DAV University,
Sarmastpur,
Jalandhar - Pathankot National Highway (NH 44)
Jalandhar - 144 012 (Punjab)

(Tender Document for Construction of Polyhouse for Agriculture Department)

Bids are hereby invited in respect of the item mentioned below in two envelop system. The quotations should be sent directly on the above address in the sealed cover so as to reach this office on or before 19th December 2019, 12:00pm.

The right of acceptance or rejection of any bid without assigning any reason is reserved. Necessary literature of the quoted items may please be attached. Please quote for F.O.R. at Site, DAV University, Sarmastpur, Jalandhar/Destination.

The quotations should be accompanied by Application Fees in shape of Bank Draft in name of Registrar, DAV University, Jalandhar and terms & conditions duly signed by bidder.

Note: - The complete tender document may be downloaded from the University website i.e. www.davuniversity.org

<table>
<thead>
<tr>
<th>Event</th>
<th>Date &amp; Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Date of publication</td>
<td>12/12/2019</td>
</tr>
<tr>
<td>II Downloading of tender document</td>
<td>Start date:- 12/12/2019 End date:-19/12/2019 12:00PM</td>
</tr>
<tr>
<td>III Physical submission of Tender with EMD and other necessary pre-qualification documents.</td>
<td>Start date: -- 12/12/2019 End date: -- 19/12/2019 12:00PM</td>
</tr>
<tr>
<td>IV Opening of Technical Bid and meeting for scrutiny of technical bid and declaring eligible bidders.</td>
<td>Date: -- 19/12/2019 at 04:00 PM</td>
</tr>
<tr>
<td>V Opening of Financial Bid of only eligible technically qualified bidder determined by Committee.</td>
<td>To be informed after checking eligibility/Technical Specifications</td>
</tr>
<tr>
<td>VI Place of opening of bids</td>
<td>Admin Block, D.A.V. University,</td>
</tr>
<tr>
<td></td>
<td>Jalandhar-Pathankot National Highway (NH-44)</td>
</tr>
<tr>
<td></td>
<td>Sarmastpur, Jalandhar -144 012, Punjab, India</td>
</tr>
<tr>
<td>VII Address for communication</td>
<td>Registrar, D.A.V. University,</td>
</tr>
<tr>
<td></td>
<td>Jalandhar-Pathankot National Highway (NH-44)</td>
</tr>
<tr>
<td></td>
<td>Sarmastpur, Jalandhar -144 012, Punjab, India</td>
</tr>
</tbody>
</table>

Cost of Tender Document: Rs. 500/- to be deposited as DD/Bankers’ Cheque along with EMD /
Technical Bid

Registrar,
D.A.V. University,
Jalandhar-Pathankot National Highway (NH-44)
Sarmastpur, Jalandhar -144 012, Punjab, India
### CHECKLIST FOR TENDER DOCUMENT

<table>
<thead>
<tr>
<th>S. No</th>
<th>Checklist</th>
<th>Tick (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Whether Cost of Tender Document as mentioned above in the shape of Demand draft/ Banker Cheque in favor of Registrar, DAV University, payable at Jalandhar has been attached? If yes, DD/B.C No.________ dated_________ and __________ name of the Bank</td>
<td>Yes/No</td>
</tr>
<tr>
<td>2.</td>
<td>Have you made three separate envelopes named Technical Bid, Financial Bid &amp; Application Fee</td>
<td>Yes/No</td>
</tr>
<tr>
<td>3.</td>
<td>Have you put the envelopes mentioned in S. No 2 (above), in a single envelope and named “Tender for Construction of Polyhouse for Agriculture Department”</td>
<td>Yes/No</td>
</tr>
<tr>
<td>4.</td>
<td>Have you sealed all the above mentioned envelopes Properly</td>
<td>Yes/No</td>
</tr>
<tr>
<td>5.</td>
<td>Have you signed the terms and conditions mentioned in Section-V and enclosed with technical bid.</td>
<td>Yes/No</td>
</tr>
<tr>
<td>6.</td>
<td>Have you mentioned your address on the envelope mentioned</td>
<td>Yes/No</td>
</tr>
<tr>
<td>7.</td>
<td>Have you written the following address on the envelope mentioned in S.No 3 (above) Registrar, DAV University, Sarmastpur, Jalandhar - Pathankot National Highway (NH 44) Jalandhar - 144 012 (Punjab)</td>
<td>Yes/No</td>
</tr>
<tr>
<td>8.</td>
<td>Do you agree to provide delivery/installation period less than one month view of condition No. 4 of Section-V?</td>
<td>Yes/No</td>
</tr>
<tr>
<td>9.</td>
<td>Do you agree to provide the items F.O.R. at Site, DAV University, Sarmastpur, Jalandhar?</td>
<td>Yes/No</td>
</tr>
<tr>
<td>10.</td>
<td>Do you agree to provide 04 months validity of tender as per condition No. 26 of Section-V?</td>
<td>Yes/No</td>
</tr>
<tr>
<td>11.</td>
<td>Have you submitted the rates only in Financial bid?</td>
<td>Yes/No</td>
</tr>
<tr>
<td>12.</td>
<td>Have you submitted the authorized dealer/distributer certificate</td>
<td>Yes/No</td>
</tr>
</tbody>
</table>
SECTION-I

1. Invitation for Bids

1. Tenderers are advised to study all technical and commercial aspects, instructions, forms, terms and specifications carefully in the tender document. Failure to furnish all information required in the Tender document or submission of a bid not substantially responsive to the Tender document in every respect will be at the tenderers risk and may result in the rejection of the bid.

2. Sealed offer should be submitted to Registrar, DAV University, Sarmastpur, Jalandhar, not later than the date and time laid down, at the address given in the schedule for invitation to Tender under Clause 8 (A) of Section I.

3. All bids must be accompanied by Application Fees in the form of Bank Draft / Bankers Cheque drawn from a scheduled bank in favour of the Registrar, DAV University, Jalandhar, payable at Jalandhar.

4. This tender document is not transferable. The categories of items and quantity indicated in the Tender Document are tentative, DAVU reserves the right to increase or decrease the quantity or delete some or all of the items depending on the needs of the Departments/University without assigning any reasons.

5. The tenderer should indicate specifically the Basic Price, Taxes/GST, other duties (if any), and levies chargeable. No additional information will be entertained after due date.

6. The tenders will be opened on the date and time indicated in the presence of tenderers, if any, present on the occasion. If the date of opening/receiving is declared to be a holiday/s the tenders will be opened/received on the next working day at the same time.

7. Payment of bill will be made on receipt/installation/demo of material as per purchase order through crossed account payee Cheque/RTGS/NEFT.

8. Schedule for Invitation to Tender

A) Address at which tender is to be submitted by hand/post:

Registrar
DAV University,
Sarmastpur,
Jalandhar - Pathankot National Highway (NH 44)
Jalandhar - 144 012 (Punjab)

A) Last Date and time for receipt of Tender: 19th December 2019 at 12:00 PM
B) Date, time and place of opening of technical bid of the tender document:-

Date: 19th December 2019
Time: 04:00 PM
Place: Admin Block
DAV University, Sarmastpur, Jalandhar

The date of opening of the financial bid will be informed only to the technically successful bidders later on.
C) Date till which the tender is valid: 04 months from the opening of tender.
D) DAV University shall not be responsible for any postal delay about non-receipt/non-delivery of the documents.
SECTION-II

Procedure for submission of Bids

It is proposed to have Two Bid System for this tender.

(i) Technical Bid in one cover

(ii) Financial Bid in one cover

1. Technical Bid would be evaluated as per tender’s terms and conditions. Technical bid should be covered in a separate sealed cover superscribing the words “Technical Bid as per Section-V” for each item.

2. Financial Bid should be submitted as per prescribed format laid down in Section-IV. The financial bid should be covered in a separate sealed cover superscribing the wordings “Financial Bid as per Section-IV” indicating item wise prices.

3. The cost of tender, is to be paid in the form of the Demand Draft, the draft should be in a separate sealed envelope and enclosed with the technical bid.

4. All the documents viz. Technical Bid cover, Financial Bid cover and Application Fee cover prepared as above are to be kept in a single cover super scribed with “Tender for Construction of Polyhouse for Agriculture Department”.

5. The cover thus prepared should also indicate clearly the name and address of the tenderer to enable the Bid to be returned unopened in case it is declared “late”.

2. Cost of Bidding

The tenderer shall bear all costs associated with the preparation and submission of its Bid, including the cost of presentation for the purpose of clarification of the bid, if so desired by the University and the University will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering Process.

3. Clarification of Tender Document

A prospective tenderer requiring any clarification of the Tender Document may notify the University through email at the University’s e-mail address: registrar@davuniversity.org. The University will respond to the request for clarification of the Tender Document, received not later than 07 working days prior to the last date for the receipt of bids prescribed by the University.

4. Amendment of Tender Document

4.1 At any time prior to the last date for receipt of bids, the University may for any reason, whether at its own initiative or in response to a clarification requested by a prospective Tenderer, modify the Tender Document by an amendment.

4.2 The amendment will be notified on the website of the university www.davuniversity.org.

4.3 In order to afford prospective Tenderers reasonable time in which to take the amendment into account in preparing their bids, the University may, at its discretion, extend the last date for the receipt of the Bids.
5. **Language of Bids**

The bids prepared by the Tenderer and all correspondence and documents relating to the bids exchanged by the Tenderer and the University, shall be written in English language, provided that any printed literature furnished by the Tenderer may be written in another language so long as accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.

6. **Documents comprising the Bids**

6.1 The Bids prepared by the Tenderers shall comprise of following components:

I. Bid to be furnished as per the format for technical specifications (Section IV).
II. Technical literature for each product, covering full technical specifications.
III. Submitted the authorized dealer/distributor certificate with technical bid.
IV. Bid prices should be quoted item wise excluding taxes duly signed and complete as per the format (Section III).
V. Maximum educational discount as could be offered should be mentioned.
### Financial Bid

Rates should be submitted in the following format:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Work</th>
<th>Basic Price in lump sum Including Installation</th>
<th>GST / Taxes etc.</th>
<th>Freight / Shipment cost</th>
<th>Total Cost in lump sum FOR DAVU (Inclusive of all Taxes) and shipment cost if any.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction of Polyhouse for Agriculture Department</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Rates should be quoted for complete project with bifurcation of each item.
- Rate should be F.O.R. at Site, DAV University, Sarmastpur, Jalandhar. (No labour will be provided by the University for Loading/Unloading)
- The percentage (%) of GST should be clearly mentioned in the quotation.

Signature of Bidder
SECTION-IV

Detailed Specification of Construction of Polyhouse for Agriculture Department

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Item</th>
<th>Specification</th>
<th>Approx. Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction of Polyhouse for Agriculture Department</td>
<td>Details Specification As per Annexure I (Page No. 10-13)</td>
<td>1</td>
</tr>
</tbody>
</table>

Warranty: - The supplier must warrant that the goods supplied under the contract are new, unused and the item being supplied has incorporated all recent improvements in design, materials as per specifications in this tender document. All Vendors (Manufacturers / Agents) must submit offers with at least 24 months warranty after installation at Site (DAV University, Jalandhar) and/or as mentioned in the technical specifications.
SECTION-V

TERMS AND CONDITIONS

1. An Application Fees should be submitted along with the quotation separately in form of DD in favour of Registrar DAV University, Jalandhar. Tender without Application Fees shall be considered unresponsive and rejected.

2. 10% of the total amount of the order will be hold for three months of the successful bidder. This amount will be forfeited in the event the supplier does not honor the warranty and other terms and conditions of the tender.

3. It may please be specified if the packing, insurance and Taxes etc. will be inclusive or extra of the prices quoted.

4. Please quote delivery/Installation period also. It should be less than one month from the date of order.

5. Catalogue should be sent along with supply.

6. Only best quality should be quoted. The quotation for advance payment will not be accepted.

7. All legal disputes will be subject to Jalandhar Jurisdiction and will be interpreted under Indian Laws.

8. The Registrar DAV University reserves to himself the right to reject any or all quotations without assigning any reasons.

9. No advance payment will be made. 90% Payment will be released after satisfactory installation/completion and balance 10% payment will be released after 3 months from the date of handing over.

10. The penalty will be imposed as deemed fit by the University, after the expiry of delivery period, mentioned in the purchase order.

11. All the rates should be F.O.R., at site DAV University, Sarmastpur, Jalandhar, or as per the requirement of Department/Central Store.

12. The University being a premier Education and Research Institute, discounts as applicable to Research Institute/Educational Institutes may be provided in the quotation.

13. The bidders shall not be allowed to change, alter or modify the bids after expiry of the deadlines for the receipts of bids.

14. The firm is entirely responsible for any damage or losses occurred to the material in the transit. The firm will lodge all complaints regarding the damage occurred in the transit and shall bear all expenses.

15. In a tender, either Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same tender for the same item/ product.

16. If an agent bids on behalf of the Principal/OEM, the same agent shall not bid on behalf of another Principal/OEM in the same tender for the same item/ product.

17. Bidder is not permitted to alter/modify their bids after the expiry of the deadline for receipt of the bid.

18. Bids received after the due date will not be considered.

19. If price is quoted in foreign currency, the rupee equivalent price must also be indicated.
22. In case, any free gift scheme / cash scheme is launched by the company same will be offered by the vender to DAVU free of cost.

23. Generally the bid offer will be received /opened on the day as specified in the schedule. If the scheduled date is declared as a holiday, then the tender shall be received / opened on the next working day at the same time.

24. Warranty period Should be at least two years and/or as mentioned in the specifications.

25. **Detailed technical literature of the item quoted must be attached to support the technical compliance.**

26. **Tender validity should be 04 months from the opening of tender.**

    All the terms and Conditions of this tender document are acceptable to me /us.

    Signature of Bidder
Size of Green House:-
Length = 20 mts
Breadth = 10 mts

01. Structure:-
Square GI (47 x 47 mm, 38mm x 38mm, 32mm x 32mm and 25mm x 25mm with 2mm thickness) ISI Standard Pipe IS 1239 /IS 1165 anti – corrosive, humidity resistant with zinc coat. For the maximum Indian wind load conditions 120 km/hr, structural trusses with runners for absolute strength should be provided.

Material List:-
1. Main/Secondary (Column) with 47mm 2mm thick GI Pipe
2. Bottom Cord with 47mm 2mm thick GI Pipe
3. Top Cord with 47mm 2mm thick GI Pipe
4. Bracing 32mm 2mm thick GI Pipe
5. Purlins 38mm 2mm thick GI Pipe
(As per DBT guide lines)

Doors: - Anodised Aluminium
Door Size :- 6'3" x 3'
Lock :- Brass.

02. Glazing with Polycarbonate Sheet:-
All side of poly house roof, sides wall, front and back are cover with 6 mm polycarbonate multiwall sheet. Make GE (Lexan USA)

Specification of Polycarbonate sheet:-
Thickness :- 6mm multiwall. Sound insulation dB :- 18
Make :- GE LEXAN USA Clear code : 112
Warranty :- 10 years. Impact Performance :-40°C to +120°C
UV:- Both side. Std lengths : 2.1 m x 11.8 m
Sheet Structure :- 6/2 RS LAXAN sheet : DIN 4102 St.
Approx. weight g/m² 1300, U.I. Temperature Rating :100°C
K.value W/m²K 3.5 Sound Insulation DIN52210:18db
Multiwalled :- Impact resistant, Energy saving. Impact Resistant: - 200 times of GLASS

Light Transmission :- 82 – 84%.
Excellent Thermal Insulation : 3.5 down.
Safe Fire Performance: Self-extinguishing and difficult to ignite
Light Weight: Weight ranging from 1.3 Kgs/ S qms for 6mm.
Thermal conductivity :DIN52612W/2°C -0.21
A ten year limited warranty on LEXAN * thermoclear sheet covering discoloration, loss of light transmission and loss of impact strength due to whether. LAXAN sheets is B1 rated as per DIN 4102.

03. Polycarbonate Sheet Fixing: Anodized Aluminum Profile.
Specification:
Size: 2" inch
Weight: 1.25 Kg / 12 feet
Perforated Antipe: with proper sealing facility to sustain 160km/HR.
Length: 12 feet
Screw: SS non Magnetic
Thermal safety: Silicon
Fixing: Double side tape.

Shade net: 50% in all the total area with sliding movement with gear box. All fittings.

04. Cooling System:
ECS Cooling System of Poly House:
Technical Specifications Cellulose Pad:
Size of Cooling Pads: 10' x 4'
Evaporative cellulose pads are made from a specially formulated cellulose paper impregnated with special compounds to prevent rot, early moss formation and ensure a long service life.
Size: 1200 x 600 x 100 mm (H x W x T)
Paper ambient condition: 25°C - 45°C
Nominal Efficiency: 88%
Estimated cooling load: 101,520 BTUs/ Hrs.
Water Flow: 9.56LPM
Bleed: 10%
Temperature: 10° to 12°C Below.

05. Axil Fan:
24" Fans with Auto opening system shutters and SS Blades with 415V, 50 Hz, 0.75 HP, 1ph motor with electrical cables; necessary fitting complete finish.

06. Cooling Pad Assembly:
With Top & Sides Alluminium/Gutter. Mono block/Submersible water pump 1 No. 0.5 HP capacity, ISI mark make kirloskar/ Taxmo This system uses less water L; recycling water System. This is very long life and new Technology for Assembling cooling Pad with all necessary plumbing, hard ware material complete finish.
PVC Water Tank 500 Ltr.

Heating System: we are providing Heavy duty Paralytic Technique Which is ideal for heating in biotech work and greenhouse.
Inbuilt auto thermal cut off device, Biotech grade 2.5 KW. It has ISI standard make heating element and ISI standard 900 rpm speed fan they prevent SO2 injury to plants as caused by
other make of heater due to improper combustion of fuel gases as a common phenomenon seen in green house. Input 200-240 VAC, 50 Hz, single phase. Ambient 5°C to 50°C, RH up to 90%.

Size:- 419 x 305 x 305 with through MS black powder coated body 02436
No of Heater : 02 ,

07. Humidification System :
This is very important feature of the Green house for growing of plants. It creates fine mist inside the chamber and increases the RH. Manufactured of high quality plastic material, resistant to chemicals

Humidity Range :- 60% to 95%
Fogger discharge range:- 7.0 LPH,
Operating Pressure:- 4.0 bar,
Density of one fogger:- 40 m,
Mister / Fogger Make :- Netafim (Israel)
Head Control Unit:- The same head control to be used for humidity & irrigation.
Microfogging / Micromisting :- Installation with leakage prevention device (LPD) fogger does not drip during the function.
Working pressure :- 4 bar at this pressure, the average droplet size :- 50 to 100 µm.
Density :- One fogger to 0.3 m – 0.4 m² for propagation.
Patten :- four way nozzle, hanging type.
Fogger discharge range:– 7.0 LPH
Pipe Imported :- 16 mm LLDP (10 kg/cm²) colour BLACK . Motor:- 1 HP mono block pump (Crompton/Kirloskar) :- 1 No. Filter (Screen) :- 10 kg Kelba (ISI)
PVC Water Tank :-500lt , PVC pipe and fittings :- 32 mm/ 25mm complete as per site.

08. Control Panel:-

Temperature Controller:- Real time microprocessor based user programmable Controller. 4 digit LED display for displaying measured values and another 4-digit LED display for displaying settings. Feather touch operation. 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. Selection of unit °C, °F. Display resolution 0.1°C. Accuracy ± 0.1°C. Automatic hysteresis control. Wide selectable temperature range, ranges from 0°C to 100°C. 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 up to 90%.


Plizc Timer/ cyclic Timer for Humidity: Specific for fogging, misting system controlled by timer. To avoid the water logging condition in the Glass 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 V.A.C. Phase-Single, 50 Hz.
- Ambient 4°C to 50°C, RH upto 90%.

Sensor:- Platinum sensor probe Pt- 100 (class A, SI sensor, cable 5 m, max var: 0.20°C, resistance standard 100 ohms, self heating error in 0-1 °C to 0.24 in flowing air V-1 m/s and 0.24 in still air, Response time in moving air 50% response in 6 sec. And 80% response in 5 sec

09. Electrical Wiring:-
Lights Fluorescent Tube light 6 no. will be provided in compartment. High quality ISI approved fittings with copper multi strand twisted FR Grade cable and rigid stds of safety with proper M.C.B. with appropriate electrical points.
Copper Cable, MCB, Switch & Socket, Fluorescent Tube, Conduit all ISI Mark and make Anchor/Polycab/ Osram

10. Civil Works:-
Complete civil Works as per enclosed including earth work, construction of Pipe RCC foundation (1:2:4) & 20mm BT metal, RCC pillar 9” x 9” will have 3’ with 250mm dia below actual ground level, The foundation pipe is made out of 50mm 2mm thick IS1 mark GI pipe. Brick wall 2 feet below and 2 feet sides wall and 2 feet front & back wall above ground level to check lateral moments of water. Base PCC 2” thick 13” wide, than 7” wide 4’ high first base line, than 9” wide second base line, Complete civil Works as per enclosed including earth work, size stone, Brick work, plastering etc all requirements as per site conditions, and Entry room and glass house floor is anti slippery tiles.
Plinth Protection:- 60cm wide 40mm thick 1:3:6 CC cover 0.75 Mtr. All side of glass house