

NALANDA UNIVERSITY

DETAILED TENDER DOCUMENT Supply of laboratory equipments for SEES

NALANDA UNIVERSITY,
RAJGIR, PIN-803116

Email: Kmohan@nalandauniv.edu.in

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TENDER NOTICE

Tenders are invited by Nalanda University– Rajgir, from authorised dealers/manufacturers for the supply of Laboratory Equipment's for SEES.

1.	Date of issue of tender document	05.05.2017
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Signature (in ink, with date) & Seal of Bidder/Tenderer

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2.	Last date of receipt of tender	26.05.2017 (3 PM)
3.	Date and time of opening tender	26.05.2017(3.30 PM)
4.	Place for submitting tender	Nalanda University, Rajgir, Dist: Nalanda, PIN-803116
5.	Place of Opening of tender	Nalanda University, Rajgir, Dist: Nalanda, PIN-803116
6.	Tender fee	Rs. 1000.00 (Non-refundable), in form of a demand draft drawn in favour of Nalanda University, payable at Rajgir
7.	Earnest Money Deposit (EMD)	DD drawn in favour of Nalanda University, payable at Rajgir. (As per Annexure –E)

SUPPLY OF LABORATORY EQUIPMENTS FOR SEES

Item #	Specifications	Unit(s)
1	TOC analyzer (liquid)	1
2	Soil moisture/EC/Temperature sensor (20ft)	3
3	Multifunctional portable heavy metal analyzer	1
4	Automatic Kjeldahl Analyzer	1
5	Digital Orbital Shaker	1
6	Ultrasonic Processor with timer and pulser	1
7	Glassware washer	1
8	Soil core sampler, 2-1/4 in. diameter	1
9	Brass cylinder for core sampler, 6 cm, 2.25" o.d., for 0200 core sampler	10
10	Tempe cell, 3-1/2" diam., 3 cm, 1/2 bar ceramic	1
11	Tempe cell, 3-1/2" diam., 6 cm, 1 bar high flow ceramic	1
12	Tempe cell stand kit	1
13	Glass Column (2.5 cm ID and length 15 cm) with end caps	1
14	Glass Column (4.8 cm ID and length 15 cm) with end caps	1
15	Hand held GPS	3
16	Laser Range Finder	2
17	Long Range IR Camera Trap	10

N.B:

1. Specify clearly the details/make of each equipment and also enclose the product literature.

Signature (in ink, with date) & Seal of Bidder/Tenderer

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2. The supply, installation and commissioning should be done by the supplier at Nalanda University, Rajgir
3. All equipment should carry one year onsite warranty.
4. The tenderer shall submit authorization letter from manufacturer (Original Equipment manufacturer) for the items mentioned in the tender document. All warranty complaints shall be entertained by the vendor.
5. The vendor shall rectify the faults within 15 working days failing which the vendor will arrange temporary (standby) replacement till the faults are rectified. If faults cannot be repaired, permanent replacement should be provided for the same.

The detailed form can be downloaded from the website <http://www.nalandauniv.edu.in/>.

The original demand draft/pay order drawn towards the EMD, cost of tender document, shall be placed in a single envelope superscribed as “Earnest Money, cost of tender document with the name of the tenderer” and due date of opening of the bid mentioned thereon and the same must reach this office latest by 3:30 p.m. on 26/05/2017.

Note: - Agency are requested to submit the Bids/ EMD for each items. Separate CST will be made for each equipment.

TENDER TERMS AND CONDITIONS

1) General Conditions:

- a) Nalanda University, Rajgir reserves the right to reject all or any of the tenders without assigning any reason thereof.
- b) Earnest Money Deposit (E.M.D.) shall be enclosed as per Annexure -D, which will be forfeited if the tenderer derogates, amends or withdraws the offer within validity period or agency may also submit separate EMD of each items. (As per Annexure-E).
- c) If the tenderer desires, he/she will be permitted to be present at the time of opening of the tender.
- d) The E.M.D. is refundable in case of unsuccessful tenderer.
- e) The tenderer shall not be entitled to any interest/compensation on account of EMD/Bank Draft/PBG/FDR not being refunded in time.
- f) This office will take all the care to return the EMD within the reasonable time limit, which is normally 30 days after opening of the tenders and full execution of the order and on acceptance of the materials by Nalanda University, Rajgir. However, if the supplies are covered by guarantee period, the bidders will have to submit security deposit in the form of PBG/FDR for the validity of Guarantee period. The PBG/FDR should remain valid for 60 days beyond Guarantee period.

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- g) All quotations/tenders will be received for consideration subject to the specified terms and conditions. The tenderers are required to get the necessary clarification regarding any of the terms and conditions before submitting the tender.
- h) Wherever applicable, following details shall be clearly and specifically indicated by the tenderer. i) Disagreement, if any, with terms and conditions enclosed. ii) Non-conformity, if any, of the materials with the specification given in the tender notice/tender paper. iii) Taxes, Excise Duty, Custom Duty, etc., if any, to be paid extra. iv) Freight, insurance, forwarding and hamali/labour charges, if any, to be paid extra. v) The probable suppliers shall be required to demonstrate the equipments/software quoted by them at Nalanda University, Rajgir. Expenditure towards the same shall be borne by the vendor. vi) Guarantee at site shall be three years for equipment's. vii) AMC or extended warranty shall be mentioned separately, wherever required. viii) Catalogues/brochures/manuals, test results & certification/calibration certificates to be submitted by the supplier. ix) Delivery, cost of installation, loading/unloading and local charges shall be borne by the supplier. x) Training at Nalanda University, Rajgir shall be provided by the supplier free of cost, wherever required.
- i) VAT, Excise duty, Custom duty, etc:
Where the cost of the items is specified as exclusive of these statutory levies, unless accepted in writing or otherwise by Nalanda University, Rajgir, before placing of the order, the said levies shall be payable only on production of the prescribed documents as below:
- i) VAT certificate.
 - ii) Custom duty certificate issued by the concerned Custom Office.
 - iii) Freight & Insurance: Where the cost is exclusive of freight and insurance charges, the tenderer shall invariably provide the documentary evidence for having actually paid such charges, failing which the same shall be disallowed. However, where the rates or amount was not specified in the order, it shall be consistent with current market rates.
- J) In case where clarity as at clause (H) above is not adhered to, then Nalanda University shall be entitled to and it shall be lawful to do so:
- i) To accept for processing such tenders at the risk of the tenderer and
/or
 - ii) To reject the tender without assigning any reason thereof.
- K) Unless expressly provided in writing by Nalanda University, Rajgir the order placed shall be subject to the terms and conditions and the specifications given herein under. If any of the terms and conditions and /or specifications of the tenderer on whom order is placed is contrary or inconsistent with any of these terms and conditions, the same shall be deemed to be and treated as inapplicable and of no effect.
- L) Any typographical/clerical error in relation to rates/units/quantity, size, etc., and /or contradicting with the tender specifications and /or the terms and conditions shall stand corrected to that effect without any written communication and the tenderer shall not be entitled to any claim whatsoever, based on such typographical/clerical error.
- M) The tenderer shall sign with date on the certificate attached in token of acceptance of the terms and conditions without any reservations and affix the rubber seal of office stamp, if available. Where rubber stamp is not available, name of the person who has signed and the tenderer which he/she represents shall be clearly written in ink. Quotations received without being duly signed and stamped are liable to be rejected without assigning any reason thereof. However, Nalanda University, Rajgir, in the public interest, may relax this condition.
- N) **MODE OF SUBMISSION & LATE TENDERS**
All the tenders are to be submitted at Nalanda University, Rajgir in hard copy only. The tender wizard will not accept any tender submitted after the deadline for submission of Tenders. All the Tenderers participating in the tender are requested to submit the bids well ahead of the deadline. Nalanda University, Rajgir will not accept any responsibility for any problems arising due to delay in the submission of the tender.

2) Validity of Rates:

- a) The rates quoted should be valid at least for a period of 60 days from the date of opening of the Price Bid.

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- b) Rates quoted shall be generally exclusive of transport, loading and unloading charges, excise, taxes, etc. However these other charges/taxes shall clearly be shown separately, otherwise it will be deemed that rates quoted are inclusive of all charges/taxes.
- c) The rates shall approximately conform to the current market rates specified by Government/Government approved agencies wherever applicable. If, at any stage, it is discovered that the rates quoted by the tenderer are/were not conforming to the then prevailing market rates, Nalanda University, Rajgir reserves the right to reject the materials, if received, in such cases and the tenderer will not have any claim against Nalanda University, Rajgir except the actual cost of materials as per normal rates less whatever penalty levied by Nalanda University, Rajgir. For this purpose, "Normal rates" means the actual cost of the materials on par with market rates of similar materials exclusive of taxes, excise, transport, freight, etc., plus reasonable profit margin acceptable as decided by the arbitrator.

3) Execution of order:

- a) Acceptance of the order shall be conveyed by the tenderer by submitting a Security Deposit equivalent to 10% of the value of the order, within 15 days from the date of receiving order, in the form of Demand Draft/FDR/Bank Guarantee of any Nationalized Bank in favour of Nalanda University, failing which the order shall stand cancelled, unless informed otherwise in writing by Nalanda University, Rajgir. The Demand Draft must be payable at Rajgir.
- b) The security deposit will be refunded to the supplier after full execution of the order or expiry of the period specified in the order and where the materials are warranted. The security deposit shall be returned after expiry of such guarantee period. If the supplier fails to honour the guarantee as promised, the security deposit will be forfeited.
- c) The entire order shall be executed within three weeks from the date of issue unless specified otherwise, in the order. However, Nalanda University, Rajgir reserves the right to grant the extension of the time limit, if in his opinion, public interest does not suffer. Violation of this clause attracts provisions of clauses 5(A) and 5(C) (as mentioned below).
- d) The materials shall be properly packed and dispatched insured if necessary with any Indian Government approved insurance company or its branch at a cost consistent with Government regulations and the cost of the consignment against loss, damages, breakage, etc., upto destination by Road Transport on freight paid basis only.
- e) It shall be primarily the responsibility of the tenderer to inspect and satisfy that the materials to be supplied conform exactly to the specifications given in the order. In case of lapse on the part of the tenderer in this regard, Nalanda University reserves the right to reject the materials.
- f) In case of rejection of the materials supplied by the tenderer on the grounds specified above at D & E or if found defective or not conforming to specification or any other grounds in accordance with the terms and conditions, it shall be the responsibility of the tenderer to make arrangement to collect back the materials. If the tenderer so desires the rejected materials may be dispatched back to the tenderer provided:
 - i) The tenderer gives an undertaking in the prescribed form accepting full responsibility for losses/damages which may be caused during transit due to accidents or any other reasons.
 - ii) The tenderer shall send in advance packing, forwarding and transport charges by way of Demand Draft in favour of Nalanda University payable at Rajgir drawn on any Nationalised Bank.

4) Withdrawal:

The Successful tenderer cannot refuse to supply the item after the purchase order has been placed & accepted within the validity period. Refusal shall be violation of the Terms & Conditions of this tender, and may lead to blacklisting of the bidder. EMD of such bidders will also be forfeited thereof.

5) The time (delivery period stipulated)

The time (delivery period stipulated) is essence of the contract. In case the Tenderer fails to deliver the materials or any part thereof within the stipulated period of delivery or in case the materials are found

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not to be in accordance with specifications, Nalanda University, Rajgir shall have the right to exercise his discretionary power as under:

- A. Either to recover as liquidated damages a sum not exceeding half percent of the price of materials which the tenderer has failed to deliver as aforesaid per each or part thereof during which the delivery of each may be in arrears but subject to a maximum limit of 5% of the stipulated cost of the materials,
- B. To Purchase from elsewhere at the cost and risk of the tenderer the materials, so undelivered or materials of a similar description without cancelling the order in respect of the consignment not yet delivered, or
- C. To cancel the entire/part of this order as deemed fit.

6) **Inspection/Acceptance of Materials:**

- a) Inspection of the materials shall invariably be done at the Rajgir premises. The materials shall be deposited by the tenderer at his/her risk at the Rajgir premises. In such cases acknowledgement shall in no case be deemed and will not be deemed as acceptance of the materials.
- b) In case the materials are delivered in packed cases either personally or through transport agencies including Rail/Road agencies, the acknowledgment given by the Storekeeper shall be "On said to contain basis". In such cases, Nalanda University, Rajgir reserves the right to verify actual contents after opening and therefore, the responsibility for damaged/defectives/shortages or the consequences of a similar nature shall be solely the responsibility of the tenderer. Therefore the tenderer may give open delivery by making suitable arrangement.
- c) In cases where the materials are deposited in open container/open condition the acknowledgment of the Storekeeper shall be to the extent of physical quantity and in no case the Storekeeper shall be responsible as to the exact nature/conformity of the materials with the specifications in the order.
- d) The Storekeeper of Nalanda University shall take maximum precaution for the safe custody of materials delivered by the tenderer. However, in case of loss/losses caused to the materials deposited by the tenderer in the Polytechnic premises due to fire, natural calamities or any other reason beyond human control, Nalanda University, Rajgir, shall not be responsible to make good any losses, either in full/part or to pay any compensation of whatsoever nature in this regard.
- e) It shall be the responsibility of the Tenderer to arrange delivery of the materials at Nalanda University-Rajgir, during the office hours from 9.30 a.m. to 6.00 p.m.
- f) Advance intimation of dispatch of the materials with information like mode of transport, name and address of transport agency, likely date of arrival of the materials at University premises and necessary documents, if any, to release the consignment must be sent by the tenderer to Nalanda University, Rajgir.

7) **Guarantee:**

- a) Unless specified otherwise in writing the machine/equipment supplied shall carry a guarantee against manufacturing defects for a period of 36 months from the date of final acceptance/Installation of such machine or equipment, as the case may be by Nalanda University, Rajgir.
- b) During the guarantee period the firm responsible for supplying the machine and/or equipment under question shall provide free repairs and servicing, failing which PBG (Performance Bank Guarantee)/FDR/Bank Draft, as the case may be, will be forfeited.
- c) During the Guarantee period, if it becomes essential to send/take the equipment to the works/factory of the manufacturer/supplier for replacing and/or servicing, the same will be send to them.

8) **Terms of Payment:**

- a) All bills shall be drawn in the name of Nalanda University, Rajgir only and shall be submitted in triplicate with the original being affixed with a revenue stamp of Re.1/-.
- b) Unless accepted otherwise in writing before placing of the order all payments towards the suppliers will be made against valid bills only and if the equipment is found in good condition and conforming to our specifications given in the order.

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- c) The payment of bills can be made within a period of 30 days provided the supply reaches Nalanda University, Rajgir in the last week of the month. However, in case of delays, no interest shall be paid by Nalanda University, Rajgir on whatsoever any grounds.
- d) The agency will be paid 90% amount of the invoice value. However, the balance payment of 10% will be released after receipt of security deposit for the equivalent amount.

9) Arbitration Clause:

In the event of there arising any dispute or difference of opinion concerning or touching any clause of this agreement or any of the terms and conditions in any of the documents which are made integral part of this agreement, the same shall be referred to the sole arbitration of a person appointed by the NU and it shall be lawful for the NU to appoint any officer who has in the discharge of his duties as such officer either expressed any opinion or issued any direction in the matter shall be final & binding on the parties.

LIST OF DOCUMENT REQUIRED AT THE TIME OF SUBMISSION OF BID

Sr.No.	List of Document	Page Number	Annexure
1.	Certificate of Acceptance	11	A
2.	Affidavit regarding Blacklisting	12	B
3.	Technical Bid	13 to 20	C
4.	Financial Bid	21	D
5.	Item Wise EMD	22	E
6.	Copy of PAN		
7.	Copy of VAT/CST registration		
8.	Copy of Service Tax registration		
9.	Authorised certificate of Manufacture		

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Tender Notice No:

Due Date: 26.05.2017

Annexure A

CERTIFICATE

Certified that I/we have gone through the terms and conditions of supply/works and also the tender conditions. I/We hereby agree to abide by the same. In token of accepting as above I/We affix the signature as below:

Signature

Name: _____

Date: _____

Seal of the Tenderer

NOTE: This certificate duly filled and signed shall be sent along with the tender offer without which the tender will not be considered.

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Annexure B

AFFIDAVIT REGARDING BLACKLISTING/ NON-BLACKLISTING FROM TAKING PART IN GOVT.TENDER BY DOT/GOVT. DEPT

(To be executed on Rs.10/- Stamp paper & attested by Public Notary/Executive Magistrate by the bidder)

I / We Proprietor/ Partner(s)/ Director(s) of M/S. ----- hereby declare that the firm/company namely M/S.-----has not been blacklisted by any institution or any other Government organization from taking part in Government tenders.

Or

I / We Proprietor/ Partner(s)/ Director(s) of M/S. ----- hereby declare that the firm/company namely M/S.-----was blacklisted by any institution, or any other Government Department from taking part in Government tenders for a period of ----- years w.e.f.-----.

The period is over on-----and now the firm/company is entitled to take part in Government tenders. In case the above information found false I/We are fully aware that the tender/ contract will be rejected/cancelled by any institution, and EMD/SD shall be forfeited.

Signature

Name

Capacity in which assigned:

Name & address of the firm:

Date:

Signature of Bidder with seal

Annexure C

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Technical Bid
Technical Compliance of 'DIFFERENT LAB EQUIPMENTS'
(On the letter head of the bidder)

S.No.	Name of equipment with Specifications	Unit(s)	Whether meet the requirement (Yes/No)	Quoted model specifications
1	TOC analyzer (liquid)			
2	Soil moisture/EC/Temperature sensor			
3	Multifunctional portable heavy metal analyzer			
4	Automatic Kjeldahl Analyzer			
5	Digital Orbital Shaker			
6	Ultrasonic Processor with timer and pulser			
7	Glassware washer			
8	Soil core sampler, 2-1/4 in. diameter			
9	Brass cylinder for core sampler, 6 cm, 2.25" o.d., for 0200 core sampler			
10	Tempe cell, 3-1/2" diam., 3 cm, 1/2 bar ceramic			
11	Tempe cell, 3-1/2" diam., 6 cm, 1 bar high flow ceramic			
12	Tempe cell stand kit			
13	Glass Column (Chromaflex or equivalent), 2.5 cm ID and length 15 cm			
14	Glass Column (Chromaflex or equivalent), 4.8 cm ID and length 15 cm			
15	Hand held GPS			
16	Laser Range Finder			
17	Long Range IR Camera Trap			

Technical Specifications

(To be kept in the sealed envelope)

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1. TOC Analyzer (liquid)

Ability to efficiently oxidize decomposed, low molecular weight organic compounds, hard-to-decompose insoluble and macromolecular organic compounds.

Determination of TOC, NPOC, TC, TIC in water samples.

Measurement method: 680 °C or higher combustion catalytic oxidation, non-dispersive infrared detection (NDIR) method.

Specifications:

- Measuring Range: 50 µg/l up to 30,000 mg/l
- Measurement Time for each inj.: <5min
- Regulatory requirement: Meets USP, EP, BP and IP
- Measured Items: TC (range: 4µg/L - 30,000 mg/L), IC range: 4µg/L - 35,000 mg/L)
- Power consumption: Approx. 12700 Wh
- Acid Addition: Automatic
- Calibration: Multi-Point
- Dilution: Automatic.

Required accessories for multiple samples with automatic sampling: auto sampler with following specifications:

(1) TOTAL NITROGEN MEASUREMENT UNIT along with Standard Accessories
NO is measured by Chemi-luminescence method.

Range: 0 to 10,000mg/L with simultaneous measurement of TOC or TN

(2) ASI-L SA (or similar) auto sampler

- Vial Type: 40mL vial
- Number of Vials : 40mL x 68pcs
- Vial Septum : with dedicated septum
- Sample Sparging : Ok (if the external sparging kit is used)

(3) Desktop PC with color printer

(4) Zero Air cylinder with regulator: 47ltr. W.C. Carbon Steel Cylinder filled with zero grade synthetic air, Includes 2 stage diffusion resistant regulator, adsorption Type Gas Purifier.

(5) Softwares.

2. Soil moisture/EC/Temperature sensor

Standard Interface: Watch Dog weather station, Field Scout soil moisture reader

Range: 0% VWC to saturation

Power Requirements: 3 to 5V @ 6 to 10 mA

Cable length: 20 ft approx.

Output: Analog voltage 0.5 - 1.5V for a 3V excitation (ratiometric for other excitation voltages)

Resolution: 0.1% VWC

Cable Length: 6 ft (1.8 m) and 20 ft (6 m) standard, extendable up to 15 m

Accuracy: at least 3% VWC @ EC < 8 mS/cm

Sensing Area: 6 cm x 2 cm

3. Multifunctional portable heavy metal analyzer

Item	Technical Parameters
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Detection Range (anodic stripping voltammetry)	Cu: 0.1ppb~60ppm	Cd: 0.1ppb~60ppm	Pb: 0.1ppb~30ppm	Zn: 0.5ppb~60ppm
Hg: 0.1ppb~25ppm	As: 0.1ppb~30ppm	Tl: 0.1ppb~30ppm	Mn: 0.1ppb~10ppm	
Cr: 0.5ppb~20ppm	Ni: 0.5ppb~30ppm	Fe: 0.1ppb~30ppm	Co: 0.1ppb~30ppm	
Detection Precision	RSD ≤ 2% (calculated by Cd @50ug/L)			
Resolution	0.01ppb			
Measuring Parameters of Colorimetric Module	Available for the measurement of Cr ⁶⁺ , Cu, Zn, Mn, Pb, etc., Accuracy: ≤ ±5% Measuring Range: Cr: 0.025ppm~2.5ppm Cr ⁶⁺ : 0.025ppm~2.5ppm Ni: 0.1ppm~5ppm Zn: 0.1ppm~1.5ppm Cu: 0.05ppm~5ppm Pb: 0.05ppm~1.2ppm			

Accessories :- Reagent Electrode Cleaner Cuvettes, Pipette & Pipette Head Power Adapter (charger), and Cigarette Lighter Adapter, Data Management Software, Portable Suitcase, Portable Bluetooth Printer, and Accessories (optional), Portable digester(optional) Emergency detection Suitcase

4. Automatic Kjeldahl Analyzer

Sample capacity	Solid: ≤ 5.00 g/sample, liquid: ≤ 20 mL/sample
Measuring range	0.1 mg to 200 mg N
Analysis time	5 - 10 min/sample
Recovery	≥ 99 %
Burette volume	1.0 µl/step
Reproducibility	Average value relative error < 0.6%
Storage capacity	1000 pieces approx..
Interface	USB
Power supply	220V, 50/60Hz
Water consumption in distillation:	< 1.6 L/min
Cooling water temperature	<200C
Ambient temperature	100C - 280C
Additional requirements	automatic titration, and result presentation

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5. Digital orbital shaker

Max load capacity (lbs)	8.8
Min speed (rpm)	50
Max speed (rpm)	300
Orbit size	13 mm
Platform dimensions	9.8" x 9.8"
Overall dimensions	10.9"W x 5.125"H x 13"D
CE Compliance	Yes
Brand	Thermo Scientific or equivalent
Power (VAC)	100 to 240 V
Power (Hz)	50/60
Timer	1 min to 99 hr
Display	Digital

6. Ultrasonic Processor with timer and pulser

Use for samples from 150 micro L to 150 mL
Maintain sample control with pulsar feature—allows sample to settle after each burst
Adhere to protocols with programmable unit
Processing time: 1 second to 1 hour
Power: 220 VAC, 50/60 Hz

Full function pulse and timer

Independent on/off pulser (1 to 59 seconds)

Accessories:

Converter, tool kit,

Approx. 1.8 m cord with grounded plug

3 mm titanium probe and tip

6 mm titanium probe and tip

7. Glassware washer

Type: Steam Scrubber

Chamber dimensions (stainless steel): 57.5 X 47.5 X 54.1 cm approx.

Glassware clearance: 47.5 cm approx..

Water recirculation rates: 350-370 liters/min

Pump: built in Purified water dual pump (for washing and draining)

Steam generator: built-in for removing dry residue

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Air-drying: facilities at the end

Power: 208/240 VAC,50-60Hz

Washing temp: 93 deg C approx

LCD information center, Display button, Run/Cancel button, scroll buttons and selection buttons to program and monitor cycles including internal water temperature.

Accessories: water purifier, hose pipes and suitable washer for connection to the glassware washer at suitable pressure, geezer for hot water supply at recommended temp to glassware inlet.

8 to 12. Soil sampling Tools

soil core sampler, 2-1/4 in. diameter

brass cylinder for core sampler, 6 cm, 2.25" o.d., for 0200 core sampler

Tempe cell, 3-1/2" diam., 3 cm, 1/2 bar ceramic

Tempe cell, 3-1/2" diam., 6 cm, 1 bar high flow ceramic

Tempe cell stand kit

cylinder, 3-1/2" o.d. x 3 cm long

cylinder, 3-1/2" o.d. x 6 cm long

13 & 14. Glass column for Flow through Experiment of following dimensions

Chromaflex (or equivalent) Glass Column with PTFE end caps (column dimension: 2.5 cm ID and length 15 cm)

Chromaflex (or equivalent) Glass Column with PTFE end caps (column dimension: 4.8 cm ID and length 15 cm)

Glass type: Borosilicate glass

Use: medium pressure chromatography with aqueous mobile phases

Fittings: Four flangeless tubing nuts, Four flangeless ferrules

15. Hand held GPS

Physical dimensions 2.1" x 4.0" x 1.3" (5.4 x 10.3 x 3.3 cm)

Display size, WxH 1.4" x 1.7" (3.5 x 4.4 cm); 2.2" diag (5.6 cm)

Display resolution, WxH 176 x 220 pixels

Display type transfective, 65-K color TFT

Weight 5 oz (141.7 g) with batteries

Battery 2 AA batteries of NiMH or Lithium

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Battery life	25 hours
Water rating	IPX7
Interface	USB

16. Laser Range Finder

Physical Data

Mass: 3 kg
Power interface: 28V MIL-STD-461 compliant
Standby power 2.2W @28V
Maximum power 10W at maximum fire rate
Dimensions: 4.9" x 5.6" x 8.2"

Ranging capability

Reach exceeds 30km depending on target size and reflectivity

Software interface

RS422 data interface
Full control over range finder operation
On-board calibration electronics
In-field software upgrade

17. Long Range IR Camera Trap

Color: Brown

Battery Type AA (8)

Batteries Included No

Memory Card Included No

Memory Card Type SD

Resolution 20 MP

Memory Card Capacity Up to 32 GB Card

IR or Incandescent IR

Cellular Compatible No

Viewing Screen No

Photo Stamping Time, date, moon phase

Flash Range 100 Feet

Time Lapse Mode Yes

Audio Yes

Video Yes; 30 Seconds

Trigger Speed 0.25 Seconds

Multi Shot Yes, up to 5 shots

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Video Length 30 seconds

Brand: Cuddeback Model E2 or equivalent

Additional requirements: 32 GB Memory card with each camera (from Sandisk or equivalent)

(Note :- All the interested bidders are requested to offer for standard make of equipment)

Signature of the Bidder

With seal and Stamp

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Annexure D

PRICE BID
(On the letter head of the bidder)

Sl.No	Specifications	Quantity (No.)	Make	Unit Price	Amount in Figures	Amount in Words
1	TOC analyzer (liquid)	1				
2	Soil moisture/EC/Temperature sensor	3				
3	Multifunctional portable heavy metal analyzer	1				
4	Automatic Kjeldahl Analyzer	1				
5	Digital Orbital Shaker	1				
6	Ultrasonic Processor with timer and pulser	1				
7	Glassware washer	1				
8	Soil core sampler, 2-1/4 in. diameter	1				
9	Brass cylinder for core sampler, 6 cm, 2.25" o.d., for 0200 core sampler	10				
10	Tempe cell, 3-1/2" diam., 3 cm, 1/2 bar ceramic	1				
11	Tempe cell, 3-1/2" diam., 6 cm, 1 bar high flow ceramic	1				
12	Tempe cell stand kit	1				
13	Glass Column (2.5 cm ID and length 15 cm) with end cap	1				
14	Glass Column (4.8 cm ID and length 15 cm) with end cap	1				
15	Hand held GPS	3				
16	Laser Range Finder	2				
17	Long Range IR Camera Trap	10				

Signature of the Bidder
With seal and Stamp

Item Wise EMD Details: -

Annexure-E

NALANDA UNIVERSITY

SI.No	Items	Quantity (No.)	EMD (Approximate)
1	TOC analyzer (liquid)	1	34000
2	Soil moisture/EC/Temperature sensor	3	6300
3	Multifunctional portable heavy metal analyzer	1	20000
4	Automatic Kjeldahl Analyzer	1	22000
5	Digital Orbital Shaker	1	4700
6	Ultrasonic Processor with timer and pulser	1	11000
7	Glassware washer	1	NIL
8	Soil core sampler, 2-1/4 in. diameter	1	NIL
9	Brass cylinder for core sampler, 6 cm, 2.25" o.d., for 0200 core sampler	10	NIL
10	Tempe cell, 3-1/2" diam., 3 cm, 1/2 bar ceramic	1	NIL
11	Tempe cell, 3-1/2" diam., 6 cm, 1 bar high flow ceramic	1	NIL
12	Tempe cell stand kit	1	5000
13	Glass Column (2.5 cm ID and length 15 cm) with end caps	1	NIL
14	Glass Column (4.8 cm ID and length 15 cm) with end caps	1	NIL
15	Hand held GPS	3	NIL
16	Laser Range Finder	2	NIL
17	Long Range IR Camera Trap	10	NIL