

BANDA UNIVERSITY OF AGRICULTURE & TECHNOLOGY, BANDA (U.P.) 210001



**Tender No. 10/2018-19 for construction for
Plant conservatory (size 100 sq m, shape
hexagonal, with double door entry)**

Comptroller
BUAT, Banda

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Note:

All documents uploaded as well as sent in physical form must BEAR PAGE NUMBERS in sequence, including sequential fresh page numbers given on each page of printed/photocopy material. The same page numbers are required to be mentioned in CHECK LIST provided. Please note that only the uploaded documents will be considered for opening of Technical and financial bid. Kindly note that technical bid will be liable to be rejected on technical ground if its fails to submit of required documents physically and financial bid of the company will not be opened without assigning any reason.

Chapter 1: Tender Notice – 10/2018-19

- 1- The bids are invited by e-tender through website www.etender.up.nic.in & www.buat.edu.in from authorized firm/manufacturer/companies for construction of one Plant conservatory (size 100 sq m, shape hexagonal, with double door entry) for Banda University of Agriculture & Technology, Banda. The detail of work items under this tender are given in Chapter 3.

Tender Fee	Rs. 500/- (Rs. Five hundred Only.)
Period for Bid Document Downloading & Uploading	17/03/2019 to 28/03/2019 15.00 Hrs
The Last date for online tender submission	28/03/2019 up to 18:00 hrs
Last date for submission of hard copy of tender fee, EMD and other documents by RPAD/Speed-post/by hand.	29/03/2019 up to 18:00 hrs
Bid Validity Period	365 days
Earnest Money Deposit (EMD)	6000/- (Rs. Six thousand only.)
Technical documents available on	www.etender.up.nic.in & www.buat.edu.in
Tentative Opening of Technical Bid	29/03/2019 at 16:00 hrs ONWARDS
Tentative Opening of Financial Bid	29/03/2019 at 17:00 hrs ONWARDS

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Chapter 2: Instructions to bidders for Online Tender Participation

- 1- All tender documents can be downloaded from the website <http://etender.up.nic.in> or <http://www.buat.edu.in>
- 2- All bids should be submitted online on the website [http:// etender.up.nic.in](http://etender.up.nic.in)
- 3- The user can get a copy of instructions to online participation from the website [http:// etender.up.nic.in](http://etender.up.nic.in)
- 4- For all queries regarding tender (except item specification) should be addressed to personnel in tendering office address provided below.

Comptroller,

Administrative Building,

Banda University of Agriculture & Technology,

Mawai Buzurg, Banda (Uttar Pradesh) 210001

E-mail: comptroller.mskjuat@gamil.com

Phone No.; 05192-232313

5. For queries regarding item specifications contact respective scientist preferably, during office hours as per Chapter-7

Chapter 3: Detail of Tender Work

Sl. No.	Items	Qty.
1	One Plant conservatory (size 100 sq m, shape hexagonal, with double door entry)	01 Nos.

Note: Detail specifications with special terms and conditions of all above listed items are described under respective files mentioned in above list. (Page No.-18 & 19)

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Chapter 4: Terms and Conditions

1- General Terms & Conditions

Online tenders are invited on behalf of the “Comptroller, Banda university of Agriculture and Technology, Banda U.P. 210001 Uttar Pradesh State from the reputed original manufacturer firm/construction agency or its sole authorized construction agency. The bid must be strictly as per required specifications and the tender terms & conditions. Financial bid must be submitted online only or otherwise bid will be rejected.

- 1- Banda University of Agriculture & Technology, Banda for establishment of experimental farm under Center of Excellence on Dry Land Agriculture with focus on pulses and oil seed crops (CEDA) is in progress. For conducting experiments on dry land vegetables and for safe stock of planting material, one Plant conservatory (size 100 sq m, shape hexagonal, with double door entry) needs to be constructed (as mentioned in Chapter-3) intend to invite offers for construction of insect proof net house at BUAT Banda campus, Banda District of UP state. The scanned copy of the demand draft of the Tender Fee and Earnest Money Deposit (EMD) as well as other relevant documents as per check list of the tender are required to be submitted online with the financial bid on the website www.etender.up.nic.in. It is compulsory to submit the original / attested photocopies of all the required documents (except financial bid), company printed literature/ catalogue and other necessary documents physically in hardcopy to the Office of the Comptroller, Banda University of Agriculture & Technology, Banda on or before 28, March, 2019 up to 18:00 hrs.
- 2- Authorized manufacturer firm/construction agency or its sole authorized construction agency can quote their rates provided they attach a certificate of authorization issued which also must be notarized during current financial year: 2018-19 & 2019-20 from the manufacturer / principal company. Authorized manufacturer firm/construction agency or its sole authorized construction agency representing the same company/ instrument are free to compete for price, terms, warranty period etc. In case the vendor is a distributor authorized by an Original Manufacturer, the following documents must be additionally provided:
 - Certificate from Original Manufacturer that the dealership/channel partnership arrangement with the bidder is in force for a minimum of 2 years & extended till the warranty/guarantee period.
 - A letter by the Original Manufacturer stating that they shall honour the supply/ Warranty / AMC commitments independent of continuation of

the dealership/ channel partner arrangement with the authorized construction agency / channel partner.

Irrespective of whether the bidder is an Original Manufacturer or a distributor authorized by the Original Manufacturer, the following eligibility criteria must be fulfilled

- The bidder should have made a positive operating profit.
 - The bidder should not be blacklisted by any State or Central Government and in this regard original affidavit should be attached from the bidder that business entity is not blacklisted.
 - The bidder should be in existence for a minimum period of three years.
- 3- Technical Supporting Documents (TSD) should contain original Tender Fee in the form of Demand Draft in favour of Comptroller, Banda University of Agriculture and Technology, Banda and Earnest Money Deposit (EMD) in form of D.D. (Demand Draft)/FDR (Fixed Deposit Receipt) in favour of Comptroller, Banda University of Agriculture and Technology, Banda, Banda. In addition to these, TSD should also contain the original / photocopy of relevant documents as per checklist of the tender (except financial bid), company literature / catalogue, GST registration certificate or any other relevant document. The technical brochures, bid processing fees (Tender Fee) and EMD should be sealed in three separate labeled envelopes and should be enclosed in one single large envelope. The envelope must be marked as “e-Tender-10/2018-19”: Technical Supporting Documents (Technical bid).
 - 4- The financial bid will only be opened after, if technical bid is found complete and qualified. Further, If bidder fails to submit the TSD offline within time limit; the financial bid will be disqualified. Please note that the scanned copy of any document uploaded must be clear & readable and in accordance with the physical submission of original/ attested photocopies.
 - 5- The prices shall be inclusive of all (freight, packaging and forwarding, transit insurance, installation charges, AMC, applicable taxes like GST, Custom Duty, Other prevailing taxes/ charges) as per government rules & regulations as well as FOR destination as mentioned in work order. The rate should be quoted per unit as specified.
 - 6- The tender supporting documents should contain **(1)** income tax return for last 3 Financial Year & **(2)** Certified turnover certificate by CA for the last 3 financial years i.e., 2015-16 to 2017-18 with minimum turnover of Rs. 3.00 crore in each year. These two documents are compulsory for qualifying the technical bid.
 - 7- Only those firms can apply who have PAN Card.

- 8- Only those firms can apply who have GSTIN No./Certificate.
- 9- Amendment of bidding documents (corrigendum)
 - a) At any time prior to the deadline for submission of bids, BUAT may, for any reason, whether its own initiative or in response to the clarification request by a prospective bidder, modify the bidding documents.
 - b) The corrigendum will be published on website www.etender.up.nic.in & www.buat.edu.in only.
 - c) In order to allow prospective bidders reasonable time to take into consideration the amendments while preparing their bids, at its discretion, BUAT may extend the deadline for the submission of bids.
- 10- Bid currency- Prices shall be quoted in Indian Rupee only.
- 11- The successful bidder shall have to execute the Work orders placed on any date during the validity of the tender at the rate, terms and conditions of the tender.
- 12- BUAT may not issue 'C' or 'P' form of sales tax or any other type of tax relaxation form of Government and the bidders are therefore requested to quote the rates of sales tax or any other taxes payable in absence of such forms/declarations.
- 13- The lowest price is not the criteria and emphasis is placed on quality and specifications of the work. The BUAT, has right to reject any or all the offers and invite fresh quotations if need arises. The BUAT, further reserves the right of selecting the brand and accepting or otherwise any of the conditions stipulated by bidder.
- 14- Design and drawing (Civil & Structural) of the sub component/works need to be provided as per the specification.
- 15- Firm/ companies should have ISO 9001:2015, 14001:2015 certified.
- 16- List of Clients should be enclosed for reference, so that our technical committee could visit site.
- 17- Detailed technical drawings of the work to be enclosed by tender
- 18- If in any case, the quoted item is not available in the market, the successful bidder will have to supply higher version/ replacement of that item in the quoted cost in the same time duration with prior approval of BUAT Banda.
- 19- Firm should have experience of at least 08 years for construction of similar works (Documentary evidence of work completion should be enclosed)
- 20- All duties, taxes and other levies payable by the Contractor under the Contract shall be included in the total price.
- 21- EMD of unsuccessful agency/contractor (except L1, L2 & L3) remitted in the form of DD will be returned to the concerned contractor without any interest thereon, as early as possible.

22- Applicant should have the experience of completion of similar works during last 7 years ending last day of month previous to the one in which tenders are invited should be either of the following:-

Three similar completed works each costing not less than the amount equal to 40% of the estimated cost,

OR

Two similar completed works each costing not less than the amount equal to 60% of the estimated cost,

OR

One similar completed work costing not less the amount equal to 80% of the estimated cost.

23- The Successful Bidder shall have to deliver the performance security either by a Bank Guarantee or a Bank Draft in favour of the Comptroller, Banda University of Agriculture and Technology, Banda for an amount equivalent of 10% of the Contract price. The Performance Security shall be valid till the expiry of the period/ maintenance of work.

24- Income-tax & GST at the rate of 2.00% will be deducted from the bill of the executing agency / contractor.

25- For water & Electricity supplied by this institute 2% of the cost shall be recovered.

26- The bidder is advised to visit the site of works at his own expenses and obtain all information that may be necessary for preparing the quotation.

27- The successful bidder will held responsibility for the required work items sufficiently and properly packed for transport so as to ensure their being free from loss/damage /injury on arrival of destination BUAT premises. The material should be supplied in the original company's packing which shall indicate packing details and other particulars as required under the statutory provisions. In the event of breakages or loss of items during transit/installation against requisition order the said quantity will have to be replaced/supply by the supplier (Selected bidder) without any additional charges.

28- Tender Supporting Documents (TSD) received late and/ or not submitted in the prescribed formats or in the prescribed manner, incomplete in any respect or not accompanied by prescribed documents are liable to be rejected. BUAT, Banda will not be responsible for non-receipt of tender within the specified date and time due to any reason including postal delays.

29- All rights are reserved with the Banda University of Agriculture and Technology, Banda Authority to accept or reject any or all the tenders received without assigning any reasons thereof.

30- The BUAT may place repeat orders against the acceptance of tender within a period of validity, subject to the same terms and conditions

originally provided in advertised in e-tender and selected bidder shall accept the same.

- 31- Successful bidder failing to provide after services would be permanently blacklisted.
- 32- All documents uploaded as well as sent in physical form must BEAR PAGE NUMBERS in sequence, including sequential fresh page numbers given on each page of printed /photo copy material. The same page numbers are required to be mentioned in CHECKLIST provided.
- 33- For query regarding detail specification of the instruments, firm can contact concerned Scientist (as per Chapter 7), preferably during office hours.

2- Payment:

Advance or part payment will not be entertained. Payment will be made only after satisfactory completions of the work duly certified by the works unit of BUAT, Banda. The payments by the purchaser to the selected supplier will be made in Indian currency only by crossed multicity Cheque or RTGS/NEFT.

3- Construction Period

Successful bidder has to make the constructions of insect proof net house within 30 days to maximum 45 days from date of issue of work order. The application for extension of construction period shall be sent to concern ordering office of Banda University of Agriculture and Technology, Banda at least 5 days prior to the expiry of construction period of installation item. The officer in charge, who is placing the order, may grant extension or reject the application and their decision in the matter shall be final and binding to all. During construction the agency will be responsible for the safety of raw materials.

4- Warranty:

- i. All the construction and its related materials shall be strictly in accordance with the specifications.
- ii. In case of any trouble or defect originating from the specified design, workmanship etc. of any constructed material arises within a period of 24 or 36 months from the date of completion of installation work, the bidder at his own expense shall repair / replace as may be necessary to facilitate the satisfactory completion of work.

5- Demonstration:

Supplier has to perform on-site live demonstration as per trial requirements of concerned scientist with bidders'/suppliers.

6- Dispute:

In case of any dispute between BUAT, Banda and bidder, final decision of The Vice Chancellor, Banda University of Agriculture and Technology, Banda will be binding upon all. In case of any dispute arises in respect of this tender, a suit in that behalf shall be subject to Banda, Jurisdiction.

7- Reasonability of prices:

- a) Please quote best minimum prices applicable for a premiere Research Institution, leaving no scope for any further negotiations on prices.
- b) “Banda University of Agriculture and Technology, Banda” reserves all rights to invite quotations and yet procure or not procure any or all of the accessories of the quoted work depending upon the availability of funds and/or approval or any reason at the time of procurement of the instrument. However the quotation for all work and its related items will necessarily be valid 365 days from date of opening of financial bid.

Comptroller

BUAT, Banda

Chapter 5: Tender Fee, EMD and Security Deposit

Bidder has to submit non-refundable Tender Fee Rs. 500/- (Rs. Five hundred Only) in the form of Bank Draft in favour of “Comptroller, Banda University of Agriculture & Technology”, payable at Banda (U.P.).

Earnest Money Deposit:

Bidder has to submit Earnest Money Deposit Rs. 19600/- (Rs. Nineteen thousand Only) in the form of Bank Draft/FDR drawn on Nationalize bank in favour of “Comptroller, Banda University of Agriculture & Technology”, payable at Banda. Tender shall be accompanied by an Earnest Money Deposit, without which tenders will not be considered. Minimum validity for EMD should be minimum six months. No interest will be paid by the institute for refund of EMD.

Refund of Earnest Money Deposit:

The earnest money of unsuccessful Bidder will be refunded.

Chapter 6: Technical Bid Document (TBD) Submission

This chapter consists of forwarding letter, technical bid form and Check List duly signed as per Performa with signed terms and conditions (Chapter – 4) along with original bank draft of tender fee and EMD. All these pages required to be submitted in hard copy bearing page numbers in sequence which must be corresponding with online upload document submission. The technical bid form and Checklist pages are also required to be submitted in e-tender with all relevant documents bearing page numbers correspondingly given in technical bid as well. If all the relevant information's are not submitted in e-tender, party is liable to be disqualified on technical ground.

All these pages required to be submitted in hard copy with physical document submission. While technical bid page is also required to be submitted in e-tender as well.

Do not provide other unnecessary documents like explaining company profiles, nature of the company, services and miscellaneous things which is not inquired.

Do not put financial bids of the Items anywhere in the Technical Bid Document submission under physical submission



BANDA UNIVERSITY OF AGRICULTURE & TECHNOLOGY, BANDA (U.P.) 210001

Technical Bid Form

(supported by document proof)

1. Name of supplier/ firm :
2. Name of the owner of firm :
3. Complete postal address :
(Document copy)
4. Telephone Number :
5. FAX Number (if any) :
6. E-mail address :
7. GSTIN No. (Document copy) :
8. PAN No. (Document copy) :
9. Company/Firm Registration No :
(Document copy)
10. Whether, supplier/firm has been blacklisted, Yes or No, if yes,
attach oath letter :
11. Whether, any dispute/legal action has been occurred or in under process of legal action against
you and your firm, Yes or No, if yes, attach detail :
12. Any other details :

We agree to abide by the terms and conditions of supply mentioned in this tender document.

Signature of bidder
(with Stamp, Name and Designation)

* Kindly upload readable and self signed certificate/document/letter of above mentioned information.

Letter for Bidder

From:

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.....
.....

To,

Comptroller,
BANDA UNIVERSITY OF AGRICULTURE
& TECHNOLOGY, BANDA (U.P.) 210001
E-mail: comptroller.mskjuat@gmail.com
Phone No. 05192-232313

Subject: Submission of tender for construction for Plant conservatory.

Sir,

I/We hereby submit the offer (duly filled) in response to the advertisement/e-tender notice 10/2018-19 of 2018-19 for construction for Plant conservatory etc., in accordance with the terms and conditions of such supply and declare as under: I/We hereby offer to supply to Banda University of Agriculture & Technology, Banda in accordance with the terms and conditions, here to annexed and at the prices given by me/us in Financial section of online tendering. I/We enclose herewith Tender Fee in favour of "Comptroller, Banda University of Agriculture & Technology, Banda" and EMD in the form of DD/FDR in favour of " Comptroller, Banda University of Agriculture & Technology, Banda " drawn on nationalized bank having branch at Banda (U.P.) with following details.

Fee	Amount (Rs.)	Amount in words	DD/FDR No. and Date
Tender fee	500/-	Five Hundred Only.	
EMD	19600/-	Nineteen thousand Six Hundred Only.	

I/We carefully read and understood and agree to abide by the said terms and conditions set in the tender document here to annexed and the description/specifications of the items.

I/We agree to hold this offer open till 365 days from the date of due date of opening of the tender.

I/We agree that in case of dispute, if any, the decision of the Competent Authority of Banda University of Agriculture & Technology, Banda shall be final and binding upon me/us.

Signature of bidder
(with Stamp, Name and Designation)

Check list-COMPULSORILY DULY COMPLETED

Sr. No.	Document/ Certificate	Attached Yes/No	Sequential Page Number
1.	Tender Fee: Demand draft of Rs. 500/- Non-Refundable).		
2.	EMD: DD/FDR as applicable (Refundable)		
3.	Technical bid form (only intender format given) with self signed required mentioned documents.		
4.	Valid Registration Certificate of bidder's firm. (Shop Act Registration/ Partnership deed/ Memorandum of article / Registration of firm/ Small Scale Industry Registration etc.)		
5.	Original affidavit from the bidder that business entity is not blacklisted.		
6.	Income tax return for the last 3 financial years.		
7.	Certified Turnover Certificate by CA for the last 3 financial years i.e., 2015-16 to 2017-18 with minimum turnover of Rs. 3.00 crore in each year.		
8.	Notarized Manufacturer certificate/ subsidiary company certificate/Fresh Authorization Certificate.		
9.	Specification Supporting Documents with colour catalogue.		
10.	Valid quality certificate like ISO or equivalent.		
11.	Design and drawing of the sub component/works need to be provided as per the specification.		
12.	Signed Terms & Conditions (Chapter-4).		

Note:

- 1- All documents uploaded as well as sent in physical form must BEAR PAGE NUMBERS in sequence, including sequential fresh page numbers given on each page of printed/photocopy material and same should be provided in the CHECK LIST above
- 2- All photocopied documents must be attested with seal and signature bearing page numbers.
- 3- Client list with complete address and contact number where supply of quoted items has been made is preferable to submit with technical bid.

DECLARATION

I/We solemnly declare that we have attached all the documents mentioned here above and mentioned in the tender. It is verified that all the certificates/permissions/ documents are valid and current as on date and have not been withdrawn/cancelled by the issuing authority.

I/We further undertake to produce on demand the original certificate/ permission/ document for verification at any stage during the processing of the tender.

I/We also understand that non-compliance of any documents will be treated as non-respective tender and we will lose our claim to participate in the Tender Enquiry automatically and our tender will be liable to reject.

Name of the Firm: -

Signature of bidder
(with Stamp, Name and Designation)

Chapter 7: Contacts and Correspondence details

Correspondence address for submission of Physical documents:

Comptroller,
Administrative Building,
Banda University of Agriculture & Technology,
Mawai Buzurg, Banda (Uttar Pradesh) 210001
E-mail: comptroller.mskjuat@gmail.com
Phone No.; 05192-232313

(For queries related to item specifications only, contact in office hours only)

S. No.	Name of Faculty	Contact Number
1.	Dr. Rajesh Kumar Singh, Associate Professor Department of Vegetable Science, College of Horticulture, BUAT Banda (U.P.)	9881303443 singhrknbpgr@gmail.com

Detailed Specifications of the Work

Plant conservatory (01) 100 sq. mtr

Technical / Operational Parameters :	
Shape	: Hexagonal in shape
Area	: 100 sq. mtr)
Buffer Room	: Double door entry Size 6ft x 6ft x 8ft

S. No.	Items	Specifications	Qty.
01	Super Structure	1. GI Pipe : ISI standard 2. Thickness : 2mm 3. GI coat : ISI standard GI (47 mm x 47mm) ISI standard IS 1239 anti-corrosive, humidity resistant pipe with IS 4736-1968/ISO 65-1973 zinc coat as approved For maximum Indian wind load conditions, structural trusses will be provided for absolute strength wind load 160 km/hr. 1. Trusses : 47 mm x 47 mm . 2. Vertical Supports : 47 mm x 47 mm. 3. Purline : 47 mm x 47 mm. 4. Runners : 47 mm x 47 mm.	Complete
02	Glazing	Covering GE Lexan multi walled 6m thick UV stabilized with gasket for sides & Roof anodized aluminum stripping, geeignet gasket and Silicon (translucent) treatment for proper holding and seepage safety. Specification of PC sheet > Thickness : 6mm multi walled. > Make: Sabic LEXAN/BAYER > Warrantee : 10 years. > UV : complete > Sheet Structure : 6/2 RS > K. value W/m ² K : 3,5 > Fixing : Aluminum Strip > Sealing : Geeignet gasket > Size of Al Profile : 2" inch > Perforated Anti dust Aluminum tape. > Length : 12 feet > Screw : GI non Magnetic > Sound insulation dB : 18 > Impact Performance : -40°C to +120°C	Complete
03	Roof Screen	50% shading color green/black UV resistant material with manual rolling system	Complete
04	Door	Size : 1.92m x 1.2m of anodized aluminum section with polycarbonate sheet 6mm thick as cladding material with lock and pinion system	02 Nos.
05	Civil Works:	CC foundation (1:3:6) on which brick wall 1.5 feet below and 2 feet above ground level to checks lateral moments of water, Base PCC 2"thick , than 13" wide first base line , than 9" wide second base line, Damp proof cement (DPC) 2" thick, recommended proportions will be used.9" wide third base line, 12mm complete plaster of mix 1:4 (cement : Sand) will be done on 9" thick brick wall above ground level both side.	Complete
06	Floor:	Made of crushed bricks 2" thick with 1 ½" graded stone (Rodi) which is further flushed with 4:3:1 (Rodi : sand :cement). Fixed With Vitrified Flooring Tiles(2'x 2') (White/fone Color) with drainage system. The outlet of the water will be connected by outer drainage facility available.	Complete
07	Electrical wiring / Device	High quality ISI approved fittings with copper multi strand twisted Fire Resistant Grade (ISI make) wires stds. of safety with proper M.C.B. with appropriate electrical points of 5/15	Complete

		Amps combined (Havells/Anchor make)	
08	Complimentary:	Stainless Wash Basin, Drainage Points, aluminum ladder, plumbing polymer pipe water connection with one tap connection with corrosion free coated GI pipe/polymer pipes of (3/4" or 1/2") etc. ISI standard material will be provided.	01 Set
01	Photosynthetically Active Radiation Lamp (P Ac Ra):	<p>(P Ac Ra) : Are specific action spectra lamps for photosynthesis for research and commercial production these lamps are DIN Germany & IEC international & JIN Japan standard lamp for :- 1) Night break technique 2) Day length manipulation. 3) Supplement the natural day light. 4) Higher rate of carbon fixation</p> <p>We are provided 30 nos PAR with photo simulator (Osram /Philips Make) are specific action spectra lamps for photosynthesis for research & commercial product . These lamps are DIN Germany & IEC international & JIN Japan standard lamp.</p> <p>Lamp Wattage (W) : 36 Luminous Flux : 1350 Luminous Efficacy (Lm/U) : 19.3 Photosynthesis Watt (W) <i>(Photosynthetic effects of Lamp) : 5.58</i> Efficacy (mw/w) (Results Of Effectiveness) Photosynthetic radiation : 79.7 Photosynthesis (w/m²) Capability of photosynthetic radiation which adjusted light lux : 4.13 PAR Value (Effectiveness of light Beam area) : 5.45 400-700nm : 25.5 350-500nm : 7.26 600-700nm : 13.2 Spectrum diameter measured to (400-700 nm). Percentages are the amount of photons relative to sunlight.</p> <p>Material list of Illumination System:</p> <ol style="list-style-type: none"> 1. Total PAR lamp 36Watt : 16 nos. 2. Electronic Ballast : : 16 Nos. 3. Normal Tube lights :1 Nos. 4. Tube light fixture good finish powder coated-17 Nos. 	Complete
02.	CONTROL PANEL FOR Hi-Tech GREEN HOUSE	<p>Our Control Panels are manufactured with best quality CRCA steel sheet for long lasting strength with smooth finish. All the modular parts and sections are subjected to seven tank process to ensure anti-rust conditioning, smooth finish and protection against corrosive atmosphere/ high Humidity environment. High quality powder coating is applied using the latest Swiss machines with following features :</p> <p>Compact control panel with separate Day / Night controlling system will be provided with Mains ON/ OFF Switch (L&T Make), Light Indicator for main light, Cooling, Humidity, Temperature. (one for each chamber)</p> <p>> Microclimatic Temperature Controller</p> <p>Specifications: Real time microprocessor based user programmable PID Controller, 4 digit LED display for displaying measured values and another 4-digit LED display for displaying settings, Trim pot operation, Platinum sensor probe Pt- 100, Set point lock within the setting panel to protect setting changes, Level lock to ensure that the parameter can be read but cannot be changed, Sensor failure indication, Display resolution 0.1°C. Accuracy ± 0.1°C, Automatic hysteresis control. Wide selectable temperature ranges from 0°C to 100°C, 4.4 KVA load can be directly connected to the powered out put, Input- 200-240 VAC, 50 Hz. Single phase., Ambient 5°C-50°C, RH upto 90%.</p>	03 Nos.

		<p>➤ Microclimatic Humidity Controller Specification: Real Time microprocessor based, On/Off control for Humidifying/ Dehum, Hysteresis / Differential 1% - 9%, Delay timer 0-240 sec, Direct / Reverse selectable, Lock functions to prevent miss operating, Feather touch operation, Fast response sensor – line resistance < 10Ω, Display Accuracy- indicating value ±0.2% ±1digit.</p> <p>➤ Photoperiodic Timer Programmable Specifications: Real time microprocessor based, Accuracy ±2.5sec/day@20°C, Week Program, 20 memory locations adjustable to the minutes/hrs, 150 Hrs. power backup, Random switching can be activated by pressing any key, Summer/ Winter time changeover, Program Saving By EEPROM.</p> <p>➤ Piltz / Cyclic Timer {Code No. S 0267} for regulating Humidity: Specific for fogging, misting system, controlled by timer. to reduce water logging condition in the Transgenic Green House. Specification: - 0-999 Min/sec On, 0-999 Min/sec OFF, automatic cycling. Accuracy quartz, Power output can be directly drive misting unit load upto 4.4 KVA, Input 200 V to 240 VA.C, Phase-Single, 50 Hz, Ambient 4°C to 50°C, RH upto 90%.</p>	
03.	Cooling through Evaporative Cooling System in each chamber:	<p>We are providing Evaporative Cooling System (ECS) Technical Parameters of Celdek Cellulose Pad:</p> <ol style="list-style-type: none"> 1. Celdek is made of specially impregnated cellulose and treated to provided efficient watts. 2. Paper ambient condition 25°C - 45 °C 3. Estimated cooling load : 101,520 BTUs/ Hrs. 4. Total water flow 7.56 LPM per sq. ft. of the top pad surface. Bleed of equal to 10% of total water rate. 5. Eco friendly. 6. High saturation efficiency , 7. Self cleaning feature 8. No setting or Shrinkage of product. 9. Low pressure drop characteristics. 10. Impregnation makes the material stiff and self supporting.. 11. Make :- HuTek (THAILAND). <p>CELDEK COOLING PAD ACCESSORIES:- Tray Material :- 18/20 GA GI sheet for side and top. Over flow :-20 mm PVC Drain :-32 mm standard PVC.</p> <p>CONSTRUCTION MATERIAL :- 20 GA GI Sheets : Tray Side , Top etc Cooling Media : 100 mm thick celdek at velocity of 1 to 3 M/s to give efficiency from 60 to 95 %. Filtration : On line micro fiber filter. Miscellaneous : Fasteners , Galvanized, Rivet- Aluminium. Water Tank : PVC Tank 500 lit (Sintax) Pump : 1/2 Hp Monoblock (Crompton/servo make) Axial Flow fan ; 30” - 2nos.</p> <p>Evaporative Cooling System (ECS): Fan & Pad system (Pad size: 5’ x 40’ x 4” thick)with Celdak Cellulose Pads to acquire proper CFM of air movement per sq.ft of area will be provided.. Even water delivery through distribution pipe will be ensured. Water bleeding mechanism will be built in to lessen water pollution. The Bleed off rate will be set to a 10 w valve (Through BCW technology) 5% less than the evaporation rate. Slow water contamination and efficient water flow, online water filter, capacity calculated on required water flow rate will be provided. Facility is essentially made for water softening and filtration unit to prolong the life of the pad. On back side of Celdak Cellulose pad one heavy duty Slow Speed Axial Flow Fans 24” with Aluminum louvered covering will be provided to achieve temperature 25°C through out the year. Polymer</p>	

		water storage tank 500 liter capacity, 1HP motor (ISI make), GI Tray, Filter, GI water Distribution and return system and other accessories will be provided.	
04.	Relative Humidity	<p>Through Micro Humidification to create the 85% ±8% humidity:- Installation with leakage prevention device (LPD) fogger does not drip during the function.</p> <p>Working pressure :- 4 bar at this pressure, the average droplet size :- 50 to 100 μm.</p> <p>Density :- One fogger to 0.3 m – 0.4 m² for propagation.</p> <p>Type of Fogger :- Cross way nozzle ,hanging type.</p> <p>Fogger discharge range:-7.0 LPH</p> <p>Pipe Imported :- 16 mm LLDPE (10 kg/cm²) colour BLACK with red strip .</p> <p>Motor:- 1 HP monoblock pump (ISI Make) :- 1no.</p> <p>Filter (Screen) :- (ISI) Kolba</p> <p>Pressure meter:- 10 bar one.</p> <p>Return gutter, control valve assembly</p> <p>Tank :- 1000 lts (ISI Make)</p> <p>List of Material for each chamber</p> <ul style="list-style-type: none"> ➤ Micro nozzle four way Nitafim ➤ 1 HP monoblock pump (ISI Make) ➤ LLDPE (imported pipe) ➤ Micro ISI line filter - 1no. ➤ Return gutter, control valve assembly, pressure gauge -1no. ➤ PVC pipe (32 mm/ 25mm)/GI fittings. 	
05.	Air Curtain	Size: 3' wide heavy duty , cabinets of Air curtain are made of cold rolled Mild Steel Sheets. The blowers are made of high quality Aluminum Sheets with ½ HP motor & double blower system, powder coated finish at pre entry point with auto main ON / OFF operation at the time of door opening/ closing.	01 Nos.

Important Note:

- The quoted material should be branded from reputed manufactures or their authorized agent only.
- The quoted structure in Tender, minimum two to three years comprehensive warranty.
- Bidder should have technical support and trained engineer who can pay his visit on call.
- Client list with complete address and contact number must be submitted with Technical Bid for the quoted model to check the performance of the quoted structure.
- Design and drawing (Civil & Structural) of the sub component/works need to be provided as per the specification.