



राष्ट्रीय पृथ्वी विज्ञान अध्ययन केंद्र
NATIONAL CENTRE FOR EARTH SCIENCE STUDIES
 (An Institution under the Ministry of Earth Sciences, Govt. of India)
 P.B. No. 7250, Akkulam, Thiruvananthapuram-695 011, Kerala.

क्रय विभाग/PURCHASE DIVISION

हमारा संदर्भ/Our Ref : PUR-PROC/27b/2025-PUR-NCESS

दिनांक/ Dt. 15/10/2026

(To be quoted in all correspondence)

फोन/Phone : (0471) 2511531

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 purchase@ncess.gov.in

जालस्थल/website : www.ncess.gov.in

विषय/Sub: e-Procurement Tender

Dear Sirs,

Please send your offer along with descriptive catalogue/ pamphlet for the following items not later than **11/11/2026 at 06.00 PM (Tender Opening at 11.00 AM on 13/11/2026)**. The terms and conditions governing the tender are given at the bottom.

क्रम संख्या/ Sl. No	विवरण/ DESCRIPTION	आवश्यक मात्रा/ QUANTITY REQUIRED
1	LC-IC-ICP-MS	01 No.

(The hyphenated system, LC-IC-ICP-MS is meant for the trace metal analysis including the chemical speciation studies)

(Detailed specification and conditions are given separately)

INSTRUCTIONS TO THE TENDERERS AND TERMS AND CONDITIONS

- The quotation should be submitted by e-procurement in PDF format by 'logging on' on the website eprocure.gov.in/eprocure/app. The total file size of the documents submitted should not exceed 20 MB.
- The Technical and Financial Bids should be submitted separately (Two Bid System).**
- In place of a Bid security, the bidders must sign a Bid securing declaration along with the bid stating that "We accept that if we withdraw or modify our Bids during the period of validity, or if we are awarded the contract and we fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document, we will be suspended for the period of time decided by NCESS from being eligible to submit bids for contracts with NCESS". **The bids without this declaration or Udyog Aadhar Memorandum /NSIC will be rejected.**
- Preference to Make In India:** Preference will be given to the eligible Make in India offered products, in accordance with the CVC letter No. 018/VGL/022-377353 dated 20.04.2018, pertaining to Department of Industrial Policy and Promotion (DIPP) in connection with Preference to Make in India, Order 2017'(PPP- MIIOrder) dated 15.07.2017 pursuant to rule 153(iii) of General Financial Rules 2017. (Declaration may be submitted).

5. **Startups:** To promote make in India and startups, the prior turnover and prior experience for all startups shall be relaxed subject to their meeting of quality, technical specifications and tender conditions as per tender. The bidder who intends to participate as "startup" company should enclose the certificate towards startup enterprise registration/recognition issued by Department of Industrial Policy and Promotion, Ministry of Commerce and the certificate should be certified by the Chartered Accountant or should be registered with GeM as startup. Applicable certificate should be enclosed.
6. Bidders from a country which shares a land border with India will not be eligible to participate in this tender, unless the bidder is registered with Department for Promotion of Industry and Internal Trade (DPIIT) under Order (Public procurement No. 1) issued by Ministry of Finance, Department of expenditure in line with OM No. F.No.6/18/2019-PPD dt 23rd July, 2020 and F.18/37/2020-PPD, dt. 08.02.2021 inserting Rule 144 (xi) in GFR 2017.
7. **Fall Clause:** An undertaking has to be provided by the bidder that it has not supplied / is not supplying similar product / systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry / Department of the Government of India or PSU and if it is found at any stage that similar product / systems or sub systems was supplied by the bidder to any other Ministry/Department of the Government of India, or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the bidder to NCESS, if the contract has already been concluded.
8. **MAF:** The authorisation from the manufacturer should be tender specific, i.e., tender reference number and date should be mentioned in the certificate. A bidder shall not have conflict of interest with other bidders. In cases, where the manufacturer has submitted the bid, the bids of its authorised dealer will not be considered and in case of violations, both infringing bids will be rejected.
9. Bids are liable to be rejected as nonresponsive if a Bidder fails to provide and/ or comply with the required information, instructions etc., incorporated in the Tender document or gives evasive information/ reply against any such stipulations. Furnishes wrong and/ or misguiding data, statements(s) etc. In such a situation, besides rejection of the bid as nonresponsive, it is liable to attract other punitive actions under relevant provisions of the Tender Document for violation of the Code of Integrity.
10. During the evaluation of Techno-Commercial or Financial Bids, NCESS may at its discretion, but without any obligation to do so, seek any shortfall information/documents only in case of historical documents which pre-existed at the time of the tender opening and ask the Bidder to clarify its bid by a specified date. Bidder should answer the clarification within that specified date (or, if not specified, 7 days from the date of receipt of such request). The request for clarification shall be submitted in writing or electronically. If discrepancies exist between the uploaded scanned copies and the Originals submitted by the bidder, the original copy's text, etc, shall prevail. Any substantive discrepancy shall be construed as a violation of the Code of Integrity, and the bid shall be liable to be rejected as nonresponsive in addition to other punitive actions under the Tender Document for violation of the Code of Conduct.
11. From the time of bid submission to awarding the contract, no Bidder shall contact NCESS on any matter relating to the submitted bid. If a Bidder needs to contact NCESS for any reason relating to this tender and/ or its bid, it should do so only in writing or electronically. Any effort by a Bidder to influence the Procuring Entity during the processing of bids, evaluation, bid comparison or award decisions shall be construed as a violation of the Code of Integrity, and bid shall be liable to be rejected as nonresponsive in addition to other punitive actions for violation of Code of Integrity as per the Tender Document.
12. After the award of contract, the supplier encounters conditions hindering timely delivery of the Goods, he/she shall promptly inform NCESS in writing about the same and its likely duration. NCESS shall examine the situations and, at its discretion, may agree to extend the delivery Schedule, with or without Liquidated Damages (LD). When the period of delivery is extended due to unexcused delay, the amendment extending the delivery period shall, inter alia, be subject LD to a maximum deduction of the 10% of the delayed Goods contract price (all inclusive) and with and without denial clause. Nevertheless, NCESS shall be entitled to the benefit of any decrease in price

on account of reduction in or remission of GST, customs duty or foreign exchange rate variation or any other variation clause which takes place after the expiry of the original delivery date.

13. Force Majeure: On the occurrence of any unforeseen event, beyond the control of either Party, directly interfering with the delivery of Goods arising during the currency of the contract, such as war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts, or acts of God, the affected Party shall, within a week from the commencement thereof, notify the same in writing to the other Party with reasonable evidence thereof. Unless otherwise directed by the NCESS in writing, the supplier shall continue to perform its obligations under the contracts far as reasonably practicable and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. If the force majeure condition(s) mentioned above be in force for 90 days or more at any time, either party shall have the option to terminate the contract on expiry of 90 days by giving 14 days' notice to the other party in writing. In case of such termination, no damage shall be claimed by either party against the other. None of the Party shall seek any such remedies or damages for the delay and/ or failure of the other party in fulfilling its obligations under the contract if it is the result of an event of Force Majeure.
14. **The bidder should enclose all relevant documents in a sequential manner as per the tender format.** The bid should contain the Bid securing declaration, MII / Startup / Land Border declaration, Authorization from manufacturer, Fall Clause, Latest Price Proofs, Details of service Centre, Technical details with make, model and specification of each component, Technical Compliance statement, List of Customers, Brochures etc., wherever applicable.
15. Catalogue/Brochure/Manual should be submitted along with the offer wherever necessary.
16. Warranty / Guarantee Clause needs to be mentioned necessarily wherever applicable.
17. The material should be delivered at NCESS or installed at the specified location and so the quotation should include all the charges for the delivery at NCESS/installation.
18. **In INR orders, the Customs Duty Exemption Certificate will be given to the supplier upon request. But the entire responsibility of customs clearance and delivery at NCESS will rest with the supplier. High sea sale is not accepted and should not be quoted.**
19. **The offer should be valid for 180 days from the due date of opening of tender.**
20. NCESS reserves the right to accept the tender in part or full without assigning any reasons. The enquiry is not a commitment, and the purchaser reserves the right to reject or cancel any or all offers.
21. **Payment Terms (Other than CMC/AMC):**
 - (a) 90% upon delivery and acceptance of entire system by NCESS and submission of Invoice, applicable Test Certificate, Installation Certificate, Warranty Certificate.
 - (b) Balance 10% will be paid against submission of performance bank guarantee from a nationalized bank for the applicable amount valid for the warranty period plus 60 days or after successful completion of warranty period.
22. **Payment Terms for CMC/AMC:**
 - a. Shall be paid in half yearly instalments on submission of original invoices
 - b. 50% advance payment at the commencement of each contract year and 50% after six months of the contract year

Net payment will be released after statutory deductions. No advance payment will be allowed, and no other payment terms will be considered.
23. **In the event of placement of order, the successful bidder shall provide a Performance Bank Guarantee from a Nationalised Bank for 3% - 5% of the order value (DoE OM No. F.1/2/2023-PPD dated 01.01.2024) wherever applicable. The PBG shall stand valid for the warranty period + 60 days.**
24. Any further changes in the details, like the date of opening or specification, will be posted on our web site only.

Yours faithfully,
Sd/-

Deputy Manager (Purchase & Stores)

Detailed Specifications

<u>SL. No</u>	<u>Required Specification</u>
I.	LC-IC-ICP-MS - 1 No.
ICP-MS Technical Specifications	
1	Instrument Design The instrument will be the latest in its category and will provide ultra-trace analysis of elements at ppt level with adequate accuracy without changing any plasma parameter and in one single run for various sample matrices such as Mineral, Water, Industrial, Medicinal samples, etc.
2	Sample introduction system - Sample Introduction Kit including Peltier Cooled Spray Chamber (Temp Range -10 to 20°C), PFA/Quartz Nebulizer, Ni Sample, and Skimmer cones. - The quoted ICP-MS must have the capability to handle TDS >25% with additional MFC dedicated for argon gas dilution with accessories like UHMI/AMS/AGD.
3	Plasma and torch setup - Computer-controlled 27 MHz RF generator operating from 400 to 1600 watts for automatic control of torch ignition, shutdown, and system warm-up. - The Plasma torch should have provision for software-controlled alignment for horizontal position, vertical position, and sampling depth. - Plasma Gas Control: Consists of at least 3 Mass Flow Controllers (MFC) for control plasma, auxiliary makeup or Nebulizer. Gases used will be regulated with mass flow controller, and the system will be fully computer controlled.
4	Interface - Standard large orifice Ni sampling cone with 1.1 mm orifice and skimming cones with 0.5 mm orifice. - Ion lens: off-axis system must have 90° deflection mechanisms for removing all neutrals from the Ion path - The Ion path must be maintenance-free
5	Collision/Reaction Cell - The cell will be capable of operating in standard, collision and reaction modes. Cell should be capable of removing polyatomic interferences as per national and international regulations. Kinetic energy discrimination (KED) facility will be available to remove interferences. The reaction cell should allow the use of three gases including oxygen, hydrogen, and ammonia/ Xenon in pure or premix form - Cell should have the provision for fully automated and software-controlled changeover between standard, collision and reaction modes without any manual intervention. - The cell technology must have a minimum of 2 gas lines with dedicated MFC one for pure collision (helium) gas and the second for the reaction gas of choice. - Cell must be non-consumable with zero maintenance. System should have Dynamic Bandpass tuning and extended dynamic range to address wide variety of samples and wide variety of matrices. - The system should have 5 Mass Flow Controllers for Plasma, Auxiliary, Nebulizer, Collision and Reaction gases. In addition, a separate Mass Flow Controller for AGD/UHMI/AMS.
6	Mass Analyser and Detector Mass range: 2-290 amu or better.

	- Linear Dynamic range: 10 orders of magnitude or better - Mass scan speed: 3500 amu/s or better - The ion detector is a simultaneous dual-mode (both Analog and Digital) discrete dynode electron multiplier, 10 order or more magnitude of dynamic range - Should be minimum Dwell time of 100 microseconds in both modes - The dual-mode detector assembly must come standard with the system
7	Sensitivity specifications will be considered (Guaranteed/factory specifications will be considered. Not the Typical performance) Also, to be demonstrated during Demo & installation: - Low mass (Be/Li): ≥ 60 Mcps/mg/L - Mid Mass (In/Y): ≥ 250 Mcps/mg/L - High Mass (Tl/U): ≥ 300 Mcps/mg/L - Oxide ratio (%) CeO/Ce < 2 or better - Ba⁺⁺ or Ce⁺⁺/ Ba or Ce < 3 or better - Background noise (no gas mode): < 1 cps - Short Term Stability $< 2\%$ RSD or better - Long Term Stability $< 3\%$ RSD or better - Isotope-ratio precision: Ag: 0.1% RSD or better Detection Limits - Li/Be < 0.5 ppt - In or Y < 0.1 ppt - U or TI < 0.1 ppt
8	Vacuum System - Turbo pump should be differential pumping. - Vacuum can be maintained even in case of a power failure or the system can be backfilled with inert gas or suitable mechanism to prevent damage to collision/reaction cell and quadrupole.
9	Software - Suitable Data Station with all Software controls & future upgrade controls with Instrument software. - Software should provide comprehensive functionality for analysis through fully automated process with auto tuning - The software should have data handling and data management, Data security and access control with 21 CFR part 11 environment supports, compliance management and customizable reporting, etc. - Minimum 2 offline software licenses must be supplied as standard. - Customizability to meet QA/QC functionality needs. - Automated QA/QC checks.
10	Accessories - Autosampler of minimum sample vial holding capacity of 200 positions or more should be offered. It should be metal free and should have independent X-Y-Z movement. - Separate complete HF/Inert kit including PFA nebulizer, PFA spray chamber, torch, Inert injector, Pt cones set is included. - NIST calibration standards 22/23 elements (100 ppm, 250 ml). NIST calibration standards 22/23 elements (10 ppm, 125 ml) & Single element (100 ppm, 125 ml) standards for Hg & Au. - Minimum PC and Printer requirement: i5 PC, 16GB RAM, 1TB hard drive with 27" monitor or factory-configured PC workstation, along with antivirus, MS office, and ICP-MS software. A compatible multi-function laser printer should be included. - IQ/OQ of the system
11	Additional Requirements

	- All necessary pre-installation requisites/consumables including chemicals, acids, gases and standards for complete installation and demonstration of the instrument will be supplied (details as below). - Gas cylinders with regulators (minimum number of cylinders required are mentioned here): - Argon - 06 Nos., - Helium - 02 Nos., - Oxygen - 01 No - Hydrogen -01 No - Ammonia/Xenon – 01 No 4 Position Argon Gas manifold, Gas Panel. - Suitable Exhaust System 15 KVA UPS with 30 min Backup - Compact and low-noise chiller unit(s) as per manufacturer's recommendation. - Auto-tuning standards. - ICP-MS Grade/supra pure Acids: 2.5L Nitric acid, 2.5L Hydrochloric acid, 2L Hydrogen Peroxide, 2.5L Hydrofluoric acid.
12	Consumables List - Ni sampler, skimmer cone (03 sets) - Pt sampler, skimmer cone (01 sets) - Standard torch -01 set - Standard nebulizer & Spray chamber - 01 Set - Standard peristaltic pump tubing for drain (pk/12) – 2 Nos. - Standard Peristaltic pump tubing for samples (pk/12) – 2 Nos. - Peristaltic pump tubing for ISTD (pk/12) – 2 Nos - Tubing autosampler (pk/12) – 2 Nos - Graphite gasket for Sampling cone- 5 Nos. - Sample tubing for nebulizer 10 Nos. - Tubing for spray chamber drain - Pump oil (1L) - 3 sets - Skimmer base for Ni cone – 01 Set Each - Fluid for chiller - 07 L - Cone cleaning solvent/supra pure chemical - 02 L - Swab (cotton-tipped both ends) - 100 Nos. - Autosampler vials - 1000 Nos. - Standard autosampler probe and complete tubing set - 01 sets
13	- A good quality table (8 feet length* 3 feet width * 2.5 feet height, Anti-vibration table Bottom frame and two side drawers & cabinets made up of powder coated MS of appropriate gauge & strength with thick granite top) is provided for Installation of Instrument, Computer & Printer.) - Branded & reputed make air conditioning (AC) system 2ton capacity should be supplied.
14	Warranty Five years comprehensive warranty from the date of installation on Main Instrument, Microwave Digester, Exhaust system, PC-Printer, Chiller, UPS, (Except consumables items).
15	Training 5 Day training on the Instrument at Owner's Site
16	User Base Should provide 5 PO copies from the reputed Govt. organizations for the quoted instrument. The quoted instrument should have well established in the market

UHPLC (QUARTERNARY GRADIENT) Technical Specifications	
1	Capable of coupling with ICP-MS and should be suitable for separating chemical species such as organic arsenic species and similar systems System - UHPLC system needs to be modular for flexible configuration while appearing as one integrated system - UHPLC System must support a pressure of 700 bar (10,000 psi) - pH Range of the system must be from 1-12 and should be able to accommodate up to 0.1M Chloride. - The position of the column compartment must be variable for shortest connections between column outlet and mass spectrometry inlet for future MS connectivity. - The system should be controlled by Workstation/Network based Chromatography S/W - HPLC system should also work in UHPLC mode w/o changing any part.
2	Quaternary Pump - The pump should support a pressure of 700 bar (10,000 psi) in the flow range of 0.001 mL/min to 10 mL/min - The Pump should be low pressure Quaternary Pump with serial dual piston mechanism of pumping. - The pump must have a mixing volume as low as 400 μL with total Gradient delay volume <700uL. - The pulsation must be below 0.1% or 0.2 MPa (whichever is greater) - The pump must have independent compressibility irrespective of mobile phase composition. - The flow accuracy must be $\pm 0.1\%$ - The flow precision must be below 0.05% RSD or 0.01 min SD (whichever is greater) - The gradient accuracy must be $\pm 0.5\%$ of full scale. - The gradient precision must be below 0.15% SD. - Basic pump functionalities must be settable by a keypad - Pump must have built in safety features like Leak detection and safe leak handling, excess pressure monitoring.
3	Autosampler - The Sampler should support a pressure of 700 bar (10,000 psi). - The Autosampler must recognize the used sample vials by barcode reading. - Sample Compartment Temperature Range must be from 4–40°C - pH Range of the system must be from 1-12 including components like Loop, Injector Valve and injection wetted parts. - Carryover of the Auto sampler must be <0.0004% with Caffeine solution. - The sample capacity with 1.5ml vials is 216 numbers of vials. - Injection cycle time should be less than 8 sec in specified conditions. - The Autosampler has to support injection volumes range from 0.01–100 μL with options to upgrade injection volume range up to 1mL with multi draw option. - The injection linearity must be above $r=0.99999$ - The injection precision must be typically below <0.25% area RSD for 3 μL volume. - The injection accuracy must be typically $\pm 1\%$ (injection volume 10 μL and water) - The default sample capacity has to support up to 4 sample racks or well plates, allowing a maximum number of 216 vials (12 mm OD) or 1536 samples (384 well plates) - The sample needs to be pre-pressurized prior to the injection for highest retention time stability and longest column lifetime. - The minimum sample volume in vial or well plate required for an injection can be as small as 2 μL - The gradient delay volume of the autosampler must be tunable for seamless method transfer - Basic instrument control of the autosampler can be achieved by a keypad. - The Autosampler must have built in safety features like Leak detection and safe leak handling, excess pressure monitoring

4	Thermostated Column Compartment • The column compartment must provide Dual Thermostatting Modes; Still air for highest efficiency at UHPLC conditions and forced air for easiest method transfer. • Column compartment must have a temperature range from 5°C to 85°C. • The column compartment must support columns with 300 mm length • The column compartment has to provide passive pre-heating. • Basic instrument control of the column compartment can be achieved by a keypad • The column compartment must provide a software-supported predictive performance function for scheduling maintenance procedures • The column compartment setup needs to be extendable to support multiple columns and Thermostatting zones • The column compartment needs to support in future up to 2 different switching Up to 2 valves: 2-position/6-port, 6-position/7-port) for column switching or advanced workflows. • The Column Oven must have built in safety features like Leak detection and safe leak handling, excess pressure monitoring
5	Diode Array Detector • The detector must typically provide a linear range up to 2.7 AU • The wavelength range of the detector must range from 190 to 800 nm with Additional Tungsten Lamp. • The drift of the detector must be below 1 mAU/h at 254 nm. • Detector Noise must be $<\pm 6\mu\text{AU}$ at 254 nm. • No of Photodiodes must be 1024 for better spectral resolutions bringing 0.6nm spectral Bandwidth. • The detector must provide a data collection rate of up to 125 Hz with spectra acquisition. • The detector must be able to record 8 channels plus 3D field simultaneously • Standard analytical flow cell should be of 10mm path length and $>10\mu\text{L}$ flow cell volume. • The detector must have an internal wavelength calibration using the D-alpha line of the deuterium lamp • Wavelength validation must be validated by a holmium oxide filter • Basic instrument control of the detector can be achieved by a keypad • The detector must provide a software-supported predictive performance function for scheduling maintenance procedures. • The Detector must have built in safety features like Leak detection and safe leak handling, excess pressure monitoring
6	Chromatography Software • License version of Chromatography data system software. The software should be a strictly validated/original licensed copy software with specific part number mentioned in the offer [No Pirated version of the software will be allowed and if found the offer will be strictly rejected] • Chromatography data system software for control, acquisition, processing, & reporting • Software should be 64-bit design for windows 10/8 Professional version. • Chromatography Software should be scalable to client/server network, • It should be 21CFR Part 11 compliance • Software should have capability to control third party UHPLC and IC Hardware. • It should have flexible reporting as users desires for complete chromatography information Reporting. • Audit trail should automatically monitor users' action and records a modification history. • It must record instrument event such as injection, complete instrument settings, changes & conditions in real time. • Software should be compatible to other software like LIMS, SAP, SDMS, ELN, LES and other ERP systems

7	Warranty Five years comprehensive warranty from the date of installation on Main Instrument (UHPLC)
ION CHROMATOGRAPHY (IC) Technical Specifications	
1	The specification covers minimum requirements for the procurement of ion chromatography system must have Isocratic and upgradable capability of gradient with electrolytic Eluent generation mechanism for both type analysis of anions like chloride (Cl^-), fluoride (F^-), bromide (Br^-), nitrite (NO_2^-), nitrate (NO_3^-), phosphate (PO_4^{3-}), sulphate (SO_4^{2-}), bromate (BrO_3^-), perchlorate (ClO_4^-), chlorate (ClO_3^-), organic acids, selenium speciation, polyphosphate etc. Cations like sodium (Na^+), magnesium (Mg^{2+}), ammonium (NH_4^+), calcium (Ca^{2+}), potassium (K^+), lithium (Li^+), Barium (Ba^{2+}), strontium and amines etc in ppm to ppb level. The system should be PC based with data acquisition and system control through the same software and software should able to identify pumps, detection, autosampler automatically. An ion chromatographic system must have inbuilt degassing hardware and capability to upgrade with column oven and other detectors like UV-Vis etc. The system should be capable of separating various species of chromium, selenium and other related systems.
2	Solvent Delivery Pump - Non-metallic PEEK based 0-14 pH & 100% Reverse phase HPLC solvent compatible, isocratic, dual piston reciprocating microprocessor based controlled for: - Flow range: 0.001 mL/min to 5.00 mL/min or better in 0.01 increment - Pressure pulsation/Ripple: <1% - Flow Accuracy: <0.2% - Operating Pressure: 0-4500 psi or more - The pump must have an inbuilt piston seal wash, which can be continuously operated when connected to rinse solution supply - Must have inert, non-metallic PEEK (polyetheretherketone) fluidic components throughout the system to ensure solvent compatibility and metal contamination free chromatography. - Pump must be capable of running 2 mm and 4 mm ID columns without modification of the pump heads. - Must allow for user-selectable high- and low-pressure limits to automatically stop the pump in the event of leaks, flow restrictions, flow blockages etc. Eluent monitoring facility must be available.
3	Suppression Suppression devices must be available for Anion as well as Cation applications with membrane base hardware. Suppressor regeneration must be carried out in chemical regeneration with regenerant pump. Suppressor device must be able to suppress hydroxide and methanesulfonic acid eluents as required for EPA, ASTM, ISO, or other standardized methods.
4	Conductivity detector microprocessor digital signal processor - Full-Scale Output Ranges: 0-15000 μS - Resolution: 0.002 nS/cm - Temperature Range: 30 to 50°C - Cell Drive: 128 kHz square wave - Cell Volume: <1 μL
5	Ion exchange columns should be able to separate high and low concentration analytes in single injection. Anion column and its guard column to compatible for high strength hydroxide (NaOH/ KOH). Cation column and its guard column to compatible high strength acids like (MSA), H_2SO_4 etc should be suitable for cations applications.

6	The software must be able to provide fully automatic control of the process of analysing samples. This must include acquiring data, quantitation, producing a report, and the option to upgrade to an incorporated excel like spreadsheet for report flexibility. The software must be able to automate integration updates without time consuming batch reprocessing of changes to integration in a data set. The software must have the ability to customize the report format and content. It should have virtual IC column library for future method development purpose
7	The IC system must meet the requirements of EPA Method 300.1 Part A and Part B
8	Vendor should provide PM kit, require accessories tubing, ferrule certified standards for Anion and Cation along with instrument
9	Autosampler: Automated sample for loading of samples having a capacity of 50 Polyvials of 5 mL and 0.5 mL vial size. With minimum of 250 numbers (each) of vial should be quoted with the system
10	Must utilize non-metallic fluid path components to reduce potential sources of contamination, eliminate corrosion, and be acid and base resistant
11	All autosamplers vials should be in closed cover of sampler to avoid environmental and light, dust effect
12	Warranty Five years comprehensive warranty from the date of installation on Main Instrument (IC)
General terms & conditions: - The specifications mentioned above are minimum preferred and the same should be available in manufactures website & any deviation OR equivalent configuration shall be mentioned in detail in the technical compliance statement. - The complete system should be supplied & supported by single vendor even though the items are of different make (other makes are preferred only if it is not available with the vendor and should be compatible with the ICP-MS system). - The vendor shall be responsible for the main instruments, coupling of hyphenated system and all the accessories supplied along with the system. - Vendor shall ensure installation, demonstration & relevant training at the time of installation. Onsite technical support shall be available from the selected vendors from time to time. - The offer should be submitted by manufacturer or their exclusive agent with certificate of exclusivity. - Original catalogue must be provided. - On-site service with required spares/consumables shall be guaranteed for a minimum of 10 years from the date of installation.	



राष्ट्रीय पृथ्वी विज्ञान अध्ययन केंद्र

NATIONAL CENTRE FOR EARTH SCIENCE STUDIES

P.B. No. 7250, MEDICAL COLLEGE P.O., AKKULAM, THIRUVANANTHAPURAM-695 011, INDIA

Tel: 91-471-2511531

e-mail: purchase@ncess.gov.in

TENDER FORM

Tender No. & Date : **PUR-PROC/27b/2025-PUR-NCESS Dt.15/10/2026.**

Due Date : **11.11.2026 (06.00 PM).**

Date of Opening : **13.11.2026 (11.00 AM).**

Venue of Opening : National Centre for Earth Science Studies, P.B.No.7250,
Medical College P.O., Thiruvananthapuram – 695 011.

Description of stores : **LC-IC-ICP-MS**

Quantity : **01 No.**

Sirs,

The Head, Administration (i/c) on behalf of the Director, National Centre for Earth Science Studies (NCESS), invites bids for the supply of stores mentioned above. The tender documents are classified as Annexure-A and Annexure-B. Annexure-A is a specimen tender form meant for suppliers and the bid should contain all the details specified therein. The instructions to the tenderers and the general terms and conditions applicable to the Purchase Orders placed by NCESS are given under Annexure-B. Those who are able to quote for the stores in accordance with the above requirements, may please furnish their offer through GeM, on or before the last date and time specified in the tender.

Any deviations from the terms and conditions of the Annexure-B must be clearly indicated in the offer.

Yours sincerely,

Sd/-

Head, Administration (i/c)

ANNEXURE A

**The Head, Administration (i/c)
National Centre for Earth Science Studies,
P.B.No.7250, Akkulam, Medical College PO,
Thiruvananthapuram – 695 011.
Kerala, India**

Sir,

Sub: Your Tender No Dated.....

I/We hereby offer you to supply the stores detailed below at the price hereunder quoted and agree to hold this offer open till I/We shall bind to supply the stores hereby offered, upon the issue of the purchase order communicating the acceptance thereof on or before the expiry of the delivery date therein. You are at the liberty to accept any one or more of the items of such stores. I/We, notwithstanding that the offer in this tender has not been accepted in whole shall be bound to supply to you such items and such portion or portions of one or more of the items as may be specified in the purchase order communicating the acceptance.

1. Technical Compliance Statement.

Required Specification			Spec offered (with make and model)	Whether complied	Brochure Page No
<u>SL. No</u>	<u>Description</u>	<u>Qty</u>			
I	LC-IC-ICP-MS	01 No.			
ICP-MS Technical Specifications					
1	Instrument Design The instrument will be the latest in its category and will provide ultra-trace analysis of elements at ppt level with adequate accuracy without changing any plasma parameter and in one single run for various sample matrices such as Mineral, Water, Industrial, Medicinal samples, etc.				
2	Sample introduction system - Sample Introduction Kit including Peltier Cooled Spray Chamber (Temp Range -10 to 20°C), PFA/Quartz Nebulizer, Ni Sample, and Skimmer cones. - The quoted ICP-MS must have the capability to handle TDS >25% with additional MFC dedicated for argon gas dilution with accessories like UHMI/AMS/AGD.				
3	Plasma and torch setup - Computer-controlled 27 MHz RF generator operating from 400 to 1600 watts for automatic control of torch ignition, shutdown, and system warm-up. - The Plasma torch should have provision for software-controlled alignment for horizontal position, vertical position, and sampling depth. - Plasma Gas Control: Consists of at least 3 Mass Flow Controllers (MFC) for control plasma, auxiliary makeup or Nebulizer. Gases used will be regulated with mass flow controller, and the system will be fully computer controlled.				
4	Interface - Standard large orifice Ni sampling cone with 1.1 mm orifice and skimming cones with 0.5 mm orifice. - Ion lens: off-axis system must have 90° deflection mechanisms for removing all neutrals from the Ion path - The Ion path must be maintenance-free				
5	Collision/Reaction Cell - The cell will be capable of operating in standard, collision and reaction modes. Cell should be capable of removing polyatomic interferences as per national and international regulations. Kinetic energy discrimination (KED) facility will be available to remove interferences. The reaction cell should allow the use of three gases including oxygen, hydrogen, and ammonia/ Xenon in pure or premix form - Cell should have the provision for fully automated and software-controlled changeover between standard, collision and reaction modes without any manual intervention.				

	- The cell technology must have a minimum of 2 gas lines with dedicated MFC one for pure collision (helium) gas and the second for the reaction gas of choice. - Cell must be non-consumable with zero maintenance. System should have Dynamic Bandpass tuning and extended dynamic range to address wide variety of samples and wide variety of matrices. - The system should have 5 Mass Flow Controllers for Plasma, Auxiliary, Nebulizer, Collision and Reaction gases. In addition, a separate Mass Flow Controller for AGD/UHMI/AMS.			
6	Mass Analyser and Detector - Mass range: 2-290 amu or better. - Linear Dynamic range: 10 orders of magnitude or better - Mass scan speed: 3500 amu/s or better - The ion detector is a simultaneous dual-mode (both Analog and Digital) discrete dynode electron multiplier, 10 order or more magnitude of dynamic range - Should be minimum Dwell time of 100 microseconds in both modes - The dual-mode detector assembly must come standard with the system			
7	Sensitivity specifications will be considered (Guaranteed/factory specifications will be considered. Not the Typical performance) Also, to be demonstrated during Demo & installation: - Low mass (Be/Li): ≥ 60 Mcps/mg/L - Mid Mass (In/Y): ≥ 250 Mcps/mg/L - High Mass (TI/U): ≥ 300 Mcps/mg/L - Oxide ratio (%) CeO/Ce < 2 or better - Ba⁺⁺ or Ce⁺⁺/ Ba or Ce < 3 or better - Background noise (no gas mode): < 1 cps - Short Term Stability $< 2\%$ RSD or better - Long Term Stability $< 3\%$ RSD or better - Isotope-ratio precision: Ag: 0.1% RSD or better Detection Limits - o Li/Be < 0.5 ppt - o In or Y < 0.1 ppt - o U or TI < 0.1 ppt			
8	Vacuum System - Turbo pump should be differential pumping. - Vacuum can be maintained even in case of a power failure or the system can be backfilled with inert gas or suitable mechanism to prevent damage to collision/reaction cell and quadrupole.			
9	Software - Suitable Data Station with all Software controls & future upgrade controls with Instrument software. - Software should provide comprehensive functionality for analysis through fully automated process with auto tuning			

	- The software should have data handling and data management, Data security and access control with 21 CFR part 11 environment supports, compliance management and customizable reporting, etc. - Minimum 2 offline software licenses must be supplied as standard. - Customizability to meet QA/QC functionality needs. - Automated QA/QC checks.			
10	Accessories - Autosampler of minimum sample vial holding capacity of 200 positions or more should be offered. It should be metal free and should have independent X-Y-Z movement. - Separate complete HF/Inert kit including PFA nebulizer, PFA spray chamber, torch, Inert injector, Pt cones set is included. - NIST calibration standards 22/23 elements (100 ppm, 250 ml). NIST calibration standards 22/23 elements (10 ppm, 125 ml) & Single element (100 ppm, 125 ml) standards for Hg & Au. - Minimum PC and Printer requirement: i5 PC, 16GB RAM, 1TB hard drive with 27" monitor or factory-configured PC workstation, along with antivirus, MS office, and ICP-MS software. A compatible multi-function laser printer should be included. - IQ/OQ of the system			
11	Additional Requirements - All necessary pre-installation requisites/consumables including chemicals, acids, gases and standards for complete installation and demonstration of the instrument will be supplied (details as below). - Gas cylinders with regulators (minimum number of cylinders required are mentioned here): - Argon - 06 Nos., - Helium - 02 Nos., - Oxygen - 01 No - Hydrogen -01 No - Ammonia/Xenon – 01 No 4 Position Argon Gas manifold, Gas Panel. - Suitable Exhaust System 15 KVA UPS with 30 min Backup - Compact and low-noise chiller unit(s) as per manufacturer's recommendation. - Auto-tuning standards. - ICP-MS Grade/supra pure Acids: 2.5L Nitric acid, 2.5L Hydrochloric acid, 2L Hydrogen Peroxide, 2.5L Hydrofluoric acid.			
12	Consumables List - Ni sampler, skimmer cone (03 sets) - Pt sampler, skimmer cone (01 sets) - Standard torch -01 set			

	- Standard nebulizer & Spray chamber - 01 Set - Standard peristaltic pump tubing for drain (pk/12) – 2 Nos. - Standard Peristaltic pump tubing for samples (pk/12) – 2 Nos. - Peristaltic pump tubing for ISTD (pk/12) – 2 Nos - Tubing autosampler (pk/12) – 2 Nos - Graphite gasket for Sampling cone- 5 Nos. - Sample tubing for nebulizer 10 Nos. - Tubing for spray chamber drain - Pump oil (1L) - 3 sets - Skimmer base for Ni cone – 01 Set Each - Fluid for chiller - 07 L - Cone cleaning solvent/supra pure chemical - 02 L - Swab (cotton-tipped both ends) - 100 Nos. - Autosampler vials - 1000 Nos. - Standard autosampler probe and complete tubing set - 01 sets			
13	- A good quality table (8 feet length* 3 feet width * 2.5 feet height, Anti-vibration table Bottom frame and two side drawers & cabinets made up of powder coated MS of appropriate gauge & strength with thick granite top) is provided for Installation of Instrument, Computer & Printer.) - Branded & reputed make air conditioning (AC) system 2ton capacity should be supplied.			
14	Warranty Five years comprehensive warranty from the date of installation on Main Instrument, Microwave Digester, Exhaust system, PC-Printer, Chiller, UPS, (Except consumables items).			
15	Training 5 Day training on the Instrument at Owner's Site			
16	User Base Should provide 5 PO copies from the reputed Govt. organizations for the quoted instrument. The quoted instrument should have well established in the market			
UHPLC (QUARTERNARY GRADIENT) Technical Specifications				
1	Capable of coupling with ICP-MS and should be suitable for separating chemical species such as organic arsenic species and similar systems System - UHPLC system needs to be modular for flexible configuration while appearing as one integrated system - UHPLC System must support a pressure of 700 bar (10,000 psi) - pH Range of the system must be from 1-12 and should be able to accommodate up to 0.1M Chloride.			

	- The position of the column compartment must be variable for shortest connections between column outlet and mass spectrometry inlet for future MS connectivity. - The system should be controlled by Workstation/Network based Chromatography S/W - HPLC system should also work in UHPLC mode w/o changing any part.			
2	Quaternary Pump - The pump should support a pressure of 700 bar (10,000 psi) in the flow range of 0.001 mL/min to 10 mL/min - The Pump should be low pressure Quaternary Pump with serial dual piston mechanism of pumping. - The pump must have a mixing volume as low as 400 µL with total Gradient delay volume <700uL. - The pulsation must be below 0.1% or 0.2 MPa (whichever is greater) - The pump must have independent compressibility irrespective of mobile phase composition. - The flow accuracy must be $\pm 0.1\%$ - The flow precision must be below 0.05% RSD or 0.01 min SD (whichever is greater) - The gradient accuracy must be $\pm 0.5\%$ of full scale. - The gradient precision must be below 0.15% SD. - Basic pump functionalities must be settable by a keypad - Pump must have built in safety features like Leak detection and safe leak handling, excess pressure monitoring.			
3	Autosampler - The Sampler should support a pressure of 700 bar (10,000 psi). - The Autosampler must recognize the used sample vials by barcode reading. - Sample Compartment Temperature Range must be from 4–40°C - pH Range of the system must be from 1-12 including components like Loop, Injector Valve and injection wetted parts. - Carryover of the Auto sampler must be <0.0004% with Caffeine solution. - The sample capacity with 1.5ml vials is 216 numbers of vials. - Injection cycle time should be less than 8 sec in specified conditions. - The Autosampler has to support injection volumes range from 0.01–100 µL with options to upgrade injection volume range up to 1mL with multi draw option. - The injection linearity must be above $r=0.99999$ - The injection precision must be typically below <0.25% area RSD for 3 µL volume. - The injection accuracy must be typically $\pm 1\%$ (injection volume 10 µL and water)			

	- The default sample capacity has to support up to 4 sample racks or well plates, allowing a maximum number of 216 vials (12 mm OD) or 1536 samples (384 well plates) - The sample needs to be pre-pressurized prior to the injection for highest retention time stability and longest column lifetime. - The minimum sample volume in vial or well plate required for an injection can be as small as 2 µL - The gradient delay volume of the autosampler must be tunable for seamless method transfer - Basic instrument control of the autosampler can be achieved by a keypad. - The Autosampler must have built in safety features like Leak detection and safe leak handling, excess pressure monitoring			
4	Thermostated Column Compartment - The column compartment must provide Dual Thermostatting Modes; Still air for highest efficiency at UHPLC conditions and forced air for easiest method transfer. - Column compartment must have a temperature range from 5°C to 85°C. - The column compartment must support columns with 300 mm length - The column compartment has to provide passive pre-heating. - Basic instrument control of the column compartment can be achieved by a keypad - The column compartment must provide a software-supported predictive performance function for scheduling maintenance procedures - The column compartment setup needs to be extendable to support multiple columns and Thermostatting zones - The column compartment needs to support in future up to 2 different switching Up to 2 valves: 2-position/6-port, 6-position/7-port) for column switching or advanced workflows. - The Column Oven must have built in safety features like Leak detection and safe leak handling, excess pressure monitoring			
5	Diode Array Detector - The detector must typically provide a linear range up to 2.7 AU - The wavelength range of the detector must range from 190 to 800 nm with Additional Tungsten Lamp. - The drift of the detector must be below 1 mAU/h at 254 nm. - Detector Noise must be <± 6µAU at 254 nm. - No of Photodiodes must be 1024 for better spectral resolutions bringing 0.6nm spectral Bandwidth.			

	- The detector must provide a data collection rate of up to 125 Hz with spectra acquisition. - The detector must be able to record 8 channels plus 3D field simultaneously - Standard analytical flow cell should be of 10mm path length and >10µL flow cell volume. - The detector must have an internal wavelength calibration using the D-alpha line of the deuterium lamp - Wavelength validation must be validated by a holmium oxide filter - Basic instrument control of the detector can be achieved by a keypad - The detector must provide a software-supported predictive performance function for scheduling maintenance procedures. - The Detector must have built in safety features like Leak detection and safe leak handling, excess pressure monitoring			
6	Chromatography Software - License version of Chromatography data system software. The software should be a strictly validated/original licensed copy software with specific part number mentioned in the offer [No Pirated version of the software will be allowed and if found the offer will be strictly rejected] - Chromatography data system software for control, acquisition, processing, & reporting - Software should be 64-bit design for windows 10/8 Professional version. - Chromatography Software should be scalable to client/server network, - It should be 21CFR Part 11 compliance - Software should have capability to control third party UHPLC and IC Hardware. - It should have flexible reporting as users desires for complete chromatography information Reporting. - Audit trail should automatically monitor users' action and records a modification history. - It must record instrument event such as injection, complete instrument settings, changes & conditions in real time. - Software should be compatible to other software like LIMS, SAP, SDMS, ELN, LES and other ERP systems			
7	Warranty Five years comprehensive warranty from the date of installation on Main Instrument (UHPLC)			
ION CHROMATOGRAPHY (IC) Technical Specifications				

1	The specification covers minimum requirements for the procurement of ion chromatography system must have Isocratic and upgradable capability of gradient with electrolytic Eluent generation mechanism for both type analysis of anions like chloride (Cl^-), fluoride (F^-), bromide (Br^-), nitrite (NO_2^-), nitrate (NO_3^-), phosphate (PO_4^{3-}), sulphate (SO_4^{2-}), bromate (BrO_3^-), perchlorate (ClO_4^-), chlorate (ClO_3^-), organic acids, selenium speciation, polyphosphate etc. Cations like sodium (Na^+), magnesium (Mg^{2+}), ammonium (NH_4^+), calcium (Ca^{2+}), potassium (K^+), lithium (Li^+), Barium (Ba^{2+}), strontium and amines etc in ppm to ppb level. The system should be PC based with data acquisition and system control through the same software and software should able to identify pumps, detection, autosampler automatically. An ion chromatographic system must have inbuilt degassing hardware and capability to upgrade with column oven and other detectors like UV-Vis etc. The system should be capable of separating various species of chromium, selenium and other related systems.			
2	Solvent Delivery Pump • Non-metallic PEEK based 0-14 pH & 100% Reverse phase HPLC solvent compatible, isocratic, dual piston reciprocating microprocessor based controlled for: • Flow range: 0.001 mL/min to 5.00 mL/min or better in 0.01 increment • Pressure pulsation/Ripple: <1% • Flow Accuracy: <0.2% • Operating Pressure: 0-4500 psi or more • The pump must have an inbuilt piston seal wash, which can be continuously operated when connected to rinse solution supply • Must have inert, non-metallic PEEK (polyetheretherketone) fluidic components throughout the system to ensure solvent compatibility and metal contamination free chromatography. • Pump must be capable of running 2 mm and 4 mm ID columns without modification of the pump heads. • Must allow for user-selectable high- and low-pressure limits to automatically stop the pump in the event of leaks, flow restrictions, flow blockages etc. Eluent monitoring facility must be available.			
3	Suppression • Suppression devices must be available for Anion as well as Cation applications with membrane base hardware. Suppressor regeneration must be carried out in chemical regeneration with regenerant pump. Suppressor device must be able to suppress hydroxide and methanesulfonic acid			

	eluents as required for EPA, ASTM, ISO, or other standardized methods.			
4	Conductivity detector microprocessor digital signal processor - Full-Scale Output Ranges: 0-15000 μS - Resolution: 0.002 nS/cm - Temperature Range: 30 to 50°C - Cell Drive: 128 kHz square wave - Cell Volume: <1 μL			
5	Ion exchange columns should be able to separate high and low concentration analytes in single injection. Anion column and its guard column to compatible for high strength hydroxide (NaOH/KOH). Cation column and its guard column to compatible high strength acids like (MSA), H ₂ SO ₄ etc should be suitable for cations applications.			
6	The software must be able to provide fully automatic control of the process of analysing samples. This must include acquiring data, quantitation, producing a report, and the option to upgrade to an incorporated excel like spreadsheet for report flexibility. The software must be able to automate integration updates without time consuming batch reprocessing of changes to integration in a data set. The software must have the ability to customize the report format and content. It should have virtual IC column library for future method development purpose			
7	The IC system must meet the requirements of EPA Method 300.1 Part A and Part B			
8	Vendor should provide PM kit, require accessories tubing, ferrule certified standards for Anion and Cation along with instrument			
9	Autosampler: Automated sample for loading of samples having a capacity of 50 Polyvials of 5 mL and 0.5 mL vial size. With minimum of 250 numbers (each) of vial should be quoted with the system			
10	Must utilize non-metallic fluid path components to reduce potential sources of contamination, eliminate corrosion, and be acid and base resistant			
11	All autosamplers vials should be in closed cover of sampler to avoid environmental and light, dust effect			
12	Warranty Five years comprehensive warranty from the date of installation on Main Instrument (IC)			
General terms & conditions: - The specifications mentioned above are minimum preferred and the same should be available in manufactures website & any deviation OR equivalent configuration shall be mentioned in detail in the technical compliance statement. - The complete system should be supplied & supported by single vendor even though the items are of different make (other makes				

are preferred only if it is not available with the vendor and should be compatible with the ICP-MS system). c. The vendor shall be responsible for the main instruments, coupling of hyphenated system and all the accessories supplied along with the system. d. Vendor shall ensure installation, demonstration & relevant training at the time of installation. Onsite technical support shall be available from the selected vendors from time to time. e. The offer should be submitted by manufacturer or their exclusive agent with certificate of exclusivity. f. Original catalogue must be provided. g. On-site service with required spares/consumables shall be guaranteed for a minimum of 10 years from the date of installation.			
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2. The list of Indian Customers who have bought the same/similar instrument within the last two years, with contact details:

3. Details of Service centre: (In case of dealers, also please state whether Authorised Dealership Certificate is enclosed)

Place of Delivery: Stores, National Centre for Earth Science Studies, P.B.No.7250, Medical College P.O., Thiruvananthapuram – 695 011, Kerala, India.

I / We understand the instructions to the tenderers and General Terms and Conditions of the Contract governing supplies detailed in Annexure-B. I/We have thoroughly examined the specifications of the stores referred above and my/our offer is to supply stores strictly in accordance with and subject to the terms and conditions stipulated in Annexure-B.

Stamp and Signature of the Tenderer

ANNEXURE B

INSTRUCTIONS TO THE TENDERERS AND GENERAL TERMS AND CONDITIONS OF THE CONTRACT

1. **PRICES:** Tenders shall be made in ENGLISH and submitted with price for delivery at National Centre for Earth Science Studies, Akkulam, Medical College PO, Thiruvananthapuram-11, Kerala. The quoted amount should be inclusive of all charges like packing & forwarding charges, inland freight & other related charges, freight, statutory levies, unloading, installation etc.
2. **RIGHTS OF THE PURCHASER:** The Purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any tender in part or full without assigning any reason whatsoever.
3. **VALIDITY OF OFFER:** The prices quoted should be firm and quotation has to be valid for a period of 180 days from the date of opening of tender.
4. **CATALOGUE:** Tenderers shall furnish Leaflet/Technical Literature of the Stores offered by him along with the offer.
5. **TRANSPORTATION:** Stores shall be supplied under supplier's risk.
6. **MODE AND TERMS OF PAYMENT:** Full payment after successful installation/commissioning and acceptance of stores at Purchaser's Site.
7. **WARRANTY:** The supply made by the supplier shall be of best quality and workmanship shall be in accordance with the specifications stipulated in the Purchase Order. Defects/deficiencies shall be made good by the supplier free of cost, notified within the applicable warranty period.
8. **SUBMISSION OF TENDERS:** The quotation should be submitted by e-procurement in PDF format by 'logging on' in the website eprocure.gov.in/eprocure/app
9. **ENGINEER'S SERVICE MANUAL AND INSTRUCTION MANUAL:** The Engineer's Service Manual including Circuit Diagram and Instruction Manual (Original Copies) of the equipment shall be supplied along with the delivery/shipment by the supplier in the event of a purchase order. This aspect should be clearly indicated in the offer.
10. **DELIVERY/SHIPMENT:**
 - a. The time for delivery of the stores stipulated in the purchase order shall be deemed to be the essence of the contract and delivery must be completed not later than the period specified therein.

b. Failure and termination: If the contractor fails to deliver the stores or any part thereof within the period prescribed for such delivery, the purchaser shall be entitled at his option either;

i) to recover from the contractor as agreed liquidated damages and not by way of penalty, a sum of 2% of the price of any stores which the supplier has failed to deliver as aforesaid, for each month or part of a month, during which the delivery of such stores may be in arrears or

ii) to purchase elsewhere, without notice to the contractor on the account and at the risk of the contractor, the stores not delivered or there of a similar description (where others exactly complying with the particulars are not in the opinion of the purchaser readily procurable, such opinion being final) without cancelling the contract in respect of the portion of stores not yet due for delivery.

iii) to cancel the contract or a portion thereof and if so desired, to purchase or authorize to purchase of stores not so delivered or others of similar description (where others exactly complying with the particulars are not in the opinion of the purchaser readily procurable, such opinion being final) at the risk and cost of the contractor.

11.LAW GOVERNING THE CONTRACT: The contract shall be governed by the laws of India for the time being in force. The marking of all stores supplied must comply with the requirements of Indian Acts relating to Merchandise Marks and all the rules made under such Acts.

12. JURISDICTION: The courts within the local limits of Thiruvananthapuram, the place from the purchase order is issued, will be the jurisdiction to deal with and decide any matter arising out of the contract subject to the clause 18 hereof.

13.INDEMNITY: The contractor shall at all, times indemnify the purchaser against all claims which may be made in respect of stores for infringement of any right protected by patent, registration of design or trade mark and shall take all risk of accidents or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for the sufficiency of all the means used by him for the fulfilment of the contract.

14.ARBITRATION: Notwithstanding anything contained in clause 16 above, in the event of any question, dispute or difference arising under these conditions or any condition contained in the purchase order or in connection with this contract (except as to any matters the decision of which is specially provided for by these conditions) the same may be referred to the sole arbitration of the Director, National Centre for Earth Science Studies, Thiruvananthapuram or some other person appointed by him, there will be no objection that the arbitrator is a Govt. servant, who has to deal with matters to which the contract relates or that in the course of his duties as a Government servant he has expressed views on all or any of the matters in the disputes or difference. The award of the arbitrator shall be final and binding on the parties to this contract.

Terms of this contract: -

a) If the arbitrator be the Director, NCESS, (i) in the event of his being transferred or vacating his office by resignation or otherwise, it shall be lawful for his successor in the office either to proceed with the reference himself, or to appoint another person as arbitrator to (ii) in the event of his being unwilling or unable to act for any reason, it shall be lawful for the Director, NCESS to appoint another person as arbitrator;

Or

b) If the arbitrator be a person appointed by the Director, NCESS, in the event of his dying, neglecting or refusing to act, or resigning or being unable to act for any reason, it shall be lawful for the Director, NCESS, to proceed with the reference himself or to appoint another person as arbitrator in place of the outgoing arbitrator.

Subject as aforesaid, the Arbitration Act, 1940 and the rule there under and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceeding under this clause. The arbitrator shall have the power to extend with the consent of the purchaser and the contractor the time for making and publishing the award. The venue of arbitration shall be the place as the purchaser in the absolute discretion may determine.

15.EXERCISING THE RIGHTS & POWERS OF THE PURCHASER: All the rights, discretions and power of the purchaser under the contract shall be exercisable by and all notices on behalf of the purchaser shall be given by the Director or the Senior Manager of Centre for Earth Science Studies and any reference to 'the opinion of the purchasers' in the terms and conditions contained in this general conditions of the contract shall mean and be construed as reference to the opinion of any of the persons mentioned in this clause.

16.EXEMPTION FROM PAYMENT OF DUTIES: The purchaser is eligible for availing customs duty at concessional rate under the relevant rules.

17.SPARES & ACCESSORIES: Offers for plant/machinery/equipment/instrument shall also state prices or essential accessories, optional accessories and spares necessary for 5 years of satisfactory operation of the machinery/equipment/instrument offered. Prices for accessories and spares shall be itemised, offers where only lump sum prices are indicated are liable to be ignored. Particular care must be taken to list out each item of spare and quantity recommended and also individual price for these items.

18.QUANTITY: The purchaser reserves the right to accept or reject lowest or any offers in whole or in part without assigning any reason. It would therefore be in the interest of the tenderers to clearly understand that the purchaser may accept offers for any quantity of his choice and hence, the percentage of reduction, if any in the price quoted in case of acceptance of tender in whole or part shall be clearly stated.

19.TRAINING: The contractor shall, in special cases, if required by the Purchaser provide facilities for the practical training of the purchaser's engineers and technical personnel in respect of repair, maintenance or operation of the plant/machinery/equipment/ instrument offered at their manufacturing plant in India or abroad. The cost for such training (including travelling, boarding and other related expenses) and the

number of trainees and duration of training and any other terms if any, should be indicated separately in the offer.

20.INSTALLATION & COMMISSIONING: In the event of an order, the supplier shall arrange satisfactory installation and commissioning of the plant/machinery equipment/ instrument at purchaser's site, free of cost.

21.SERVICE SOFTWARE/TOOLS: The service software, tools required if any for the repair/maintenance of the plant/machinery/equipment/instrument shall be quoted separately.

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Digitally signed by
Lavanya G
Date: 15-10-2026
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