



DBT-AAU CENTER 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. 27.09.2018 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 2.00 PM on 29.10.2018 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.

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

Memo No. DBT-AAU/AAU/02(3/95)-2018-19- Pt-1/ 742-53

DATED 25/09/2018

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 alongwith 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 alongwith 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

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 “AAU-DBT Center, Assam Agricultural University, Jorhat-13” at 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 projects under DBT-AAU Centre”.
4. Quoted price: To facilitate format evaluation, the bidder shall quote the price of 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.
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 29.10.2018 at 2.30 p.m.** in the office of the undersigned, AAU, Jorhat-13. 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 mention in the technical specification part.

**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

Sl No	Name of the project	Name of Equipments	Specification
1	Cyanobacterial diversity and their bioresource potential in the North Eastern Region of India	Gel documentation Unit with accessories	<p>1. Camera & Optics</p> <ul style="list-style-type: none"> • CX4 camera • Scientific grade camera • 2 megapixels resolution extendable to 7,6 megapixels • Passive cooling • 16-bit – 65 536 grey levels • USB-3 connection • Motorized zoom lens with feedback • Field of view: 20x20cm <p>2. Hardware</p> <ul style="list-style-type: none"> • Software control of the lighting • White light led panels with automatic intensity adjustment • UV cut-off filter • Fix position transilluminator with optional protection screen • Steel and stainless steel darkroom for long lasting robustness. Wide access door with UV safety shut-off <p>3. Software</p> <p>Molecular weight calculation, band quantification, colony counting, distance calculation, text annotation and image enhancement included</p> <p>4. Applications</p> <ul style="list-style-type: none"> • DNA and RNA gels and fluorescence stain imaging • Ethidium bromide, Sybr-Safe, Sybr-Green, Gel-Red Gel- Green, Sybr-Gold, GFP, Pro-Q Emerald, Sypro ruby FITC, DAPI • Colorimetric stained protein gels, X-Ray film, autorads SSCP gels, colony dish and flask imaging and other EPI white light applications • Coomassie blue, Silver stain, Ponceau S Red, Copper stain • Blue light conversion screen for

			<p>DNA/RNA detection Sybr-Safe, Sybr-Green, eGFP</p> <p>5. Compatible Laptop/ Desktop</p>
2	Cyanobacterial diversity and their bioresource potential in the North Eastern Region of India	PCR	<p>Universal Block for 96 x 0.2 ml PCRTube, 71 x 0.5 ml PCR Tube, One 8 x 12 PCR Plate</p> <p>Gradient PCR, capable of testing 12 different temperatures simultaneously across a gradient range of 1 - 20°C</p> <p>SteadySlope Gradient Technology ensures ramp rates are identical in both gradient and normal operation.</p> <p>Heating and Cooling via Peltier Technology.</p> <p>Temperature Control Range : from 4° C to 99° C</p> <p>Temperature Control Mode : Fast, Standard and Safe</p> <p>Lid Temperature range : 37° C to 110° C</p> <p>Block Temperature Accuracy : ± 0.2° C</p> <p>Gradient range from 1 °C to 20°C</p> <p>Gradient Temperature Range : 30 °C to 99 °C</p> <p>Lid temperature Range : 37 °C to 110 °C</p> <p>Block Homogeneity :-</p> <p>20 °C to 72 °C : < + 0.3 °C</p> <p>95 °C : < + 0.4 °C</p> <p>Temperature control speed approx. 3 °C/s (heating)</p> <p>Temperature control speed approx. 2 °C/s (cooling)</p> <p>Lid descent and closing pressure - Flexlid technology with Thermal Sample Protection</p> <p>Intuitive Graphic programming with larger display</p> <p>Time or Temperature increment with cycles in PCR program</p> <p>Adjustable ramp rate from 0.1° C to 3.0° C to meet critical amplification conditions</p> <p>Customized programming allows a maximum of 20 steps and 99 cycles</p> <p>Auto Restart facility with user defined time interval when power fails and resumes</p> <p>Instrument status indicates the step, cycles and remaining runtime during the run</p> <p>Two USB ports : for protocol transfer, self-test, USB, printer/mouse</p> <p>Log book function for error messages and new calibration</p> <p>Power save Standby function</p> <p>Mastercycler Nexus ECO for ultimate throughput. check functionality of all 6 peltier elements.</p> <p>Interface : Ethernet, CAN in, CAN out</p>

			Power Supply : 230V, 50-60 Hz
3	Cyanobacterial diversity and their bioresource potential in the North Eastern Region of India	Electronic balance	Capacity :220 g Readability :0.1 mg Repeatability :0.1 mg Response time (avg.) :2 s Linearity :0.2 mg Pan (inner diameter)* :90 mm
4	Cyanobacterial diversity and their bioresource potential in the North Eastern Region of India	Fluorescence compound Microscope with photographic unit and image analyzer	Trinocular Biological Research Microscope for Bright Field, Dark Field and Phase Contrast (Upgradable for DIC) and LED Epi-Fluorescence for UV, Blue & separately Green Excitation with Scientific Digital Monochrome Camera with Image Analysis Software 1. Rugged and sturdy stand with the following features: (a) Built-in stabilized power supply for minimum 12V / 50W Halogen illumination, suitable for 230V 50Hz power supply. (b) Co-axial coarse and fine harmonic drive focusing knobs on both sides for operation, low positioned for convenient operation with adjustable focus stop. (c) Daylight Filter and Interference Green filter (d) Built-in variable field diaphragm for transmitted light illumination . 2. a)Reversed revolving objective nosepiece with minimum 6 positions to mount minimum 6 objectives suitable for bright field with highly precise click stops and should have slots for up-gradation for DIC. 3. Mechanical Stage with Hardcoat anodized surface with low positioned co-axial knobs, right handed, with specimen holder for one-hand operation, scanning area of 75x50 mm. 4. Trinocular Observation Tube with minimum 23mm FOV 5. a) Condenser Carrier with vertical adjustment on both sides right- & left-hand operation with Universal Turret Condenser suitable for all Contrasting techniques 6. The microscope should be offered with high contrast Objectives with infinity colour corrected optics. The magnification / numerical aperture of the objectives should be 10x/0.25 phase, 20x/0.4 phase, 40x/0.65 phase and 100x/1.25 oil phase. Separately 5x / 0.12 8. Focusable Paired Eyepieces PL 10x with minimum 23mm FOV. with soft rubber eyecups and suitable for spectacle wearers . 9. a) Integrated Fluorescence light attachment with powerful LED illumination. Minimum 4 position

			<p>reflector turret for fluorescence filter sets and upgradable for minimum 4-LED Modules. Filter use standard push and click filter cubes for UV, Blue & separately Green Excitation sets. The intensity of each LED to be regulated individually for any colour. Life hours of the each LED Modules should be minimum 10,000 hours.</p> <p>b) Both LED turret with the reflector turret , to move in synchronicity! To avoid mistake.</p> <p>10. Scientific Digital Monochrome Camera for Fluorescence with basic CCD minimum resolution 1388 x 1040 , minimum pixel size 4.65 μm x 4.65 μm, 1.4 Mega pixel monochrome, Firewire interface and 12 bit digitization. Software for Image acquisition with possibility of image import and export in various formats, image enhancement and archiving and also interactive measurement of length, distance, angle etc. Separately Software for Multichannel Images , Acquisition of up to six channels and display in a single color image. Each channel can be individually processed, documented and exported.</p> <p>Suitable desktop PC with 21" TFT monitor, licensed OS & UPS for Digital Photomicrography and Image Analysis</p> <p>The Total System including microscope, camera, Image Analysis System for optimum optical compatibility and performance</p>
5	Cyanobacterial diversity and their bioresource potential in the North Eastern Region of India	UV-Vis Spectrophotometer	<ul style="list-style-type: none"> • System should be a compact one to measure and record UV/Vis spectral ranges wavelengths from 200 nm to 830 nm. • System should have integrated 5.7 inch colour display and Methods with analysis via factor, standard or standard series • Concentration via standard series (including linear and non-linear regression, linear interpolation. • System should have Pre-programmed methods for a quick start and guided software sequence to minimize errors • Optical system – Absorption single-beam spectrophotometer with reference beam and Light source of Xenon flash lamp • System should have spectral band width: ≤ 4 nm • System should have photometric measuring range: 0 A to 3.0 A at 260 nm with Random error: ≤ 0.002 if A = 0, ≤ 0.005 (0.5 %) if A = 1 and systematic error: $\pm 1\%$ if A = 1 • System should be supplied with quartz and

			<p>disposable plastic cuvettes</p> <ul style="list-style-type: none"> • System should also be capable of measurement Nucleic acid and protein. • System should have 2 years warranty from the date installation. <p>Compatible Laptop/ Desktop with inbuilt data analysis software</p>
6	Cyanobacterial diversity and their bioresource potential in the North Eastern Region of India	GLC with FID and other Accessories	<p>1. GAS CHROMATOGRAPH: Both Packed Column configurations.</p> <p>i. Automated Gas Chromatograph equipped with Dual channel Flame Ionization Detector (FID) with both Packed Column configuration.</p> <p>ii. Protection circuit against absence of carrier gas: The instrument will not function till the carrier gas at a preset pressure is available</p> <p>2. GC Software & Hardware (DATA PROCESSING SYSTEM) Gas Chromatography software and hardware along with suitable computer and Printer</p> <p>3. ESSENTIAL ACCESSORIES</p> <p>i. Control, Distribution and Gas purification panel as per description in the enclosed sheet</p> <p>iii. Dust removal Filter for three gas line</p> <p>iv. 3 Gas filled cylinder for H₂, N₂ and zero Air</p> <p>v. Cylinder Regulator: Two Stage pressure regulator for gas cylinder of H₂, N₂ and Air cylinder</p> <p>vi. 2 KVA SERVO VOLTAGE STABILIZER AC 60 Hz – Output 240 volt 50 Hz</p> <p>SPARES</p> <p>I) Silicon Rubber Septa</p> <p>II) Soap Film Flow Meter</p> <p>III) Set of Tools</p> <p>IV) Set of Pneumatic Fittings</p> <p>V) Liquid Syringe 10 Micro liter</p> <p>VI) S.S. Packed Column</p> <p>VII) Copper Tubing (Total length 10 meter)</p> <p>VIII) Set of Fuses</p>

			IX) Signal Cable
7	Efficacy evaluation of encapsulated fungal formulation for improving crop phosphorus nutrition	Gradient PCR machine along with electrophoresis unit, Horizontal and Vertical system for midi gel along with Power Pack	<p><u>Specs for Gradient Thermal Cycler with Electrophoresis system</u></p> <ul style="list-style-type: none"> • Gradient Thermal Cycler heating and cooling based system • Should supplied with 96 X0.2 ml block or One 96-well PCR plate • Gradient technology is a must to test different temperatures in columns or rows simultaneously to optimize Denaturation, Annealing and Extension temperature • Temperature gradient range: 1 – 30°C or more • Block Temperature control range: from 4 - 99°C or better • Better block Homogeneity between $\leq \pm 0.2^\circ \text{C}$ and $\leq \pm 0.4^\circ \text{C}$ or better of programmed temperature at end rows • Temperature Uniformity: $\pm 0.4^\circ \text{C}$ well-to-well(within row) within 10 sec of arrival at target temperature • Heating ramp rate of 4 -8 °C/s or better and Cooling ramp rate 4°C/s or better to achieve better specificity by reducing the run time and to complete the maximum cycles within the maximum half-life of Tag Polymerise • Auto Restart facility with user defined time interval • Log book function for error messages and new calibration • Should have a high resolution display • User level quick check for the instrument performance is preferred without any verification tool or service engineer • Preprogrammed template for easy selection of PCR protocols • Interface: Ethernet, USB • Accessories including UPS of 220 VAC with one hour back up <p><u>Specs for Midi Horizontal Electrophoresis system with a compatible power pack</u></p> <ul style="list-style-type: none"> • A horizontal midi gel electrophoresis system cable of running different gel sizes • Gel running tray (two nos. of preferable sizes 15×15cm and 20×20cm) with the Gel tank having safety lid • The supplied gel trays should be UV proof and

			<p>the trays can be directly kept on the UV Transilluminator</p> <ul style="list-style-type: none"> • Gel casting tray should be tape free gel casting module for leak free operations. • Preferably with a bubble leveler for even gel casting. • The gel caster should have 3 height adjustable screws for balancing the uneven platforms for uniform gel casting • The electrodes should be color coded to remove the confusion of wrong orientation. • The Lid should have a safety option so that the lid cannot be closed in the wrong orientation. • The Lid should have an integrated cable to connect it to the power pack directly. • The system should be capable to run precast ready agarose gels and Hand Cast gels. • The electrophoresis system must be from the same/compatible manufacturers as the power pack for complete compatibility • Programmable power supply with display. • Constant voltage, current or Power with Automatic crossover • Automatic Power up after Power failure, Safety features • No-load detection; sudden load change detection <p><u>Specs for midi vertical gel electrophoresis system along with a power pack</u></p> <ul style="list-style-type: none"> • Pre cast gel: 8.6 X 6.8cm or more • Hand cast gel: 8.3 X 7.3cm or more • Gel casting unit with glass plates- a. Short Plate size: 10.1X7.3cm or more and Spacer plate size: 10.1X8.3cm or more • No. of Combs: Preferably 10-15 Well Comb, 0.5 mm-2 Nos. and 1mm -2 Nos. • Upper and lower Buffer Tank Dimension : Compatible to casting unit • Clamp and screws: 4 sets. • Should run gels to perform SDS-PAGE and the second dimension 2-D using preferably 11cm and 13cm IPG strips • The casting stand should have single-screw clamps that exert even pressure along the entire length of the glass plates, providing leak-proof seal without grease or agarose plugs • Should include minimum two sets of glass plates
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			<p>along with spacers for running two gels at a time</p> <ul style="list-style-type: none"> • Preferably the system should have lid with safety jacks which break the circuit if lid is opened during a run • The electrodes should be color coded to remove any confusion of wrong orientation • The lid should have integrated cables to connect to power pack directly • System should conform to CE standards • The electrophoresis system must be from the same/compatible manufacturer as the power pack for complete compatibility
8	Efficacy evaluation of encapsulated fungal formulation for improving crop phosphorus nutrition	Horizontal Laminar Flow Cabinet	<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 still • Cock for gas/air/ vacuum line on working table • 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
9	Efficacy evaluation of encapsulated fungal formulation for improving crop phosphorus nutrition	Spectrophotometer	<ul style="list-style-type: none"> • wavelength range 400-900 nm (accuracy ± 0.5 to 1nm, spectral band width 2 nm), • operating in single wavelength mode, • automatic baseline correction, • with Tungsten-halogen and Deuterium lamps, • Power: 230 V, 50 Hz, • Preferably 2 match 10 mm path length quartz cuvette supply with the Instrument. • Accessories: Single Position 20 /50mm Cuvette Holder
10	Seedless Plant production and mass scale propagation of musa balbisiana (bhinkol banana) of NER using in vitro approach	Ultra low Freezer (-80)	<p><u>Specs for Ultra low Freezer (-80)</u></p> <ul style="list-style-type: none"> • Vertical Freezer should have Microprocessor-controlled temperature facility and alarms • Capacity should have storage capacity 400 Liters or above. Freezer should have minimum 5 compartments insulated inner doors. • Freezer should have Vent Plunger to prevent vacuum formation,

			<ul style="list-style-type: none"> • Freezer should have programmable temperature range from – 50⁰C to -86⁰C, in 1⁰C increments, even at 32⁰C ambient temperature. • Freezer should have the facility for Automatic Reset, Automatic refrigeration system with CFC, HCFC free refrigerants. • System should be quoted online UPS with 1 hour backup as optional. • System should be quoted with 10 nos of racks and 100 nos of boxes .
11	Seedless Plant production and mass scale propagation of musa balbisiana (bhinkol banana) of NER using in vitro approach	Stereo Zoom Microscope with Apochromatic optics and scientific digital camera and software	<p><u>Specs for Stereo Zoom Microscope with Apochromatic optics and scientific digital camera and soft ware</u></p> <ul style="list-style-type: none"> • Microscope stand & Optics Carrier Greenough type stand mirror –Based Transmitted light with the tiltable and shiftable mirror features brightfield and olique light-plus qualitative polarization contrast as an addition. • Optics carrier 8:1 zoom equipped with Apochromatic corrected zoom system, Zoom clickstops with trinocular head, Ergonomic Viewing angle 25° /35 °needed for relaxed working posture even after long hours of work, ten pricise detachable zoom click-stops 0.63x 0.8x, 1x 1.25x, 1.6x, 2x, 2.5x, 3.2x, 4x, 5x to be activated by choice for reproducible magnification and measurement. • Observation: Lower viewing angle of 25° /35° for a relaxed working posture, • Documentation: Phototube with 1000 right path, 0.5x camera adapter, • Magnification: Magnification range minimum 6x to maximum 100x, Additional Front Optics Apochromatic 20x with minimum WD of 35mm. Eyepiece: Paired 10x, eye piece with FOV 23mmor better, both adjustable with exchange eyecup,

			<ul style="list-style-type: none"> • Working distance Minimum 90-100mm with 1.0X objective and 10X eye piece, • Objective field: 36mm minimum with 1.0X Objective and 10X eye piece, • Power supply: Integrated power unit 12V DC 24W/100., 240V AC/50.. 60Hz, • Scientific Digital Color CCD camera: CCD Camera with sensor size 1/2 7, live Image Resolution 1920x 1080 pixel, • Exposure Time 0.001 sec to 10.0 sec, output mode both USB & HDMI, Operating system compatible XP, win Complete with HDMI cable, USB cable, Power adaptor, SD card, Capture Software, PC & printer : Branded Desktop PC & printer to be quoted optionally, • Imaging software: Software for camera control function like auto white balance, auto color balance Gamma control, contrast, offset saturation, exposure adjustment, Capture both video and still images post processing function and measurement capability, including size, angle area, perimeter, circle radius etc μ bar scaling- Text annotation, Warranty: Minimum 12 months from the Date of Installation.
12	Seedless Plant production and mass scale propagation of musa balbisiana (bhimkol banana) of NER using in vitro approach	Analytical balance	<p><u>Specs for Analytical balance</u></p> <ul style="list-style-type: none"> • Max capacity: 220g • Minimal load: 1 mg • Readability: 0.001mg/0.1mg • Working temperature: 10-45°C • Repeatability: 0.02/0.1mg • Linearity: $\pm 0.05/0.2$ mg • Sensitivity Drift: 2ppm/°C • Power supply: 220V 50Hz

			<ul style="list-style-type: none"> • Calibration: Auto calibration, automatic • Pan size: 90 mm
13	Seedless Plant production and mass scale propagation of musa balbisiana (bhinkol banana) of NER using in vitro approach	Laboratory vertical autoclave	<p><u>Specs for Laboratory Vertical Autoclaves 80 lit:</u></p> <ul style="list-style-type: none"> • Autoclaves are designed to meet requirements of different laboratory applications. Autoclaves are equipped with industry standard safety devices and features to give safe, reliable & repeated operations. Autoclaves sized and modeled to suit every need • Preset Autoclaves are preprogrammed to 121°C. User settable timer for timed operations. <p>Specifications</p> <ul style="list-style-type: none"> • Construction Inner Chamber is made of 304 S.S. and outer is rust free powder coated Mild Steel • Controller : Temperature Controller preset between 121-122°C • Panel : Display Heating Status, Low Water, Power ON • Steam/Air Valve : Manual Steam Valve to release trapped air in heating chamber before start of Sterilization and releases steam after sterilization to prevent vacuum built-up. • Safety : Weight Valve, Spring Valve, Low Water Sensor • Readout : An Analogue Pressure Gauge shows Pressure of Vessel. • Lid Big Nuts secures lid during run. Spring loaded lid for easy opening. • Low Water Alarm : Buzzer Beeps on low water and stops heating to protect • Capacity: 80-100 lit (80 lit and above) • Warranty 1 year