

ALL INDIA INSTITUTE OF MEDICAL SCIENCES,

STORE SECTION (DO), 1ST FLOOR, ANIMAL HOUSE,

ANSARI NAGAR, NEW DELHI-110 029, INDIA

TENDERENQUIRY DOCUMENT

(Two Bid System for Machinery & Equipments)



Advertised Tender Enquiry No.: XX-134/SO(DO)/PCCSM/2025-26/M&E

Brief Description of Goods : Purchase of Portable Polygraphy Level 4 (Electrophysiology system) Device - 04 Nos.

SECTION-I



ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI-110 029
TENDER ENQUIRY DOCUMENTS (TED)

Advertised Tender Enquiry No : **XX-134/SO(DO)/PCCSM/25-26/M&E**

On behalf of Director, AIIMS, Ansari Nagar, New Delhi-110 029, online bids are invited in two bid system (Techno-Commercial Bid and Financial Bid) from reputed, eligible and qualified firms/manufacturer for supply of following Goods:

S. No.	Brief Description of Goods	Quantity	Amount of Bid Security/EMD (in Rs.)
1.	Purchase of Portable Polygraphy Level 4 (Electrophysiology system) Device	04 Nos.	INR Rs. 40,000/-

CRITICAL DATE SHEET

Published Date & Time	02-02-2026 at 04.00 pm
Bid Document Download/Sale Start Date	02-02-2026 at 04.00 pm
Seek Clarification Start Date	02-02-2026 at 04.00 pm
Seek Clarification End Date	09-02-2026 at 04.00 pm
Pre Bid Meeting	NA
Pre Bid Meeting Place & Address	NA
Bid Submission Start Date & Time	16-02-2026 at 04.00 pm
Bid Submission End Date & Time	05-03-2026 (Thursday) at 03.00 pm
Bid Opening Date & Time	06-03-2026 (Friday) at 03.00 pm

Section – VII
TECHNICAL SPECIFICATION AND GENERAL POINTS

Specifications for Portable Polygraphy Level 4 (Electrophysiology system) device

Qty: 04 nos.

- 1) Should be light weight (less than 100gms) that can be easily worn on the patient.
- 2) Should have two to four channels integrated in main unit
- 3) Should have at least integrated Flow and SpO2 sensors as mandatory. Snore sensors, body position, thoracic and abdomen efforts are optional channels.
- 4) Should have automatic event detection, automatic detection of artefacts.
- 5) Should have the facility of standard and configurable report formats. Should give the comprehensive report with automatic calculation of AHI based on activity.
- 6) The system should have the ability to work on battery (at least 12 hours) so that there is no electrical interference to the machine.
- 7) Should have automatic analysis, detection of Apneas/Hypopneas.
- 8) Should have the capability to export and import the complete study in EDF Format, and reports can be exported to PDF format.
- 9) The unit should be warranted for minimum 5 years.
- 10) The unit should be supplied with high end Laptop that includes software so that data can be downloaded for analysis.
- 11) 13) The unit should be CE/USFDA/BIS approved.

List of consumables:

1. Nasal canula: 100 per year

Warranty;

- 1) As per AIIMS rules and should be quoted with 2-year comprehensive warranty and another 8 years of maintenance warranty (including all spares, batteries, circuit and other accessories).
- 2) The cost of additional accessories should be quoted in the price bid which will be used to calculate L1.
- 3) Prices of all the spare/accessories required for maintenance of the equipment should be quoted along with the price bid. If the firm fails to provide price of any part/accessories in the price bid the same will be provided free of cost by the company if required.
- 4) Company will be responsible to maintain equipment and accessories in working condition irrespective of the cause/reasons/conditions/nature for not working of the equipment/accessories. Company will replace all the required parts/spares /accessories, labour/service during WARRANTY/CAMC period without any extra charges/taxes" (including and not limited to physical damage).
- 5) In case of any breakdown, fault, repair should be undertaken within 48 hours of receipt of such information. Failure to do so shall make the company liable for a penalty of Rs.1000/- per day.

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TENDERENQUIRY DOCUMENT

(Two Bid System for Machinery & Equipments)



Advertised Tender Enquiry No.: XX-219/SO(DO)/Ortho/2025-26/M&E

Brief Description of Goods

**: Purchase of Arthroscopic Radiofrequency
Ablation System - 03 Nos.**

SECTION-I



ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI-110 029
TENDERS ENQUIRY DOCUMENTS (TED)

Advertised Tender Enquiry No : XX-219/SO(DO)/Ortho/2025-26/M&E

On behalf of Director, AIIMS, Ansari Nagar, New Delhi-110 029, online bids are invited in two bid system (Techno-Commercial Bid and Financial Bid) from reputed, eligible and qualified firms/manufacturer for supply of following Goods:

S. No.	Brief Description of Goods	Quantity	Amount of Bid Security/EMD
1.	Purchase of Arthroscopic Radiofrequency Ablation System	03 Nos.	INR Rs. 96,000/-

CRITICAL DATE SHEET

Published Date & Time	03-02-2026 at 04.00 pm
Bid Document Download/Sale Start Date	03-02-2026 at 04.00 pm
Seek Clarification Start Date	03-02-2026 at 04.00 pm
Seek Clarification End Date	09-02-2026 at 04.00 pm
Pre Bid Meeting	NA
Pre Bid Meeting Place & Address	NA
Bid Submission Start Date & Time	16-02-2026 at 04.00 pm
Bid Submission End Date & Time	05-03-2026 (Thursday) at 03.00 pm
Bid Opening Date & Time	06-03-2026 (Friday) at 03.00 pm

Section – VII
TECHNICAL SPECIFICATION AND GENERAL POINTS

Arthroscopic Radiofrequency Ablation System - Qty-3

A.

1. Radiofrequency Ablation System should be based on low temperature Bipolar radio frequency technology.
2. It should be working on 100-110 Khz
3. The output voltage settings should be controlled and regulated from setting button on the generator.
4. The generator should have a feature of detection of metal proximity sensor, i.e. when the probe comes too close to endoscope the controller pauses radiofrequency output and resumes radiofrequency output when the probe is returned to safe distance (suspension of power when close to metal object)
5. The generator should have facility as foot and hand control.
6. Option of foot pedal override functionality
7. Foot pedal should be waterproof/ If not waterproof then plastic cover to be quoted separately.
8. There should be facility to adjust Radiofrequency Ablation System and coagulation with different settings as per procedure demand.
9. The console should withstand power interruption while unplugging and re-plugging.
10. Console should have acoustic feedback signal with adjustable volume.
11. The generator should also have the facility to use a finger switch controlled probes.
12. The RF probe should be able to produce a uniform production of plasma.
13. Thermal penetration should not be more than 160-180 Micron.
14. USFDA/European CE/ISO 58732/BIS approved with 4 Digit Notifying body.
15. All the consumable and consumables attached to device must be supplied by same manufacturer.
16. The supplier should provide alternative console when the machine is taken up for repair till the repair of the device.
17. The rates of radiofrequency probes and cover for Foot pedal will be frozen for 10 years.
18. 2 yrs Warranty + 8 CAMC should be quoted.

B.

Components

1. Radiofrequency Ablation System/Generator--03 Nos.
2. Waterproof Foot pedal Switch/If not waterproof then plastic cover to be quoted separately - 06 Nos.
3. Radio Frequency Probes
 - a. Shaft diameter 3.5- 4.0 mm with tip of 90 angles - 50 Nos.
 - b. Shaft diameter 3.5- 4.0 mm with tip of 50 angles - 30 Nos.
 - c. Shaft diameter 2.3- 3.3 mm for small joint - 20 Nos.
 - d. Hook Electrodes: 10 Nos.

The item no. B2 (Covers) and B3 are consumables.

Consumable rates are fixed/freezeed for Ten (10 years)

The above mentioned consumables in the specification are adequate for use upto 02 years.

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(Two Bid System for Machinery & Equipments)



Advertised Tender Enquiry No.: XX-220/SO(DO)/PCCSM/2025-26/M&E

Brief Description of Goods : Purchase of Semiflexible Video thoracoscope/ Pleuroscope with video Processor & Light source - 01 No.

SECTION-I



ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI-110 029
TENDER ENQUIRY DOCUMENTS (TED)

Advertised Tender Enquiry No : **XX-220/SO(DO)/PCCSM/25-26/M&E**

On behalf of Director, AIIMS, Ansari Nagar, New Delhi-110 029, online bids are invited in two bid system (Techno-Commercial Bid and Financial Bid) from reputed, eligible and qualified firms/manufacturer for supply of following Goods:

S. No.	Brief Description of Goods	Quantity	Amount of Bid Security/EMD (in Rs.)
1.	Purchase of Semiflexible Video thoracoscope/ Pleuroscope with video Processor & Light source	01 No.	INR Rs. 1,80,000/-

CRITICAL DATE SHEET

Published Date & Time	03-02-2026 at 04.00 pm
Bid Document Download/Sale Start Date	03-02-2026 at 04.00 pm
Seek Clarification Start Date	03-02-2026 at 04.00 pm
Seek Clarification End Date	09-02-2026 at 04.00 pm
Pre Bid Meeting	12-02-2025 at 03.30 pm
Pre Bid Meeting Place & Address	Department of PCCSM, Room No. 2, New Private Ward, 3 rd floor, AIIMS New Delhi.
Bid Submission Start Date & Time	23-02-2026 at 04.00 pm
Bid Submission End Date & Time	16-03-2026 (Monday) at 03.00 pm
Bid Opening Date & Time	17-03-2026 (Tuesday) at 03.00 pm

Section – VII
TECHNICAL SPECIFICATION AND GENERAL POINTS

**Specification of Semiflexible Video thoracoscope/Pleuroscope
with Video Processor & Light Source**

Qty : 01 No.

- Should have High-Definition CCD on tip better observation, diagnosis, and treatment.
- Compatible with electrosurgical and laser treatments
- It should be compatible with NBI/TXI/RDI modes for more accurate observation.
- Distal end & Insertion tube outer diameter should be 7.3mm or better.
- Distal tip should be bendable in Up/Down direction for better vision in pleural cavity.
- Field of view should be 120 degree or more.
- Depth of field should be 7 - 100 mm or better.
- Angulation range should be Up 180 degrees & Down 130 degrees.
- Instrument Channel should be 3 mm or better.
- It should have waterproof one touch connector.
- Video processor should have in-built light source with 5 LED Spectrum Technology.
- Should have NBI (Narrow Band Imaging) Technology.
- Should have RDI (Red Dichromatic Imaging) technology for improved visibility of deep blood vessels and bleeding points.
- Should have TXI (Texture and Color Enhancement Imaging) technology for optimization of structure, color tone and brightness of the mucosal surface.
- Should have BAI-MAC (Brightness Adjustment Imaging with Maintenance of Contrast) technology for improvement of brightness in darker portions.
- Video processor should have digital 12G-SDI output for 4K, 3G-SDI and HD-SDI output for HD image and should contain electronics for clear visibility of near and far objects
- Should have MyCV mode for Switch setting values of multiple functions at once
- Provision of VBS composite video output function
- Equipped With high resolution HDTV imaging capacity (1080 P)
- Provision of Portable memory and USB slot for still image recording
- Provision of automatic IRIS control and white balance free function
- Provision of Picture in picture display both SD & HD input options and index function ability
- Should have stand-by/emergency lamp option and provision for lamp switch over from main lamp to stand by lamp in case of main lamp failure
- Equipped with automatic light adjustment facility
- Equipped with touch screen interface for accessing the processor settings

Monitor: Should have following specifications

- 32-Inch LCD medical grade monitor with 4K UHD resolution
- Should be compatible with The Advanced Image Multiple Enhancer (A.I.M.E.™) technology
- Should be compatible to route 4K/HD video signals via a single 12G-SDI output
- Should have multiple display modes such as Picture-in-Picture (PIP) and Picture-out-Picture (POP) display modes
- Should have CLONE OUT function to duplicate the 4K/HD video signals as displayed on the screen, including PIP/POP to a second monitor, or recording device
- Variety of video signal inputs such as 12G-SDI, HDMI, & 3G-SDI should be available.

Accessories:

- Flexible Trocar – 50 pieces.
- Bopsy Forceps – 10 pieces.
- Suction Valve – 10 pieces.
- Bopsy Valves – 10 pieces.
- Disposable Flexible cryoprobe 1.7 cm – 01 box of 5.

Other Peripherals to be provided:

- HD Software for recording video and images.
- Latest Computer System (RAM – 8GB, i7Processor, 1 TB Hard Disk) & UPS. Color Laser Printer for Printing Reports.
- All quoted products should be US FDA Approved/ CE Certified
- Company should have good service structure and at least 5 installation base of quoted models or previous generation models.
- Company should be able to provide performance certificates (if required by institution).
- Company should have the facility of repairing scopes in India.

Warranty:

1. As per AIIMS rules and should be quoted with ~~2~~ year comprehensive warranty and another ~~08~~ years of maintenance warranty (including all spares, batteries, circuit and other accessories).
2. The cost of additional accessories should be quoted in the price bid which will be used to calculate 1.1.
3. Prices of all the spare/accessories required for maintenance of the equipment should be quoted along with the price bid. If the firm to provide price of any part/accessories in the price bid the same will be provided free of cost by the company if required.
4. Company will be responsible to maintain equipment and accessories in working condition irrespective of the cause/reason/conditions/nature for not working of the equipment/accessories. Company will replace all the required parts/spares/accessories, labour/service during WARRANTY/CAMC period without any extra charges/taxes" (including and not limited to physical damage).
5. In case of any breakdown, fault, repair should be undertaken within 48 hours of receipt of such information. Failure to do so shall make the company liable for a penalty of Rs. 1000/- per day.

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TENDERENQUIRY DOCUMENT

(Two Bid System for Machinery & Equipments)



Advertised Tender Enquiry No.: XX-221/SO(DO)/Pediatric/2025-26/M&E

Brief Description of Goods

**: Purchase of Lung Clearance Index
Measurement System - 01 No.**

SECTION-I



ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI-110 029
TENDERS ENQUIRY DOCUMENTS (TED)

Advertised Tender Enquiry No : XX-221/SO(DO)/Pediatric/2025-26/M&E

On behalf of Director, AIIMS, Ansari Nagar, New Delhi-110 029, online bids are invited in two bid system (Techno-Commercial Bid and Financial Bid) from reputed, eligible and qualified firms/manufacturer for supply of following Goods:

S. No.	Brief Description of Goods	Quantity	Amount of Bid Security/EMD
1.	Purchase of Lung Clearance Index Measurement System	01 No.	INR Rs. 3,00,000/-

CRITICAL DATE SHEET

Published Date & Time	05-02-2026 at 04.00 pm
Bid Document Download/Sale Start Date	05-02-2026 at 04.00 pm
Seek Clarification Start Date	05-02-2026 at 04.00 pm
Seek Clarification End Date	12-02-2026 at 04.00 pm
Pre Bid Meeting	16-02-2026 at 12.00 Noon
Pre Bid Meeting Place & Address	Faculty Lounge, 8 th Floor, Department of Pediatrics, Mother and Child Block, AIIMS New Delhi.
Bid Submission Start Date & Time	25-02-2026 at 04.00 pm
Bid Submission End Date & Time	12-03-2026 (Thursday) at 03.00 pm
Bid Opening Date & Time	13-03-2026 (Friday) at 03.00 pm

Section – VII
TECHNICAL SPECIFICATION AND GENERAL POINTS

Department of Pediatrics, AIIMS, New Delhi

Lung clearance Index Measurement System – 01 No.

Specifications

1. The modular equipment should perform lung clearance index (LCI) in 1-month infants to children till 18 years of age at normal tidal breathing.
2. It should be able to perform both single and multiple-breath washout technique.
3. LCI measurement should be based on FRC (Functional Residual Capacity) measurement.
4. The flow measurement accuracy should be within $5\pm\%$ across the range of flows encountered during clinical testing.
5. The volume accuracy should be within $3\pm1\%$.
6. Sample flow should be 20 mL/min or less when gas sample point is proximal to flow meter.
7. Gas analyser accuracy should be within $1\pm1\%$ at higher concentration (e.g. 80% N₂) and it should be within $5\pm2\%$ at lower concentration (e.g. 2 % N₂).
8. Gas analyser rise time should be near 100 ms between 10–90% flow.
9. Data sampling frequency should be ≥ 100 Hz for both flow and inert gas concentration measurement.
10. Alignment accuracy for synchronisation of flow and gas signals should be within 10 ms.
11. Total equipment dead space should be <2 mL/kg for children and <1 mL/kg for infants.
12. Both corrected and uncorrected values should be reported.
13. FRC and ventilation inhomogeneity indices must relate to the same geometric reference point in the airstream.
14. The tracer gas to measure FRC (Functional Residual Capacity) should be sulfur hexafluoride (SF₆) or helium or nitrogen.
15. **The equipment should be provided with following modules/tests:**

(A) Tidal breathing flow volume analysis (TBFVL)

- (1) Should be able to perform TBFVL from neonates to children up to 5 years of age.
- (2) Flow should be measured by ultrasonic transit time.
- (3) Flow detection limit should be 0.4-0.8 ml/s.
- (4) Sampling frequency should be between 50- 200 Hz
- (5) Flow accuracy should be $\pm 2 \%$
- (6) Dead space should be less than 4 ml for newborn set.
- (7) Pressure measurement accuracy should be 0.015- 0.02 kPa
- (8) Pressure detection limit should be 0.015 -0.02 kPa.
- (9) Should provide at least following parameters: Inspiratory time (t_I), expiratory time (t_E), total respiratory time (t_{tot}), time to peak tidal inspiratory or expiratory flow (tp_{TIF} or tp_{TEF}), Tidal volume (V_T), inspiratory or expiratory tidal volume (V_I or V_E), Peak tidal inspiratory or expiratory flow ($PTIF$ or $PTEF$), Mid tidal inspiratory or expiratory flow ($MTIF$ or $MTEF$), Tidal expiratory flow (TEF) at 75, 50, 25 or 10% of tidal expiratory volume still have to be expired (TEF_{75} , TEF_{50} , TEF_{25} or TEF_{10}), Ratio of inspiratory or expiratory time to total respiratory time (t_I/t_{tot} or $t_E/\% t_{tot}$), inspiratory to expiratory time (t_I/t_E), Peak ratio: time to PTEF to t_E (tp_{TEF}/t_E), Ratio of exhaled volume to PTEF to tidal expiratory volume (V_{PTEF}/V_E), Ratio of TEF_{75} , TEF_{50} , TEF_{25} or TEF_{10} to peaked tidal expiratory flow ($PTEF$)

(B) Forced volume measurements by raised volume rapid thoraco-abdominal compression and rapid thoraco-abdominal compression (RVRTC and RTC) technique.

- (1) It should be able to perform RVRTC and RTC in newborn, infants, and preschool children.
- (2) Should provide at least following parameters: Maximum expiratory flow at functional residual capacity ($V'_{max,FRC}$), Maximum expiratory flow at 50% or 70% of expiration (V'_{50} or V'_{70}), Volume to peak expiratory flow (V_{PEF}), Forced expiratory volume (FEV), FEV at 0.5, 0.75 or 1.0 s of the forced expiration ($FEV_{0.5}/FEV_{0.75}/FEV_{1.0}$), Maximum expiratory flow at 25% or 10% of FVC (MEF_{25} or MEF_{10}), Forced expiratory flow between 25% and

75% of FVC (FEF_{25-75}), Peak expiratory flow (PEF), Ratio of forced expiratory volume at 0.5 s to total forced expiratory volume % ($FEV_{0.5}/FEV$).

(C) Body plethysmography

- (1) It should measure lung volumes and airway resistance in newborn, infants, and preschool children.
- (2) The dimensions of the plethysmographic chamber should generally be sufficient to accommodate infants and children that can accommodate children up to 20 Kgs and 105 cms length.
- (3) It should have sufficient space for manipulation of the mask and breathing apparatus while the patient is placed in the chamber.
- (4) The covering of box should be transparent with rapid access to the child.
- (5) The compensation chamber should have identical thermal and mechanical characteristics as the plethysmography chamber.
- (6) The box should be made of materials that ensure adequate heat exchange and should not be excessively insulated. It is desirable that the net loss through the walls should equal net gain from infant and equipment to ensure rapid thermal equilibration.
- (7) There should not be any compressible objects within the box.
- (8) Frequency response (amplitude and phase) should be satisfactory to 10 Hz with the combined time constant should be 10 – 14 s.
- (9) There should be a linear response of the box signal to known inputs over a range of appropriate breathing frequencies (e.g. 20 – 100 breaths per minute (bpm)).
- (10) It should be able to measure a volume change of as small as 1-2 ml during FRC measurements.
- (11) It should be able to measure FRC in range of volumes 30 – 500 mL, at frequencies 20 – 100 breath per minute.
- (12) The pneumotachometer (PNT) must be linear over the range of flows encountered and it should remain linear when heated.
- (13) The combined dead space of the PNT and occlusion shutter should be < 2 mL/kg to minimize dead space.
- (14) At least three sets of breathing apparatus should be provided for different size of infant/ child.

- (15) The resistance of the combined apparatus should be <20% of the infant's intrinsic resistance at the highest flow likely to be encountered, i.e. in term neonates, <0.7 kPa.L-1.s at 166 mL.s-1, whereas for a 1-yr-old, it may be 0.5 kPa.L-1.s at 500 mL . s-l.
- (16) For airway resistance measurements, a two-valve system should be provided
- (17) Automated closure should be feasible at end inspiration (EI), end expiration (EE), or other points through the breath as specified by the user.
- (18) Speed of valve opening and closing (excluding any lag time) should be <75 ms.
- (19) The reports of FRC should be based on atleast two complete respiratory efforts against the occlusion with the occlusion for at least 10 s.
- (20) The shutter must be able to withstand pressures of 3 kPa without any leaks or compressive effects.
- (21) A "shutter test" should be incorporated within the software and calibration protocol, so that the shutter can be checked prior to each study occasion.
- (22) The shutter must be easy to clean and reassemble. It should be light, with a suitable means of support and easy manipulation within the box.
- (23) Activation of the shutter should result in minimal volume change within the box and be as quiet as possible to avoid disturbing the infant or altering sleep state.
- (24) Dead space of the mask should be minimal and < 50% of total volume.
- (25) Mask should fit firmly with the infant's face.
- (26) The use of therapeutic putty to achieve a good, airtight seal of mask is allowed.

(D) Fractional exhaled Nitric Oxide (FeNO) and nasal nitric oxide (nasal NO)

- (1) FeNO and Nasal NO measurements by multiple and single breath technique should be in accordance to ATS / ERS recommendations.
- (2) It should be based on chemiluminescence technique.
- (3) Should be able to measure concentration of nitric oxide in exhaled breath (FeNO).
- (4) Should be able to measure nasal nitric oxide (nasal NO) production.
- (5) It should have a measuring range of 1 or less to 5000 or more ppb.
- (6) It should have linearity of $\pm 1\%$ or less.
- (7) It should have a selectable sample flow between 100 to 500 ml/min.
- (8) Minimum flow detection should be 1 ml or less.

- (9) Accuracy of flow measurement should be $\pm 2\%$ or less.
 - (10) It should have alerts for low battery, high NO levels, and device malfunctions.
 - (11) It should have an inbuilt ozone generator.
 - (12) The sample flow rate should be between 1-5 ml/sec.
16. The system should be supplied with a compatible computer system (i7 or later, 2 GB or more RAM, 1 TB or more hard disk).
 17. It should be supplied with a laser colour printer with a feature of printing both sides of a page and wi-fi enabled.
 18. It should be provided with an UPS that should last at least three hours or more.
 19. Required gas cylinders should be provided along with the equipment.
 20. One extra set of cylinder/s should be provided so that equipment functioning is not paused when a cylinder is taken for re-filling.
 21. The cylinders should be filled free of cost during two years of warranty.
 22. All software for above modules should be supplied with full functionality.
 23. The software should be upgraded free of cost as and when new version is released for next 10 years (2 years warranty plus 8 years CMC).
 24. The price may be quoted for total set and individual modules separately.
 25. The system should run on 220 V/50 Hz AC.
 26. It should operate within a temperature range of 5 to 45°C.
 27. It should work between 10 to 90% relative humidity.
 28. It should be US/FDA or European CE OR BIS approved.
 29. Warranty of 2 years to be provided.
 30. There must be 8 years of CMC after end of warranty.
 31. It should have Bluetooth 5.0, USB or wi-fi connectivity for data transfer.
 32. Service station should be Delhi/NCR based.
 33. Training for performing the tests must be provided free of cost.
 34. The following items/consumables should be supplied along with equipment:
 - 1) Calibration syringe, 1000 ml: 1
 - 2) Calibration syringe, 100 ml: 1
 - 3) Calibration gas tube: 1
 - 4) Analyzer measurement set-Adults: 1
 - 5) Analyzer measurement set-Pediatric: 1
 - 6) Filters for nasal NO: 300

- 7) Nasal catheter, medium: 150
- 8) Nasal catheter, small: 150
- 9) Nasal catheter, small: 150
- 10) Filters for FeNO: 300
- 11) Filters for TBFVL/RTC-RVRTC: 100
- 12) Masks for TBFVL/RTC-RVRTC: 100
- 13) Nose clips: 25
- 14) Bacterial filters: 300
- 15) Spirettes: 300
- 16) Connecting gas hose: 2

35. The cost of following consumables to be fixed for next 10 years:

- 1) Analyzer measurement set-Adults
- 2) Analyzer measurement set-Pediatric
- 3) Filters for nasal NO
- 4) Nasal catheter, medium
- 5) Nasal catheter, small
- 6) Nasal catheter, large
- 7) Filters for FeNO
- 8) Filters for TBFVL/RTC-RVRTC
- 9) Masks for TBFVL/RTC-RVRTC
- 10) Nose clips
- 11) Bacterial filters
- 12) Spirettes
- 13) Connecting gas hose
- 14) Any other consumables as specified by the supplier

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TENDERENQUIRY DOCUMENT

(Two Bid System for Machinery & Equipments)



Advertised Tender Enquiry No.: XX-222/SO(DO)/Pediatric/2025-26/M&E

Brief Description of Goods

: Purchase of Ultra high Performance
Liquid Chromatography System (UHPLC)
- 01 No.

SECTION-I



ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI-110 029

TENDERS ENQUIRY DOCUMENTS (TED)

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S. No.	Brief Description of Goods	Quantity	Amount of Bid Security/EMD
1.	Purchase of Ultra high Performance Liquid Chromatography System (UHPLC)	01 No.	INR Rs. 1,80,000/-

CRITICAL DATE SHEET

Published Date & Time	05-02-2026 at 06.00 pm
Bid Document Download/Sale Start Date	05-02-2026 at 06.00 pm
Seek Clarification Start Date	05-02-2026 at 06.00 pm
Seek Clarification End Date	12-02-2026 at 04.00 pm
Pre Bid Meeting	16-02-2026 at 11.30 am
Pre Bid Meeting Place & Address	Faculty Lounge, 8 th Floor, Department of Pediatrics, Mother and Child Block, AIIMS New Delhi.
Bid Submission Start Date & Time	25-02-2026 at 04.00 pm
Bid Submission End Date & Time	12-03-2026 (Thursday) at 03.00 pm
Bid Opening Date & Time	13-03-2026 (Friday) at 03.00 pm

Section – VII
TECHNICAL SPECIFICATION AND GENERAL POINTS

Ultra-High Performance Liquid Chromatography (UHPLC) System

Mandatory condition 1: Fully PC controlled UHPLC system with Integrated Quaternary pump having online /inbuilt vacuum degasser, Autosampler, and suitable all detectors to measure below listed analytes of interest .UV, FLR , RI, and ECD detector, Column Oven & Chromatography data controlling and analysing software. Consumables, sample extraction and purification cartridges and start up kit for at least 6 month and 1000 samples

Mandatory condition 2. System should be provided and capable to analyse amino acids , fatty acids ,acylcarnitines ,Homocysteine , sugars and oligosaccharides , congenital disorder of glycosylation (CDG)transferrin's profiles ,Porphyrin and Neurotransmitters, pterins, biogenic amines and other. Inborn errors of metabolites and condition .

Mandatory condition 3. It is essential that vendors should specify the system performance parameters clearly and all the specifications quoted should be available in their original company brochure or product data sheet. Any claims of specifications that are not documented in the company brochure will not be accepted. Point-wise compliance sheet must be provided enclosed with tender along with supporting documents/ certificates, otherwise offer will be technically rejected.

UHPLC Pump Module	Quaternary Gradient system • Low-pressure quaternary gradient mixing • Solvent selection: Up to Four solvents • Seal Wash: Integral, active, automatic. • No. of Gradient Steps: Maximum 11 or better. • Gradient profile: Linear step, Concave & Convex. • Maximum Operating Pressure: 9500 psi or more • Flow precision 0.075% RSD or Better • Flow accuracy $\pm 1.0\%$ • Total System dwell volume $\leq 1400 \mu\text{L}$ or less • Primary Check Valve: Passive Check Valve • PH Range 1- 12.5 • Automated online PH control • Flow rate range: 00.010 to 5.000 ml/min or better. • No of fluidic path: Minimum 2 or better. • Required sufficient consumables should be provided
Autosampler	• Sample Capacity: 90 vials or more of 2 ml capacity • Standard injection volume range from 0.1 to 50 μL • Injection Precision $<0.30\%$ RSD or better • Sample carry over: $\leq 0.002\%$ or better • Temperature control 4 °C to 40 °C • Advanced capability: Auto dilution, auto addition and load ahead • Required sufficient consumables should be provided
UV	• Wavelength Range: 190-700nm • Wavelength Accuracy: $\pm 1\text{nm}$ or better • Baseline Noise: $\leq 5 \times 10^{-6}$ or less • Light source: Single Deuterium lamp • Photodiodes: 512 • Flow cell volume: 17μl or better • Measurement Range: 0.0001 to 4.000 AU
Fluorescence Detector	• Excitation Wavelength range 200 – 890 nm or better • Emission wavelength range 210-900nm

	• Bandwidth: 20nm • Flow cell volume 13 μL or better. • Light source: Xenon Lamp, with minimum Warranty 2000- Hours. • Wavelength Accuracy: ± 3nm • Sensitivity: S/N, Raman peak of water >1000 • Data channels: Up to four 2D channels or one 3D channel • Required sufficient consumables should be provided
RI Detector	• Refractive Index Range: 1.00 to 1.75 RIU or better • Flow Cell: Fused Quartz • Flow cell Volume: 10 μL • Drift: 2.0×10^{-7} RIU/Hour • Temperature control: Internal oven 30 to 55 degree. • Light source: LED 870nm • Required sufficient consumables should be provided
ECD Detector	• Operating modes: DC, Pulse Scan • Oven +7°C above ambient to 60°C, accuracy 0.5°C, stability 0.1°C; accommodates column and flow cell(s) • DC Range: 10 pA - 200 μA in 1, 2, 5 increments • Potential (Ec): -2.50 V to + 2.50V with 10 mV increments
Column Oven	• Operating temperature range Ambient to 65°C or better, • Temperature accuracy 0.5°C over entire range • Temperature stability 0.3°C or better • Solvent conditioning: Passive pre-heating as standard
Software	• Suitable original latest Licensed single software to control all modules of UHPLC System. Software should be freely upgradable for entire life of the machine and AMC+CMC period • Customizable data reports, online and offline help and answer wizards. • Full 64 bit architecture • Latest Windows (10/11) environment • Interactive control and display of solvent delivery • All functions and features accessible from a single window-use the command bar to navigate • Wizards to simplify and automate common system functions • Methods - instrument, processing and reporting parameters in one place • Embedded Oracle data base for better organization and easy retrieval of system user data • Should be able to perform custom calculations • Diagnostic functions and configuration wizards • Extensive User help.
IQ/OQ/PQ	• Qualification of full system should be included
UPS	• Online 3 KVA UPS with 30 mins back up facility
Warranty	• 2 years warranty should be provided & Quotation for next 8-year CMC • Comprehensive warranty of 2+8 as per AIIMS rule
Data station (Computer & Printer)	• Latest configuration Computer windows 11 with Monitor available at the time of supply of the system which should be compatible with the Software quoted to run the UHPLC System.

	- Operating and analysing software should be freely upgradable for the entire life of the machine or for the 10 years of comprehensive warranty time , Backup drive should be provided with the system - Printer: Laser jet B&W.
Calibration and Preventive checkup	- System and methods calibration along with annual preventive checkup should be inbuilt and performed on regular basis in the quoted price And covered under AIIMS Comprehensive maintenance contract - All the hardware's and software's in form of consumables and non consumables and third party item should be covered in offered prices under Comprehensive warranty period of 5+5 as per rule - Calibration of the instruments and methods as per NABL guidelines should be inbuilt in offered price and done on regular basis
Application and technical services	- System should be supplied with full unconditional support of technical and application services from principle company as and when required on site or on call for the entire life of machine during whole AMC and CMC period - Shut down time should not be more than 24 hr and company must provide an alternative mode of processing of the samples nearby in case of machine is non functional - Man power should be provided for at least two years and should be inbuilt along with the instruments in same offered price
Kits and Consumables and others	- Tool kit should be provided with the instrument. - Minimum 5 Columns and guard column and samples derivatizing reagents and general solvents and reagents , kits and standards specific to the mandatory condition 2 should be provided FOC along with the instruments . amino acid kit should be quoted and one kit should be provided FOC - Start up kit for samples and instruments provided with the instruments, containing all the component required to analyse and quantitate. - Rate of the consumables and kits should be quoted and fixed for next 5 years
