

# School of Biological Sciences MADURAI KAMARAJ UNIVERSITY



(University With Potential For Excellence) Madurai 625 021, Tamil Nadu. India.

**TENDER NOTIFICATION** (NO. MKU/SBS/FIST/01/2020) Sealed Tenders (two-cover system) are invited for the following equipment for School of Biological Sciences, Madurai Kamaraj University, Madurai.

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ITEM No.	<b>EQUIPMENT</b>	
1	Supply and Installation of GC-MS-MS	
Last date for Submission: 30-01-2020 until 3.00 pm.		
Tender announcement date: 09-01-2020. Details available at		
www.mkuni	versity.ac.in The Coordinator, FIST	
	School of Biological Sciences, MKU	

The amendments to the specifications, made on 23-01-2020, in response to the request of the firms, are highlighted in Green colour in this document.



# MADURAI KAMARAJ UNIVERSITY

(UNIVERSITY WITH POTENTIAL FOR EXCELLENCE)
Palkalai Nagar, Madurai 625 021, Tamil Nadu. INDIA.



Date: 9.1.2020

#### NO. MKU/SBS/FIST/01/2020

For and on behalf of School of Biological Sciences, Madurai Kamaraj University, the sealed tenders (two-cover system) are invited by The Coordinator, FIST, School of Biological Sciences, Madurai Kamaraj University, Madurai 625 021, under the DST-FIST program, for the supply and installation of the following equipment, from the Reputed Suppliers/executors.

ITEM No.	NAME OF THEEQUIPMENT	EMD Amount (1 % of the estimate cost)	Period of Contract
1.	Supply and Installation of GC-MS-MS	Rs. 75,000/-	90 days

Tenders are invited until **03.00 pm on 30.01.2020** which will be opened by the Technical/Purchase Committee constituted by the Authorities of Madurai Kamaraj University at School of Biological Sciences at 03.30 pm on the same day in the presence of the Tenderers or their agents who choose to be present at the time of opening.

The specifications, terms and conditions are available in the University website <u>www.mkuniversity.ac.in</u> from 09-01-2020. The tender documents are available for downloading free of cost at the websites.

The Coordinator FIST Program School of Biological Sciences Madurai Kamaraj University Madurai-625021

### **TENDER SCHEDULE**

Tender Announcement Date: 09-01-2020

Publication Date on Portal: 09-01-2020

Last date for Submission: 30-01-2020, until 3.00 PM

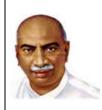
Tender-Technical Bid Opening: 30-01-2020, at 3.30 PM

Price-Bid-Opening: Will be intimated to the qualified bidders.



# School of Biological Sciences Madurai Kamaraj University





# **TENDER DOCUMENT**

Terms and condition for the **Supply & Installation of GC-MS-MS** for School of Biological Sciences, Madurai Kamaraj University, Madurai – 625 021, as per Guidelines of Government of Tamil Nadu Tender Transparency Act for the purchase of equipments by Government Departments, Undertakings and Autonomous Bodies [April 1998]

#### 1. DUE DATE AND TIME

Sealed Tenders are invited by The Coordinator, FIST, School of Biological Sciences, Madurai Kamaraj University under two cover system from the reputed manufacturing concerns or Original Equipment Manufacturer/ their regional Agents / Authorized dealers and suppliers for the **Supply & Installation of GC-MS-MS**, as per specifications indicated in the Commercial bid.

The duly filled Tender forms containing the Technical Bid and Commercial Bid should reach **on or before 03.00 p.m of the date specified in the tender schedule**. Tenders received after due date and time will be summarily rejected.

The EMD amount of 1% of the estimated cost (specified in page no. 2) should be enclosed in the Technical bid only.

#### 2. MODE OF DESPATCH

Tenders should be addressed to the **Co-ordinator**, **FIST Program**, **School of Biological Sciences**, **Madurai Kamaraj University**, **Madurai – 625 021**, by designation and should be only in sealed covers by Registered or Speed Post with Acknowledgement due or in person. Tenders received in ordinary covers without seal will not be considered.

#### 3. SUPERSCRIPTION

The Tender should be sealed and superscribed as "<u>Tender for Supply & Installation of GC-MS-MS"</u> for School of Biological Sciences, Madurai Kamaraj University, Madurai – 625 021, due on **the date and time specified in the Tender schedule of this document.** 

The Tender document relating to the Technical Bid duly filled in and signed must be put in sealed cover super scribed as <u>"Technical Bid".</u> The Tender document relating to the Commercial Bid must be duly filled in and signed and must be put in a sealed cover separately, super scribed as <u>"Commercial Bid".</u> The sealed Tender cover containing the Technical Bid (with EMD) and Commercial Bid should be sent to the The Coordinator, FIST Program, School of Biological Sciences, Madurai Kamaraj University, Madurai – 625 O21. Covers received without such superscription will be summarily rejected.

#### **4. EARNEST MONEY DEPOSIT**

Each Tender should be accompanied by Earnest Money Deposit of E.M.D. of **Rs.75,000**/-(1% of the estimated cost) by Demand Draft drawn in favour of **SB A/C No. 31018927399**, **State Bank of India, Madurai Kamaraj University Branch** or The Coordinator, FIST, School of Biological Sciences, Madurai Kamaraj University, Madurai. The Earnest Money Deposit of any unsuccessful tenderers will be returned after the acceptance of the successful tender, at the expenses of the Tenderers within a reasonable time consistent with the rules and regulation on this behalf. The above **EARNEST MONEY DEPOSIT** amount held by the University till it is returned to the Tenderers would not earn any interest there for. Earnest Money Deposit of the successful Tenderer may be adjusted towards security deposit for the successful tenderer.

#### **5. ELIGIBILITY CRITERIA**

The bidders must fulfil the following Eligibility conditions and also submit documentary evidence in support of fulfilling these conditions while submitting the Technical Bid. The University will consider the Commercial Bid of the vendors who qualify in the Technical bid. For those vendors who are not qualified in the Technical Bid, the Commercial bid will not be considered. The bidder should have the record of

- i) Installations at reputed institutions / organizations,
- ii) Sufficient service back-up in Tamil Nadu / South India for all types of related works.
- iii) The Tenderer should submit the latest **Income Tax and Commercial Tax Clearance certificates**
- iv) The Tenderer should submit the GST No.
- v) The bidder should have at least three years experience and focus on related business, as on 31-12-2019
- vi) A minimum average annual turnover 10 times the approximate cost of the quote value of the items to be purchased in the last three years.

#### **6.DETAILS TO BE FURNISHED AND MODE OF PRESENTATION**

The Tender should contain particulars like name and addresses of the Tenderers, net rate including GST/excise duty, custom duty\* (for imported item, clearing and forwarding charges, surcharge, GST, freight, octroi, insurance for delivery, delivering up to the point, installation and commissioning of the equipment and such other levies that may be applicable.

- a. The rates should be kept firm for **Ninety days** from the date of the opening of the Tenders for acceptance.
- b. The rate should be quoted for each item with specification and model if applicable and should be indicated clearly both in words and figures. Any **scoring or overwriting** should be attested by the Tenderer with full signature. The rate quoted should be firm and **should not be subject** to any variation clauses.
- c. The <u>University shall not pay any increase in duties, taxes and</u> surcharges on account of any revision by the Government at the time of supply and installation.
- d. Supply of the equipment and other accessories shall be as per the specifications mentioned in the corresponding Appendixes and according to the delivery and installation schedule indicated.

#### 7. OPENING OF TENDERS:-

The tenders received upto 03.00 p.m. **on the date specified in the Tender Schedule** will be opened by the Technical/Purchase committee at 03.30 p.m. on the same day in the presence of those Tenderers or their representatives who may be present at the time of opening. The representatives of the Tendering firm who are attending the opening of the Tenders should bring a letter of authority from the Tendering firms which they represent to identify their bonafide.

#### **8. AGREEMENT:**

- a. The successful tenderer should execute an agreement for the fulfillment of the contract in the stamp paper in the model form enclosed in Appendix, within fifteen days from the date of acceptance of the tender
- b. The expenses incidental to the executing of agreement shall be borne by the successful Tenderer.
- c. The conditions stipulated in the agreement form should be strictly adhered to and violation of any of the conditions will entail termination of the contract without prejudice to the rights of the University and recovery of any consequential loss from the successful Tenderer.

#### 9. SECURITY DEPOSIT:

- a. The successful Tenderer will be required to remit the <u>Security Deposit</u> equivalent to <u>Five percent</u> of the value of the Purchase order within <u>fifteen days</u> from the date of receipt of communication/intimating them of the acceptance of the Tenders. If the accepted Tenderer fails to remit the Security Deposit within the above said period, the Earnest Money Deposit remitted by him will be forfeited to the Madurai Kamaraj University and his Tender will be held void. Purchase order will be released after execution of the above contract by the successful Tenderer and after remitting the Security Deposit by way of Demand Draft / Bankers' cheque / irrevocable bank guarantee drawn in favour of SB A/C No. 31018927399, State Bank of India, Madurai Kamaraj University Branch or The Coordinator, FIST, School of Biological Sciences, Madurai Kamaraj University, Madurai.
- b. The Security Deposit furnished by the Tenderer in respect of his Tender will be returned to him at the **end of the warranty period** (three years) subject to the satisfaction of the University.
- c. In case of successful Tenderer, The Earnest Money Deposit, if paid, may be adjusted towards Security Deposit the Tenderer remitted, if opted by the Tenderer..
- d. If the Tenderer fails to act according to the Tender or backs out when his Tender is accepted, his Security Deposit mentioned above will be forfeited to the University.

#### 10. SUPPLY AND INSTALLATION OF EQUIPMENTS

- a. The supply and installation of equipments/items and other accessories should be made strictly in accordance with the specifications given in the Commercial Bid and should successfully fulfill the tests carried out by the University. The supply and installation should be as per the delivery schedule to be sent by the University along with the placement of firm orders. The successful Tenderer should give guarantee for a period of <a href="three-years">three-years</a> for the equipment and other accessories installed, against breakage or breakdowns due to manufacturing defects. The guarantee period takes effect from the date of satisfactory trial run. The Tenderer shall be liable to make good the loss by replacing the equipment or other accessories found defective during the guarantee period. The equipment hardware should be installed in the premises of the University at the cost and risk of the Tenderer.
- b. The material or goods are to be guaranteed for a period of at least three-years after installation and commissioning against manufacturing defect and bad workmanship. The warranty period specified, will commence from the date of handing over the equipment after running and carrying out successfully the tests prescribed by the University to its satisfaction.
- c. Documents such as operation manuals, software, user manuals and circuit diagrams and other relevant materials shall be provided by the Tenderer along with equipment, free of cost.

- d. If the supply, installation and commissioning of the systems are not effected before the specified period from the date of purchase order, the University shall have the authority to cancel the order and to take any such action which will be deemed fit in the circumstances.
- e. If any manufacturing or other technical defects are found within the specified months from the date of installation, commissioning and handing over the system to the University Authorities, the same will have to be rectified or replaced free of cost by the supplier.
- f. During the warranty period, if due to manufacturing and other technical defects of the equipment supplied, the system is down and if it is not restored in working condition within 48 hours, the supplier shall be liable for a penalty of one percent per week during breakdown period on the total contract price.
- g. The warranty will cover all the materials and goods supplied by the supplier under this contract irrespective of the fact whether these have been manufactured by the supplier or not.
- h. In case of failure by the Tenderer to deliver goods or materials demanded from them within the period specified for delivery or in case of goods or materials being delivered without a correct invoice in duplicate, the Registrar or anyone duly authorized by him shall have power to reject any such goods or materials so rejected or not delivered unless the supplier shall themselves forthwith supply others that shall be sufficient and satisfactory and any excess of cost so incurred by the Tenderer over the contract price together with all charges and expenses attending the purchase shall be recoverable by the University from the supplier.
- i. The successful Tenderer shall supply licensed versions of the equipment systems. The University will not be held responsible for any consequences arising of patent right problems.
- j. The equipment should be demonstrated to the representatives of the Specifications Committee before shipment is effected.

#### 11. PAYMENT OF COSTS:

The terms of payments for purchase of equipments: The total cost of equipments will be paid on installation, commissioning and handing over of the Equipments after testing all the software and fulfilling the technical specifications and also after the submission /payment of security Deposit (5% of the equipment cost. Also could be submitted in the form of Bank Guarantee). The testing that should be carried out for commissioning the material supplied and the satisfactory working of the systems are to be certified by the University.

In case of payment to OMs outside the country, LC/ wire transfer mode payment would be made upon the submission /payment of security Deposit (5% of the equipment cost; also could be submitted in the form of Bank Guarantee).

#### 12. FORFEITURE OF EARNEST MONEY DEPOSIT:

If the accepted Tenderer fails to act according to the tender conditions or backs out after his tender has been accepted, his Earnest Money Deposit will be forfeited to the University.

The successful Tenderer shall not assign or make over the contract, the benefit of burden thereof to any other person or persons or body corporate. He shall not underlet or sublet to any person/s or body corporate for executing the contract or any part thereof.

#### 13. PENALTY FOR NON-FULFILMENT OF TENDER:

Penalty will be levied at the rate of 1% per week on the total contract price if the installation and commissioning has not been completed in full within the stipulated period subject to force majeure conditions. Besides, such performance may entail black listing of the supplier.

#### **14.ACCEPTANCE AND WITHDRAWALS:**

The final acceptance of the tender is entirely vested with <u>University which reserves the right to accept or reject</u> any or all the tender without assigning any reason whatsoever. There is no obligation on the part of the University to communicate with rejected Tenderers. After acceptance of the tender by the University, the Tenderer shall have no right to withdraw his Tender or claim higher price. Tenders with <u>incomplete information</u> will be summarily rejected.

#### **15. POST WARRANTY:**

The post warranty annual maintenance charges (AMC) is applicable for the remaining period after the satisfactory completion of the warranty period offered by the vendor. The annual maintenance charges should be indicated.

The AMC payable from the date of completion of warranty in advance against invoices/bill to be preferred by the vendor. The vendor agrees to provide comprehensive maintenance of the equipment, which shall include preventive maintenance and corrective maintenance at the location specified by the University. The maintenance shall also include replacement of all parts of equipments. The equipment which is down should be restored in good working condition within 48 hours. Otherwise the supplier shall be liable for a penalty of 1% per week of the breakdown period on the total price of the system. The University reserves the right to terminate the maintenance contract in the event of unsatisfactory maintenance and claim damages for nonfulfillment of contract.

#### 16. PENALTY FOR FULFILLMENT OF CONDITIONS

The supplier agrees that in the event of non-fulfillment or non-observance of any of the conditions stipulated in the conditions, the Supplier shall pay as penalty an amount equivalent to 10% (ten) percent of total value of equipment or an amount equal to the actual loss incurred by the purchaser whichever is greater. This provision applies up to the end of the life cycle of the equipments (i.e.) even during the post warranty period.

#### 17. EXEMPTION OF CUSTOMS DUTY AND EXISE DUTY

The Madurai Kamaraj University, being a Research oriented higher education institution, is exempted from paying Excise duty and Customs duty / Concessional Customs Duty. The supplier shall therefore obtain Exemption Certificate from the University, issued by the Government of India, before clearing the consignment.

#### 18. TIME-SCHEDULE

Time-schedule is mandatory. Supply should be made within 45 days for any purchase. If not supplied or part only is supplied, then concurrence for purchase from L2 to be got from L1. If no concurrence is given by L1, then notice to be issued and after 15 days L2 is called and negotiated for the supply at L1 rate, or at a lesser price originally quoted by L2. University is vested with the power of modifying the quantity, time and

alteration in the specification without hindering the requirements. Those who are agreeable for the above terms should only apply for the tender.

# 18. GENERAL

attested by them in token of ac	eir tender should enclose a copy of the conditions stipulated duly certified and cepting the tender conditions that they understood and accepted them in full. ertified copy of the conditions shall be rejected summarily.
I/Wedown above.	have gone through the terms and conditions and will abide by them as laid

SIGNATURE OF THE TENDERER WITH OFFICE SEAL

#### **OTHER APPLICABLE GENERAL CONDITIONS:**

- 1. The quotation must specify the period within which the supply could be effected from the date of receipt firm orders.
- 2. The prices quoted should clearly specify charges for delivery of the goods to destination indicated overleaf.
- 3. Sales tax or any other taxes/GST if applicable should be shown separately giving the full rate of taxes for each items giving ex-incidence of such levies.
- 4. If the rates are under D.G.S. & D. please specify the same clearly enclosing necessary documents.
- 5. The leaflets/ catalogue, etc of the technical features of the offered equipment must be submitted for proper evaluation and would be considered for technical evaluation.
- 6. Dealership certificate on the offered products must be included in case the vendor is a dealer.
- 7. The vendor must have credential in supplying such system in any institute of national importance and similar organizations
- 8. Bidder should have valid Service Tax registration number, GST number and meet all legal requirements.
- 9. Any amendment / corrigendum to the RFP (Request for proposed) document shall be posted on the University Website
- 10. University reserves the right to call for any other details or information from any of the Bidders. Moreover, the University reserves all rights to reject any bid at any time, at any stage, fully or partly for whole process and / or for particular bidder and also reserves all rights at any time to add, alter, modify, change, edit & delete any condition at any stage. MKU also reserves the right to cancel the entire tender process without assigning any reason. In this regard, the decision of University shall be final and binding on all the participant.
- 11. Every page of the RFP document shall be signed by the bidder or by a person duly authorized by the bidder
- 12. Bidder shall submit letter of authorization, authorizing the person signing the RFP document on behalf of the bidder.
- 13. All changes, alterations, corrections in the RFP document shall be signed in full by the person(s) signing the RFP document, with date. No eraser and/or over writing without authentications is/are permissible.
- 14. The complete RFP document along with the documentary evidence should be numbered.
- 15. The bidder shall carefully examine and understand the scope of work, specifications/conditions of RFP and seek written clarifications, if required, to ensure that they have understood all scope of work, specifications/conditions of RFP.
- 16. If the bidder have NSIC certification they will get the NSIC benefits.
- 17. If the bidder, after submission, revokes his bid or modifies the terms and conditions thereof during the validity of his bid except where the University has given opportunity to do so, the earnest money deposit submitted by Bidder shall, in such case, be forfeited.
- 18. The successful bidder i.e. Service Provider, within 15 days of receipt of Letter of Intent or within such extended time as may be allowed by University in its discretion, shall submit a Performance Bank Guarantee for an amount equal to 5% of the contract value having validity of 36 months. In case of extension of maintenance contract, the Service Provider shall submit a fresh Bank Guarantee for the Contract value covering the extended period of AMC.

# **TECHNICAL BID**

# SCHOOL OF BIOLOGICAL SCIENCES, MADURAI KAMARAJ UNIVERSITY, MADURAI – 625 021

Tender Schedule for the Supply & Installation of GC-MS-MS to School of Biological Sciences, Madurai Kamaraj University, Madurai – 625 021.

### **Profile of the Company:**

#### The Company should provide the following details

1. Name of the Organization	
Nature of the Organization     (Govt. / Public / Private / Partnership	
/Proprietorship)	
<ul> <li>(a) Address of the Registered Office of the firm with Phone Number, Cell No, Fax and Email.</li> <li>(b) Year of Establishment (related to Printers business)</li> </ul>	
<ul><li>(c) TNGST &amp; CST Reg No./GST No.</li><li>(d) If approved small scale</li></ul>	
4. Annual turnover for the previous three years as on 31-12-2019  I. General:  II. Equipments listed in tender  Document	
5. Location of the factory with address	
6. Maintenance and service centre facilities in Southern states / other areas and total number of Service Engineers available:	
7. Names of the Government Agencies / Educational Institutions to whom similar Machines have been supplied in the preceding Three year	
8. Total experience in the related areas	
9. Is your Company an original manufacturer of the equipments and related items?	

If yes, state	the specific items you				
Manufacture	2				
	aintenance support does you ovide for the spares	r			
	onditions for up gradation of	:			
• •	system after the warranty				
period?	dann af the carriament				
12. In case of break	down of the equipment,				
	ne mean Downtime? And s	state			
whether standb	y systems will be provided				
13. State the minim	um amount of time required	to			
	tems if your company/				
	n gets the order				
•	ou will agree to supply the vivers for items supplied.				
manuais Di	ivers for items supplied.				
15.EMD PAYMENT		in the Technical Bid only]			
(1) Demand draft	particulars				
SI.No	Name of the bank and Branch DD No. and Date Amount Rs.				
		Signature:			
		Name of the Firm			

Phone/Mobile No.

# **COMMERCIAL BID**

### School of Biological Sciences, Madurai Kamaraj University, Madurai - 625 021

Tender Schedule for the Supply & Installation of GC-MS-MS to School of Biological Sciences. as per Specifications below for the use in Dept. of Genetics, Madurai Kamaraj University, Madurai – 625 02

SI.	Description/Specification	Qty.	Rate Rs.	Total (Inclusive of al Taxes) Rs.
1.				

W	arrantv	Period	l should	be c	learl	v mentioned:		Υ	ears
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- 1. Please indicate the Annual Maintenance Charges per annum on the basic price of Equipments, excise duty, sales tax, etc., year wise for the remaining period of 5 years life cycle after warranty period.
- 2. Indicate the location of service centre, address with phone / fax numbers.
- 3. Indicate No. of Service Engineers available.
- 4. Minimum Time required for contact and Service

# MADURAI KAMARAJ UNIVERSITY School of Biological Sciences DST -FIST

# **Technical Specifications for GC-MS-MS**

### **GC-MS-MS-Specifications**

System should be IEC and ISO Certified and be capable of supporting analysis of volatile organic compounds, metabolite identification, should have inlet equipped with Automatic pneumatic controls for all the gases and should have Chromatography Data system which is based on Microsoft Windows operating system for instrument control, data acquisition, chromatographic deconvolution and library (qualitative and quantitative data).

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Gas	Specification
Chromatography	
Column Oven	<ul> <li>Column oven should have provision to install two or more columns</li> <li>Operating temp range of column oven from near ambient to 450°C or higher</li> </ul>
	Column oven temperature ramp rate of oven should be110°C or better
	Column oven should have possibility to program 15 temp ramps or better
	<ul> <li>Oven cool down (22 °C ambient) 450 to ambient temperature in less than 10 min</li> </ul>
Inlets	GC should be configurable with capillary Split/Splitless injector.
	<ul> <li>Injector with maximum temperature of 400°C</li> </ul>
	Inlets should have Advanced electronic flow control modules with
	<ul> <li>pressure set points range up to 100 psi to support wide &amp; narrow columns.</li> <li>Inlets Split ratio up to 6000:1 and suitable for all capillary column from 50um to 530um.</li> </ul>
Autosampler	Auto-liquid sampler must be included with the vial capacity of 16 or more.
Tandem Mass Spectrometer (Triple Quadrupole)	The following are specifications for a Mass Spectrometer which is to be interfaced in the Gas Chromatography
Specification	<ul> <li>One dual stage turbo molecular vacuum pump for creating high vacuum with ion gauge/equivalent controller</li> <li>Non-coated inert EI source with dual filament heatable up to 300°C</li> </ul>
	<ul> <li>or better</li> <li>Quadrupole with better mass transfering efficiency and heatable up to 180°C</li> <li>Mass range (m/z) up to 1,000amu</li> </ul>
L	riass range (m/2) up to 1,000amu

	<ul> <li>Mass axis stability should be 0.10 amu/24 hours or better</li> <li>Scan rate (electronic) of 20000 u/s or better.</li> <li>Mass resolution, 0.7 to 2.5 daltons</li> <li>Suitable collision cell with the suitable collision gas.</li> <li>Minimum MRM dwell time must be at least 0.5msec</li> <li>MRM speed up to 800 transitions/sec</li> <li>Collision Energy must be selectable up to 60eV</li> <li>Should have GC/MS interface</li> <li>EI MRM IDL 4 fg or less octafluoronaphthalene (OFN) Statistically derived at 99 % confidence level from 8 sequential for 10 fg/μL OFN injection for MS/MS transition of m/z 272 &amp; 222 using 30m column</li> <li>EI MRM S/N: 14,000 or better for 1 μL of 100 fg/μL of OFN S/N for the transition of m/z 272 &amp; 222 using 30m x 0.25mm ID x 0.25um column</li> </ul>
Software Features	<ul> <li>Suitable PC with preloaded software tools should be included</li> <li>Suitable data acquisition software to acquire the data that has optimization tools like determination of precursor and product ions from Scan/SIM data and Optimization of collision energy (CE)</li> <li>Identification of compound spectra with standard libraries and includes chromatographic deconvolution with retention index using application specific database</li> <li>Should have Suitable Quantitation tools for Scan. SIM and MRM datasets.</li> <li>Software to enable easy metabolomie profiling and analysis must be</li> </ul>
Library and Database	<ul> <li>included</li> <li>The system should be supplied with fully compatible i) NIST library (2018 version or higher) and ii) Metabolomic GC/MS Library with 1000+ compounds with GC/MS retention time indexed or MRM data and spectral matching for primary metabolities.</li> </ul>
Accessories & other Items	<ul> <li>Suitable Column and method setup kit accessories to be provided to setup the method.</li> <li>Two columns - One for General Metabolomic Purpose (eg. Mid Polar GC Column) and another for FAME analysis (eg. DB-5 and DB23 or equivalent) of 30 m length should be provided</li> <li>Suitable Carrier Gas Cylinder 2 Nos (Filled with 99.9995% Purity) with Double stage Gas regulators with steel diaphragm, along with all necessary traps for Helium / Argon gas should be supplied.</li> <li>General Chemicals/ Solvents (GC Grade) required for the sample preparation and analysis of 50 samples to be included</li> <li>Standard tool kit for regular maintenance of system</li> <li>Two spare columns, 500 Hundred vials and crimps, MicroLiter Syringe - 5 Nos</li> <li>Headspace component for collection</li> </ul>

	One quantity each of the following items to be supplied along with the
	instrument
	Syringe, 10 uL
	Ferrule, 0.5mm Graphite 0.32 col 10/PK
	<ul> <li>Ferrule, 0.4mm VG cond .25 col lng 10/PK</li> </ul>
	Septa Non-Stick BTO Inlet 11mm 100 pk
	Column nut, universal 2/PK
	Column Nut for MS interface
	<ul> <li>Liner, UI, splitless, singletaper, GW, 5/pk</li> </ul>
	Liner O-Ring, Non-Stick 10PK
	<ul> <li>Filament, high temperature EI for GCMS</li> </ul>
	<ul> <li>CI Filament- 2PK</li> </ul>
	GC/MS Metabolomics standards kit
	• DB-5MS 30m, 0.25mm, 0.25um, 10m DRGRD
	<ul> <li>2 mL Wide Opening Screw Top Glass Vials 100/PK</li> </ul>
	Screw Caps for 2 mL Vials 1Pk
	Required installation kit to be provided.
	Required accessories such as Helium & Nitrogen / Argon Gas purifier
	panel and tubing <del>and methane</del> gas cylinder with regulator should be
	provided
Training	Suitable 10 KVA online UPS (3 phase) with 1 or 2 Hrs back-up.  Must be availed at the Contamon site of well as
Training	Must be provided at the Customer site as well as  Manufacturer's (Declar's facility in India)
m 1 : 10 /	Manufacturer's/Dealer's facility in India
Technical Support /	A full-time technician to operate the machine and to be salaried by  the hidden would be included for the maried of 1 week.
Manpower	the bidder must be included for the period of 1 year
Warranty	Three years Comprehensive Warranty from date of installation of
	equipment
	• Rates should be quoted for Annual Maintenance Contract (AMC) for
	4 <sup>th</sup> and 5 <sup>th</sup> year.