECTION-VII

### Form – 1

#### TENDER ACCEPTANCE FORM

##### (To be submitted on Letter Head)

Having carefully gone through the whole Tender Document, we, M/s\_\_\_\_\_ the Bidder, agree to all the terms and conditions mentioned in them and hereby, make the following offer to supply the Instruments/Equipments as per the Schedule requirements, delivery schedule and in conformity with all other conditions in the Tender Documents and amendments. We will arrange for demonstration of models of the Equipment/ Instrument being offered, within India as per the convenience of the Purchaser.

##### **Bidder**

1. Name of the Bidder \_\_\_\_\_.
2. Address\_\_\_\_\_.
3. EMail\_\_\_\_\_
4. Phone\_\_\_\_\_ Fax.\_\_\_\_\_
5. PAN\_\_\_\_\_
6. Name and complete address of the Bidder's bankers\_\_\_\_\_
7. Name and designation of the person digitally signing and submitting the tender\_\_\_\_\_.
8. Is the person digital signing and submitting the tender authorised by the Bidder? Yes/No) (Please enclose scanned copy of the Board's resolution authorized the person to submit the bids without which the tender will be rejected).
9. Whether business dealings with the Bidder currently stand suspended/ banned by any Ministry/

##### **Qualification**

10. Is the Bidder an OEM of the goods being offered? Yes/No
11. Is the Bidder an authorized agency / representative duly nominated by the OEM? (Yes/No)  
(If yes, please enclose required documents as mentioned in qualification criteria)
12. Turnover of the Bidder during the past three years (This information is to be provided as per Form-7 of section VII) (in Rs. Crores)  
(Please enclose certified published annual reports. If the accounts are maintained in some other currency, please give the figures in that currency as well as its conversion at the exchange rate on the date of filling up this form. If the accounts are managed calendar year wise, please provide figures for 2016, 2017 and 2018.)
13. How many Equipment/ Instrument, being offered, has the Bidder supplied during the past three years in India or abroad?\_\_\_\_\_ (Please enclose documentary proof –Purchase Offer orders and minimum three performance report) (This information is to be provided as per Form-8 of section VII)

##### **Offer**

14. Make & Model Number of the Equipment/ Instrument offered\_\_\_\_\_.  
Technical documents to be enclosed

15. Technical Literature/brochure of the requirements specified in Annexure -I of Tender Document.  
You may furnish additional information/ clarifications, documents, etc., in support of your offer.

### **Warranty maintenance**

16. Do you have your own set up in India to provide the maintenance during warranty period? (Yes/No)
17. If yes, please provide details (in 100 words) including experienced manpower & resources details and enclose relevant documents
- 

18. If answer to question at 16 above is no, do you have any agreement with any other manufacturer or reputed agency to act as Maintenance contractor to provide maintenance during warranty and post warranty period? (Yes/No)
19. If answer to question 18 above is yes, please provide details (in 100 words) and enclose a copy of the agreement, including previous experience and manpower details of the proposed agency in maintenance of similar type of equipment/ instruments.

### **Availability of Spares and Consumables for 10 years of trouble-free operation and maintenance**

20. Does the OEM/Its Authorized representative agree to provide Spares and Consumable for 10 years of trouble-free operation and maintenance? (Yes/No)

### **After Sales Services/Post Contractual Support**

21. Does the OEM/Its Authorized representative agree to provide after Sales Services/ post contractual support i.e. repair, maintenance, supply of spares parts etc and will take up the post warranty AMC when asked to do so? (Yes/No) .

### **Documents to be enclosed**

22. Have you submitted the EMD as prescribed in Tender Document (Table-I) or EMD Exemption Certificate? (Yes/No)
23. Have you enclosed the following documents? (Yes/No).
- Scanned copy of the EMD/EMD Exemption Certificate? (Yes/No).
  - Tender Acceptance Form as specified in the Tender? (Yes/No)
  - Documents and relevant details to establish that the goods offered conform to the requirement of the tender documents and Technical Literature/Brochure etc. (Yes/No) Power of Attorney of firm / resolution of Board of Directors of company for person or persons authorized to sign the Tender ;(Yes/No)
  - Authorization letter by the OEM (Manufacturer) or self declaration letter by OEM (if OEM is bidding) ; (Yes/No)
  - Copies of documents defining constitution and legal status of the Bidder;(Yes/No)
  - GST Registration Certificate and latest GST Deposit receipt (in case of Indian Bidder) (Yes/No)?

- g. An undertaking to the effect that the Price bid does not contain any conditions/options whatsoever of the price demanded for sale. (Yes/No)
- h. Affidavit on Non judicial Stamp Paper duly certified by the notary stating that the bidder has not been blacklisted/debarred by any Government or procuring entity and non-registration of criminal case on bidder? (Yes/No)
- i. Certified published annual reports showing the turnover and financial results. (Yes/No)
- j. Purchase Order and Performance certificates (min. three) for the offered equipment/ instruments from Govt Ministries/Department/Public Sector Undertaking/Scientific Institute of National Repute. (Yes/No)
- k. Warranty Certificate for 05 years of Comprehensive Warranty. (Yes/No)
- l. List of Spare and Consumables required for 10 years trouble free operation and maintenance along with a certificate that Spares & Consumables will be provided for at least 10 years. (Yes/No)
- m. Duly Signed and stamped Integrity Pact (Yes/No)
- n. Any other documents that you consider necessary to strengthen your bid. (Yes/No/None required).

.....  
**(Signature with date)**

.....  
**(Name and designation)**

**Duly authorized to sign tender for and on behalf of M/s \_\_\_\_\_.**

\*\*\*\*\*

Form - 2

**MANUFACTURER'S AUTHORISATION FORM**

To

The Member Secretary,  
Haryana State Pollution Control Board,  
Panchkula.

Dear Sir,

Ref. Your Tender Document No....., dated .....

We....., who are proven and reputable manufacturers of..... (name and description of the goods offered in the tender) having factories at ....., hereby authorize M/s ..... (name and address of the agent) to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred Tender Documents for the above goods manufactured by us. Messrs..... (name and address of the agent) is having ..... years' agreement/association with us since .....

We further confirm that no Supplier or firm or individual other than M/s..... (name and address of the above agent) is authorized to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred Tender Documents for the above goods manufactured by us.

We also hereby extend our full comprehensive warranty, as applicable as per the General Conditions of Contract, for the Scientific Instruments/Equipments offered for supply by the above firm against this Tender Document.

faithfully,

Yours

.....  
....  
.....  
...

[Signature with date, name and designation]

for and on behalf of M/S

.....

[Name & address of the manufacturers]

Note : This letter of authorization should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.

Form – 3

**BANK GUARANTEE FORM FOR PERFORMANCE SECURITY**

The Member Secretary,  
Haryana State Pollution Control Board,  
C-11, Sector-6, Panchkula.  
Whereas

\_\_\_\_\_ (name and address of the supplier) (hereinafter called "the Supplier) has undertaken, in pursuance of contract no. \_\_\_\_\_ dated \_\_\_\_\_ to supply (description of goods and services ) hereinafter called "the contract")

And Whereas it has been stipulated by you in the said contract that the Supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligation in accordance with and due performance of the contract;

And Whereas we have agreed to give guarantee in words and figures), and we hereby irrevocably and absolutely undertake to pay you immediately, upon your first written demand declaring the Supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the Supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

The Bank guarantee shall be interpreted in accordance with the laws of India.

The Guarantor Bank represents that this Bank Guarantee has been established in such form and with such content that is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

The Bank Guarantee shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank or the Supplier.

The Bank further undertakes not to revoke this Guarantee during its currency except with the previous express consent of the Purchaser in writing.

The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Guarantee for an on behalf of the Bank.

This guarantee shall be valid upto and including the ..... day of ....., 20.....

(Signature with date of the authorized officer of the Bank).....)

Name and designation of the officer

.....

Seal, name & address of the Bank and address of the Branch

**Form – 4**

**CONTRACT FORM  
CONTRACT FOR SUPPLY, INSTALLATION AND COMMISSIONING OF  
EQUIPMENT/INSTRUMENTS TO HSPCB**

**Contract No.** \_\_\_\_\_ **dated** \_\_\_\_\_

This contract for \_\_\_\_\_ is made on this \_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ between \_\_\_\_\_ (hereinafter referred to as "Supplier") on the one part and the Haryana State Pollution Control Board, C-11, Sec-6, Panchkula (hereinafter referred to as "Purchaser" which shall include his successors in the office and assigns) on the other part.

1. Whereas the Purchaser had floated a Tender No. \_\_\_\_\_ . Dated \_\_\_\_\_ and the Supplier had submitted a tender in response and has been awarded the contract vide letter of award award/Purchase Order No. \_\_\_\_\_ dated \_\_\_\_\_, it is hereby, agreed that the Supplier will supply, install, commission Equipment/Instruments as per Tender No. \_\_\_\_\_ dated \_\_\_\_\_ and will provide 05 years comprehensive warranty and also provide product support for at least 10 years from the date of expiry of the warranty period on the terms and conditions mentioned hereunder and for a price indicated in para 5 of this contract which the Purchaser will pay as per the terms of payment indicated in para 17 of this contract.

2. The following documents shall be deemed to form and be read and construed as part of this contract:

- (i) Purchaser's Tender No \_\_\_\_\_ . Dated \_\_\_\_\_
- (ii) Bidder's Technical bid dated \_\_\_\_\_
- (iii) Price bid of the Bidder
- (iv) General Instructions of the Contract, General Conditions of Contract, Schedule of Requirements, Technical Specifications, Quality Control Requirements, Qualification Criteria as mentioned in Tender No. \_\_\_\_\_ . Dated \_\_\_\_\_
- (v) Manufacturers' Authorisation Form furnished by the Bidder in its tender
- (vi) Purchaser's of Letter of Award No. \_\_\_\_\_ dated .
- (vii) Clarification issued by the Purchaser and replies/queries submitted by the Bidder during pre-bid or during evaluation of bids.

Note: The words and expressions used in this contract shall have the same meanings as are respectively assigned to them in the conditions of contract referred to above. Further, the definitions and abbreviations incorporated under Section II - 'Instructions to Bidders' of the Purchaser's Tender Document shall also apply to this contract.

3. In addition to above documents, following shall also be deemed to form and be read and construed as part of this contract:

- a) Supplier's letter No. \_\_\_\_\_ dated \_\_\_\_\_
- b) Purchaser's letter F. No. \_\_\_\_\_ dated \_\_\_\_\_
- c) -----

(Reference of all correspondence made with the Supplier with respect to this procurement)

4. Brief particulars of the goods and services

Brief particulars of the goods and services which shall be supplied by the Supplier are as under:

Brief description of goods / services	Quantity to be supplied	Unit Price	Total Price	Terms of delivery

However during the period of contract for delivery of Equipment/Instrument, in case of the Supplier delivers the Equipment/Instruments of identical specifications at a less price to any other party at a less price to any other party (price being the sole consideration in the supply), the contract price will be deemed to have been reduced by the difference between the price offered to the Purchaser and to the other party. Any difference in the terms of supply shall be duly accounted in the process.

5. Product Support

The Supplier shall provide product support for at least 10 years from the date of expiry of warranty period and would be governed by the clause 4.7 of Section-IV of Tender No. \_\_\_\_\_ Dated \_\_\_\_\_

6. Delivery schedule

Commissioning / handing over of Equipment/Instruments shall be completed within \_\_\_\_\_ months from the date of Letter of award of the Contract and would be governed as per clause 4.2 of Section-Tender No. \_\_\_\_\_ Dated \_\_\_\_\_ and pre-bid clarification issued thereafter on \_\_\_\_\_(if any).

7. Performance Security

The Supplier will furnish Performance Security within 21 days after the issue of letter of award by the Purchaser as per clause 3.5 of Section-III of \_\_\_\_\_. Dated \_\_\_\_\_.

8. Technical Specification

Technical specification of the Equipment/Instruments shall be as per Annexure-II of the Tender No. \_\_\_\_\_ dated \_\_\_\_\_ and pre-bid clarifications issued thereafter on (if any).

9. Transportation and Insurance

Transportation and Insurance of the Equipment/ Instruments shall be as per clause 3.9 & 3.10 of Section-III of Tender No. \_\_\_\_\_ Dated \_\_\_\_\_.

10. Quality Control

The quality control, inspection, tests and trials shall be carried out as per terms & conditions mentioned in \_\_\_\_\_ Dated \_\_\_\_\_

11. AERB Approval

NOC/Type approval certificate from AERB, wherever applicable, shall be submitted by the Supplier for the model offered of Equipment/ Instruments.

12. Installation & Commissioning

Installation & Commissioning of the Equipment/Instruments will be carried out as per Tender No.

\_\_\_\_\_ Dated \_\_\_\_\_

13. Warranty

The 5 years Comprehensive Warranty of Equipment/Instruments shall be as per clause 3.12 of Section-III and clause 4.9 of Section-IV of Tender No. \_\_\_\_\_

Dated \_\_\_\_\_

14. After Sales/Post Contractual Support

There should be an extensive services network spread over geographical locations including major cities near the site of installation to attend to any performance related complaint on Equipment/ Instruments.

For trouble free operation and maintenance of the instrument, spares and consumables will be made available for at-least 10 years. The bidder shall provide post contractual support i.e. repair, maintenance, supply of spares parts etc and assure supply of consumables and spare parts for 10 years from the date of installation. The bidder shall take up the post warranty AMC when asked to do so.

**Payment Terms**

The term and mode of payment, as provided in clause 2.13 of Section II of Tender No. \_\_\_\_\_ Mat. dated \_\_\_\_\_ shall be as under:

Payment will generally be made only after delivery and satisfactory installation, testing, commissioning rally be made only after depending upon the availability of funds and the agencies/contractors shall have no claim in case of delayed payment and no interest will be paid for the delayed payment.

- (i) 100 % Payment will be released on after 30 days of delivery, satisfactory installation, commissioning, demonstration, training of the items and submission of performance guarantee etc. The Supplier shall send its claim for payment in writing, when contractually due, along with relevant documents., duly signed with date, as specified. While claiming payment, the Supplier shall certify on the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the Supplier for claiming that payment have been fulfilled as required under the contract. In case the machine is not attended to in respect to any defect developing during the warranty period and made functional, 10% Performance security deposit shall be forfeited.

2. Liquidated Damages.

If the Supplier fails to complete the installation and commissioning of the equipment with in the time fixed under the contract, the purchaser shall deduct liquidated Damages as per clause 3.16 of section III of Tender No. \_\_\_\_\_ dated \_\_\_\_\_

3. Termination of Contract

The contract can be terminated in accordance with clause 3.17 of section III of Tender No. \_\_\_\_\_ dated \_\_\_\_\_.



4. Resolution of Disputes

In the event of any disputes or difference arise between the Purchaser and Supplier in connection with or relating to the contract, the parties shall resolve their disputes or differences as per clause 3.19 & 3.20 of section III of Tender No. \_\_\_\_\_ dated\_\_\_\_\_.

5. Training

The training of the staff shall be carried out as laid down in clause 4.10 of Section IV of Tender No. \_\_\_\_\_ dated\_\_\_\_\_.

6. Modification of Contract

If necessary, the purchaser may, be a written order given to the supplier at the time during the currency of the contract, amend this contract.

8. Performance Guarantee

The supplier will be required to furnish a Performance Guarantee by way of Bank Guarantee within 30 days of signing of contract through a public sector bank for a sum of Rs. i.e. equal to 10% of the Purchase Order value. Performance Bank Guarantee should be valid upto 60 days beyond the end date of contract.

9.Miscellaneous

Other issues, not mentioned in the contract, shall be governed as per the Tender No\_\_\_\_\_/.dated and documents mentioned in paragraph 3 & 4 above.

Received and accepted this contract.

(

M/s\_\_\_\_\_

(Sign & Stamp of Supplier)

Date:\_\_\_\_\_

Place:\_\_\_\_\_

(\_\_\_\_\_)

For Haryana State Pollution Control Board

WITNESSES:

**Form-5**

**CERTIFICATE OF SUPPLY, INSTALLATION & COMMISSIONING**

**F. No.** \_\_\_\_\_

**Dated** \_\_\_\_\_

To,

The Member Secretary,  
Haryana State Pollution Control Board,  
C-11, Sector-6, Panchkula.

1. Reference P.O. NO. \_\_\_\_\_ Date \_\_\_\_\_

2. It is certified that

(a) M/s \_\_\_\_\_ have completed the supply, Installation and Commissioning of the EQUIPMENT/INSTRUMENTS Model \_\_\_\_\_ Serial No. \_\_\_\_\_ on \_\_\_\_\_ (date) at designated sit \_\_\_\_\_ (name of the site)

(b) The process of handing/ taking over of the aforesaid system, accessories and services specified in the Contract to the satisfaction of the Purchaser, has been completed on \_\_\_\_\_ (date).

(c) The aforementioned EQUIPMENT/INSTRUMENT worked satisfactorily during the trial period starting w.e.f. \_\_\_\_\_ (date) to \_\_\_\_\_ (date).

**For Contractor**

**For Purchaser**

**Witness:**

**Witness:**

**Signature**

**Signature**

**Name**

**Name**

**Designation**

**Designation**

**Address**

**Address**

**Date**

**Date**

## Form – 6

### INTEGRITY PACT

This Contract Agreement (hereinafter called the Integrity Pact) is made on ..... day of the month of .....2018, between, HSPCB, An autonomous body acting through ....., Member Secretary, HSPCB hereinafter called the “BUYER”, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns of the First Part and M/s..... represented by Shri....., Chief Executive Officer (hereinafter called the “BIDDER / SELLER” which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part. WHEREAS the BUYER proposes to procure (Name of the Stores/Equipment/Item) and the BIDDER/Seller is willing to offer/has offered the stores and WHEREAS the BIDDER is a private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER HSPCB work under the agencies of Environment & Forests, performing its functions as per the provisions of Water Act 1974, Air Act ,1981 and EPA Act, 1986.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to :-

Enabling the BUYER to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows

#### **Commitments of the BUYER**

- 1.1 The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favor or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.

- 1.3 All the officials of the BUYER will report to the appropriate Government office any attempted completed breaches of the above commitments as well as any substantial suspicion of such a breach.
- 1.4 In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an inquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

### **Commitments of BIDDERS**

2. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-
  - 2.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
  - 2.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favor or disfavor to any person in relation to the contract or any other contract with the Government.
  - 2.3 \* BIDDERS shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
  - 2.4 \* BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
  - 2.5 \* The BIDDER further confirms and declares to the BUYER that the BIDDER is the original manufacturer/integrator/authorized government sponsored export entity of the defence stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

- 2.6 The BIDDER, either while presenting the bid or during pre -contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 2.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 2.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 2.9 The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 2.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 2.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 2.12 If the BIDDER or any employee of the BIDDER or any person action on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filling of tender.
- 2.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

### 3. **Previous Transgression**

- 3.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.
- 3.2 The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

#### **4. Sanctions for Violations**

- 4.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required:-
- (i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER (s) would continue.
  - (ii) The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.  
To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
  - (iii) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
  - (iv) To en cash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
  - (v) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money (s) due to the BIDDER.
  - (vi) To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the BUYER.
  - (vii) To recover all sums paid in violation of this Pact by BIDDER (s) to any middleman or agent or broker with a view to securing the contract.
  - (viii) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.
  - (ix) Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

4.2 The BUYER will be entitled to take all or any of the actions mentioned at para 6.1

(i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Section IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

4.3 The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor (s) appointed for the purposes of this Pact.

## 5. **Fall Clause**

5.1 The BIDDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the BIDDER to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to the BUYER, if the contract has already been concluded.

## 6. **Independent Monitors**

6.1 The BUYER has appointed Independent Monitors (hereinafter referred to Monitors) for this Pact in consultation with the Member Secretary, Haryana State Pollution Control Board, C-11, Sec-6, Panchkula.

6.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.

6.3 The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.

6.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.

6.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.

6.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.

6.7 The BUYER will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings

could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.

6.8 The Monitor will submit a written report to the designated Authority of BUYER/Secretary in the Department/ within 8 to 10 weeks from the date of reference or intimation to him by the BUYER / BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

**7. Facilitation of Investigation**

In case of any allegation of violation of any provisions of this Pact or payment of Commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

**8. Law and Place of Jurisdiction**

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat/place of the BUYER.

**9. Other Legal Actions**

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

**10. Validity**

10.1 The validity of this Integrity Pact shall be from date of its signing and extend upto 5 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

10.2 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

11. The parties hereby sign the Integrity Pact at .....on.....

**BUYER**

**BIDDER**

Name of the Officer.  
Designation  
Haryana State Pollution Control Board

CHIEF EXECUTIVE OFFICER

Witness

Witness

1.....

1.....

2.....

2.....



**Form -7**  
**PROFORMA FOR FINANCIAL CAPABILITY OF BIDDER**  
(for a period of last three years)

Bid No. \_\_\_\_\_ Package Code \_\_\_\_\_ Date Opening \_\_\_\_\_  
Time \_\_\_\_\_.

Name of the Bidder \_\_\_\_\_.

<b>Year</b>	<b>Currency</b>	<b>Turnover</b>
2016-2017 financial year		
2017-2018 financial year		
2018-2019 financial year		
Average		

Note:

1. The annual turnover amount is to be supported by annual report.

**Signature with date & stamp of the bidder/authorized Person,**  
**Name with Stamp & full Address.**

**Form -8**

**PROFORMA FOR PERFORMANCE STATEMENT FOR MANUFACTURER**

(for a period of last three years)

Bid No. \_\_\_\_\_ Package Code \_\_\_\_\_ Date Opening \_\_\_\_\_  
 Time \_\_\_\_\_.

Name of the Bidder \_\_\_\_\_.

Order placed by (full address of Purchaser)	Order & Date	Description of ordered equipment (Model No.)	Quantity Supplied	Value of order	Date of handling over, training and demonstration	Has the equipment been satisfactory functioning? (Attach certificates from the Purchases/Consignee for each equipment)
1	2	3	4	5	6	7

Note: Bidder to furnish above detail for each equipment of the quoted package on separate sheet.

**Signature with date & stamp of the bidder/authorized Person,  
 Name with Stamp & full Address.**

**Form-9**

**CERTIFICATE FOR NON-BLACK LISTING OF FIRM**  
**& NON-REGISTRATION OF CRIMINAL CASE**

I\*/We\* hereby submit that our firm M/s \_\_\_\_\_ (with complete address) has never been 'Black-listed'/ debarred by Utility / any State or Central Govt., Department / Public sector undertaking/ procuring entity for any reason related to execution of orders/supply of material/after sales services support etc.

Also we confirm that no criminal case is registered against our company or our owner or partners anywhere in India.

Detection of false declaration / statement at any stage of the entire process of Bid / execution of work shall lead to penalty as deemed fit by the Nigam including forfeiture of earnest money, BG and termination of contract.

**Signature with date & stamp of the bidder/authorized Person,**  
**Name with Stamp & full Address.**

**Form-10**

To,  
The Member Secretary,  
Haryana State Pollution Control Board,  
C-11, Sector-6, Panchkula.

**UNDERTAKING**

We hereby confirm that the products offered by us, are as per technical specifications under annexure -1 of the tender document for supply, installation, demonstration, training and commissioning GCMS and ICP-OES with MDS for laboratories of Haryana State Pollution Control Board, Panchkula of the tender.

**Signature with date & stamp of the bidder/authorized Person,  
Name with Stamp & full Address.**

**Form-11**

To,  
The Member Secretary,  
Haryana State Pollution Control Board,  
C-11, Sector-6, Panchkula.

**CERTIFICATE AND UNDERTAKING FOR COMPREHENSIVE WARRANTY**

We hereby confirm that we shall provide a comprehensive on-site warranty of five years from the date of successful installation of Equipment in respect of e-tender for supply, installation, demonstration, training and commissioning of GCMS and ICP-OES with MDS for laboratories of Haryana State Pollution Control Board, Panchkula and also hereby declare that:-

“Everything to be supplied by us hereunder shall be free from all defects and faults in material, workmanship and shall be of the highest quality and material of the type ordered, shall be in full conformity with the specification and shall be complete enough to carry out the Ambient Air Quality sampling, as specified in the tender document.

**Signature with date & stamp of the bidder/authorized Person,  
Name with Stamp & full Address.**

**Form-12**

**FORM OF CERTIFICATE OF SUPPLY OF SPARES AND CONSUMABLES BY MANUFACTURER**

To,  
**The Member Secretary,  
Haryana State Pollution Control Board,  
C-11, Sector-6, Panchkula.**

**Sub: Certificate of Supply of Consumables and Spare Parts by Manufacturer.**

This is to certify that we (Name of Manufacturer) shall supply the consumables and spare parts of the equipment mentioned below during O&M period under the contract (contract detail) to the contractor (Name of the contractor)/Owner.

It is hereby granted that we shall maintain stocks of consumables and spare parts for the following equipment for a period of 10 years after expiry of warranty period.

Item No.	Name of the Equipment	Name of the Manufactures

Signature:

Name of Person:

Position:

Name of the Manufacturer:

Official Seal of Manufacturer:

Legal Address of Manufacturer:

## TECHNICAL SPECIFICATIONS

Annexure-I

### 1 General

These specifications shall be read in conjunction with the General Conditions of Contract. If these are at variance with general conditions of contract, these will prevail. The technical specifications in this Section are indicative and not exhaustive. Bidder should offer the advanced and efficient model of Equipment/Instrument.

### 2 Supply Details

2.1 Supply of Equipment/Instruments complete with accessories, spares, consumables, etc., as specified in this Section.

### 3 General Requirements

3.1 The work herein specified shall be performed by fully competent workmen in a thorough professional manner. All materials furnished by the Bidder shall be new, and shall conform to applicable Indian standards or any international standard.

3.2 The manufacturer shall provide one set of Software of the equipment in USB media, for each Equipment/Instrument. The same shall be handed over to the user Laboratory at the time of conducting Site Acceptance Test.

3.3 No-objection certificate (NOC) or Type approval from Atomic Energy Regulatory Board (AERB) of India should be submitted for the Equipment / Instruments deploying radiation source or as applicable, along with the Technical Bid. Alternately, the NOC or Type approval certificates must be submitted within 30 days from the date of opening of the technical bids of the tender.

### 4 Specifications of Equipment/Instruments

4.1 Specifications of the equipment/instruments required for CPCB are given in succeeding pages as per following details :-

Sr. No.	Instrument	Specification given at Page No.
1.	Gas Chromatography Mass Spectrometry (GCMS)	55-63
2.	inductively coupled plasma optical emission spectrometry (ICP-OES) with Microwave Digestion system	64-73

4.2 Equipment/ Instrument having better specifications may be accepted, however, without any price preference.

## **Equipment/ Instrument Acceptance & Calibration**

5.1 To check the performance of the equipment/ instrument, after installation and commissioning at site, the Bidder is required to conduct analysis. In addition, laboratory samples will be also analyzed before acceptance.

5.2 Bidder should have its Application Laboratory in India to provide primary service support, including periodic calibration, as required. Details of the Application Laboratory may be submitted.

## **6 Software**

6.1 The software offered by the Bidder for Equipment / Instrument must be licensed for life time and should not need any renewal.

## **7 Responsibility for completeness**

7.1 Any component or part of it or accessories not mentioned in the specification but which are usual or necessary are to be provided by the Bidder without extra charge as to make the equipment complete in all respects to meet the specifications.

## **8 Instruction/Technical Manual**

8.1 The Bidder shall hand over to the user Laboratory the Instruction /Technical Manuals and one set of spare parts catalogue for all the equipment at the time of conducting Site Acceptance Test. It shall contain full details and drawings of all the equipment, testing, operation, installation and maintenance procedures of the equipment.

8.2 After commissioning and initial operation of the equipment, if the instruction manual requires any modification / additions / changes, the modified sheet shall be submitted by the Bidder to the Purchaser.

8.3 All manuals and documents shall be in English language and in such a way that a qualified engineer / technician is able to fully understand and do the preventive as well as breakdown maintenance with the help of these manuals.



### Gas Chromatography Mass Spectrophotometer (GC-MS)

<b>Equipment Name: Gas Chromatography Mass Spectrophotometer (GC-MS)</b>			
<b>S. No.</b>	<b>Specifications</b>	<b>Requirements</b>	<b>BIDDER'S RESPONSE (Bidder Shall Indicate "Compliance or Non Complied" as applicable in each row. In case of "Non Complied" , Detail shall be mentioned)</b>
1.0	<b>INSTRUMENT COMPOSITION</b>		
	Gas Chromatograph with accessories	One set	
	Injectors	Two or more Injectors and Two or more detectors facility MS as separate and extra detector with facility of auto sampling.	
	Mass Spectrophotometer with accessories	One set	
	Capillary Column with accessories	Two set of each specified column	
	Software for automatic control of the system, data acquisition and processing	One set	
	Vacuum pump for MS with accessories	One set	
	FID, ECD Detector	One set	
	Autosampler	One Set	
2.0	<b>TECHNICAL SPECIFICATIONS</b>		
2.1	Gas Chromatograph	Fully computer controlled injectors, oven, detector, EPC/PPC and related electronics	
2.2	Make	Basic Unit as well as other components of the same manufacturer	
2.3	Display	<b>Touch screen</b> display or better on the GC system	
2.4	Parameters setting and control	Through application software as well as through keyboard of the instrument	
2.5	Injector and Detector Mounting	2 injectors/ 2 detectors and MS as separate detector	
2.6	Capillary Column Mounting	Capable to hold two capillary columns of different diameter (100µm to 530 µm or better)	
2.7	Heating Zone	At least six heating zones including injectors, oven, detector and	

		auxiliary	
2.8	Purge System	Gas saver and septum purge system	
2.9	Memory protection	Memory protection during power failure	
2.9	Diagnostic and self Testing	Built in Diagnostics and comprehensive self testing	
2.10	Data Acquisition	Simultaneous from two signal channel i.e., mass spectrometer and ECD, FID	
3.0	INJECTORS – 2 Nos	Split/Split-less injector (for use with auto sampler)-Located on the GC system and Temperature Programmable Vaporizer /Programmable Split/Split-less	
3.1	Constituents	Modular injector with heater, temperature and pressure sensors	
3.2	Inlet Options	Split/ Split-less, temperature programmable, Large volume injection.	
3.3	Modes of Injection	Split/Split-less, Large volume	
3.4	Column Compatibility	100-530mm ID capillary columns or suitable as per applications	
3.5	Provision for	Overheat protection, septum purge and gas saver	
3.6	User settings	User adjustable setting of split ratio, purge flow and purge time.	
3.7	Temperature Range	50-450 Degree C or better	
3.8	Temperature Increments	Minimum 1 Degree C in the entire operating range	
3.9	Temperature programming Capability	3 ramps or more at up to 250 Degree C/min or above	
4.10	Temperature ramp rate range	120 Degree C/min or better	
4.11	Pressure programming capability	Yes	
4.12	EPC Pressure range	0-130 psi or better	
4.13	Operation Modes	Constant pressure, Ramped pressure, constant flow and ramped flow	
4.14	Total Flow setting range	N2: 0.1 to 100ml/min, He 0.1 to 100ml/min, H2 0.1 to 1000 ml/min	
4.15	Maintenance	Quick and easy maintenance provisions	
<b>5.0</b>	<b>OVEN</b>		
5.1	Volume	More than 10 liters: should have provision to accommodate minimum two nos of capillary columns or more at a time.	
5.2	Column Compatibility	Capillary (0.10/0.20/0.32/0.53 mm ID) or suitable as per applications	
5.3	Temperature range	50-450 Degree C or better	
5.4	Temperature Increment	Minimum 1 Degree C	
5.5	Temperature Accuracy	+/- 1 % for the entire range or better	
5.6	Temperature Stability	+/- 0.1 Degree C or better	
5.7	Column Oven heat protection	User defined setting	

5.8	Oven safety feature	Oven power must turn off automatically when the lid/door is opened. Automatic carrier gas shut off if inlet pressure drops significantly.	
5.9	Temperature programming	Minimum 18 ramps or better	
5.10	Programming rate range	Up to 120 Degree C/min or better	
5.11	Cool down time	Less than 4.0 min (450 Deg to 50 Deg C) or better	
5.12	Re-setting of programme	Automatic by user defined sequence	
5.13	Injector Compatibility	Split/Slit-less and temperature programmable injector	
5.14	Detector Compatibility	Mass Spectrometer, FID, ECD	
<b>6.0</b>	<b>ELECTRONICS/PROGRAMMABLE PNEUMATIC CONTROL (EPC/PPC) SYSTEM</b>		
6.1	Type	Dual Column, Dual Flow or as compatible	
6.2	Control of Inlet pressure, Flow rate of carrier gas and split ratio	Through the application software or as compatible	
6.3	Parameter Display	Touch screen digital display or as compatible	
6.4	Pressure and flow programming	Time programmable between the run or as compatible	
<b>7.0</b>	<b>CAPILLARY COLUMNS</b>		
7.1	HP-5 MS OR EQUIVALENT	60mm x 0.25mm x 0.25mm $\mu\text{m}$ – 2nos.	
7.2	HP-ULTRA-2 or equivalent	25mm x 0.25mm x 0.25mm $\mu\text{m}$ – 2 nos.	
<b>8.0</b>	<b>Mass Spectrometer (Detector)</b>		
8.1	Control	Provision for automatic start and shut down through application software. Parameters should be set and controlled through the software	
8.2	GC Interface	Short heated interface	
8.3	Interface Temperature range	100-350 Deg C or better	
8.4	Mass source	Should have EI with automatic tuning and acquire both SIM and scan data from both injectors	
8.5	Electron Source	Easy access heated inert filament	
8.6	Source Temperature range	150 Deg C to 300 Deg C or better	
8.7	Analyzer type	Transmission Quadrupole with pre-filter or Heat Quadrupole or equivalent	
8.8	Noise reduction	Quadrupole with pre-filter/Entrance lens/Any other proven means for noise reduction	
8.9	Mass Range	10-1000 amu or more	
8.10	Mass Stability	Less than +/- 0.1amu accuracy over 48 hours	

8.11	Ionization Modes	Electron Ionization, upgradeable to positive/negative Chemical Ionization	
8.12	Electron ionization Voltages	10-100eV or better	
8.13	Vacuum pump	250 L/Sec or better highly efficient Turbo-molecular pump	
8.14	Detector	Electron Multiplier or Photo Multiplier	
8.15	Mass Tuning Standard	PFTBA (FC-43)/BFB/DFTPP	
8.16	Resolution	1 amu or less	
8.17	Scan Rate	Fully variable 14000 amu/sec or more	
8.18	Acquisition Rate	50 Full scans or better/sec depending on the mass range	
8.19	Linear Dynamic Range	Concentration 10 <sup>5</sup> or better	
8.20	Number of SIM Groups/RUN	Minimum 30 groups	
8.21	Number of ions/group	Minimum 30 ions	
<b>9.0</b>	<b>SENSITIVITY (DETECTION LIMIT)</b>		
9.1	EI Scan	S/N 2000:1 for 1 pg OFN or better	
<b>10.0</b>	<b>Mass Spectral Library</b>		
10.1	NIST Mass Spectral Library	2017 or Latest preloaded on data station and licensed back up Original CD compatible with operation software	
10.2	Pesticide Database	Ready to use Pesticide database of 1000 plus pesticide should be provided along with system.	
<b>11.0</b>	<b>ADDITIONAL CAPABILITIES</b>		
11.1	Acquisition	Simultaneous full scan as well SIM acquisition	
11.2	Applying constant flow rate	To the MS regardless of column flow rate (use of any column at any flow rate)	
11.3	Column replacement	Without cooling and venting the MS	
11.4	Injector maintenance	Without cooling and venting the MS /Back flushing	
<b>12.0</b>	<b>AUTOSAMPLER</b>		
12.1	No. of sample vials	Capable of accommodating 100 vials or more and compatibility to injection in both port without manual changeover/intervention	
12.2	Syringe capacity	Capable of accommodating upto six different syringe capacity	
12.3	Injection Volume	Selectable between 1 and 50 microliter or more should be available.	
12.4	Washing Solvent	Upto four different washing solvents in 4ml or more vials (4 ml water and 4 ml washing)	
12.5	Programming	Sequence and repetition programmable from workstation software	

<b>13.0</b>	<b>OPERATING CONDITIONS</b>		
13.1	Power Supply	230 +/- 10 VIts: 50 +/- 1 H AC Power supply	
13.2	Operating Temperature	15 <sup>0</sup> C to 30° C	
13.3	Relative Humidity	40 to 80% non condensing	
<b>14.0</b>	<b>Application Software</b>		
14.1	Capabilities	Multitasking software with programming facility	
		Accurate and reproducible integration	
		Reintegration/Replot	
		Baseline correction	
		Multilevel Calibration	
		Background Subtraction	
		Library search	
		Quantitative search	
	Customizable report formats		
14.2	Software Control	The whole system including GC-MS and injectors	
14.3	Parameter Control	Flow, temperature, pressure and vacuum system	
14.3	System Auto tuning	Through tuning standards	
14.4	Analytical Quality control	Calibration check samples	
		Spike recoveries	
		Calibration verification and QC limits	
<b>15.0</b>	<b>Computer SYSTEM</b>		
15.1	Make	Reputed brand such as HP/Dell/Lenovo	
15.2	Processor	Xeon processor	
15.3	RAM	16 GB DDR IV	
15.4	HDD	1 TB (722 RPM) SATA or higher	
15.5	Monitor	24” inch Full HD LED monitor	
15.6	Optical Drive	Ultra slim tray super multi DVD burner	
15.7	Keyboard	Cordless keyboard	
15.8	Mouse	Cordless optical mouse	
15.9	Wi-Fi	Should have Wi-FI feature in built	
15.10	Graphics	Integrated graphics	
15.11	Printer	Branded laser printer	
15.12	Software’s	Licensed window 10 professional or compatible with instrument	

		MS office latest version	
		Antivirus latest version	
<b>16.0</b>	<b>Spares &amp; Consumables</b>	Spare and consumable for three years of operation	
16.1	Column Nut	10 Nos.	
16.2	Liner for Split and Splitless	10 Nos. Each	
16.3	Graphite/Vespel ferrules different sizes	20 Nos. Each	
16.4	Injection port septa (Self sealing for injector)	400 Nos.	
16.5	Filament	2 Nos.	
16.6	O-rings	20 Nos.	
16.7	Copper Tubing with connectors	50 mtr	
16.8	Copper Tube Cutter	1 No.	
16.9	Auto sampler vials (2ml)	2000 nos.	
16.10	Auto sampler septa and caps	2000 nos.	
16.11	Auto-sampler spare syringes	10 ul-5 nos. 10.0 ul – 10 nos. additional	
<b>17.0</b>	<b>Accessories</b>		
17.1	Analytical manual	Analytical manuals along with application notes for the analysis of VOCs, PAHs and carbonyl compounds	
17.2	Service Manual	Service manual	
17.3	Starting kit	Starting kit with one set of required tools for each system/unit	
17.4	Spare parts catalogues	Spare parts catalogues	
17.5	Troubleshooting charts	Troubleshooting charts	
17.6	Methodology Package software	Comprehensive EPA methodology package software (CD ROM for environmental application (VOC, PAHs, Carbonyl etc.)	
17.7	Gas Purification panels	Complete with gas purification traps <ul style="list-style-type: none"> <li>1. Moisture trap silica gel molecular sieve 50:50 length 10 inch -2 nos.</li> <li>2. Hydrocarbon trap-Activated charcoal filters length 10 inch-2 nos.</li> <li>3. Oxygen trap-High capacity oxy trap-capacity more than 125cc length 10 inch- 2 nos.</li> </ul>	
17.8	Gas Cylinders <b>for Helium</b>	High pressure cylinders filled with 99.999% analytical gases having gas capacity 7m <sup>3</sup> . Cylinder should comply IS 7285 and IS:3224. Gas cylinder should be supplied with test certificate.	

17.9	Gas cylinder trolley	One No. Gas Cylinders trolley for transporting gas cylinder from transport vehicle to gas room/ laboratory. Stainless steel trolley heavy duty construction with rugged polypropylene straps, stainless steel cinch buckies with 8 inch wheel made up of high strength polymer material for safe, easy and convenient transfer of single gas cylinder upto 12” in diameter	
17.10	UPS	7.5 KVA online single phase with 60 minutes back up of Numeric/Eaton/Emerson/APC or other reputed make	
18.0	Operation and Maintenance	One weeks training to two laboratory staff for operation and maintenance in India at Application laboratory of Manufacturer /Supplier	
19.0	IQQQ Validation	IQQQ should be provided at the time of installation	
20.0	Certified reference(Standard) for following pesticide will be provide by vender(1 ml each)	1-Alpha BHC (µg/L) 2-Beta BHC (µg/L) 3-GAMMA BHC (Lindane) (µg/L) 4-OP-DDT(µg/L) 5-PP-DDT(µg/L) 6-DDT,DEDEDD(µg/L) 7-Alpha Endosulphan(µg/L) 8-Beta Endosulphanv(µg/L) 9-Aldrin(µg/L) 10-Dieldin(µg/L) 11-P-24D(µg/L) 12-Chloropyriphos(µg/L) 13-Carbamate(µg/L) 14-Methyl Parathion(µg/L) 15-Anilophos(µg/L) 16-HCH(Alpha,Beta,Delta(µg/L) 17-Isoprofuron(µg/L) 18-Alachlor(µg/L)	

		<p>19-Atrazine(<math>\mu\text{g/L}</math>)  20-Monochlorotophos(<math>\mu\text{g/L}</math>)  21-Ethion(<math>\mu\text{g/L}</math>)  22-Phorate(<math>\mu\text{g/L}</math>)  23-Butachlor(<math>\mu\text{g/L}</math>)  24-Chlorandane(<math>\mu\text{g/L}</math>)  25-Heptachlor(<math>\mu\text{g/L}</math>)  26-Hexachlorobenzene(<math>\mu\text{g/L}</math>)  27-Phosphamidon(<math>\mu\text{g/L}</math>)  28-Malathian(<math>\mu\text{g/L}</math>)</p> <p>NOTE:- Anything required extra to perform Pesticide analysis should be quoted along with system or should be provided FOC at the time of installation.</p>	
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<b>Rotary Evaporator with Vacuum Pump</b>		
20.0	Rotary Evaporator with Vacuum Pump and Chiller-Make BUCHI/HEIDOLPH/IKA	Rotary Evaporator with a universal heating bath, vertical glassware, state-of-the-art safety features and digital connectivity, 4 L heating bath, Motorized lift with “safety-stop” function, Highly efficient 1500 cm <sup>2</sup> condenser unit, Left-right interval, Timer function, Dry-run protection The four-chamber membrane vacuum pump, setting of the parameters is carried out through a rotary-push button over a digital display showing current rpm. Automated processes are controlled with the vacuum controller digital is used for dry and oli-free applications in the laboratory, High-efficiency circulating chiller with powerful 400 W cooling capacity. Designed for cooling applications up to -20 °C. The speed-controlled PEEK pump allows an indirect continuous adjustment of the maximum pressure and flow rate. Temperature range: -20 °C – RT, Large easy to read LED display for pump speed and temperature- Large easy to read TFT display for temperature, pump speed, liquid level and safety temperature, Visible fluid level display, Drain valve and optimized bath base for safe and thorough emptying, The high quality insulated 4-liter bath reservoir allows the use of up to 2.5 liters of thermo fluid in the external cooling circle without refilling
21.0	Warranty and AMC	5 years comprehensive warranty from the date of installation on all the parts of machine and spares & accessories (including their cost and installation) is must.

**Specifications of ICP OES (Inductive couple plasma optical emission spectrometer) with Microwave digestion System**

<b>S. No.</b>	<b>Specifications of ICP OES (Inductive couple plasma optical emission spectrometer) with Microwave digestion System</b>	<b>Requirements</b>	<b>BIDDER'S RESPONSE (Bidder Shall Indicate "Compliance or Non Complied" as applicable in each row. In case of "Non Complied", Detail shall be mentioned)</b>
1.0	<b>INSTRUMENT COMPONENTS</b>		
	RF Unit	One Unit	
	Nebulizer & Spray Chamber	One Unit	
	Peristaltic Pump	One Unit	
	Plasma Torch	One Unit	
	Optical System Spectrometer	One Unit	
	Auto-sampler	One Unit	
	Data Workstation	One Unit	
2.0	<b>TECHNICAL SPECIFICATIONS</b>		
2.1	System Application	Computer controlled fully automated workstation; data workstation based polychromator/dual monochromator based ICP-OES system	
		ppb analysis, multi-elemental analysis with exceptional sensitivity and stability of diverse range of environmental, biological, geological and industrial samples	
2.2	System Operation	Computer controlled solid state RF generator/RF tube-based RF Generator	
		Auto-start from switch or computer keyboard or through software	
		High Speed Data acquisition system, quality-controlled protocol, calibration, auto optimization and auto-tuning of system with status display	

2.3	RF System	Solid state/RF tube based, auto-start RF generator 27MHz or 40MHz or better.	
	Wattage	Computer controlled from 1000 watt to 1500 watt.	
	Power Efficiency	Greater than 75% with less than 0.1% variation in output power stability. Should provide high efficiency, superior performance for elements such as As, Se and Hg	
2.4	Sample Introduction system	Corrosion resistance to various acids and aqua regia.	
2.5	Micro flow Nebulizer	Concentric Nebulizer	
2.6	Spray Chamber	Corrosion resistance to most acids including Hydrofluoric acid and aqua regia.	
2.7	Plasma Torch	Easily demountable quartz torch for plasma. The computer-controlled plasma torch optimization,	
	Torch Design	Several multiple loops of an induction coil with three concentric tubes. Central tube to inject sample aerosol and carrier gas introduction, middle tube for auxiliary gas. and outmost tube for plasma gas (argon) or as compatible with system	
	Corrosion Resistance	Torch should be full corrosion resistant to all acids and aqua regia	
	Torch Adjustment	There should be computer-controlled plasma torch optimization.	
2.8	Plasma Gas Flow	The system must have computer controlled Mass flow controlled / computer controlled or solenoid valves on all argon gases lines including nebulizer, gas , Plasma , gas & Auxiliary gas. computer controlled Digitally with variable flow setting	
	Range of MFC	Plasma Gas ( upto 18 litre/min ) or better Auxiliary Gas (0.2 to 2 litre/min ) or better Neb. Gas (0.1 -1.5 litre/min) or better	
2.9	Safety Interlock	Monitoring and display the shear gas pressure/purge gas pressure, plasma gas pressure, sample compartment door closure, water flow, plasma stability, interlock status.	

	Automation	Automatic shutdown of plasma in case of any of the feature is interrupted.	
2.10	Plasma Ignition	Computer controlled plasma ignition. Software should have capability to ignite plasma automatically.	
	Power Control	Automatic turn off of plasma after analysis	
2.11	Cooling system	Water re-circulating cooling system with appropriate flow and pressure or suitable cooling with software control, Chiller /Re- circular must not be mounted to the instruments chassis and should be from the original manufacturer of imported origin.	
2.12	Peristaltic Pump	Computer controlled, multi (minimum 3 or more) channel pumps	
2.13	Optical System	high resolution Polychromator/Dual monochromator based system	
	Optical System Enclosure	Enclosed in temperature resistance, purged gas enclosure.	
3.1	<b>Spectrometer Parameters</b>		
	Wavelength Range	170nm-780 nm or better	
	Resolution	Minimum 0.007nm at 200nm wavelength or better (high resolution system)	
	Optical system	Polychromator/Dual Monochromator based	
3.2	Wavelength Correction	Wavelength Accuracy and reproducibility should be dynamic to allow correction of wavelength position.	
3.3	Plasma Viewing	Computer controlled simultaneously OR synchronous .Axial and radial plasma viewing,	
3.4	Detection system	Solid state detection system (simultaneously for sample & background), SCD, CCD or CID Detector	
	Background Correction	Background correction for improved precision and speed	
	Cooling	Should have peltier or chiller cooling	
4.0	Hydride Generation Assembly with separate Spray Chamber and Tubings	Compatible automated hydride generation assembly for ultra-trace analysis of hydride forming elements such as As, Se, Te, Hg etc.	
5.0	Auto-sampler	Auto sampler compatible with operation with ICP	

	Capacity	Hold at least 190 vials or more.	
	Auto-sampler accessories	Complete with all accessories, racks, bottles, tubing, etc.	
6.0	Data Workstation		
6.1	Application Software	Program facility with multi-tasking software displaying sample methods and analysis status	
		Instrument control re-integration/report, multi level calibration	
		Calculation of data and report formatting measurement at transient signals.	
		External and dilution calibration, automatic correction for interference and measurement with internal standard.	
		Quality control protocols including preparation blanks, multiple quality standards, calibration, check samples, spike recoveries, duplicate calibration failure and QC limits.	
		Storage of complete analyzed spectrum of elements for future reference	
		Provision for statistical analysis, printer/plotter, function and battery back for memory protection	
		Should control whole ICP system sample introduction system, calibration system, data retrieval, data acquisition and reporting.	
		Auto optimization of plasma parameter and customizable instrument status display.	

6.2	<b>Computer system</b>	
	Make	Reputed brand such as HP/Compaq/IBM/Dell
	Processor	Intel i7 Processor 8 gn(8700)
	FSM	533MHz or above
	Ram	DDRIV or more (16 Expandable)
	HDD	1 TB or more
	Monitor	24 Inch (HDMI/VGA/SVGA ) LED
	VRAM	32 MB or better
	CDROM	52xCD ROM
	DVD/CD RW	DVD ROM and CD-RW combo drive max speed 48x24x48
	Ports	Two serial, one parallel and 2 USB front 6 rear USB 2, PS-2, Port, 1 VGA integrated port one line in /out port
	Keyboard	Wireless keyboard
	Mouse	Wireless mouse
	Graphics	Internet ready with integrated graphics
	Printer	HP laser jet pro 202DW
6.3	Software	Pre-loaded window 10 Professional operating system with licensed CD or compatible with system's software
		MS Office 365 standard with media manual and licensed CD
		Preloaded Antivirus with latest version along with licensed CD

7.0	Additional Items		
7.1	Manual	Operation and maintenance manual for each unit	
	Application Note	Application note (CD ROM or flash drive) for elemental analysis in environmental, geological, metrological, biological and industrial samples.	
	Service Manual	Service manual for set of required tools for each system/unit	
	Spare Parts Catalogue	One set	
	Troubleshooting charts	Troubleshooting charts for all subunits.	
	Operation kit	<ul style="list-style-type: none"> <li>• Standard operation kit comprising all required item pump tubing, torch, nebulizer, spray chamber cyclone.</li> <li>• Organic kit with dedicated nebulizer, injector, spray chamber, tubing &amp; oxygen Mass flow controller</li> <li>• HF kit should be quoted additionally inclusive of dedicated spray chamber, nebulizer, torch ,injector &amp; tubing set</li> <li>• 2.5 L Nitric and 2.5 L HCL ,1L HF &amp; 500ml Hydrogen Peroxide</li> </ul>	
Consumables	<p>Consumables (Each Set)</p> <ol style="list-style-type: none"> <li>1) Torch &amp; Injector :04 set</li> <li>2) Pump tubing set sample, Intake &amp; drain -Pk/12 (04 set)</li> <li>3) Standard Nebulizer &amp; Spray Chamber : 02 set</li> <li>4) Autosampler tubing &amp; sample probe (02 set)</li> <li>5) Autosampler vials 2000 Nos</li> </ol>		
8.0	Operation and Maintenance Component	Complementary (all expenditure inclusive) one weeks (5 working days) training to two officers/officials for operation and maintenance aspects of the instrument at application laboratory in India	

9.0	General Condition of Supply	<ol style="list-style-type: none"> <li>1. The instrument and all its sub units should operate on 230 +/- 10 volts 50 Hz power supply.</li> <li>2. All the operation and maintenance manual, circuit diagram, application note, application software should be supplied in English language</li> <li>3. Supplier/Manufacturer should have India agent to provide sales and service</li> <li>4. The main unit and all the sub units of the instrument should be serviced by the Indian representative of supplier.</li> <li>5. The bidder should be a manufacturer/authorized representative of a manufacturer who must have designed, manufacture, rested and supplied 2 nos. of such equipment similar to the type specified in past 5-years which shall be in successful operation for at least 1-years as on the date of bid opening.</li> <li>6. The bidder should furnish the information on past supplies and their satisfactorily performance.</li> <li>7. Bidder shall invariably furnish documentary evidence/client certificate (at least 2)</li> <li>8. In support of the satisfactory operation of the equipment specified above.</li> <li>9. Notwithstanding anything stated above the purchaser reserve the rights to access the capability ad capacity of the bidder to perform the contract, should the circumstance warranty such assessment in the overall interest of the purchaser.</li> <li><b>10.</b> 5 years comprehensive warranty ( Including UPS,PC,Printer,Fume hood,Gas Panel, Regulators) from the date of installation on all the parts of machine and spares &amp; accessories (including their cost and installation) is must.</li> </ol>	
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	Standard(CRM) (Multi element and single standards – one set)	<ul style="list-style-type: none"> <li>➤ Multi element Aqueous standards 100 µg/mL Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Se, Tl, Th, U, V, Zn (250ml)</li> <li>➤ Multielement Aqueous standards 100 µg/mL, Contains 500 µg/mL Ca, Fe, K, Mg, Na (250ml)</li> <li>➤ Single element standards for Hg &amp; As ,1000ppm (200 ml)</li> <li>➤ A21 Wear metal standards Contains Ag, Al, B, Ba, Ca, Cd, Cr, Cu, Fe, Mg, Mn, Mo, Na, Ni, P, Pb, Si, Sn, Ti, V, Zn &amp; K.500 (µg/g) &amp; 300gm</li> <li>➤ Solvent for diluting metallo-organic standards, oils and other organic solutions when preparing for spectrometric analysis of metals in hydrocarbon/petrochemical samples (01 Gallon)</li> <li>➤ Base mineral oil, &lt;1 µg/g Used for blending and preparation of calibration standards for spectrometric analysis of metals in hydrocarbon/petrochemical samples (1ltr)</li> </ul>	
10.0	Accessories:	<ol style="list-style-type: none"> <li>1- Argon gas cylinder- 04 Nos</li> <li>2- Oxygen gas cylinder- 01 Nos.</li> <li>3- Gas purification set up</li> <li>4- Regulator – as per requirement</li> <li>5- Manifold Assembly- 01 Nos.</li> <li>6- Fume Hood- 01 Nos.</li> <li>7- Nitrogen cylinder- 01 Nos. (If required)</li> <li>8- Air Compressor 01 Nos. (If required)</li> <li>9- UPS: 15 KVA suitable and branded/reputed make of Numeric/Eaton/Emerson/APC and other reputed make ( online UPS system with 1 hour backup)</li> </ol>	
11.0	<b>Microwave Digestion System</b>		
11.1	Microwave Digestion system	System should have high pressure vessel rotor for quick dissolution of various sample like geological samples without loss of heavy metals from sample solution. Allowing pressurized reaction with user selection of continuous or pulsed microwave reaction. The system should have metal body (not plastics/polymer) and should have solid steel door (without glass window) for safety.	

11.2	MAGNETRON	The microwave system should have dual Magnetron system with good diffuser for homogenous microwave power distribution in the cavity.	
11.3	Microwave frequency	Microwave frequency should be 2450MHz and installed power should be 1700 watts or more	
11.4	Microwave cavity	The cavity should be made of stainless steel housing with PTFE plasma coating for corrosion resistance. Also all hardware should have 5 layer protective coating for the resistance from acid.	
11.5	Microwave Cavity Capacity	The microwave cavity should be designed for volume of 60 ltrs or more for safety purpose.	
11.6	HARDWARE AND SFETY		
11.6.1	Protection	Protected against acids and solvents with polymer coating on both inner and outer surfaces	
11.6.2	Door	Self-resealing pressure responsive door mounted on sprigs, to ensure maximum safety even in case of overpressure release. Door completely made of 18/8 stainless steel	
11.6.3	Door Lock	An automatic door locking system ensures to keep the door closed until the set temperature is reached. User can modify the set temperature according to the lab needs. Four independent door safety interlocks to prevent microwave emission in case of improper door closure or misalignment	
11.6.4	Exhaust	Built-in exhaust system located above the microwave cavity and separated from the electronics to prevent corrosion.	
11.6.5	Rotating Diffuser	Dual magnetron system with rotating diffuser for homogeneous microwave distribution in the cavity.	
11.6.6	Magnetron Protection	Exclusive magnetron protection from reflected microwave power Continuous and PID-controlled microwave emission at all power levels	
12.0	Emission and Safety Norms:	Emission and Safety Norms: EN61010-1:2001;EN61010-2-010:2003;UL61010-1:2004;CAN/CSA-C22.2 No 61010-1:2004;CAN/CSA-C22.2 No 61010-2-010:2004;EN61326-1:2006;CEI EN 61326-2-6:2006	
13.0	REACTION SENSORS	Contactless IR temp. Sensor should quoted to sense the temp. of each vessel. The software should automatically reduce the microwave power in case of over temperature avoiding sample loss.	

14.0	Rotors and vessels	<p>Minimum 14 positions rotor or more should be upgradable to 44 vessel positions should be as below -</p> <p>Maximum Temperature capacity of vessel - Up to 250°C or more</p> <p>Maximum Pressure capacity of vessel- 40 bar or more</p> <p>Volume of Vessel- 50ml or more</p> <p>Vessel Material- PTFE-TFM</p> <p>Safety Shield- PEEK reinforced with glass fiber</p> <p>Vessels quote – 14no. or more</p> <p>Every vessel must have a vent-and-reseal spring to safely release the pressure in case of overpressure. Burst-disk, membrane or self-releasing / continuous venting devices are not suitable due to very low performance. Should be accommodate minimum 14 vessels</p>	
15.0	CONTROLLER	<p>User Interface</p> <p>It should be Touch-screen. Icon-driven software allowing the user the edit, saving, and run a virtually unlimited number of methods.</p> <p>Multiple levels access by password, such as User, Administrator and Service.</p> <p>The software must control all parameter online and display: temperature, pressure, time and power directly on the terminal.</p>	
16.0	POWER	230V = 50 Hz	
17.0	Methods	<p>The system is fully comply to the following methods:</p> <p>US EPA3052, US EPA3051A, US EPA3015A, US EPA3546, ASTM D4309-96, ATCM D-5765, ASTM D-6010, RoHS, WEEE, ELV, USP 232/233</p>	
19.0	Consumables	Spare parts and consumables should be quoted optionally	
18.0	Warranty for ICP-OES and MDS	5 years comprehensive warranty ( Including UPS,PC,Printer,Fume hood,Gas Panel,Regulators) from the date of installation on all the parts of machine and spares & accessories (including their cost and installation) is must. IQ OQ documents should be quoted	