0071/24-15/15gupt

File Ref. No. PUR/IICT/DMS/2252/23-24Dt: 08-07-2024

CPPP Tender ID : 2024_CSIR_199864_1 199757

Minutes of Pre-Bid Conference (PBC) held on 08-07-2024 for proposed procurement of "GC-MS instrument"

Chairpersons / Members of the Technical Sub Committee (TSC) present during PBC including domain experts present during PBC:-

- 1. Dr. N.Lingaiah, Chairman
- 2. Dr. Pratyay Basak, Member
- 3. Dr. Sreepriya Vedantam, Member
- 4. Sri. D. Venkateswara Rao, Member
- 5. IO/PL representatives: Dr U.V.R. Vijaya Sarathi and Dr C. Chandra Sekhar Representatives of the following firm attended the PBC:
 - 1. M/s Smart lab Tech Pvt., Ltd., (Representative of Varian GCMS system)
 - 2. M/s Camtek Labs (Representative of Agillent GCMS System)
 - 3. M/s Thermofisher Scientific (Representative of Thermo GCMS system)
 - M/s Spincotech Systems LLP (Representative of shimadzu GCMS System)

The following points were discussed during the PBC:

1. Query raised by M/s. Smart lab tech Pvt., Ltd., and response of CSIR-IICT:

Query-1:GC MS Specifications: **GC Main frame spec No.2**(Column Oven Temperature) Response: Ambient + 4⁰C to 450⁰C Large Column Oven temperature range accepted in revised GCMS specification

Query-2: GC MS Specifications: GC Main frame spec No. 12(Detector)

Response: Pulsed Helium Discharge Ionization Detector removed in revised GCMS specification

Query-3: GC MS Specification: Auto Sampler: Spec No. 01(Sample rack)

Response: In the revised GCMS Specification we will go with minimum 16 vials or equivalent sample rack

Query-4: GCMS Specifications: **MS detector with EI source**: Spec 01(Sensitivity EI Scan) Response: In the revised GCMS specification Sensitivity EI Scan 1500:1or better for the entire mass range (Helium carrier gas)±0,1amu/48hours

Query-5: GCMS specifications: MS detector EI source: spec 12

Response: In the revised GCMS specifications we removed the statement No.12

Query-6: GCMS specifications: Software for control of GC MS: Spec 02

Response: In the revised GCMS specifications we will be continuing with Audit trail

Query:-7 GCMS specifications: Warranty

Response: In the revised GCMS specifications 3 years warranty proposed

2. Ouery raised by M/s. Camtek Lab, and response of CSIR-IICT:

Query-1: GC MS Specifications: GC Main frame spec No.12 (Detector)

Response: Pulsed Helium Discharge Ionization Detector removed in revised GCMS specification

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Ouerv-2: GCMS specifications: MS detector EI source: spec 12

Response: In the revised GCMS specifications we removed the statement No.12

Ouery-3 Tender document sample preparation and freeze drying Spec 4.4

Response: In the tender document we removed 4.4

Ouery-3: GCMS specifications: Warranty

Response: In the revised GCMS specifications 3 years warranty proposed

4. Query raised by M/s Spincotech Systems LLP and response of CSIR-IICT

Ouery-1: GC MS Specifications: GC Main frame spec No.12(Detector)

Response: Pulsed Helium Discharge Ionization Detector removed in revised GCMS

specification

Ouery-2: GCMS specifications: MS detector EI source: spec 12

Response: In the revised GCMS specifications we removed the statement No.12

Ouery-3: GCMS specifications: Warranty

Response: In the revised GCMS specifications 3 years warranty proposed

Points clarified by CSIR-IICT Team during PBC:

The representatives of the participating firm/further informed that they do not have any issue or suggestion with respect to other points of tendered specifications and related requirements given in the tender document. Participating bidders have been informed that points raised by them during PBC will be examined by CSIR-IICT's Technical Sub Committee (TSC)/Technical team constituted for the purpose of procurement of said equipment and post PBC changes in tendered specifications and requirements to be agreed after due consideration of the same by TSC, if any, will be uploaded in CPPP as part of revised/amended tendered specifications along with CSIR-IICT website www.iict.res.inon . All bidders are requested kindly to take a note of the changes, if any, in tendered specifications subsequent to PBC held today, i.e. 08-07-2024 before they start submitting their online bids through CPPP.

(Dr.SreepriyaVedantam)

Member

(Sri. D. VenkateswaraRao)

Member

Sarathi/Dr C.Chandra sekhar)
IO/PL representation

(Dr N Lingaigh) Chairperson

Revised Specifications/Corrigendum

File Ref. No. PUR/IICT/DMS/2252/23-24Dt: 08-07-2024 CPPP Tender ID: 2024 CSIR 199804_1

GC Mainframe:

- 1. Gas Chromatograph with advanced/Electronic Flow Control for Simultaneous Pressure, Temperature and Flow Programming
- 2. Large Column Oven with Temperature range from ambient +4°C to 450°C or better
- 3. Temperature Accuracy:±1%
- 4. Temperature Uniformity of $\leq 2^{\circ}$ C
- 5. Graphical user interface with large LCD display/Touch screen display
- 6. Constant Pressure/Constant flow mode
- 7. Self-diagnostic function with GLP/GMP support
- 8. Fast data transfer, acquisition speed 300Hz or more -able to "Catch" very sharp peaks
- 9. The maximum heating rate should be 100°C/min or better
- 10. Fast Oven cooling speed 450°C to 50°C within 5 minutes or better
- 11. System should have the capability to accommodate Narrow Bore (0.1 mm i.d) to Wide bore capillary Columns (0.53 mm i.d) Columns or better
- 12. Flame Ionization Detector

Split/Splitless Injector:

- 1. The split ratio setting range: 0-9999.9 or higher
- 2. Number of temperature programming steps: 7 or higher

Auto Sampler:

- 1. The system should have a robotic auto sampler with a tray of minimum 16 vials or equivalent sample rack.
- 2. Injection volume linearity: should be $\pm 0.5\%$

MS detector with EI Source:

- 1. Sensitivity EI Scan(Installation Checkout): 1 pg OFN, m/z 272 should give S/N> 1500:1 or better for the entire mass range (Helium carrier gas) \pm 0.1 amu/48 hours
- 2. Mass stability: \pm 0.1amu/48 hours
- 3. Detector: Electron Multiplier with low noise Overdrive lens giving dynamic range of 8X10⁷ or better
- 4. **Detector Type:** suitable electron multipliers or equivalent detector to reach the required sensitivity
- 5. Scan rate: The mass Spectrometer shall have an electronic scan rate of 20,000 u/sec
- 6. **Inert Ion source:** The mass spectrometer must use an ion source where the metallic parts are constructed from inert material. Ion Source temp controllable from 140-350°C or better stainless steel is not acceptable.
- 7. Mass Range: The instrument must scan from 0.6 to 1090 U or better

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- 8. SIM Capacity: The mass spectrometer shall have the capability to create 100 SIM ion
- 9. **SIM speed**: Down to 0.1 m sec
- 10. Filament: Dual (Automatic Switching during analysis
- 11. High vacuum pumping Speed: The high-vacuum region must utilize an air-cooled high vacuum turbo pump with a minimum pumping speed of 255 L/s (Helium)
- 12. There should be provision for Hydrogen and Nitrogen gas to be used as carrier gas apart from Helium.

Software for Control of GC as well as GCMS:

- 1. 64 bit windows based Software should provide Single point control of all GC Parameters, Injectors and detectors.
- 2. Software should have Security, Audit trail, System check, software integrity and System Suitability test should be included as standard functions.
- 3. Flexible report format i.e for Method, Chromatogram, Mass Spectrum, Peak table, Quantitation result, calibration curve, Status Log, texts, graphics
- 4. It should provide automated tuning and file management functions with Library Search Facility
- 5. There should be User friendly post run analysis facility with flagging
- 6. Complete Software control of vacuum system with Auto start-up/ shut-down and vaccum protection against power failures.

Warranty: 3 year Warranty

All the other tender terms remains unchanged. Bidders may please submit their bids accordingly.

Member

(Dr.SreepriyaVedantam) Member

(Sri. D. VenkateswaraRao)

Member

arathi/Dr C. Chandra sekhar)

L Representatives

(Dr N Lingaiah) Chairperson