

DETAILED TENDER DOCUMENT
SUPPLY OF LABORATORY EQUIPMENTS FOR SEES

NALANDA UNIVERSITY,
RAJGIR, PIN-803116

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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	25.03.2017
2.	Last date of receipt of tender	17.04.2017 ; 15:30 Hrs
3.	Date and time of opening tender	
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(KJ-04725-15)	1
6	Ultrasonic Processor with timer and pulser	1
7	Glassware washer (code : KJ-98963-35)	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	Chromaflex Glass Column (2.5 cm ID and length 15 cm)	1
14	Chromaflex Glass Column (4.8 cm ID and length 15 cm)	1

15	Hand held Garmin GPS	3
16	Laser Range Finder	2
17	Cuddeback Long Range IR Model E2 Camera Trap	10

N.B:

1. Specify clearly the details/make of each equipment and also enclose the product literature.
2. The supply, installation and commissioning should be done by the supplier at Nalanda University, Rajgir
3. All equipments 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 17/04/2017.

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

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 & incase of tenders which are acceptable, the EMD shall be adjusted/refunded against the PBG (Performance Bank Guarantee) which shall be 10% of the order value.
- e) The tenderer shall not be entitled to any interest/compensation on account of EMD/PBG 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 30 days for PBG(Performance Bank Guarantee) after satisfactory and full execution of the order and on acceptance of the materials by Nalanda University, Rajgir. However, if the supplies are covered by warranty period, the PBG shall be retained till the warranty period is over. The PBG should remain valid for 60 days beyond warranty period.
- 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 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) Warranty at site shall be one year 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 form only. The tenderwizarad 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.
- 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 PBG (Performance Bank Guarantee) 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 PBG shall be returned after expiry of such warrantee period. If the supplier fails to honour the warrantee as promised, the PBG 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).
- 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:
- 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.
 - 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.

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

- 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,
- 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
- To cancel the entire/part of this order as deemed fit.

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

- 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.
- 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.
- 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.
- The Storekeeper of Nalanda University shall take maximum precaution for the safe custody of materials delivered by the tenderer. However, incase 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.
- 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.
- 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) Warranty/Guarantee:

- a) Unless specified otherwise in writing the machine/equipment supplied shall carry a warranty/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 warranty/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) will be forfeited.
- c) During the warranty, if it becomes essential to send/take the equipment to the works/factory of the manufacturer/supplier for replacing and/or servicing, Bank Guarantee in the prescribed form shall be provided by manufacturer/supplier toward the cost of such equipment/machine. The Bank Guarantee so drawn shall be for the period for which equipment remains with the manufacturer/supplier.

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/- if the bill amounts to Rs.5000/- and above.
- 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.
- c) Normally as per Government rules 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.

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		

Tender Notice No:

Due Date: 25.03.2017

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.

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 sea

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 (20ft)			
3	Multifunctional portable heavy metal analyzer			
4	Automatic Kjeldahl Analyzer			
5	Digital Orbital Shaker(KJ-04725-15)			
6	Ultrasonic Processor with timer and pulser			
7	Glassware washer (code : KJ-98963-35)			
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	Chromaflex Glass Column (2.5 cm ID and length 15 cm)			
14	Chromaflex Glass Column (4.8 cm ID and length 15 cm)			
15	Hand held Garmin GPS			
16	Laser Range Finder			
17	Cuddeback Long Range IR Model E2 Camera Trap			

Technical Specifications

(To be kept in the sealed envelope)

1. TOC Analyzer (liquid and solid)

		TOC-VCSH/CPH/CSN/CPN	TOC-LCSH/CPH/CSN/CPN
Measurement range	CSH/CPH	TC : 4µg/L - 25,000mg/L	TC : 4µg/L - 30,000 mg/L
		IC : 4µg/L - 30,000mg/L	IC : 4µg/L - 35,000 mg/L
		TN : 5µg/L - 4,000mg/L	TN : 5µg/L - 10,000 mg/L
	CSN/CPN	TC : 50µg/L - 25,000mg/L	TC : 50µg/L - 30,000 mg/L
		IC : 4µg/L - 3,000mg/L	IC : 4µg/L - 3,000mg/L
		TN : 20µg/L - 4,000mg/L	TN : 20µg/L - 10,000 mg/L
Priority water sampling when using an auto sampler	Common	None	Yes (maximum of 30 second reduction per sample with 3 measurements, Note 1)
COD/BOD conversion	Common	Function available (TOC-VCSH/CSN only)	Function available (all models)
Built-in LCD	CSH/CSN	Black and white	TFT color
Number and type of data saved (standalone model)	CSH/CSN	Measurement results: For 200 samples, average values only Calibration curve: 25 max.	Measurement results: For 2,000 samples or more, all measurement results and peak data Calibration curve: 60 max.
Output of data saved (standalone model)	CSH/CSN	Not available	Capable of output to a USB memory stick
Printer	CSH/CSN	Built-in printer (thermal)	Capable of using a PC USB printer (sold separately)
Validation support	CPH/CPN (PC software)	None	Yes

PC connection	Common	RS232C	USB
Carrier gas problem detection	Common	None	Function available
Power consumption (Weekly integrated value) Note 2	Common	Approx. 20,000 Wh	Approx. 12,700 Wh (36 % reduction)
External dimensions, weight	Common	TOC main unit: W440xD525xH460m, Approx.40kg TN unit added: W600xD525xH460, Approx.48kg	TOC main unit:W340 xD660xH480mm, Approx.35kg TOC main unit:W340 xD660xH480mm, Approx.35kg
Autosampler cover	Common	Fitted cover	With a two-part cover, adding vials is simplified
Kit for small sample volumes	CSH/CPH	None (sample consumption: 8 mL for 3 measurements)	Yes (sample consumption: 5 mL for 3 measurements)
High-salt sample combustion tube kit	Common	None	Yes
Halogen scrubber for high-salt samples (B-type halogen scrubber)	Common	No option available	Option available

2. Soil moisture/EC/Temperature sensor (20ft)

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
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 50 ft (15 m)
Accuracy: 3% VWC @ EC < 8 mS/cm
Sensing Area: 2.4 in (6 cm) x 0.8 in (2 cm)

3. Multifunctional portable heavy metal analyzer

Item	Technical Parameters			
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

Model	AKA-11
Sample capacity	Solid≤5.00g/sample, liquid≤20mL/sample
Measuring range	0.1mg N - 200mg N
Analysis time	5 - 10 min/sample
Recovery	≥99.5%
Burette volume	1.0μl/step
Reproducibility	Average value relative error 0.5%
Storage capacity	1000 pieces
Interface	USB or RS485
Power supply / Power	220V 50Hz / 2KW
Water consumption in the distillation process	1.5L/min
Cooling water temperature	<20°C

Ambient temperature	10 ⁰ C - 28 ⁰ C
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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
Power (VAC)	100 to 240
Power (Hz)	50/60
Qty/ea	1

6. Ultrasonic Processor with timer and pulser

Use for samples from 150 L to 150 mL
 Maintain sample control with pulsar feature—allows sample to settle after each burst
 Adhere to protocols with programmable unit

It should feature a timer that controls the processing time from 1 second to 10 hours and an independent on/off pulser (1 to 59 seconds) to enable safe treatment of temperature-sensitive samples at high intensities.

What should be included? converter, tool kit, and 6-ft (1.8-m) cord with grounded plug (European plug on 220 VAC models), 1/8" (3 mm) titanium probe and tip, 1/4" (6 mm) titanium probe and tip.

Power: 220 VAC, 50/60 Hz

7. Glassware washer

Chamber dimensions: 57.5X47.5X54.1cm
Glassware clearance: 47.5 cm
Power: 208/240 VAC,50-60Hz
Washing temp: 93 degree centigrade

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 Glass Column (2.5 cm ID and length 15 cm)

Chromaflex Glass Column (4.8 cm ID and length 15 cm)

15. Hand held Garmin 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	transflective, 65-K color TFT
Weight	5 oz (141.7 g) with batteries
Battery	2 AA batteries (not included); NiMH or Lithium recommended
Battery life	25 hours
Water rating	IPX7
High-sensitivity receiver	
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. Cuddeback Long Range IR Model E2 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

Video Length 30 seconds

Signature of the Bidder
With seal and Stamp

Annexure D

PRICE BID (On the letter head of the bidder)

SI.No	Specifications	Quantity (No.)	Make	Unit Price	Amount in Figures	Amount in Words
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(KJ-04725-15)	1				
6	Ultrasonic Processor with timer and pulser	1				
7	Glassware washer (code : KJ-98963-35)	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	Chromaflex Glass Column (2.5 cm ID and length 15 cm)	1				
14	Chromaflex Glass Column (4.8 cm ID and length 15 cm)	1				
15	Hand held Garmin GPS	3				
16	Laser Range Finder	2				
17	Cuddeback Long Range IR Model E2 Camera Trap	10				

Signature of the Bidder
With seal and Stamp

Item Wise EMD Details: -
Annexure-E

SI.No	Items	Quantity (No.)	EMD (Approximate)
1	TOC analyzer (liquid)	1	34000
2	Soil moisture/EC/Temperature sensor (20ft)	3	6300
3	Multifunctional portable heavy metal analyzer	1	20000
4	Automatic Kjeldahl Analyzer	1	22000
5	Digital Orbital Shaker(KJ-04725-15)	1	4700
6	Ultrasonic Processor with timer and pulser	1	11000
7	Glassware washer (code : KJ-98963-35)	1	1000
8	soil core sampler, 2-1/4 in. diameter	1	3340
9	brass cylinder for core sampler, 6 cm, 2.25" o.d., for 0200 core sampler	10	1300
10	tempe cell, 3-1/2" diam., 3 cm, 1/2 bar ceramic	1	1550
11	tempe cell, 3-1/2" diam., 6 cm, 1 bar high flow ceramic	1	1600
12	tempe cell stand kit	1	5000
13	Chromaflex Glass Column (2.5 cm ID and length 15 cm)	1	1000
14	Chromaflex Glass Column (4.8 cm ID and length 15 cm)	1	1250
15	Hand held Garmin GPS	3	1450
16	Laser Range Finder	2	800
17	Cuddeback Long Range IR Model E2 Camera Trap	10	3000