fssai

TENDER NOTICE FOR LIQUID CHROMATOGRAPH TANDEM MASS SPECTROMETER (LC-MS/MS) ALONG WITH ALL ACCESSORIES AND SAMPLE PREPARATION FACILITY

Food Safety & Standards Authority of India

Ministry of Health & Family Welfare

FDA Bhawan, Kotla Road

New Delhi – 110002

Letter for invitation:

Dear Sir/Madam,

FSSAI has undertaken a major programme for strengthening of Food Testing System in the country. As part of this programme, 45 State Food Testing Labs will be modernised with the induction of state-of-the-art analytical instruments. FSSAI proposes to enter into rate contract with reputed Original Equipment Manufacturers/Authorized Suppliers in India for the supply of Liquid Chromatograph Tandem Mass Spectrometer (LC-MS/MS)

Sealed tenders are, therefore, invited from reputed manufacturers/Authorized suppliers in India for finalising the rate contract for and on behalf of Food Safety and Standards Authority of India for the purchase of Liquid Chromatograph Tandem Mass Spectrometer (LC-MS/MS). The bids are to be submitted under a two bid system i.e. Technical and Financial Bids in the prescribed format. Financial bids of only technically qualified bidders would be opened.

FSSAI reserves the right to accept or reject any or all of the offers at any stage of the process without assigning any reason thereof and any claim /dispute on this shall not be entertained.

Yours Sincerely,

Head (Quality Assurance)
Food Safety and Standards Authority of India,
FDA Bhawan, Kotla Road, New Delhi – 110002

DATA SHEET

1	Name of Tendering Authority: FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA, FDA Bhavan, Kotla Road, New Delhi.
2	1) **Method of Selection:** Selection of the Bidders will be a two stage process. In the first stage the Bidders will be pre-qualified based on the compliance to specification and other requirement mentioned in the Technical Bids. The bids of only the Technically qualified bidders will be considered for opening the Financial Bid. 2) L1 bidder will be selected from among the technically qualified bidder and all other bidders will be given an opportunity to match the L1 price. Rate contract would be signed with only those bidders who will match the L1 price.
3	A Pre- Bid conference will be held: **Yes** Date: 22nd November 2016 at 12:00 pm Venue: FSSAI HQ Details. A maximum of two representatives of each Bidder shall be allowed to participate on production of a letter from the Bidder. Bidders requiring any clarification on the tender may send their queries to the Head (Quality Assurance), FSSAI by email at softel.fssai@gov.in. All queries should reach FSSAI by Email with an attachment in 'MS-Word format' at least two days prior to the pre-bid conference date as per details provided below. FSSAI shall endeavor to respond to the queries within the specified period specified therein but not less than 5 days prior to the Bid Due Date. FSSAI reserves the right not to respond to any question(s) or provide any clarifications.
4	Point of contact for any queries related to the tender: Head Quality Assurance Food Safety & Standards Authority of India, FDA Bhawan, Kotla Road, New Delhi – 110002

	Tele-No: 011-23220990 Website: http://www.fssai.gov.in Email: softel.fssai@gov.in
5	**The Bidder must submit one copy each of the technical bid and the Financial Bid in separate sealed cover. Bids received in unsealed conditions will be summarily rejected.**
6	The Bidders are required to submit two envelops, one labeled 'Technical Bid' the other labeled 'Financial bid' Both the bids must be sealed in one larger envelop and should be marked, *"Tender for Rate contract for .....(Name of the Equipment)- Do not open except in presence of the Evaluation Committee"* The name of the Bidder submitting the bid must also be clearly indicated on the envelope. Each bid (Technical and Financial separately) shall be page numbered and Financial figures shall be laminated/covered with transparent adhesive tape.
7	The Technical bid must not contain any pricing information. If the technical bid contains any commercial information, the bid is liable to be rejected. In submitting additional information, please mark it as "supplementary" to the required response. If the Bidder wishes to propose additional services (or enhanced levels of services) beyond the scope of this tender, the bid must include a description of such services as a separate and distinct attachment of proposal.
8	Bids must be submitted not later than on **2nd December 2016 at 1730 hours.** Bid received after this will not be entertained or considered.
9	Address for submission of the Bid: Head (Quality Assurance) Food Safety and Standards Authority of India, FDA Bhawan, Kotla Road, New Delhi – 110002
10	Date for public opening of Technical Bids- (To be notified)
11	Date for opening of Financial Bids of Eligible Bidders (to be notified)
12	Expected date for contract negotiations to be notified)
13	Documents to be submitted by the bidder: a) Technical bid in the format prescribed in this document along with supporting documents as mentioned herein with signature, name, designation and seal of the authorized representative of the bidder on each page of the technical bid. b) At least two Performance certificates from the organizations where the quoted equipment model has already been installed are to be provided by the bidder along with Technical bid. c) Financial bid in the format prescribed in this document with signature,

	name, designation and seal of the authorized representative of the bidder on each page of the financial bid. d) Acceptance of the terms and conditions contained herein in the format as given in the tender document.
14.	FSSAI reserves the right to accept or reject any or all of the offers at any stage of the process without assigning any reasons thereof and any claim /dispute on this shall not be entertained.

1. INTRODUCTION

The Food Safety and Standards Act, 2006 was enacted in 2006 in order to consolidate all the laws relating to food and to establish the Food Safety and Standards Authority of India (FSSAI) for laying down science-based standards for articles of food and for regulating their manufacture, storage, distribution, sale and import, for ensuring availability of safe and wholesome food for human consumption in the Country. By virtue of the mandate given to FSSAI, Rules and Regulations hitherto implemented under various regulatory orders were repealed with effect from 5th August 2011.

The Food Authority is mandated to lay down the procedure, guidelines and notification of the accredited laboratories. FSSAI may notify laboratories and research institutions accredited by NABL or any other accreditation agency. In addition to above, it also mandates the Food Authority to develop regulations for food testing laboratories, protocols for testing, audit of food safety systems and undertaking training and capacity building for laboratory staff and professional food analysts.

2. SCOPE OF THE WORK:

The scope of the work is divided into following components:

a) Providing, Installing and commissioning Testing of the equipment Liquid Chromatograph Tandem Mass Spectrometer (LC-MS/MS)) along with all accessories and sample preparation facility.

b) Provision of Manpower

c) Operation and maintenance of equipment during the contract period

4.a Equipment to be provided:

Liquid Chromatograph Tandem Mass Spectrometer (LC-MS/MS) along with all accessories and sample preparation facility as per the specification given in the technical Bid format.

Note:

a) The cost should be quoted separately for all the accessories, consumables, equipment for sample preparation, CRM etc required for the functioning of the respective equipment.
b) The purchased equipment should be able to meet the requirements of the LOD and LOQ (Limit of detection and Limit of quantification) for the relevant parameters as specified in FSSR, FSSAI Manuals, Relevant test methods and be compliant to the requirements of ISO 17025.

4.b Manpower to be provided:

Successful bidder will have to provide full time one trained personnel for three years who will be responsible for the working of the instrument i.e. sample preparation, method validation, operation of instrument and data interpretation. The personnel will not claim to be an employee of FSSAI/ state Laboratory. The person will work under the supervision of state laboratory head and carry out the required analysis of various samples received in the lab. He will also be responsible for providing training on the instrument to the laboratory staff.

Bidders will have to maintain backup of the manpower supplied in case of prolonged leave or any unforeseen circumstances.

In case the person provided by the bidder is found to be involved in any unlawful activity, the bidder will be liable to remove him immediately and provide a replacement. The decision of the state food lab would be final and binding to the bidder in this regard.

3. FORMAT OF THE TECHNICAL BID:

The bids of only the technically qualified bidders will be eligible for consideration for opening of financial bid. The technical bid of the bidders will be evaluated on the basis of specification of the offered model vis-à-vis the prescribed specification given below :

1. **Name of the Equipment: .....**
2. **Offered Model: .....**
3. **Brief details of the offered Model:** (in terms of sensitivity, specification, LOD, LOQ, etc.) (not more than 150 words)
4. **Specification: .....**

S. No.	Main Heads/ Components	Prescribed Specification	Please specify whether the quoted model meets the specification (Yes/No)	Specification of the Quoted Model
1.	**LC-MS/MS**	A compact High resolution LC-MS/MS equipment for qualitataive and quantitative estimation of food contaminants (Pesticides, Mycotoxins, antibiotics etc) residues analysis with user friendly software to meet the global food regulations like EU/USFDA/Japan/FSSAI, etc		
1.1.	**Mass Stability**	0.1 Da over 24 hours (please provide graphical data)		
1.2.	**Dynamic range**	Should be 5 orders of magnitude or better		
1.3.	**Mass analyzer**	**Quadrupole Analyzer:** • The instrument should be configured with a quadrupole mass filter for the efficient transmission of ions in MS mode and selection of precursor ions for MS-MS analysis • The Quadrupole mass range 20 – 1200 m/z or better • The Analyzer should have more than one aspect for the efficient ion separation with maximum resolution.		

1.4.	**Sensitivity**	Lower detection and highest sensitivity • ESI positive Ion Sensitivity: The signal/noise ratio for 1pg of reserpine should be >75000:1 or better, in MRM mode of reserpine at the transition m/z 609 – m/z 195(Proof document/application note to be enclosed along with technical tender document). • ESI negative Ion Sensitivity: The signal/noise ratio for 1pg of chloramphenicol should be >30000:1 or better, in MRM mode of chloramphenicol at the transition m/z 321 – m/z 152(Proof document/application note to be enclosed along with technical tender document).		
1.5.	**Scan speed**	• Should have the scan speed of 12,000 amu per sec or better		
1.6.	**Ionization**	• Electrospray with Concentric Gas Flow for Nebulisation to cover flow rates upto 2ml/min. • Multimode Ionization: ESI / APCI combined source: A combined ESI/APCI source must be provided as standard with the instrument. ESI and APCI ionization must be achieved using a single probe. It should able to perform both ESI and APCI in a single run with 25 ms or better switching capability.		
1.7.	**Source Interface**	• Orthogonal off-axis spray (Electrospray) or any other equally efficient technology capable of avoiding interference from solvents and other extraneous matter. • Interface should maintain cleanliness of ion optics and capable of handling large batches of complex samples. • Capable of handling large batches of complex sample matrix like Animal feeds, Fish and fishery products, poultry and poultry products, Honey, Milk and Milk products, Agriculture products (Fruits &		

		Vegetables) etc. over a long period of time without performance degradation • Cleaning of source should be done without venting the system and facility to vacuum interlock. • Interface capable of ambient temperature operation and without complex apertures to maintain structural integrity of thermally labile and fragile molecules.		
1.8.	**Integrated Fluidic Device(to minimize space and tubing)**	• An infusion device must be integral to the instrument and must be controllable from the instrument software. At least 2 user-changeable sample vials should be built into the system to allow tuning and calibration solutions to be infused into the probe via the switching valve.		
1.9.	**Polarity switching time**	• +ve / -ve polarity switching time between alternate MRM scans should be 20 msec or better with supporting documents		
1.10.	**Vacuum System**	• Robust high efficiency vacuum system with minimum maintenance and utility with low noise level. • Vacuum read backs must be digitally monitored and controlled through software to ensure fail-safe operation in the event of power failure. • All accessories required for the proper functioning of the vacuum system should be supplied. • Fore line pump: Oil free Scroll type pump with arrangements of AUTO-ON after Power auto age. • High vacuum pump must be Turbomolecular pump: 250 L/Sec or better		
1.11.	**Gas Control**	• All gases must be controlled by the software.		

1.15.	**Operating modes**	• Mass spectrometer should have the following scan options:
		  • Full scan
		  • Selected Ion monitoring/ recording (SIM/SIR)
		  • Product ion scan
		  • Precursor ion scan
		  • Neutral loss scan
		  • Multiple Reaction Monitoring (MRM)
		  • MS and MS/MS in a single		

		injection with matrix background monitoring.(Proof document /application note to be enclosed along with technical tender document with onsite verification) • Simultaneous full scan and MRM or better		
1.16.	**Detector**	• A high sensitivity, high throughput detector with zero dead time, low noise and high accuracy at low level detections. • An off-axis dynolite photomultiplier/Electron Multiplier detector • Detector must operate in both positive and negative ion modes. • Capable of switching polarity rapidly. • Should have a better long life. (Life time shall be furnished and the better one will be given preference during technical evaluation).		
1.17	**Nitrogen Generator**	• Should be supplied with the system along with the trouble free inbuilt compressor and appropriate capacity reservoir which should be sufficient enough to deliver the gases (purity > 99.999%) required to run the system • Should be complete with all necessary accessories with Two Years comprehensive warranty with at least one Preventive maintenance along with PM kit each year and Three years CMC after the warranty period including all spares, accessories and consumables , at least one Preventive maintenance along with PM kit each year and unlimited breakdown visits		
1.18	**Vacuum Manifold with compatible SPE Cartridges**	• Minimum 10 cartridges extraction at one time • Minimum 1000 cartridges for different analytes i.e pesticide residues, antibiotic residues etc		
2.	**High Performance Liquid Chromatography System**	• Binary solvent system with vacuum degasser, Auto sampler, Column oven C18, C8, normal phase (Silica) and suitable guard column. • The complete system and the MS should be controlled by the single software		

		• PUMP: Binary pump pressure handling capability. Operating flow range should be 0.010-2.0ml/min or better with 1µl increments • Autosampler: with 1 to 10 ul/min injection, minimum of 100 samples capacity. Capability to handle pressure range of 18000 psi or better. • Column Oven: 10°C below ambient to 90°C, capability to accommodate a minimum of 2 columns of 25-30 cm each. Temperature Stability: ±0.1°CTemp. Accuracy:±0.5°C • DAD/PDA Detector: 190-800 nm, 80 Hz, Standard flow cell with flow cell of 0.5 ul or better		
3.	**Spares and accessories**	• LC-MS/MS startup kit should be supplied as standard. • All required traceable standards for Mass calibration and tuning, HPLC calibration should be provided • 5µl, 10µl, 20µl, 50µl, 100µl loops, Vacuum pump oil, etc. and any other material required to make the instrument functional should be provided. • Standard Tool kit should be provided for Instrument maintenance • Reputed highly branded solvent filtration unit with pump and required accessories 02 nos		
4.	**System Controller and Operating system**	• Software must be Multitasking type. It must acquire and process the data simultaneously • Application manager must be compatible with data of full scan, SIM/SIR or MRM • Data Acquisition, Peak Integration, Calibration, Quantification and QC calculations must be fully automated. • The Quantification method editor must be viewable in page view or spreadsheet. • Application manager must allow to monitor the molecular ion and up to 04 (four) • Confirmatory ions or better.		

		• Must be capable of performing the following functions and should be upgradable:
		  • Workstation must be able to control the MS, acquire, store, process and reproduce the data by the same computer.
		  • Workstation must be able to control LC, Detector and auto sampler.
		  • It must be able to regulate the gas pressure and flow during the data acquisition and append to the relevant data file.
		  • Software must have automated calibration and Quantitative optimization.
		  • Automated MS to MS/MS switching during a single run with user selectable criteria
		  • Perform alternating positive/negative scans in one run
		  • Automated Quantitation and reporting of acquired samples.
		  • Data may be processed as it is being acquired		

5.	**Calibration Standards** **with a minimum expiry period of two years**	• Two sets each NIST or other traceable standards for all the Pesticides, Mycotoxins, antibiotics as per FSSAI requirement.		
6.	**PC with Printer**	• Minimum Intel core i5/i7 processor, 2.0 Ghz or more, 19″or more LCD/TFT Monitor, 500 GB HDD, DVD Read/Write, 4 GB RAM,4 USB Port or higher configuration for use with the above system to be provided. • Reputed Branded automatic back to back colour Laser jet printer should be provided		
7.	**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.		
8.	**Additional items**	• Consumables for seven years operation of the system for main unit are required to be quoted for analysis in multiples of 100		

		samples. • 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 LC-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. PLEASE PROVIDE MAINTENANCE CHART FOR ALL OF THE COMPONENTS IN LC-MS/MS SYSTEM.		
9.	**Operation and maintenance & Training Component**	• 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 and a training at the suppliers lab premises is also required. • One trained personnel should be provided by instrument suppliers for seven years who will be responsible for the working of the instrument i.e. sample preparation, method validation, operation of instrument and data interpretation. The personnel will not claim as an employee of FSSAI/ state Laboratory. The personnel will work under state laboratory head. He will also be responsible for providing training of the instrument to the laboratory staff.		
10.	**IQ/OQ/PQ**	• IQ/OQ/PQ of the system is required		
11.	**Warranty**	• Standard Warranty of 24 months starting from date of satisfactory and faultless		

		functioning of the equipment for 60 days at the respective laboratory premises. • Comprehensive Maintenance Contract Service for 60 months after expiry of standard Guarantee/Warranty should be quoted • Annual calibration of the equipment shall be a part of the CMC. It shall also be mandatory to perform calibration after every major repair/breakdown. • The vendor should have available for ten years guaranteed parts and CMC service • 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. • 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) • Number and details of the service engineers has to be provided • Onsite performance evaluation of the equipment will be carried out for those who qualify in the technical bid.		
12.	**Preinstallation requirements**	• Provide all preinstallation requirements		

5. **List of Installations of the quoted Model preferably in food analysis sector in India** (Attach Performance certificate from the organizations where the quoted equipment has already been installed)

Note:

- The technical bids have to be filled in the above format only. Separate application notes and details can be attached but the above format is to be filled mandatorily.
- List of the 5 Installations in country, preferably in Food sector along with the Contact Name, contact no, mail ID and complete address should be enclosed with the technical bid.
- At least two Performance certificate (indicating LOD/LOQ of at least 10 parameters relevant to food sector) from the organizations where the quoted equipment has already been installed to be provided by the bidder along with Technical bid.
- The supplier should aim at a turnkey supply and installation of the equipment. Any accessory which is felt mandatory for the proper working of the equipment but not mentioned in the specification has to be quoted and supplied along with.

- Any unfair practice at any stage of the tendering process will lead to automatic disqualification of the concerned firm.
- No financial costs should be mentioned in the technical bid and the same shall be provided separately in a sealed envelope marked financial bid.
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I ..... (Name of the person) Authorized signatory of M/S ..... (Name of the firm) herby agree to all the term and conditions. FSSAI in its own discretion can cancel /modify the tender process and FSSAI will have the right to accept or reject any or all Bids and to annul the qualification process at any stage without any liability or any obligation for such acceptance, rejection or annulment, without assigning any reasons.

Name:
Signature:
Date:
Seal:

(To be filled in the format given above and signed by the authorized representative of the bidder.)

4. FORMAT FOR FINANCIAL BID:

S. No.	Specifications	Prescribed Requirement	Price in INR
1.	**LC-MS/MS**	A compact High resolution LC-MS/MS equipment for qualitataive and quantitative estimation of food contaminants (Pesticides, Mycotoxins, antibiotics etc) residues analysis with user friendly software to meet the global food regulations like EU/USFDA/Japan/FSSAI, etc	
1.1	**Mass Stability**	0.1 Da over 24 hours (please provide graphical data)	
1.2	**Dynamic range**	Should be 5 orders of magnitude or better	
1.3	**Mass analyzer**	**Quadrupole Analyzer:** • The instrument should be configured with a quadrupole mass filter for the efficient transmission of ions in MS mode and selection of precursor ions for MS-MS analysis • The Quadrupole mass range 20 – 1200 m/z or better • The Analyzer should have more than one aspect for the efficient ion separation with maximum resolution.	
1.4	**Sensitivity**	Lower detection and highest sensitivity • ESI positive Ion Sensitivity: The signal/noise ratio for 1pg of reserpine should be >75000:1 or better, in MRM mode of reserpine at the transition m/z 609 – m/z 195(Proof document/application note to be enclosed along with technical tender document). • ESI negative Ion Sensitivity: The signal/noise ratio for 1pg of chloramphenicol should be >30000:1 or better, in MRM mode of chloramphenicol at the transition m/z 321 – m/z 152(Proof document/application note to be enclosed along with technical tender document).	
1.5	**Scan speed**	• Should have the scan speed of 12,000 amu per sec or better	
1.6	**Ionization**	• Electrospray with Concentric Gas Flow for Nebulisation to cover flow rates upto 2ml/min. • Multimode Ionization: ESI / APCI combined source: A combined ESI/APCI source must be provided as standard with the instrument. ESI and APCI ionization must be achieved using a single probe. It should able to perform both ESI and APCI in a single run with 25 ms or better switching capability.	

1.7	**Source Interface**	• Orthogonal off-axis spray (Electrospray) or any other equally efficient technology capable of avoiding interference from solvents and other extraneous matter. • Interface should maintain cleanliness of ion optics and capable of handling large batches of complex samples. • Capable of handling large batches of complex sample matrix like Animal feeds, Fish and fishery products, poultry and poultry products, Honey, Milk and Milk products, Agriculture products (Fruits & Vegetables) etc. over a long period of time without performance degradation • Cleaning of source should be done without venting the system and facility to vacuum interlock. • Interface capable of ambient temperature operation and without complex apertures to maintain structural integrity of thermally labile and fragile molecules.	
1.8	**Integrated Fluidic Device(to minimize space and tubing)**	• An infusion device must be integral to the instrument and must be controllable from the instrument software. At least 2 user-changeable sample vials should be built into the system to allow tuning and calibration solutions to be infused into the probe via the switching valve.	
1.9	**Polarity switching time**	• +ve / -ve polarity switching time between alternate MRM scans should be 20 msec or better with supporting documents	
1.10	**Vacuum System**	• Robust high efficiency vacuum system with minimum maintenance and utility with low noise level. • Vacuum read backs must be digitally monitored and controlled through software to ensure fail-safe operation in the event of power failure. • All accessories required for the proper functioning of the vacuum system should be supplied. • Fore line pump: Oil free Scroll type pump with arrangements of AUTO- ON after Power auto age. • High vacuum pump must be Turbomolecular pump: 250 L/Sec or better	
1.11	**Gas Control**	• All gases must be controlled by the software.	

1.12.	**Operating modes**	• Mass spectrometer should have the following scan options:
		  • Full scan
		  • Selected Ion monitoring/ recording (SIM/SIR)
		  • Product ion scan
		  • Precursor ion scan
		  • Neutral loss scan
		  • Multiple Reaction Monitoring (MRM)
		  • MS and MS/MS in a single injection with matrix background monitoring.(Proof document	

		/application note to be enclosed along with technical tender document with onsite verification) • Simultaneous full scan and MRM or better	
1.16.	**Detector**	• A high sensitivity, high throughput detector with zero dead time, low noise and high accuracy at low level detections. • An off-axis dynolite photomultiplier/Electron Multiplier detector • Detector must operate in both positive and negative ion modes. • Capable of switching polarity rapidly. • Should have a better long life. (Life time shall be furnished and the better one will be given preference during technical evaluation).	
1.17	**Nitrogen Generator**	• Should be supplied with the system along with the trouble free inbuilt compressor and appropriate capacity reservoir which should be sufficient enough to deliver the gases (purity > 99.999%) required to run the system • Should be complete with all necessary accessories with Two Years comprehensive warranty with at least one Preventive maintenance along with PM kit each year and Three years CMC after the warranty period including all spares, accessories and consumables , at least one Preventive maintenance along with PM kit each year and unlimited breakdown visits	
1.18	**Vacuum Manifold with compatible SPE Cartridges**	• Minimum 10 cartridges extraction at one time • Minimum 1000 cartridges for different analytes i.e pesticide residues, antibiotic residues etc	
2.	**High Performance Liquid Chromatography System**	• Binary solvent system with vacuum degasser, Auto sampler, Column oven C18, C8, normal phase (Silica) and suitable guard column. • The complete system and the MS should be controlled by the single software • PUMP: Binary pump pressure handling capability. Operating flow range should be 0.010-2.0ml/min or better with 1µl increments • Autosampler: with 1 to 10 ul/min injection, minimum of 100 samples capacity. Capability to handle pressure range of 18000 psi or better. • Column Oven: 10°C below ambient to 90°C, capability to accommodate a minimum of 2 columns of 25-30 cm each. Temperature Stability: ±0.1°CTemp. Accuracy:±0.5°C • DAD/PDA Detector: 190-800 nm, 80 Hz, Standard	

		flow cell with flow cell of 0.5 ul or better	
3.	**Spares and accessories**	• LC-MS/MS startup kit should be supplied as standard. • All required traceable standards for Mass calibration and tuning, HPLC calibration should be provided • 5µl, 10µl, 20µl, 50µl, 100µl loops, Vacuum pump oil, etc. and any other material required to make the instrument functional should be provided. • Standard Tool kit should be provided for Instrument maintenance • Reputed highly branded solvent filtration unit with pump and required accessories 02 nos	

4.	**System Controller and Operating system**	• Software must be Multitasking type. It must acquire and process the data simultaneously
		• Application manager must be compatible with data of full scan, SIM/SIR or MRM
		• Data Acquisition, Peak Integration, Calibration, Quantification and QC calculations must be fully automated.
		• The Quantification method editor must be viewable in page view or spreadsheet.
		• Application manager must allow to monitor the molecular ion and up to 04 (four)
		• Confirmatory ions or better.
		
		• Must be capable of performing the following functions and should be upgradable:
		  • Workstation must be able to control the MS, acquire, store, process and reproduce the data by the same computer.
		  • Workstation must be able to control LC, Detector and auto sampler.
		  • It must be able to regulate the gas pressure and flow during the data acquisition and append to the relevant data file.
		  • Software must have automated calibration and Quantitative optimization.
		  • Automated MS to MS/MS switching during a single run with user selectable criteria
		  • Perform alternating positive/negative scans in one run
		  • Automated Quantitation and reporting of acquired samples.
		  • Data may be processed as it is being acquired	

5.	**Calibration Standards** **with a minimum expiry period of**	• Two sets each NIST or other traceable standards for all the Pesticides, Mycotoxins, antibiotics as per FSSAI requirement.	

	two years		
6.	**PC with Printer**	• Minimum Intel core i5/i7 processor, 2.0 Ghz or more, 19"or more LCD/TFT Monitor, 500 GB HDD, DVD Read/Write, 4 GB RAM,4 USB Port or higher configuration for use with the above system to be provided. • Reputed Branded automatic back to back colour Laser jet printer should be provided	
7.	**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.	
8.	**Additional items**	• Consumables for seven years operation of the system for main unit are required to be quoted for analysis in multiples of 100 samples. • 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 LC-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. PLEASE PROVIDE MAINTENANCE CHART FOR ALL OF THE COMPONENTS IN LC-MS/MS SYSTEM.	
9.	**Operation and maintenance training component**	• 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 and a training at the suppliers lab premises is also required. • One trained personnel should be provided by instrument suppliers for three years who will be responsible for the working of the instrument i.e. sample preparation, method validation, operation of instrument and data interpretation. The personnel will not claim as an employee of FSSAI/ state Laboratory. The personnel will work under state laboratory head. He will also be responsible for providing	

		training of the instrument to the laboratory staff.	
10.	**IQ/OQ/PQ**	• IQ/OQ/PQ of the system is required	
11.	**Warranty**	• **Standard Warranty of 24 months starting from date of satisfactory and faultless functioning of the equipment for 60 days at the respective laboratory premises.** • **Comprehensive Maintenance Contract Service for 60 months after expiry of standard Guarantee/Warranty should be quoted** • **Annual calibration of the equipment shall be a part of the CMC. It shall also be mandatory to perform calibration after every major repair/breakdown.** • **The vendor should have available for ten years guaranteed parts and CMC service** • 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. • 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) • Number and details of the service engineers has to be provided • Onsite performance evaluation of the equipment will be carried out for those who qualify in the technical bid.	

Pre installation requirements: List out all pre-installation requirements (which are to be provided by the Lab)

Note:

1. The financial bid has to be filled necessarily in the format given above and has to be signed by the authorized representative of the bidder with full name designation and seal on each page.
2. Price quoted should be valid for minimum 2 years.
3. Explanatory notes if so desired can be separately submitted along with the financial bid but financial bid in the above format is required to be submitted.
4. All the payment terms and condition should be clearly mentioned along with the financial bid.
5. All costs to be quoted shall be exclusive of taxes.

I ..... (Name of the person) Authorized signatory of M/S ..... (Name of the firm) herby agree to all the term and conditions. FSSAI in its own discretion can cancel /modify the tender process and FSSAI will have the right to accept or reject any or all Bids and to annul the qualification process at any stage without any liability or any obligation for such acceptance, rejection or annulment, without assigning any reasons.

Name:
Signature:
Date:
Seal:
(To be filled in the format given above and signed by the authorized representative of the bidder.)

Terms and Conditions of the Contract:

Liability of the successful bidder:

1) List of the 5 Installations in country, preferably in Food sector along with the Contact Name, contact no, mail ID and complete address should be enclosed with the technical bid.
2) At least two Performance certificate with LOD/LOQ from the organizations where the quoted model of the equipment has already been installed to be provided by the bidder along with Technical bid.
3) Price quoted should be valid for minimum 2 years.
4) The bidders need to give an undertaking that application support and services would be available for minimum 10 years.
5) Service support should be available throughout the country with a maximum turn around time of 3 working days.
6) 5% of the cost of equipment need to be submitted as Performance Bank Guarantee at the time of placing the order by the respective lab.
7) The successful bidder shall have complete responsibility for the equipment in consultation with the staff of state lab where the equipment will be installed. In the event of any equipment going out of calibration the successful bidder shall be responsible for carrying out required repairs and adjustments.
8) The bidders will have to enter into tripartite agreement with FSSAI and with the respective state Governments before placement of actual supply order for the equipment

I ..... (Name of the person) Authorized signatory of M/S ..... (Name of the firm) herby agree to all the term and conditions. FSSAI in its own discretion can cancel /modify the tender process and FSSAI will have the right to accept or reject any or all Bids and to annul the qualification process at any stage without any liability or any obligation for such acceptance, rejection or annulment, without assigning any reasons.

Name:
Signature:
Date:
Seal: