



DBT-AAU CENTRE FOR AGRICULTURAL BIOTECHNOLOGY
ASSAM AGRICULTURAL UNIVERSITY
JORHAT

NOTICE INVITING QUOTATIONS

Sealed quotations are invited from the reputed manufacturers/authorized dealers/suppliers for supply and installation of laboratory equipments / instruments etc. The quotation may be obtained w.e.f. 21/03/2020 from the office of the undersigned personally or by sending self-addressed stamped (Rs.25/-) envelope on payment of Rs.200/-(Rupees two hundred) only in the form of crossed IPO / DD drawn in favour of "The Comptroller, Assam Agricultural University, Jorhat-13", and bid security amounting to 2% of the quoted price in the form of a Demand Draft/ Call Deposit in favour of "AAU-DBT Center, Assam Agricultural University, Jorhat-13", separately for each item quoted, which will be received by the undersigned up to 2.30 PM on 21/04/2020 and will be opened on the same date and hour. The documents can also be downloaded from the classified section of University's website www.aau.ac.in, as well as DBT- AAU Centre website www.dbtaau.ac.in.

Sd/- B K Sarmah
Director
DBT- AAU Centre
AAU, Jorhat-13


Memo No. DBT-NECAB/AAU/08/2018-19- PART-1/ 2014-2022

DATED, 17.03.2020.

Copy for information to:

1. The PS to the Vice-Chancellor, AAU, Jorhat
2. The Comptroller, AAU, Jorhat
3. The Registrar/ All Directors/ Chief Librarian/ Director of Research. They are requested to display in the notice boards.
4. The Web Master, ARIS Cell, AAU, Jorhat. He is requested to upload the advertisement in AAU website.
5. The Adwell Advertising Agency, Jail Road, Jorhat. They are requested to publish the above quotation notice in the (i) The Dainik Janambhumi, (ii) The Assam Tribune and in minimum size and one issue urgently and submit the bill in quadruplet along with the paper-cutting for payment.
6. The Supervising Officer, Government of India book Depot, 8, KS. Roy Road, Kolkata : 700001. He is requested to publish the advertisement in the forthcoming issue of Indian Trade Journal and submit the bill in quadruplet along with the paper cutting for payment.
7. The Notice Boards of the Dean, FA and Department of Agril. Biotechnology, AAU
8. Instrumentation Engineer, DBT-AAU Centre, AAU.
9. The Accountant, DBT-AAU Centre, AAU.
10. Office Copy.

Director
DBT- AAU Centre
AAU, Jorhat-13
Centre Director
DBT-AAU Centre
AAU, Jorhat-785013


17/3/20

Terms and Conditions

1. The quotation fees of Rs.200/- (Rupees Two hundred only) in favour of “The Comptroller, Assam Agricultural University, Jorhat-13” is not refundable. Those who will submit the quotation by down loading the tender documents, they must have to submit the quotation fee in the form of DD along with the quotation **without which quotation will be rejected**
2. The bidder shall enclose EMD 2% of the quoted price in the shape of DD drawn in favour of “DBT-AAU Centre, Assam Agricultural University, Jorhat-13”. The bids that are not accompanied by the aforesaid bid security will not be accepted. The details of bid security must be provided. The bid security of the unsuccessful bidders will be released after issuing supply to the successful bidder and the bid security of the successful bidder will be released after execution of the order.
3. The quotation shall be sealed and super scribed at the top of sealed cover “Quotation for Lab equipments under DBT-AAU Centre”.
4. Quoted price: To facilitate format evaluation, the bidder shall quote the price of each items separately along with relevant papers for supporting the quoted price such as catalogue, dealership certificate and Co’s printed price list, user list etc. failing which the bid shall be treated as non-responsive at the discretion of the purchaser.
5. The bid submitted to the bidder shall remain valid for a period of 90(ninety) days. Bid not conforming to this provision shall be treated as non-responsive.
6. To facilitate prompt evaluation, the bidder shall provide Technical Compliance Report (TCR) and price data for each item separately.
7. Quotation must also be submitted in a **soft copy in CD (to support in Microsoft words only)** in the following format failing which the bid treated as non-responsive, at the discretions of the purchaser. In case of any optional items, pictures should be shown separately. Any discrepancies in the soft copy will be the responsibility of the quotationers.

Format

Name of Item	Brief Specification	Unit Price	GST/Freight Charge if any (FOR Jorhat)/	Total
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8. The rate shall be quoted for all duties, taxes and other levies payable by the bidder shall be included in the item rate. GST should be quoted separately (TIN No/GST No. must be furnished)

9. There should not be any overwriting. Corrections, if any, should be made with dated initial of bidder. Bidder shall submit quotation separately in each item.
10. Rates should be quoted clearly both in words and figures separately for each item without which the quotation shall stand rejected.
11. The price quoted shall be fixed and not subject to adjustment/variation during the performance of the contract.
12. The warranty of the items shall be as per the prevailing warranty policy/certificate of manufacturer (where necessary) for the items and warranty period shall not be less than months from the date of commissioning of items at site.
13. The bidder shall furnish the warranty for all the items at the time of delivery and commissioning. The purchaser shall reject the items not enclosed by warranty certificate from their manufacturer. The warranty certificate should be duly signed and sealed.
14. Bidders must supply the items at their own cost. **All machineries/equipments are to be supplied FOR destination.** Delivery of goods shall have to be completed within 30 (thirty) days from the date of issuing supply order.
15. Installation and commissioning charges, if any, inclusive of expenses of foundation work etc. are to be mentioned separately against each machine. In case of no mention, the same will be considered as inclusive of installation cost whenever applicable.
16. The machineries are to be supplied ready to operate, complete with motor, starter and any necessary gadgets including catalogues, trouble shooting manual etc. without which the same will be considered as incomplete supply.
17. List of spare parts with current price to be required during operation of the machines and addresses of the source of spare parts availability including contact no., e-mail etc. are to be provided in a separate sheet.
18. Price of one set of critical wearable spares that would hamper the working of the machineries/equipments should be mentioned separately against each machine.
19. The supplier shall provide free maintenance services during the period of warranty. Any repair and maintenance including providing of spare parts (covered by manufacturer's warranty certificate) during the warranty period shall be bidder's responsibility.
20. **Detailed specification with make, model, size, and code no., catalogue, and name of manufacturer should be furnished. ISO certificate must be furnished for the offer make where applicable.**
21. Copies of S.S.I registration or such documents may be produced with quotation.
22. Attested copies of dealership certificate and Co's printed price list must be enclosed with the quotation.
23. Up-to-date sale Tax clearance certificate and Income Tax return of last two years duly attested must be submitted along with the quotation. PAN No. must be furnished.

24. All payment shall be made preferably in Indian Rupees only after the satisfactory installation of the instruments.
25. Where ever the laws and regulations require, deduction of taxes at source of payment, the purchaser shall effect such deduction from the payment due the supplier, the remittance of amounts so deducted and insurance certificate for such deduction shall be made by the purchaser as per the laws and regulation in force.
26. The quotation **will be opened on the day of last date of submission i.e on 21/04/2020 at 2.30 p.m.** in the office of the undersigned. The bidder or his authorized representative may attend the bid opening. Except price, no other details will be announced during the opening.
27. Every page of the bidding documents purchased from the purchaser are to be signed by the bidder including their acceptance of terms and conditions and returned with their quotation.
28. The undersigned reserves the right to accept or reject any quotation and to cancel the instant bidding process and reject all quotation at any time prior to award of contact, without thereby incurring any obligation to the affected bidders of grounds for the purchaser action.
29. All the accessories required for full and proper functioning of the equipment should be included with the unit price not as accessories such as Voltage stabilizer, Computer, software etc.
30. All the equipments are kept in the ambient temperature, if the equipment requires any specific environment that should be mentioned in the technical specification part.
31. Item Sl. No 1 to Sl. No.8 have to be delivered to DBT-AAU Centre, Assam Agricultural University, Jorhat -13 and item Sl. No. 9 to Sl. No. 16 and Sl. No. 6 have to be delivered to the following addresses.
- a) Dept. Of Biotechnology
Aizawl, Tanharil
Mizoram University
Mizoram-796009
 - b) Dept. Of Horticulture
SASRD
Nagaland University
Medziphema Campus
Nagaland-797106
 - c) Dept. Of Horticulture
College Of Agriculture
Lembucherra
Tripure- 799210
 - d) Dept. Of Soil Science and Microbiology
College of Post Graduate Studies
Central Agricultural University
Imphal, Umroi Road
Umiam
Meghalaya-793103
 - e) Central Agricultural University
Imphal
Manipur-795004

List of equipments/instruments and their specifications

S. No	Name of the Equipments/ instruments	Required Specifications	Qty
1	Lyophilizer with Vacuum Centrifuge Concentrator	<p>The system should includes the followings: 1)Vacuum Centrifuge, 2)Cold Trap 3) 1,5 ml rotor(centrifuge rotor), 4) Trolley 5) Connection kit for vacuum pump, vacuum centrifuge & Cold trap 6) Oil pump 7) Oil mist filter to reduce oil vapour 8) 4 port Freeze Drying manifold and ¾” quick seal valve.</p> <p>S P E C I F I C A T I O N S</p> <p>VACUUM CENTRIFUGES Speed Range should be 0 to 2000 rpm adjustable Pressure readout should be 0.001 TO 1000 M BAR Should have Digital Microprocessor controlled display Heating range should be + 5 to 80°C Should have Timer</p> <p>COLD TRAP Condenser temperature : -110°C (at an ambient of 20°C) for faster drying process of aqueous, organic solvent, other volatiles which have very low freezing point. Should have seamless stainless steel condenser for easy cleaning longest life. The condenser trap which is normally prone to corrosion should be made of highest quality rust free stainless steel AISI316 grade to prevent corrosion at any case. Cold trap : - 110⁰ Condenser capacity/24 hrs: 2.5 Kgs Total condenser volume, L: 4</p>	1
2	Ultra pure water system(type 1 water grade)	<p>Ultra-Pure Water (Type I) should meet:</p> <p>1.Product Water Quality:</p> <ul style="list-style-type: none"> • Resistivity: 18.2Mohm.cm • TOC: <2ppb • Bacteria: < 0.005 CFU/MI • Pyrogens (endotoxins) <0.001 EU/mL • RNases <1 pg/mL • DNases <5 pg/mL • Proteases <0.15 µg/mL <p>2. Water quality monitoring system should have the following specifications:</p> <p>a) Precise on-line conductivity monitoring having a 0.01 cm-1 cell constant and a 0.1° C sensitive</p>	1

		<p>thermistor.</p> <p>b) Online TOC monitor should have a minimum detection limit of 0.5 to maximum 999.9 ppb and capable of monitoring in decimal level.</p> <p>3. Taken into consideration the cost of water also to meet our laboratory demanding requirement and to save time, Water quality dispensing system should meet the following specifications:</p> <p>a) System should have an assisted dispensing which will allow to adjust meniscus after filling upto 95-96% of desired volume.</p> <p>b) To manage high volume buffer preparation system should have a volumetric dispensing with an option for ml and Litres.</p> <p>c) If very small volumes are required we should be able to manage from dispenser and not from main menu.</p> <p>4. In order to accommodate the entire system in a small room also taken into account future up-gradation, the water dispenser should have the following features :</p> <p>a) The dispensing unit should have all the information of water quality and instrument performance.</p> <p>b) Provision for Up to 4 dispensing unit can be used for each unit. This should allow water for several different applications to be accessed from the same system.</p> <p>c) Handle should have proper grip in order to handle it easily by users.</p> <p>d) Dispensing unit should have touch screen which can provide dispense report that can be archived in system history.</p> <p>5. Maintenance aspect :</p> <p>a) Will be able to replace Cartridge on our own.</p> <p>b) Able to trace filter expiry well in advance by alarm or by other means.</p> <p>c) System support software copy should be made available at our site.</p>	
3	Vacuum Emasculator	<p>1. It should be compact and portable.</p> <p>2. It should be suitable for removal of parts of flowers for hybridization.</p>	1

		<ol style="list-style-type: none"> 3. 2-3 people should be able to work independently at one time and approximately 20-25 mbar pressure shall be attained through a single vacuum line for each user. 4. Pumping Speed : ≥ 10 l/min 5. Ultimate pressure: 100 mbar approx. 6. Maximum over pressure : 2-2.5bar 7. Sound level : ≤ 55db (complied with silencer) 8. It should be fully concealed system with rodent proof. 9. It should have fabricated stand with suitable mounting accessories for safety and convenience with ON/OFF switch and MCB system. 10. It should have release valve with accessories. 11. It should have mobile system on wheel fully concealed with key locking facility. 12. It should have mechanical and electrical pressure regulator output nozzles and provided with emasculating needles. 13. Separate dial gauges should be attached to all vacuum lines so that each user can attain specific pressure required for the suction of anthers from plant. 14. The collection of anthers should be done in autoclavable collection jar. 15. It should have special purpose impedance protected motor and gyro sync pump. 16. It should have operating voltage: AC 230 volts, 50Hz, single phase power supply system with voltage regulatory system. 	
4	Peristaltic pump	<ol style="list-style-type: none"> 1. It should have large display and clear user guidance with navigational keys for fast setup and use. 2. Dose volume should be 0.1 ml – 9,999 ml. 3. Flow rate should be 0.6 ml/min–2.5 L/min (5 L/min with 2nd Pump Head). 4. Should be Compact, lightweight and portable design. 5. Should have wide range of tubing sizes (1mm~8mm ID) with aspiration/ dispensing stainless steel tube for precise dosing of milliliters to liters. 6. Jagged, V-shaped tubing clamps on both sides of the pump head to guarantee that the tubing does not 	1

		<p>slip when the rotor turns.</p> <ol style="list-style-type: none"> 7. Should have minimum of memory for 20 dosing protocols for conveniently switching between different applications. 8. Should have CUSTOMIZE mode for easy and efficient creation of personalized liquid handling protocols without the use of PC. 9. It should be able to program with 7 different step types, Repetitions between 1 – 999 or, Cycles between 1 – 999 & Wait time between 1 sec – 10 hours. 10. Rotor turning direction should be changed between CW & ACW. 11. It should have in-built program for coating of Petri dishes, density gradient tubes, serial dilutions. 12. Should have pump mode to continuously pump a liquid instead of dispensing. 13. Should be provided with pipette-tubing adapter which allows connection of different serological pipettes, Pasteur pipettes or tips to silicone tubing. 14. Should have easy steps for Calibration. 15. Should be CE certified. 16. Should have RS-232 interface for connection with printer to document the dispensing and pumping performed. 17. Can be connected a PC through the RS-232 (2) port, to generate an electronic text file to document the dispensing and pumping performed. 18. Should have AUX connection for controlling a second unit. 19. Should have 3 years warranty. 20. Should have optional Retort rod with filling arm. 21. Should have optional 2nd Pump Head to achieve the maximum flow-rate of 5L/min 	
5	Suction pump	<p>Input Voltage 220-230V Max power 70-80 W Max flow rate 30-35 L/min Motor Rotation 1400-1500rpm</p>	1
6	Refrigerator	<p>Input 220/240V, 50Hz Should have digital temperature controller Temperature range should be +0°C to +8°C Should have auto defrost with self-evaporating drip tray Should have automatic Voltage Stabilizer Should be caster mounted Gross Volume 400-450 Litres</p>	7
7	Microwave	<p>Should be 25-28 lit capacity, Should have Soft control, Completion Alarm Timer should be : 30 second - 99 minutes</p>	2

		Should have accessories, like glass/ceramic tray	
8	Petri dish turn table	Should have variable rotational periods from 3 to 25 seconds Variable rotational speed control: 9 to 110 rpm Should accommodate Petri dishes up to 150 mm diameter	3
9	BOD incubator	Should have integrated digital PID Controller with timer and overshoot alarm. Temperature range should be +5 °C to 60°C Should have chamber illumination with fluorescent lights. Should have stainless steel adjustable shelves. Volume should be : 250-300 liters. Should have castor wheel mounted cabinet, double walled with inner chamber of S.S and outer wall of MS sheet. Should have forced air circulation to maintain accuracy. Should have PUF insulation Should have Tempered safety glass inner door	5
10	Laminar air flow system	<ul style="list-style-type: none"> • Working Area size: 120 x 60 x 60 mm (4" x 2" x 2") or any other customized size • Working table must be made up of stainless steel • Cock for gas/air/ vacuum line on working table • Pre-filter: Efficiency 99.90% particle retention \geq 5 micron. • HEPA Filter: efficiency of 99.97% - 99.99%. Particle Retention \geq0.3 micron • Transparent front door made of toughen glass • Static pressure inclined Manometer • Inbuilt UV Germicidal light • Illumination LED lights for easy operation • Power Supply 230V, 50Hz single phase A.C. • Voltage fluctuations Protection. • Electricals 15/5 AMP socket provide inside the chamber • Accessories: Pre –filter and HEPA Filter 	5
11	Mechanical Shaker	The instrument should have 1. Temperature Range:- Temperature control range from 5°C to 50°C; accuracy \pm 0.1 °C. 2. Shaking Features:- Electronically controlled shaking mechanism provides quiet operation. Brushless motor is preferable to avoid costly maintenance and noise.	5

		<p>3.Type of shaking: Orbital</p> <p>4.Speed: 30-300 rpm with control accuracy of ± 2rpm</p> <p>5.It should have acceleration/deceleration circuit prevent sudden starts/stops</p> <p>6.It should have timer of 1min to 99 hrs.</p> <p>7.Display : display screen for running time, alarm and temp.</p> <p>8.Safety Features:</p> <p>9.Over temperature protection.</p> <p>10. Calibration facilities for temperature and speed via keypad.</p> <p>11. Electronic and mechanical components should be enclosed, protected from accidental spills.</p> <p>12. It should have automatic restart after power interruption with non volatile memory.</p> <p>13. Open lid cut out switch system to stop agitation when chamber is open.</p> <p>14. Essential Accessories</p> <ul style="list-style-type: none"> a. Universal Platform having capacity to holds assortment of various sizes of flask sizes up to 2 liters and test tube racks. b. System should be supplied with 250 ml clamps (30 Nos.), 500 ml clamps (15 Nos.), 1000 ml (02 Nos.) and 2000 ml (01-02Nos) 	
12	Autoclave(64 L)	<p>Fully automatic vertical autoclave (automatic models requiring no human intervention till a full sterilization cycle is over),</p> <p>Inner chamber, outer chamber and support ring are fully made of stainless steel (SS-304).</p> <p>Heaters cover stand and carrier/bucket are made of stainless steel.</p> <p>Lid made of thick machined stainless steel plate</p> <p>Moulded joint less silicon rubber gasket.</p> <p>μProcessor based controller with Time and temperature programmable by user.</p> <p>Low water level alarm and cut off for safety of heater.</p> <p>Should have Drain valve for easy cleaning.</p> <p>Should have end of cycle buzzer and fitted with a safety valve.</p> <p>Miniature circuit breaker for MAINS On/Off plus safety of control panel,</p> <p>Capacity: 65 ltrs – 75 ltrs</p>	5
13	Hot Air Oven	<p>Electric Input : 220/230 volts A.C</p> <p>Capacity: 125 ltrs</p> <p>Should have temperature range of $+5^{\circ}\text{C}$ to 250°C.</p> <p>Should have adjustable overshoot alarm & heater</p>	5

		cut off with in-built soft start for long heater life. Oven should have digital temperature controller along with timer, alarms and auto tuning specialties. Oven should be supplied with stainless steel shelves.	
14	Digital Electronic Balance	Capacity: 220 g Readability: 0.1 mg. Repeatability: ≤ 0.1 mg. Linearity : +/- 0.3 mg Response time : 2 – 3 sec. Display: 4 digit Back light LCD Display. Calibration : Motorized Internal Calibration. Operating Temp: 5 deg. C to 35 deg. C. Tare range : Up to 220 gm. Power Supply : 220 – 240 V,AC. 50/60 HZ	5
15	pH Meter	Highly reliable digital pH meter Glass bodied combined pH electrode with ATC probe , Electrode holder, BNC shorting plug, 4 7 & 10 pH buffer sachets, power supply Operated on 220v/50hz. pH Range : 0.00 TO 14.000 pH Resolution : 0.01pH Accuracy : ± 0.003 pH MV Range : ± 1999 mV Resolution : 0.1 mV Accuracy : ± 0.2 mV Input Impedance : > 10 ohm Temperature Range : -10 to +105°C Resolution : 0.1°C Accuracy : ± 0.5 °C	5
16	Sealing Machine	Sealing area: 300mm length Adjustable heating knob to increase & decrease the temperature. Handheld electrically generated impulse heat sealing. Indicator when sealed, both audio-visual. Die cast base & handle made out of Cast iron duly powder coated. Shock proof heating filament.	5

**ANNEXURE –I
Format for EMD Details**

Sl.No	Sl. No of the item (as per bid document)	Name of the item quoted	Basic price of the item (excluding taxes and transportation charges)	Price in Indian rupee (for imported items at the prevailing rate of exchange)	Amount of EMD (2% of basic price)	Details of EMD submitted including amount and validity

**ANNEXURE – II
Format for Technical Compliance Report & Price Data**

1. Sl. No of the item (as per bid document)
2. Name of the item:
3. Name of scheme:

Sl.No	Specification asked for (strictly as mentioned in bid document)	Specification offered (Corresponding to specification in bid document)	Technical compliance (Yes / No)	Variation if any	Technical literature supporting the technical compliance (Suitably tagged)

**FORMAT FOR QUOTATION
(Separate Quotation for individual items to be submitted)**

Sl. No	Name of the item (s)	Brief Specification	Unit price	% of GST / Freight charge if any (FOR Jorhat)	Total amount

We agree to supply the above items in accordance with the technical specification mentioned. We also confirm that normal commercial warranty / guarantee ofmonths shall apply to the offered goods.

Quotationers Name:

Signature

Date:

Seal