

## जैव रसायन संभाग

DIVISION OF Biochemistry

भा.कृ.अ.प.–भारतीय कृषि अनुसंधान संस्थान, पूसा, नई दिल्ली–110012  
ICAR-Indian Agricultural Research Institute, Pusa, New Delhi-  
110012

File No. BC/ST/NAE/2019-20

Dated : 29/10/2019

### निविदा-सूचना

**Online quotations** are invited from reputed Manufacture/Dealer/Supplier in two bid system (Technical bid & Financial bid) for purchase of following Scientific Equipment/Items on behalf of Director ICAR- Indian Agricultural Research Institute, New Delhi. The **last date for submission of Bid 22.11.2019 at 1.00 PM**. The **bid will be opened on dated 23.11.2019 at 14.00 hrs** by the prescribed committee.

Please visit [www.iari.res.in](http://www.iari.res.in) for Details Rules and Regulation and Log on [www.eprocure.gov.in](http://www.eprocure.gov.in) for online.

Sl. No.	Name of Scientific Equipment/ Item	Quantity
1.	KJELDAHL UNIT ( NITROGEN ANALYSER)	1. No.

#### **Instructions to the bidder and terms & conditions of tender:**

1. The rates quoted shall be valid for a minimum period of 180 days from the last date fixed for submission of bid.
2. The rates quoted shall be free of cost delivery and installation at the Division/Unit of **Biochemistry**, IARI, New Delhi – 110012. However, equipment quoted in foreign currency must be quoted on FOB/ CIP basis
3. Custom Duty Exemption Certificate (CDEC) will be issued only when the bid is quoted in foreign currency in case of foreign made items only and meant for IARI
4. Full specifications of the item/ article quoted for shall be given in the quotation.
5. If taxes, duties or any other charges over and above the rates quoted livable, actual percentage of such taxes/duties/other charges should be clearly indicated.
6. **EMD of Rs. 8,000/- Rupees EIGHT thousand only** should be in the form of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favors of Director, IARI payable at New Delhi. The original EMD should be submitted to the Tender Inviting Authority on or before the last date and time of offline bid submission. The details of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee physically sent, should tally with the details available in the scan copy and the data enter during the bid submission time otherwise the uploaded bid will be rejected.
7. No interest on security deposit and earnest money deposit shall be paid by the Institute totenderer.

8. The EMD shall be refunded to the unsuccessful bidders after finalization of the quotation. In case of successful bidder, it can be adjusted towards security deposit which is 5-10% of the order value in the form of D.D./ Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favour of Director, IARI payable at New Delhi and shall remain valid for 60 days beyond the date of completion of all contractual obligation of supplier including warranty obligation for the equipment/goods costing Rs.1.00 lakhs (Rs. One Lakh) or more. Here would however, be no performance security deposit for equipment/goods costing less than Rs. 1.00 lakhs ( Rs. One Lakh).
9. One year warranty has to be invariable provided by the firm. In case, there is any variation in the warranty period given in the specification of the item/equipment, the warranty period shall be the final as given in the specification.
10. Payment will be made by mode of e-payment to the supplier/firm after satisfactory completion of work and receipt of pre-receipt bills triplicate.
11. The Director IARI, New Delhi reserves the right to accept or reject any or all the quotations either in full or in parts without assigning any reason.
12. Quotations not complying with the above conditions are liable to be rejected.
13. Scanned copy of GST/TIN/VAT/PAN/C.S.T. Nos may be attached with the bid.
14. In case, any dispute arising out of this contract shall be subject to the jurisdiction of Indian laws & Court at New Delhi. Sole arbitrator is appointed by the Secretary, ICAR, New Delhi. His decision will be final and binding on both parties (Supplier and Purchaser)
15. The successful bidder has to execute the indented Job/Work as mentioned in the supply order placed with them within the stipulated period as given in the supply order placed by this office failing which 2% per week and maximum of 10% deduction as liquidated damage charges will be made from the bill in case the job is not completed within the given stipulated period.
16. Firm should enclosed proof for three years' experience in this line (copies of supply order received in 3 years . should be enclosed.
17. For locally (within India) manufactured good/items. Proforma invoice for the goods/items to be procured from the OEM or Authorized agent/Distributor for goods/ spare parts of equipment manufactured aboard, proforma invoice is to be procured from the OEM in the currency of that country and not in INR . The firm (providing proforma invoice) should mention/undertake that "the rates quoted by them are the same and not higher than those quoted with other Government, public sector or private organizations and undertaking that, in case it supplies or quotes a lower rate to other Government , public sector or private organizations, it would reimburse the excess" The firm may mandatorily submit the purchase order of same goods/items which it supplied to Government Departments in recent past in order to justify the quoted rates.
18. Certificate from the OEM in favor if Authorized Agent/Distributor clearly stating that "the agent is the sole authorized agent to provide goods / service in India for the OEM products" The certificate shall not be dated more than one year old and valid for at least next 12 months. The agency Agreement/Distributor certificate should clearly bring out Exclusive status of the agent (Sole selling agent in India) after sales service arrangements, validity of the Agreement with foreign Principal. Agency Commission. The agreement between the OEM and the Agent/Distributor must make the Indian Agent/Distributor responsible for all the contractual obligations including quality aspects, replacement of parts/items and warranty/guarantee obligations.

Sl. No.	Description / Specification of the Equipment/ Item
1.	<p><b>Name of Equipment</b> : KJELDAHL UNIT ( NITROGEN ANALYSER) <b>One No.</b></p> <p><b>Specification</b> : <b>As per Annexure -A</b></p>

**Asstt. Admn. Officer**  
\*SKB\*

## TECHNICAL SPECIFICATIONS FOR KJELDAHL UNIT (NITROGEN ANALYSER)

### A. Automatic Digestion Unit

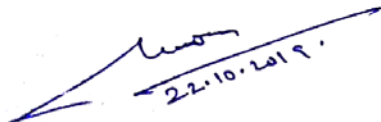
1. Digestion slot should have Twenty Place 250 ml capacity PC Compatible Block Digestion System with all essential accessories.
2. TFT Graphic Touch Screen Display with unique wireless mouse to operate at a distance of 1-4 mtrs.
3. Should have provisions for 2 Ports in the motherboard : one for PC connectivity another for direct connection to Remote Mouse/Datalogger/ Memory stick for data storage with separate port in mother board apart from PC Port
4. Integrated autosequencing time/temperature domain of 70 programs and 12 sequencing steps.
5. Facility for Inbuilt mini printer for printing options to document preprogrammed settings and logged datas.
6. Temperature Controller should be isolated separately in a control tower to protect electronics from digestion heat zone and acid reaction zone.
7. Temperature Control Range: Room temperature to 450 ° C, Temperature Accuracy :  $\pm 0.5$  ° C
8. PC software performs Live graphical representation of time /temperature gradient and various stages with print options.
9. Data logger with real time clock with 4-6 GB memory stick for data storage.
10. All essential accessories like Digestion Tubes, SS Insert Rack, Exhaust Manifold, Suction assembly for safe removal of acid fumes should be included.

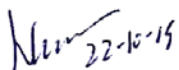
### B. Automatic Scrubber Unit

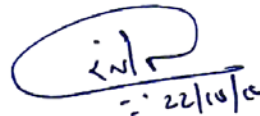
1. Four Stage Fully Automatic Microprocessor based programmable acid neutralization scrubber with digital display integrated online with motherboard of digestion system with inbuilt magnetic suction pump for water recirculation
2. Auto start on operation of digestion system and auto off on completion of digestion cycle with a delay time of 5 minutes, should indicate auto fill error in case of absence of inlet water, FRP Tank etc.
3. Should have Low level & high level indication of auto waste disposal, auto drain of tank water, Auto indication of drain cycles,

### C. Automatic Distillation Unit

1. Autosequencing Programmable Microprocessor based Distillation with inbuilt software, Colour Touch Screen high resolution TFT LCD Display,
2. Auto Intelligent run of programmable steps, Dilution, KMNO<sub>4</sub> Addition for Available Nitrogen, Alkali Addition, Steam Processing, Process over indication with inbuilt delay time features, Auto Titration Connectivity feature for future upgradation with inbuilt mini printer for instantaneous results on input of titre value with inbuilt formula for Nitrogen, Available Nitrogen, Ammonical Nitrogen etc. without connecting to PC. Should possess complete automatic safety features.
3. Facility to program and control distillate volume for determination of available nitrogen
4. Facility of auto sensing of "NO WATER" condition in condenser & steam generator with alarm & signal to alert user and auto deactivation of operation after warning in case of user non availability.
5. Enables Automatic monitoring and measuring of high temperature in distillate with sensor for auto warning signal and safety alarm to alert user to control distillate temperature. Temperature displayed digitally.
6. Auto reagent Level Sensor with Alarm for Reagents, Stainless steel non corrosive steam Generator.

  
22.10.2019.

  
22-10-19

  
22/10/19

7. The control panel unit along with inbuilt temperature controller, timer, mother board and SMPS should be isolated in separate compartment to protect electronics from wet chemistry & acid/alkali process area for longevity and safety of all electronic components.
8. Min / Max Detection Limit of nitrogen level : 0.1 to 200 mg Nitrogen
9. Nitrogen Reproducibility:  $\pm 0.1\%$  RSD , Nitrogen Recovery :  $> 99.5\%$
10. Electrical Requirement: 220-230V single phase 50Hz A.C

Naik

Amil  
22.10.2019

(Dr Anil Dahuja)  
Professor

RR  
22/10/19

(Dr R R Kumar)  
Senior Scientist

Naik  
22.10.19

(Dr H. Kumar)  
C.T.O

(Sh. Shyam Sunder)  
D.A.O