

1 Bidders should arrange for an onsite functional demonstration of the offered equipment on the notified date at facility at Kolkata, West Bengal or at **Swasthya Bhavan**. The evaluation of the spec indicator will be made based on the reports of the onsite functional demonstration of the equipments. The onsite functional demonstration of the equipment is purely at the discretion of the Technical Bid Evaluation Committee and its input shall be treated as only corroborative in nature and will not be a substitute for technical evaluation of the document submitted along with the bid. The decision of the Technical Committee in this regard will be final.

Bidder has to comply with all parameters of the technical specifications except deviation(s) which will be considered minor and acceptable by the team of Experts to be engaged by WBMSCL to take working / functional demonstration of the offered equipments.

2. Experience Criteria:

Bidder should submit following documents of same / similar type of laboratory equipment in support of supplies made to Govt. Hospitals/laboratories or reputed private hospitals/laboratories for the period of last three calendar years ending December 2024:

- Proof of installation (Installation certificate / Service report duly signed by the hospital / laboratory/healthcare facility) of the same / similar type of laboratory equipment

OR

- Proof of payment against supply and installation of the same / similar type of laboratory equipment.

3. Bidder should mention the bid reference number along with the quoted make and model of the equipment in the OEM Authorization certificate and the certificate should be issued to bidder from OEM after publishing of the bid.

4. Bidder should submit minimum average annual turnover in laboratory equipment for last 3(Three) financial years in letter head of chartered accountant with mentioning valid UDIN (Unique Document Identification Number). The data should be submitted in a table duly signed and stamped by chartered accountant.

5. Exemption of EMD as per Memorandum bearing West Bengal Finance Department Memo No. 375-F(Y) Dated 30.01.2023 where has been clearly mentioned that, in order to get more participants and obtain better competition in procurement through GeM, it is decided to include following categories of sellers / service providers, in addition to our existing provisions, for exemption of EMD deposit in GeM:

- i. All registered Micro and Small Enterprises being manufacturer of the Primary Product Category or Service Provider of the Primary Service Category, whose credentials are validated online through Udyam / NSIC

(National Small Industries Corporation) database/ DIC (District Industries Corporation) database.

- ii. Sellers of Primary Products/Primary Services having their credentials verified through the Vendor Assessment process in GeM.
- iii. Sellers/ Service Provider having annual turnover of Rs 500 Crore or above.
- iv. Sellers/ Service Providers of Primary Product Categories having BIS (Bureau of Indian Standards) certification.

6. Availability of Service Centres: OEM / Bidder must have a Functional and operational Service Centre in **Kolkata, Siliguri and Durgapur** for next 3 (three) calendar years as to extend the warranty coverage seamless manner and have capability of providing service throughout West Bengal.

7. Successful bidder/OEM will have to ensure that adequate number of dedicated technical service personals / engineers are designated / deployed for attending to the Service Request in a time bound manner and for ensuring Timely Servicing / rectification of defects during warranty period.

8. As many as number required, end user training must be provided within the warranty period without any charges.

9. Under taking regarding sharing Land Border: In terms of GeM GTC Clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India as specified under Rule 144(xi) of the General Financial Rules (GFRs), 2017 and Office memorandum issued by the Ministry of Finance, Govt. of India vide DOE Order (Public Procurement No. 4) No. F.7/10/2021-PPD(1), Dated-23.02.2023 (as amended from time to time), where has been clearly mentioned that, "Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws". Self Declaration must be given in the below mentioned format (as applicable) in the letter head by the authorized signatory with stamp.

Annexure-IA

DECLARATION CERTIFICATE FOR PROCUREMENT OF GOODS & SERVICES

Tender Ref. No.:

Date:

Description of work:

To,
Managing Director
West Bengal Medical Services Corporation Limited
Swasthya Sathi
GN-29, Salt Lake, Sector-V
Kolkata-700091

TYPE-I

Applicable for bidders falling under countries not sharing land border with India (or) sharing land border with India but currently lines of credit facility extended by Govt. of India to that country

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is not from such a country and accordingly does not call for any registration with Competent Authority and this bidder is eligible to be considered.

Date:	Signature	:
Place:	Name of the Person	:
	Designation	:
	Firm Name	:

TYPE-II

Applicable for bidders falling under countries sharing land border with India but currently lines of credit facility is not extended to that country

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is from such a country and currently lines of credit facility is not extended by Govt. of India to that country. Accordingly, for bidding in this particular tender, bidder need to be registered with DPIIT. In this regard, the required formalities have been completed and the bidder has registered with Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. Our registration details are indicated below.

Competent Authority Ref. No. :
Registration No. & Date :
Name of the Company :
Registration valid up to :
(Copy of the Registration certificate enclosed)

Date: Signature :

Name of the Person :
Designation :
Firm Name :

11. Price Validity: 2(two) years from the date of Tender publication

WBMSCL reserves the right to increase the quantity in case of need / or to decrease the quantity of goods and related services initially specified in Bid Document and without any change in the unit prices or other terms and conditions of the Bid Documents.

13. Bidders shall quote only those products in the bid which are not obsolete in the market and has at least 07 years residual market life i.e. the offered product shall not be declared end-of-life by the OEM before this period.

Physically presence of the bidders are mandatory at Conference Room of West Bengal Medical Services Corporation (WBMSC), at 2nd floor , Swasthya Sathi Building, Swasthya Bhawan , Kolkata – 700091

The bidder has to submit EMD online through NEFT/RTGS internet banking only. EMD submitted in the form of bank guarantee will be rejected.

Nature of offence	Penalty to be imposed
Any wrong or misleading information or forged document provided by the Tenderer during submission of bids	a. Forfeiture of EMD b. May lead to blacklisting in FIRST PARTY for at least 5 years
Non execution of agreement within 14 days of issue of AOC	a. Forfeiture of EMD b. Blacklisting for 5 years in FIRST PARTY c. Blacklisting to be circulated to all procurement agencies throughout the country

Supplying refurbished goods instead of new / Low quality product in respect to the demonstrated one	a. Termination of Contract. b. Blacklisting for life. c. Blacklisting to be circulated to all procurement agencies throughout the country. d. Forfeiture of the Performance Bank Guarantee. Lodging FIR.
Breach of Agreement	a. Termination of Contract. b. Blacklisting for life c. Blacklisting to be circulated to all procurement agencies throughout the country. d. Forfeiture of the Performance Bank Guarantee e. Lodging FIR

17. EVALUATION OF SPEC INDICATOR

Bidder has to comply with technical specifications except deviation(s) which will be considered minor and acceptable by the Experts to be engaged by WBMSCL. Bidders may have to arrange for a functional demonstration of the offered equipment, if desired by the Tender Inviting Authority (TIA).

18. Comprehensive Maintenance Contract (CMC): The selected bidder shall enter into CMC after expiry of warranty and CMC should include the following:

- The equipment including all other accessories, ancillaries given in the specifications of the equipment including UPS, UPS Battery, AC machines and furniture etc.
- Bidders must enter in to the CMC with RFTL, Siliguri directly / third party as authorized by Food Safety Branch/ RFTL etc. Bidder must accept the same CMC rate, if the CMC is offered by the third party/RFTL then no escalation, no extra cost will be provided. If any bidder failed to execute the CMC with RFTL or third party (as authorized by RFTL or Food Safety Branch), RFTL may initiate legal action against the selected bidder. The selected bidder may be debarred to participate in the future tender
- The execution of CMC of any equipment will be at sole discretion of the RFTL management/Food Safety Branch.
- As per tender terms and condition third party items must be included within the CMC rate.
- Breakdown Calls: as many numbers as may be required to attend to resolve the complaint lodged by the end-users.

- Preventive Maintenance: The selected bidder should attend periodic planned preventive maintenances in the following manner

Equipments	Mandatory preventive Maintenance Service (PMS) visit per year		Remarks
	Warranty	CMC	
GCMSMS	3	3	1. Supplier/ authorised service provider must attend all breakdown calls during warranty / CMC period. 2. The supplier should provide Preventive Maintenance Services (PMS) yearly / bi - yearly / quarterly in equal interval to fulfill the minimum number of mandatory PMS as recommended in the previous column during warranty / CMC period. 3. The preventive maintenance includes testing & calibration as per technical / service / operational manual, spares, all software updates and labour.

- The cost for Year wise CMC charges after completion of 3(three) years warranty in percentage of the sum of quoted price of the equipment in the BOQ to be paid to the selected bidder(s) in the following manner:

ITEM	CMC charges in percentage(%) for Year4	CMC charges in percentage(%) for Year5	CMC charges in percentage(%) for Year6	CMC charges in percentage(%) for Year7	CMC charges in percentage(%) for Year8
GCMSMS	4.0	4.50	5.00	5.50	6.0

The bill of CMC of the selected bidder must be submitted and payment for the same will be done by the Laboratory on Half Yearly basis subject to availability of adequate fund.

Periodic Calibration: The selected bidder will also undertake periodic calibrations as would be required for quality certification desired by the end-user facilities.

A. Bidders shall quote only those products in the bid which are not obsolete in the market and has at least 07 years residual market life i.e. the offered product shall not be declared end-of life by the OEM before this period.

B. The bidder has to provide full support including turnkey work(if applicable) and 3 rd party items after the end-of-life of the equipment up to 3 years. If bidder cannot manage to provide the spare parts, then CMC value in monetary terms must be discontinued and CMC may be refund prodata basis.

Participated bidders are requested to submit their Contact details, Email ID and Address in the additional documents section while submitting their bid documents in GeM portal. The details should be submitted in a letter head of the company with signature and stamp

Bidders are requested to ignore the Technical Specifications given under GeM Specification category and consider only the Technical Specification given below

Technical Specification

GC MSMS

Sl. no.	Technical Specifications
1	GC system A compact high sensitive GC-MSMS system suitable for the analysis of Organo-chlorine pesticides, Organo-phosphorous pesticides, Synthetic Pyrethroids, PCBs and VOCs in food products and water at <1 ppb level with user friendly software. The system should have a Triple Quadruple geometry, capable of carrying out MS and MS/MS experiments
2	Column oven The system should have All temperature and time functions are controlled by microprocessor-controlled and are shown on the touch- screen display. <ul style="list-style-type: none">• Temperature: Operating Range Ambient +4°C to 450°C• Cooling down rate: from 450 to 50°C in less than 5 min• Temperature programming facility.• Ramps : minimum 15 ramps with 16 plateaus or more• Maximum inlet temperature ramp rate : 120°C / minute or better for all voltages Should have oven power safety(power off when door is open)
3	<ul style="list-style-type: none">• Column Dimensions: 30m x 0.250mm x 0.25µm• HP-5MS/ DB-1MS or equivalent) (02 no.)• DB-5/ HP-5 or equivalent (01 No) DB 1301 or equivalent (01 No)<ul style="list-style-type: none">• TR5-Sil and 1701

Sl. no.	Technical Specifications
4	<p>Inlet : The system should have</p> <ol style="list-style-type: none"> Programmable Temperature Vaporizer (PTV) <ul style="list-style-type: none"> Temperature ramped split / splitless and large volume injection modes Electronic pressure/ flow control Pressure setting range 0 to 100psi or more
5	<p>Auto Sampler The system should have</p> <ul style="list-style-type: none"> Internal standard addition Auto injector / sampler for Liquid injector (minimum 100 vials) and HS with minimum 60 sample vials capacity Capable of handling large volume injection with syringe size from 0.5 to 250 µl. <p>Completely programmable from software.</p>
6	<p>Backflush: The system should have column end or mid column backflush to remove unwanted components/contaminants/high boilers.</p>
7	<p>MS/MS System The system should have</p> <ul style="list-style-type: none"> Mass range: Quadruple 10 to 1000 amu or better Mass resolution: minimum 0.7 (width at half height). Mass axis stability: ±0.1 amu over 24 hours or more Linear Dynamic range: Minimum 6th order of magnitude. Scan rate (electronic): 20,000 amu/sec or better Ionization modes: EI (Electron ionization) and CI (Chemical ionization) modes Ion source should have heating capacity of 350°C or more CI: must be capable to operate with different reagent gasses & electronic flow control for reagent gasses Collision cell gas pressure must be electronically/Software controllable Collision energy must be variable Scan Modes: <ol style="list-style-type: none"> Should be able to do Scan, SIM, MRM/SRM, Parent ion scan, Product ion Scan, and Neutral loss scan-time segment based. Simultaneous Full Scan-SIM or Full Scan/MRM or SRM whenever required. SRM/MRM Speed: minimum of 800 MRM/sec Minimum MRM dwell time of 0.5 milliseconds or better.

Sl. no.	Technical Specifications
	<ul style="list-style-type: none"> • Installation checkout sensitivity must be better than – • Instrument detection limit: 0.5 fg or less octa fluoro naphthalene (OFN) • EI Scan sensitivity: 1 µl of 1 pg/µl Octafluoronaphthalene (OFN) should give S/N greater than 1200:1 in scan mode 1 µl injection from m/z 50 to 300 for m/z 272 • EI MRM Sensitivity: 1 µL of 100 fg/µL Octafluoronaphthalene (OFN) should produce the following minimum signal-to-noise for the transition from m/z 272 to m/z 222: 15,000:1 or better on 30 mt. column to be demonstrated onsite also • Turbomolecular pump: Air cooled Turbomolecular pumps, Rotary vane fore-line pumps supporting the turbo- molecular vacuum pump • Noise reduction cover for fore line pump. • Software controlled auto-tune or manual-tune to enable quick startup for quantitative analysis. • Independently heated GC / MS interface. • Extended dynamic range Electron Multiplier with triple axis detector geometry configuration to direct the charged ion of interest away from the neutrals with long life and better sensitivity. <p>Should demonstrate that the machine is suitable for the analysis of ETO , Organo-chlorine pesticides, Organo- phosphorous pesticides, Synthetic Pyrethroids, PCBs and VOCs in Fish, vegetables and water at < 1ppb level.</p>
8	<p>Nitrogen evaporator: The system should be provided with a suitable Nitrogen evaporator system of 20- 25 samples processing capacity in one batch along with proper fume hood system. The specification along with the model should be provided at the time of tendering.</p>

Sl. no.	Technical Specifications
9	<p>System Controller and Operating system: Should have capability to run the mass spectrometer in all the modes specified in Scan mode.</p> <ul style="list-style-type: none"> • Data acquisition, integration, calibration, quantification and QC calculations must be automated • Manual and Auto tune options should be provided. • Automatic MRM/SRM method Development • Library searching facility with Licensed NIST Library (in CD/ROM Format). • Pesticides and endocrine disruptors, PCB's, VOC's, Fatty Acid Methyl Esters, and artificial flavors. MRM Database for minimum 800 GC molecules • 21 CFR part 11 & food safety compliance. <p>Quantitative analysis- Qualitative analysis Features</p> <ul style="list-style-type: none"> • Imports information directly from the acquisition method • Provides a curve-fit assistant to test all fits and statistics on curve quality • Integrates with an automated, parameter-free integrator that uses a novel algorithm, optimized for triple Quadra pole data • For fast method development, this software is used to quickly review the qualitative aspects of the data, such as the optimum precursor to product ion transitions. • Qualitative Analysis program to present large amounts of data for review in one central location. • Extract chromatograms • View and extract peak spectra • Subtract background • Integrate the chromatogram <ul style="list-style-type: none"> • The instrument should have the option of operation in gas saver mode specifically for Helium gas as carrier gas.
10	<p>PC with Printer</p> <p>Minimum Intel core i5/i7/Equivalent processor, 2.0 GHz or more, 24"or more LCD/TFT Monitor, 2 TB HDD, DVD Read/Write, 16 GB RAM,4 USB Port or higher configuration for use with the above system to be provided.</p> <p>Reputed Branded automatic back to back colour Laser jet printer should be provided.</p>
11	<p>Start Up Kit</p> <ul style="list-style-type: none"> • Installation kit must be included. • Required gas cylinders (with requisite certificate) for Helium and Argon or Equivalent (3 each) should be provided with accessories like Gas regulators and gas purification system etc., <p>Required Gas regulators and gas purification systems should be provided, installed and commissioned for all the gases used in the instrument including gas tubing, manifold.</p>

Sl. no.	Technical Specifications
12	<p>Sample Preparation kits QuEChERS Kits (1000 no.s each) for Pesticides etc in following matrices:</p> <ul style="list-style-type: none"> • Water • High fat containing food • High Water content food <p>Highly Pigmented foods (e.g. chlorophyll, lycopene, carotene etc. like Tea Leaf)</p>
13	<p>Calibration Standards to be supplied for upcoming years:</p> <ul style="list-style-type: none"> • Two sets each NIST(ISO 17034) or other traceable standards for all the Pesticides as per Food Safety and Standards (Contaminants, Toxins, Residues) Regulation 2011) latest Version of April 2025) and banned pesticides(At least 26 Nos. in number) as per latest FSSAI Directive. with a minimum expiry period of two years to be supplied with the instrument for 8 years from the date of installation. The detail list of volatile organic compounds, PAH, PCB, Plasticizers, etc. standard to be supplied for 8 years from the date of installation are given in Annexure A The number of insecticides standards, selected from the above regulation, to be supplied every year from the date of installation is fifty (50) as per requisition of the user/laboratory each year. • Reference /Calibration standard (ISO 17034) has to be provided (for performance check of the instrument)every year for the warranty and CMC Period .

Sl. no.	Technical Specifications
14	<p>Accessories and Consumables</p> <ul style="list-style-type: none"> • Sample injector : • For liquid injection (5 no. each) • For HS syringe (5 no. each) • Air tight syringe (for manual injection) (2 no. each) • Manual syringe for liquid injector (2 no. each) • Auto sampler vials: 500 vials with screw cap • Vials with cap for 1.5 ml capacity (100 No.). • Vials with cap for 10 and 20 ml capacity (each 50 No.). • Column Ferrules- injector end and interface end (20 No. each). • Septa for injector (100 No.). • Appropriate nuts to fit capillary columns to the injector and MS interface (10 each). • Inlet liner for Splitless, Split (with glass/quartz wool at optimum position) and PTV (with glass/quartz wool at optimum position) (10 No. each) • O-ring for injector liner (20 No.) • Split vent trap (2 No.) • EI Filaments (5 No.) • Column cutter (2 No.) • Gas tube cutter. • Oil mist trap for pump (2 No.). • Tool kit. <p>Optional: Any other accessory as felt required for the proper functioning of the equipment</p>
15	<p>Power Supply The system should have UPS (minimum 10 KVA) of suitable rating with voltage regulation, spike protection and minimum 60 minutes back up for the supplied Equipment</p>

Sl. no.	Technical Specifications
16	<p>Additional items</p> <ul style="list-style-type: none"> • Operation kit comprising all required items for startup/regular operation of instrument. • Firm should also quote all essential pre-installation requirements and utility requirement for GC-MS/MS. • Operation and maintenance manual for each unit in both hard copy and soft copy. • Service manual with set of required tools for each system/unit. • The system should have Server connectivity and should be capable of 21 CFR Part 11 and food safety compliance. The necessary validations will have to be carried out by the equipment suppliers. • Methods library for all food matrixes, related software's and user manuals to be provided. <p>PLEASE PROVIDE MAINTENANCE CHART FOR ALL OF THE COMPONENTS IN GC-MS/MS System</p>
17	<p>Operation and maintenance & Training Component</p> <ul style="list-style-type: none"> • The supplier will have to carry out successful installation at our laboratory premises (where ever the system has to be installed) and provide on – site comprehensive training for scientific personnel operating the system and support services till customer satisfaction with the system.
18	<p>IQ/OQ/PQ</p> <p>IQ/OQ/PQ of the system is required</p>

Sl. no.	Technical Specifications
19	<p>Warranty</p> <ul style="list-style-type: none"> • Standard Warranty of 3(Three) Years starting from date of satisfactory and faultless functioning of the equipment for 60 days at the respective laboratory premises. • Annual calibration of the equipment shall be a part of the warranty. It shall also be mandatory to perform calibration after every major repair/breakdown. • At least one Preventive maintenance along with PM kit each year during warranty period • The supplier or his authorized agent should have after sales and service centre near each of our laboratory location where the equipment is to be supplied at least 5 years prior to the date of this bid in Eastern India preferably in West Bengal. • Current user's / performance list with contact details (Customer name, phone email id etc) and date of installation to be provided (Minimum 5 installations of the model quoted / Equivalent models for newly launched systems). • Number and details of the service engineers has to be provided <p>Performance evaluation of the equipment will be carried out for those who qualify in the technical bid.</p> <p>If CMC is done, during CMC period all spares, accessories and consumables , at least one Preventive maintenance along with PM kit each year on yearly basis to be provided.</p>
20	Pre-installation requirements Provide all pre-installation requirements

SL NO	ANNEXURE PESTICIDE ANALYTE FOR GCMSMS
1	Volatile Organic Compounds
2	<p style="text-align: center;">PAH Mixture</p> <ol style="list-style-type: none"> I. Acenaphthene II. Acenaphthylene III. Anthracene IV. benz[a]anthracene V. benzo[b]fluoranthene VI. benzo[k]fluoranthene VII. benzo[ghi]perylene VIII. benzo[a]pyrene IX. chrysene <p>dibenz[a,h]anthracenefluoranthenefluoreneindeno[1,2,3-</p>

SL NO	ANNEXURE PESTICIDE ANALYTE FOR GCMSMS
	cd]pyrene naphthalene phenanthrene X. pyrene
3	Polychlorinated Biphenyls (PCB) Mixture <ul style="list-style-type: none"> • 2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ 194) 10 µg/mL CAS #: 35694-08-7 • 2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ 170) 10 µg/mL CAS #: 35065-30-6 • 2,2',3,4',5',6-Hexachlorobiphenyl (BZ 149) 10 µg/mL CAS #: 38380-04-0 • 2,2',3,4,4',5'-Hexachlorobiphenyl (BZ 138) 10 µg/mL CAS #: 35065-28-2 • 2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ 180) 10 µg/mL CAS #: 35065-29-3 • 2,2',3,5'-Tetrachlorobiphenyl (BZ 44) 10 µg/mL CAS #: 41464-39-5 • 2,2',4,4',5,5'-Hexachlorobiphenyl (BZ 153) 10 µg/mL CAS #: 35065-27-1 • 2,2',4,5,5'-Pentachlorobiphenyl (BZ 101) 10 µg/mL CAS #: 37680-73-2 • 2,2',5,5'-Tetrachlorobiphenyl (BZ 52) 10 µg/mL CAS #: 35693-99-3 • 2,2',5-Trichlorobiphenyl (BZ 18) 10 µg/mL CAS #: 37680-65-2 • 2,3',4,4',5-Pentachlorobiphenyl (BZ 118) 10 µg/mL

SL NO	ANNEXURE PESTICIDE ANALYTE FOR GCMSMS
	<p>CAS #: 31508-00-6</p> <ul style="list-style-type: none"> 2,4',5-Trichlorobiphenyl (BZ 31) 10 µg/mL CAS #: 16606-02-3 2,4,4'-Trichlorobiphenyl (BZ 28) 10 µg/mL CAS #: 7012-37-5 Decachlorobiphenyl (bz 209) 10 µg/mL CAS #: 2051-24-3
4	<p>Plasticizers</p> <ul style="list-style-type: none"> Bis(2-ethylhexyl) adipate 200 µg/mL CAS #: 103-23-1 Bis(2-ethylhexyl) phthalate 200 µg/mL CAS #: 117-81-7 Butyl benzyl phthalate 200 µg/mL CAS #: 85-68-7
5	<p>Eucalyptol Eucalyptol 1000 µg/mL CAS #: 470-82-6</p>
6	<p>Linalool Linalool 1000 µg/mL CAS #: 78-70-6</p>
7	<p>Volatile Organic Compounds</p> <p>Geraniol</p>

Amendment I
Revised Technical Specification
GC MSMS

Sl. no.	Technical Specifications
1	GC system A compact high sensitive GC-MSMS system suitable for the analysis of Organo-chlorine pesticides, Organo-phosphorous pesticides, Synthetic Pyrethroids, PCBs and VOCs in food products and water at <1 ppb level with user friendly software. The system should have a Triple Quadruple geometry, capable of carrying out MS and MS/MS experiments
2	<p>Column oven The system should have All temperature and time functions are controlled by microprocessor-controlled and are shown on the touch- screen display.</p> <ul style="list-style-type: none"> • Temperature: Operating Range Ambient +4°C to 450°C • Cooling down rate: from 450 to 50°C in less than 5 min • Temperature programming facility. • Ramps : minimum 15 ramps with 16 plateaus or more • Maximum inlet temperature ramp rate : 120°C / minute or better for all voltages <p>Should have oven power safety(power off when door is open)</p>
3	<ul style="list-style-type: none"> • Column Dimensions: 30m x 0.250mm x 0.25µm • HP-5MS/ DB-1MS or equivalent) (02 no.) • DB-5/ HP-5 or equivalent (01 No) DB 1301 or equivalent (01 No TR5-Sil and 1701
4	<p>Inlet : The system should have</p> <p>a. Programmable Temperature Vaporizer (PTV)</p> <ul style="list-style-type: none"> • Temperature ramped split / splitless and large volume injection modes • Electronic pressure/ flow control • Pressure setting range 0 to 100psi or more
5	<p>Auto Sampler The system should have</p> <ul style="list-style-type: none"> • Internal standard addition Auto injector / sampler for Liquid injector (minimum 100 vials) and HS with minimum 60 sample vials capacity • Capable of handling large volume injection with syringe size from 0.5 to 250 µl. Completely programmable from software.
6	<p>Backflush: The system should have column end or mid column backflush to remove unwanted components/contaminants/high boilers.</p>

Sl. no.	Technical Specifications
7	<p>MS/MS System The system should have</p> <ul style="list-style-type: none"> • Mass range: Quadruple 10 to 1000 amu or better • Mass resolution: minimum 0.7 (width at half height). • Mass axis stability: ± 0.1 amu over 24 hours or more • Linear Dynamic range: Minimum 6th order of magnitude. • Scan rate (electronic): 20,000 amu/sec or better • Ionization modes: EI (Electron ionization) and CI (Chemical ionization) modes Ion source should have heating capacity of 350°C or more • CI: must be capable to operate with different reagent gasses & electronic flow control for reagent gasses • Collision cell gas pressure must be electronically/Software controllable • Collision energy must be variable • Scan Modes: <ul style="list-style-type: none"> i) Should be able to do Scan, SIM, MRM/SRM, Parent ion scan, Product ion Scan, and Neutral loss scan-time segment based. ii) Simultaneous Full Scan-SIM or Full Scan/MRM or SRM whenever required. iii) SRM/MRM Speed: minimum of 800 MRM/sec iv) Minimum MRM dwell time of 0.5 milliseconds or better.

Sl. no.	Technical Specifications
	<ul style="list-style-type: none"> • Installation checkout sensitivity must be better than – • Instrument detection limit: 0.5 fg or less octa fluoro naphthalene (OFN) • EI Scan sensitivity: 1 µl of 1 pg/µl Octafluoronaphthalene (OFN) should give S/N greater than 1200:1 in scan mode 1 µl injection from m/z 50 to 300 for m/z 272 • EI MRM Sensitivity: 1 µL of 100 fg/µL Octafluoronaphthalene (OFN) should produce the following minimum signal-to-noise for the transition from m/z 272 to m/z 222: 15,000:1 or better on 30 mt. column to be demonstrated onsite also • Turbomolecular pump: Air cooled Turbomolecular pumps, Rotary vane fore-line pumps supporting the turbo- molecular vacuum pump • Noise reduction cover for fore line pump. • Software controlled auto-tune or manual-tune to enable quick startup for quantitative analysis. • Independently heated GC / MS interface. • Extended dynamic range Electron Multiplier with triple axis detector geometry configuration to direct the charged ion of interest away from the neutrals with long life and better sensitivity. <p>Should demonstrate that the machine is suitable for the analysis of ETO , Organo-chlorine pesticides, Organo- phosphorous pesticides, Synthetic Pyrethroids, PCBs and VOCs in Fish, vegetables and water at < 1ppb level.</p>
8	<p>Nitrogen evaporator: The system should be provided with a suitable Nitrogen evaporator system of 20- 25 samples processing capacity in one batch along with proper fume hood system. The specification along with the model should be provided at the time of tendering.</p>

Sl. no.	Technical Specifications
9	<p>System Controller and Operating system: Should have capability to run the mass spectrometer in all the modes specified in Scan mode.</p> <ul style="list-style-type: none"> • Data acquisition, integration, calibration, quantification and QC calculations must be automated • Manual and Auto tune options should be provided. • Automatic MRM/SRM method Development • Library searching facility with Licensed NIST Library (in CD/ROM Format). • Pesticides and endocrine disruptors, PCB's, VOC's, Fatty Acid Methyl Esters, and artificial flavors. MRM Database for minimum 800 GC molecules • 21 CFR part 11 & food safety compliance. <p>Quantitative analysis- Qualitative analysis Features</p> <ul style="list-style-type: none"> • Imports information directly from the acquisition method • Provides a curve-fit assistant to test all fits and statistics on curve quality • Integrates with an automated, parameter-free integrator that uses a novel algorithm, optimized for triple Quadra pole data • For fast method development, this software is used to quickly review the qualitative aspects of the data, such as the optimum precursor to product ion transitions. • Qualitative Analysis program to present large amounts of data for review in one central location. • Extract chromatograms • View and extract peak spectra • Subtract background • Integrate the chromatogram <p>The instrument should have the option of operation in gas saver mode specifically for Helium gas as carrier gas.</p>
10	<p>PC with Printer</p> <p>Minimum Intel core i5/i7/Equivalent processor, 2.0 GHz or more, 24" or more LCD/TFT Monitor, 2 TB HDD, DVD Read/Write, 16 GB RAM, 4 USB Port or higher configuration for use with the above system to be provided.</p> <p>Reputed Branded automatic back to back colour Laser jet printer should be provided.</p>
11	<p>Start Up Kit</p> <ul style="list-style-type: none"> • Installation kit must be included. • Required gas cylinders (with requisite certificate) for Helium and Argon or Equivalent (3 each) should be provided with accessories like Gas regulators and gas purification system etc., <p>Required Gas regulators and gas purification systems should be provided, installed and commissioned for all the gases used in the instrument including gas tubing, manifold.</p>

Sl. no.	Technical Specifications
12	<p>Sample Preparation kits (QuEChERS or validated(SANTE, EU or ICH) kits (1000 no.s each) for Pesticides etc in following matrices:</p> <ul style="list-style-type: none"> • Water • High fat containing food • High Water content food <p>Highly Pigmented foods (e.g. chlorophyll, lycopene, carotene etc. like Tea Leaf)</p>
13	<p>Calibration Standards to be supplied for upcoming years:</p> <ul style="list-style-type: none"> • Two sets each NIST(ISO 17034) or other traceable standards for all the Pesticides as per Food Safety and Standards (Contaminants, Toxins, Residues) Regulation 2011) latest Version of April 2025) and banned pesticides(At least 26 Nos. in number) as per latest FSSAI Directive. with a minimum expiry period of one year to be supplied with the instrument for 8 years from the date of installation. The detail list of volatile organic compounds, PAH, PCB, Plasticizers, etc. standard to be supplied for 8 years from the date of installation are given in Annexure A The number of insecticides standards, selected from the above regulation, to be supplied every year from the date of installation is fifty (50) as per requisition of the user/laboratory each year. <p>Reference /Calibration standard (ISO 17034) has to be provided (for performance check of the instrument)every year for the warranty and CMC Period .</p>

Sl. no.	Technical Specifications
14	<p>Accessories and Consumables</p> <ul style="list-style-type: none"> • Sample injector : • For liquid injection (5 no. each) • For HS syringe (5 no. each) • Air tight syringe (for manual injection) (2 no. each) • Manual syringe for liquid injector (2 no. each) • Auto sampler vials: 500 vials with screw cap • Vials with cap for 1.5 ml capacity (100 No.). • Vials with cap for 10 and 20 ml capacity (each 50 No.). • Column Ferrules- injector end and interface end (20 No. each). • Septa for injector (100 No.). • Appropriate nuts to fit capillary columns to the injector and MS interface (10 each). • Inlet liner for Splitless, Split (with glass/quartz wool at optimum position) and PTV (with glass/quartz wool at optimum position) (10 No. each) • O-ring for injector liner (20 No.) • Split vent trap (2 No.) • EI Filaments (5 No.) • Column cutter (2 No.) • Gas tube cutter. • Oil mist trap for pump (2 No.). • Tool kit. <p>Optional: Any other accessory as felt required for the proper functioning of the equipment</p>
15	<p>Power Supply The system should have UPS (minimum 10 KVA) of suitable rating with voltage regulation, spike protection and minimum 60 minutes back up for the supplied Equipment</p>

Sl. no.	Technical Specifications
16	<p>Additional items</p> <ul style="list-style-type: none"> • Operation kit comprising all required items for startup/regular operation of instrument. • Firm should also quote all essential pre-installation requirements and utility requirement for GC-MS/MS. • Operation and maintenance manual for each unit in both hard copy and soft copy. • Service manual with set of required tools for each system/unit. • The system should have Server connectivity and should be capable of 21 CFR Part 11 and food safety compliance. The necessary validations will have to be carried out by the equipment suppliers. • Methods library for all food matrixes, related software's and user manuals to be provided. <p>PLEASE PROVIDE MAINTENANCE CHART FOR ALL OF THE COMPONENTS IN GC-MS/MS System</p>
17	<p>Operation and maintenance & Training Component</p> <ul style="list-style-type: none"> • The supplier will have to carry out successful installation at our laboratory premises (where ever the system has to be installed) and provide on – site comprehensive training for scientific personnel operating the system and support services till customer satisfaction with the system.
18	<p>IQ/OQ/PQ IQ/OQ/PQ of the system is required</p>

Sl. no.	Technical Specifications
19	<p>Warranty</p> <ul style="list-style-type: none"> • Comprehensive Warranty of 3(Three) Years starting from date of satisfactory and faultless functioning of the equipment for 60 days at the respective laboratory premises. • Annual calibration of the equipment shall be a part of the warranty. It shall also be mandatory to perform calibration after every major repair/breakdown. • At least one Preventive maintenance along with PM kit each year during warranty period • The supplier or his authorized agent should have after sales and service centre near each of our laboratory location where the equipment is to be supplied at least 5 years prior to the date of this bid in Eastern India preferably in West Bengal. • Current user's / performance list with contact details (Customer name, phone email id etc) and date of installation to be provided (Minimum 5 installations of the model quoted / Equivalent models for newly launched systems). • Number and details of the service engineers has to be provided <p>Performance evaluation of the equipment will be carried out for those who qualify in the technical bid.</p> <p>If CMC is done, during CMC period all spares, accessories and consumables, at least one Preventive maintenance along with PM kit each year on yearly basis to be provided.</p>
20	Pre-installation requirements Provide all pre-installation requirements

SL NO	ANNEXURE A PESTICIDE ANALYTE FOR GCMSMS
1	Volatile Organic Compounds
2	PAH Mixture Acenaphthene Acenaphthylene Anthracene benz[a]anthracene benzo[b]fluoranthene benzo[k]fluoranthene benzo[ghi]perylene benzo[a]pyrene chrysene dibenz[a,h]anthracene fluoranthene fluorene indene o[1,2,3-cd]pyrene naphthalene phenanthrene

SL NO	ANNEXURE A PESTICIDE ANALYTE FOR GCMSMS
	pyrene
3	<p>Polychlorinated Biphenyls (PCB) Mixture 2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ 194) 10 µg/mL CAS #: 35694-08-7</p> <p>2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ 170) 10 µg/mL CAS #: 35065-30-6</p> <p>2,2',3,4',5',6-Hexachlorobiphenyl (BZ 149) 10 µg/mL CAS #: 38380-04-0</p> <p>2,2',3,4,4',5'-Hexachlorobiphenyl (BZ 138) 10 µg/mL CAS #: 35065-28-2</p> <p>2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ 180) 10 µg/mL CAS #: 35065-29-3</p> <p>2,2',3,5'-Tetrachlorobiphenyl (BZ 44) 10 µg/mL CAS #: 41464-39-5</p> <p>2,2',4,4',5,5'-Hexachlorobiphenyl (BZ 153) 10 µg/mL CAS #: 35065-27-1</p> <p>2,2',4,5,5'-Pentachlorobiphenyl (BZ 101) 10 µg/mL CAS #: 37680-73-2</p> <p>2,2',5,5'-Tetrachlorobiphenyl (BZ 52) 10 µg/mL CAS #: 35693-99-3</p> <p>2,2',5-Trichlorobiphenyl (BZ 18) 10 µg/mL CAS #: 37680-65-2</p> <p>2,3',4,4',5-Pentachlorobiphenyl (BZ 118) 10 µg/mL CAS #: 31508-00-6</p> <p>2,4',5-Trichlorobiphenyl (BZ 31)</p>

SL NO	ANNEXURE A PESTICIDE ANALYTE FOR GCMSMS
	10 µg/mL CAS #: 16606-02-3 2,4,4'-Trichlorobiphenyl (BZ 28) 10 µg/mL CAS #: 7012-37-5 Decachlorobiphenyl (bz 209) 10 µg/mL CAS #: 2051-24-3
4	Plasticizers Bis(2-ethylhexyl) adipate 200 µg/mL CAS #: 103-23-1 Bis(2-ethylhexyl) phthalate 200 µg/mL CAS #: 117-81-7 Butyl benzyl phthalate 200 µg/mL CAS #: 85-68-7
5	Eucalyptol Eucalyptol 1000 µg/mL CAS #: 470-82-6
6	Linalool Linalool 1000 µg/mL CAS #: 78-70-6
7	Volatile Organic Compounds Geraniol Concentration: 1,2,3-Trichlorobenzene 200 µg/mL CAS#: 87-61-6 1,2,4- Trichlorobenzene 200 µg/mL CAS#: 120-82-1 1,2,4- Trimethylbenzene 200 µg/mL CAS#: 95-63-6 1,2- Dichlorobenzene

SL NO	ANNEXURE A PESTICIDE ANALYTE FOR GCMSMS
	<p>200 µg/mL CAS#: 95-50-1</p> <p>1,3,5- Trimethylbenzene 200 µg/mL CAS#: 108-67-8</p> <p>1,3- Dichlorobenzene 200 µg/mL CAS#: 541-73-1</p> <p>1,4- Dichlorobenzene 200 µg/mL CAS#: 106-46-7</p> <p>2- chlorotoluene 200 µg/mL CAS#: 95-49-8</p> <p>4- chlorotoluene 200 µg/mL CAS#: 106-43-4</p> <p>2- Isopropyltoluene 200 µg/mL CAS#: 99-87-6</p> <p>Benzene 200 µg/mL CAS#: 71-43-2</p> <p>Bromobenzene 200 µg/mL CAS#: 108-86-1</p> <p>Chlorobenzene 200 µg/mL CAS#: 108-90-7</p> <p>Ethylbenzene 200 µg/mL CAS#: 100-41-4</p> <p>Isopropyltoluene 200 µg/mL CAS#: 98-82-8</p> <p>m-Xylene</p>

SL NO	ANNEXURE A PESTICIDE ANALYTE FOR GCMSMS
	<p>200 µg/mL CAS#: 108-38-3</p> <p>n-Butylbenzene 200 µg/mL CAS#: 104-51-8</p> <p>n-Propylbenzene 200 µg/mL CAS#: 103-65-1</p> <p>Naphthalene 200 µg/mL CAS#: 91-20-3</p> <p>o-Xylene 200 µg/mL CAS#: 95-47-6</p> <p>p-Xylene 200 µg/mL CAS#: 106-42-3</p> <p>Sec-Butylbenzene 200 µg/mL CAS#: 135-98-8</p> <p>Styrene 200 µg/mL CAS#: 100-42-5</p> <p>Tert-Butylbenzene 200 µg/mL CAS#: 98-06-6</p> <p>Toluene 200 µg/mL CAS#: 108-88-3</p>

CRM for GC-MS-MS (Annexure B)

ISO 17034 Certified

SL. NO.	NAME OF THE PESTICIDE	CAS NO.
1	Bifenthrin	82657-04-3
2	Deltamethrin	52918-63-5
3	Dicofol (Sum of <i>o</i> , <i>p</i> ' and <i>p</i> , <i>p</i> ' isomers)	115-32-2

4	Mancozeb	8018-01-7
5	Zineb	12122-67-7
6	Etoxazole	153233-91-1
7	Fenazaquin	120928-09-8
8	Fenpropathrin	39515-41-8
9	Fenpyroximate	111812-58-9
10	Fluvalinate	69409-94-5
11	Hexaconazole	79983-71-4
12	Lambda cyhalothrin	91465-08-6
13	Oxyfluorfen	42874-03-3
14	Cyflumetofen	400882-07-7
15	Fipronil	120068-37-3
16	Aldrin	309-00-2
17	Dieldrin	60-57-1
18	α -chlordane	5103-71-9
19	β -chlordane	5103-74-2
20	Heptachlor	76-44-8
21	Lindane (Gamma HCH)	58-89-9
22	Alpha HCH	319-84-6
23	Beta HCH	319-85-7
24	Delta-HCH	319-86-8
25	alpha Endosulfan	959-98-8
26	beta Endosulfan	33213-65-9
27	Endosulfan sulphate	1031-07-8
28	Carbofuran	1563-66-2
29	Captafol	2425-06-01
30	Ethion	563-12-2
31	Diazinon	333-41-5
32	<i>p,p'</i> -DDT	50-29-3
33	<i>o,p'</i> -DDT	789-02-6
34	<i>p,p'</i> -DDE	72-55-9
35	<i>o, p'</i> -DDE	3424-82-6
36	<i>p,p'</i> -DDD	72-54-8
37	<i>o, p'</i> -DDD	53-19-0
38	Fenitrothion	122-14-5

39	Fenthion	55-38-9
40	Cypermethrin	52315-07-8
41	Dichlorvos	62-73-7
42	CS ₂	75-15-0
43	Melathion	121-75-5
44	Ferbam	14484-64-1
45	Methyl Parathion	298-00-0
46	Ethyl Parathion	56-38-2
47	Phorate sulfone	2588-04-7
48	Butachlor	23184-66-9
49	β-Cyfluthrin	1820573-27-0
50	Methyl paraoxon	950-35-6

In Page Pg 5 of Buyer Added Bid Specific ATC

"The equipment including all other accessories, ancillaries given in the specifications of the equipment including UPS, UPS Battery, AC machines and furniture etc".

To be read as

The equipment including all other accessories, ancillaries given in the specifications of the equipment including UPS, UPS Battery, AC machines (1.5 Ton, five star rating Quantity 1 No.)and furniture (Vibration free suitable table to place the instrument with PC, Printer, etc)

Form-A: Consignee Receipt Certificate (CRC)
(To be issued by consignee's authorized representative)

[The consignee may issue an additional challan receipt if delivered by courier or transporter]

Date of supply by the Company Person or Courier:	
Name and Address of the Consignee:	
Name of the item supplied (with Make & Model & Model No.):	
Purchase Order /Contract No.:	
Name of the Supplier:	
No. of Units supplied :	
No. Of Box supplied :	
Place of destination (The dept. where the equipment will be actually installed):	
Invoice No. & Date:	
Details of Batch /Serial Numbers, if any of item supplied:	
<p>.....</p> <p>(Signature & Office Seal of authorized representative of Consignees with date)</p> <p>[Name and designation of the signatory to be written capital letter]</p>	

<p>.....</p> <p>...</p> <p>(Signature & Office Seal of Head of the Institute/Hospital with date)</p> <p>[Name and designation of the signatory to be written capital letter]</p>
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Form B: Satisfactory Installation Certificate (SIC)
(To be issued by the consignee after successful commissioning of equipment)

Bid Reference :
Award of Contract Reference :
Description of Equipment/Service :
Date of Commissioning :
Warranty up to :

This is to certify that the equipment(s) as detailed below has/have been received in good condition along with all the standard and special accessories, consumables, set of spares in accordance with the contract/technical specification of the equipment and site preparation including interiors as per bid document.

Details of equipment, accessories, consumables, spares, etc.

SI	Description	Quantity	Serial No. / Part No.
1			
2			
3			
4			
5			

In case of space deficiency, another sheet with the same format can be annexed.

The supplier has also submitted the following,

1. Tools for maintenance
2. Detailed operation and maintenance manual both in hard and soft copy for each item of supply at each location

The proving test has been done to our entire satisfaction. The equipments, its accessories and ancillaries of the site preparation including interiors is functioning satisfactorily and faultlessly

Declaration by Unit Head (HOD/MO-IC/Others) :

Sticker designed by WBMSCL is fitted with the equipment

Yes ☐

No ☐

Signature
with Stamp :

Name (in Block)

P.T.O.

The following operators/ end users have been trained to operate the equipment(s),

SI	Name	Designation	Contact No	E-mail ID (In CAPS)	Signature
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

In case of space deficiency, another sheet with the same format can be annexed.

Countersigned by the head of the institute / hospital:	
Signature _____	Signature of Unit Head: (HOD/MO-IC/Others)
Name _____	
Designation with stamp _____	Name (in Block):
Date _____	
	Designation with Stamp: