

**BIDDING DOCUMENT**

No./COETC/RARI/2026/183

Dated: 13/05/2026

E-Tender for Construction of Plant Tissue Culture Lab and Protected Structures with Supply, Installation and Commissioning of Laboratory Equipment's on Turnkey Basis for the financial Years 2026-2027

UBN No.

Dated :13.05.2026

Mode of Bid Submission	Online through eProcurement system at <a href="https://eproc.rajasthan.gov.in">https://eproc.rajasthan.gov.in</a>
Procuring Authority	Director, Rajasthan Agricultural Research Institute Durgapura, Jaipur-302018
Last Date and Time of Submission of Bid	11.06.2026 11:00 AM
Date and Time of Opening of Technical Bid	12.06.2026 11:00 AM

Bidding Document Fee: ₹ 10,000/-

**SRI KARAN NARENDRA AGRICULTURE UNIVERSITY, JOBNER  
JAIPUR-303329**

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## NIB for Publication in Newspaper

Bids are invited up to 11:00 AM of 11.06.2026 for Construction of Plant Tissue Culture Lab and Protected Structures with Supply, Installation and Commissioning of Laboratory Equipment's on Turnkey Basis. The details are available in the Bidding Documents which can be availed from the office of Project Incharge, COETC, RARI Durgapura 302018 and can be accessed or downloaded from State Procurement Portal website "sppp.raj.nic.in" and "https://eproc.rajasthan.gov.in" or website "www.sknau.ac.in". The bidding document after filling up properly can be uploaded on website "https://eproc.rajasthan.gov.in" along with payment of ₹ 10,000/- (₹ 5,000/- for SSI Units of Rajasthan) through banker's cheque/demand draft in favour of **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER.**

UBN.....

  
Project Incharge, COETC





## NOTICE INVITING BID

Bids are invited up to 11:00 AM of 11.06.2026 for Construction of Plant Tissue Culture Lab and Protected Structures with Supply, Installation and Commissioning of Laboratory Equipments on Turnkey Basis. The details are available in the Bidding Documents which can be availed from the office of The Project Incharge, COETC, RARI Durgapura – 302018, Jaipur and can be accessed or downloaded from State Procurement Portal website "sppp.raj.nic.in" or "https://eproc.rajasthan.gov.in" or website "www.sknau.ac.in". The bidding document after filling up properly can be uploaded on website "https://eproc.rajasthan.gov.in" along with payment of ₹ 10,000/- (₹ 5,000/- for SSI Units of Rajasthan) through banker's cheque/demand draft in favour of **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER.**

  
Project Incharge, COETC

### **Copy to following for information:**

1. Convener/Members/Accounts Section/DDO, RARI, Durgapura-Jaipur/ SKNAU, Jobner
2. O/I CIMCA, SKNAU, Jobner for uploading to University Website- www.sknau.ac.in and www.sppp.rajasthan.gov.in.
3. Guard File

  
Project Incharge, COETC





## NOTICE INVITING BID

1. Detailed particulars of the list of goods viz., equipment required, specifications of various laboratory Equipments and lab and greenhouse drawings *etc* and bid documents are available on the website- [www.sknau.ac.in](http://www.sknau.ac.in) or <https://eproc.rajasthan.gov.in> or [sppp.raj.nic.in](http://sppp.raj.nic.in) or may be seen in The Project Incharge, COETC, RARI Durgapura – 302018, Jaipur.
2. E-Bids are invited as per following time schedule: -

Description of Bid document	Start date of sale of bid document	Date of pre bid	Last date and time for sale of bid document	Last date and time for Receipt of bid document	Date of Opening of technical bid	Estimated Cost (₹)
Construction of Plant Tissue Culture Lab and Protected Structures with Supply, Installation and Commissioning of Laboratory Equipment's on Turnkey Basis	1	2	3	4	5	6
	13.05.2026	22.05.2026	11.06.2026	11.06.2026	12.06.2026	<b>1597.17 Lakhs</b>
	11:00 AM	11:00 AM	11:00 AM	02:00 PM	11:00 AM	

3. A pre-bid meeting will be held as per above schedule *i.e.*, on Dated 22.05.2026 at 11:00 AM in the Office of the Project Incharge, COETC, RARI, Durgapura, Jaipur-302018 to clarify and answer the queries on any other matter related to this bid. It is made clear that any representation/complaint/suggestions by bidder/prospective bidder with regard to technical specifications or conditions of bid document shall be dealt with only when such representations/complaints are given in written during pre-bid meeting or within three working days after pre-bid meeting. Representation/complaint/suggestions received after this time frame shall not be entertained and shall summarily be rejected. After pre-bid meeting, necessary changes in bid conditions/ catalogue, if considered appropriate, will be made.
4. If any amendment/clarification is carried out in the technical specifications and bid terms and conditions following pre-bid meeting or any other information, the same will also be uploaded on the SKNAU, Jobner website [www.sknau.ac.in](http://www.sknau.ac.in) or [sppp.raj.nic.in](http://sppp.raj.nic.in) or and <https://eproc.rajasthan.gov.in> and will not be published in any newspaper. It will not be intimated to individual bidder.
5. The bid should be submitted through e-portal, after pre-bid meeting, including all the clarifications/modifications/amendments agreed and issued by Project Incharge, COETC, RARI,



Durgapura, Jaipur-302018. The bid shall only be submitted through e-procurement portal <https://eproc.rajasthan.gov.in> of Govt. of Rajasthan. A copy of tender document also sent to Project Incharge, COETC, RARI, Durgapura, Jaipur-302018 in physical form.

6. Bids received after the specified time and date shall not be accepted / opened.
7. The corrigendum/addendum issued by the Project Incharge, COETC, RARI, Durgapura, Jaipur-302018 shall be the integral part of terms and conditions of the bid and should be duly signed and attached with the bid document by the bidder.
8. The bid is for Construction of Plant Tissue Culture Lab and Protected Structures with Supply, Installation and Commissioning of Laboratory Equipment's on Turnkey Basis.
9. Price preference and/or purchase preference as per provisions of Government of Rajasthan shall be admissible in evaluation and award of contract.
10. The Bid form fee ₹ 10,000.00 (₹5,000.00 for SSI Units of Rajasthan) downloaded from the website and Earnest Money Deposit (E. M. D.) ₹ 31.97/- Lakh (MSME exemption may be given as per rule) for tender bid shall be deposited in the form of D. D./Banker's cheque in favors of **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER**, payable at Jaipur. The bidders are also required to deposit R. I. S. L. Processing fee of ₹ 2500.00 in the form of D. D./Banker cheque in favour of M. D., RISL payable at Jaipur. The bid document fee, R. I. S. L. processing fee and bid security shall be deposited physically along with technical bid submission sheet in the office of the Project Incharge, COETC, RARI, Durgapura, Jaipur-302018 before the last date and time of bid submission. In absence of all these documents bids will not be considered. The bidder shall upload scanned copy of all the D. D./Banker's cheque (Bid document fee, MD R. I. S. L. processing fee and EMD as applicable) in Technical Bid (Cover-A),
11. The technical bids shall be opened at 11.00 AM on dated 12.06.2026 at the office of the Project Incharge, COETC, RARI, Durgapura, Jaipur-302018 as amended in the presence of the bidders or their representatives, who wish to be present.
12. The undersigned is not bound to accept the lowest bid and may reject any or all bids without assigning any reason there for.
13. The bidders shall have to submit a valid 'GST' clearance certificate/affidavit from the concerned Commercial Taxes Officer and the 'PAN' issued by Income Tax Department.
14. It is clarified that the information required in bidding document should be submitted only in enclosed format Bidding Form (BF-I to BF-XV) without any change or modification in its formats. Bids submitted with changed or modified annexure/ formats may be rejected.
15. Information of award of contract shall be communicated to all participating bidders on the

website [www.skna.ac.in](http://www.skna.ac.in) and [sppp.raj.nic.in](http://sppp.raj.nic.in) Please note that individual bidder will not be intimated.

16. The bidding process shall be subject to the provisions of the Rajasthan Transparency in Public Procurement Act 2012 and Rules 2013 made there under.
17. Rajasthan Transparency in Public Procurement Act, 2012 also provides redresses of grievances or complaints of bidder/prospective bidder, against any decision, action or omission of the procuring entity through mechanism of appeals under section 38 of the Act. Therefore, such complaints/grievances shall be entertained only through this mechanism.
18. It is also clarified that interference with procurement process and vexatious appeals and complaints shall be dealt with as per section 42 and 43 of RTPP Act, respectively.
19. The specific company mentioned in the tender document is intended to ensure quality; however, equivalent quality brands will also be considered.
20. The major bidder (with experience in tissue culture/laboratory instruments) may also be permitted to include the experience of its sister concern in civil works.
21. Pressurizing by parties in any form shall be result in disqualification from the bid.
22. Manufacturer authorization is mandatory for following equipments: colling incubator, transilluminator water bath, millipore-water purifier, shaker and incubator, hot air oven, micro pipette, deep freezer, centrifuge, EC meter and pH meter, analytical balance, weighing balance, RTPCR machine, thermal cycler, gel electrophoresis system, autoclave, air flow, water bath shaker, rotary shaker and protected structure work.
23. Electricity and water charges during construction of building will be paid by the bidder.
24. The bidder shall also provide any additional items, components, or accessories not specifically listed in the bid document but required for the complete installation, smooth operation of the equipment/machinery and commencement of laboratory activities, without any extra cost to the purchaser.
25. Training related to operational and functional aspects has to be provided onsite as well as offsite by the bidder without any extra cost.
26. Unlimited technical support and training as and when required must be provided by the bidder without any extra cost.
27. In addition to above, instructions given by the Director, RARI, Durgapura/Project Incharge, COETC at time to time will be strictly followed by the bidder.

  
**Project Incharge, COETC**

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## **SECTION I: INSTRUCTIONS FOR ONLINE BID SUBMISSION**

The bidders are required to submit soft copies of their bids electronically on the SPP Portal using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the e-Procurement Portal, prepare their bids in accordance with the requirements and submitting their bids online. More information useful for submitting online bids on the SPP Portal may be obtained at: <https://sppp.rajasthan.gov.in/>

Bidder would have to quote for all the items. The order will not be splitted. To participate in online bidding process, Bidders must procure a Digital Signature Certificate as per Information Technology Act-2000 using which they can digitally sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency, *i.e.* TCS, safecrypt, N code *etc.* Bidders who already have a valid Digital Signature Certificate (DSC) need not procure a new DSC.

A single-stage two envelope selection (Technical and financial) procedure shall be adopted. Bidder (authorised signatory) shall submit their offer online in Electronic formats both for technical and financial proposal. However, DD for Tender Fees, RISL Processing Fees and EMD should be submitted physically at the office of Tendering Authority as prescribed in NIT and scanned copy of same should also be uploaded along with the technical bid/ cover.

Bidders are also advised to refer "Bidders Manual Kit" available at e-Procurement website (<http://eproc.rajasthan.gov.in>) for further details about the e-tendering process.

### **1. Registration**

Bidders who wish to participate in this bidding process must register on <http://eproc.rajasthan.gov.in> (bidders already registered on <http://eproc.rajasthan.gov.in> before 30/09/2011 must register again).

### **2. Searching for Tender Documents**

There is various search options built in the SPP Portal, to facilitate bidders to search active tenders by several paramete<sup>र</sup>. These parameters could include Tender ID, Organization Name, Location, Date, Value, *etc.* There is also an option of advanced search for tenders, wherein the bidders may combine a number of

search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords *etc.* to search for a tender published on the SPP Portal.

The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

### **3. Preparation of Bids**

Bidder should take into account any corrigendum published on the tender document before submitting their bids.

Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from

these may lead to rejection of the bid.

Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. To avoid the time and effort required in uploading the same set of standard documents, which are required to be submitted as a part of bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) should be kept ready by the bidder.

#### 4. Submission of Bids

Bidder should log into the site well in advance for bid submission so that they can upload the bid in time *i.e.* on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

Bidder has to select the payment option as “online” to pay the tender fee / EMD /MD RISL fee as applicable and enter details of the instrument.

Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise, the uploaded bid will be rejected.

Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BOQ file, open it and complete the cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

All the documents being submitted by the bidders would be encrypted to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid opener.

Upon the successful and timely submission of bids, the portal will give a successful bid submission message and a bid summary will be displayed with the bid number and the date and time of submission of the bid with all other relevant details.

The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

**5. Assistance to Bidders**

Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

**\*\*\*END OF SECTION I\*\*\***



**SECTION II: INVITATION FOR BIDS (IFB)**

Sri Karan Narendra Agricultural University, Jobner invites Online Bids on single stage two-bid system for "Construction of Plant Tissue Culture Lab and Protected Structures with Supply, Installation and Commissioning of Laboratory Equipments on Turnkey Basis" at Rajasthan Agricultural Research Institute, Durgapura, Jaipur.

Sr. No.	Item	Approx. Quantity	Approx. Cost Lakhs (₹)	Estimated Cost in (₹)	Earnest Money @ 02% of Estimated Cost (₹)
A.	<b>Construction of Plant Tissue Culture Laboratory Building (G+1) as per given Plan</b>	13800 Sqft	319.42 (19.99 % of total cost)	<b>1597.17 Lakhs</b>	31.94 Lakhs (MSME exemption may be given as per rule)
B.	<b>Supply, Installation and Commissioning of Laboratory Equipments and Glasswares</b>	As per tender document	867.75 (54.33 % of total cost)		
C.	<b>Protected structure work:</b>		370.00 (23.16 % of total cost)		
I.	Creation of Polyhouse with Mist Chamber Structures	550 Sqm	50		
II.	Greenhouse for Hardening of tissue cultured plant – Each unit: 500 sqm– 2 Units	500 Sqm 500 Sqm (2 Units)	50		
III.	Hi-tech Green House Structure (Speed Breeding Facility)	01 Unit Approx. 100 Sqm	100		
IV.	Aeroponics Facility with fully automated fertigation system for production of virus free mini-tubers in potato	500 Sqm	170		
D.	<b>Parking Shed, Rain Water Harvesting and Composting Unit</b>		40 (2.50 % of total cost)		
1.	Parking Shed	4500 Sqft			
2.	Rain water Harvesting, (RWH With recharging Shaft and repair of existing Pond)	12 Lakhs It capacity			
3.	Composting Unit (Pakka Structure with shade and beds having turning option with tractor)	Minimum 4000 cuft			

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## 1. Contact information

Project Incharge, COETC, RARI, Durgapura, Jaipur-302018 (Sri Karan Narendra Agriculture University, Jobner)

E-mail: [PI.COETC@sknau.ac.in](mailto:PI.COETC@sknau.ac.in)

## 2. Critical Date Sheet

Tender documents may be downloaded from web sites [www.sknau.ac.in](http://www.sknau.ac.in) (for reference only), <https://sppp.rajasthan.gov.in/> and <https://eproc.rajasthan.gov.in> as per the critical date sheet given below

Publication Date	13.05.2026
Bid Document Download Start Date	13.05.2026
Online Start date of sale of bid documents	13.05.2026, 11:00 AM
Date of Pre bid	22.05.2026, 11:00 AM
Bid Submission End Date	11.06.2026, 11:00 AM
Last Date For Receipt of bid documents	11.06.2026, 02.00 PM
Technical Bid Opening Date	12.06.2026, 11:00 AM

## 3. Two Bid System

The two bid system will be followed for this e-tender. In this system, the bidder shall submit his offer online in two parts viz. Technical Bid and Financial Bid.

The offers submitted by telegram/ fax/ e-mail/ by hand or any other mode except e-tender shall not be accepted. No correspondence will be entertained in this matter.

### Part 1: "Technical Bid" shall be uploaded in the form of following documents:

Copy of Tender Fee (Non-Refundable) in the form of Demand Draft for ₹ 10,000/- (Rupees Ten thousand only) drawn on any Nationalized/ Scheduled Bank, in favour of 'PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER payable at Jaipur.

Copy of Earnest Money (EMD) in the form of Demand Draft towards Earnest Money Deposit of (@02% of the estimated cost, MSME exemption may be given as per rule) from any Nationalized/ Scheduled Bank, in favour of 'PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER' payable at Jaipur as mentioned at Para 6 (Section III).

The original instrument in respect of Earnest Money Deposit and tender fee must be submitted to the Project Incharge, COETC, RARI, Durgapura, Jaipur-302018 on the address mentioned above on or before bid submission date/ time as mentioned in critical date sheet. In case of non-submission of original payment instrument for EMD and tender fee, the bid shall be rejected. The Demand Draft submitted towards tender fee is non-refundable.

Duly filled Technical Bid with proper seal and signature of authorized person on each page of the bid should be uploaded. The person signing the bid should be the duly authorized representative of the Firm/ Company whose signature should be verified and certificate of authority should be scanned and submitted as per format given at Annexure I. The power or authorization or any other document consisting of adequate proof of the ability of the

signatory to bind the firm/ company should be scanned and uploaded.

**A- Turnover Requirement:**

The bidder must provide a certificate issued by a Chartered Accountant (CA), Company Secretary (CS) or Auditor confirming the firm's turnover. The bidder should have an average annual financial turnover for the **five** financial years 2020—21, 2021-22, 2022—23, 2023—24, and 2024—25 of at least 33% of the estimated cost of the work, calculated up to the financial year ending 2024-25.

**B- Net worth:** It should be positive at the time of submission of bid.

**C- Past Experience:**

Bidder should have completed at least **ONE** similar work not less than **60%** of the estimated contract value in last **5 financial year**

**Or**

Bidder should have completed at least **TWO** similar work not less than **40%** of the estimated contract value in last **5 financial year**

**Or**

Bidder should have completed at least **THREE** similar work not less than **30%** of the estimated contract value in last **5 financial year**

**D- Similar Work:**

Similar work: means any lab setup (Agriculture/ Healthcare/ Institution *etc.*) in government including civil work, electrical work, sanitary work, HVAC along with lab equipment, protected structures, aeroponics facility and speed breeding facility in a single contract with successful completion.

Copy of GST and PAN/ Registration etc. as applicable should be uploaded.

Copy of all documents related with Firm Registration/ Partnership Deed/ Articles of Memorandum of Association or Proprietorship Deed, Certificate of Incorporation should be uploaded.

Bid Form as per format given at Annexure II must be uploaded by the bidder along with Technical Bid.

Technical Compliance Document in the form of Tech\_Comp\_Doc. pdf with detailed technical specification, make and model and cross reference compliance with the data sheets and Manufacturer's Authorization Form (Annexure V) should be uploaded in the technical bid, failing which will lead to the rejection of the bid.

Declaration as per the format given at Annexure III must be uploaded by the bidder along with Technical Bid for undertaking that the required items that shall be supplied for RARI, Durgapura, Jaipur-302018 will not be refurbished / duplicate or acquired illegally in India.

The installation and warranty services are required in RARI, Durgapura, Jaipur-302018. The bidder should upload the signed and scanned copy of the detail plan for providing warranty services at site. A signed and scanned undertaking to this effect should be uploaded along with the technical bid as per format given at Annexure IV.

Signed and scanned copy of the Checklist as per format given at Annexure VIII must be uploaded along with Technical Bid. Signed and scanned copy of other related documents, mentioned in the tender document but not listed here.

**Part 2: "Financial Bid" shall be uploaded in the form of following documents:**

Price schedule should be submitted online only in the form of BOQ\_XXXX. xls.

The prices should be mentioned in figures as well as in words wherever mentioned in the BOQ\_XXXX.xls. The bidder should carefully cross check the prices entered in figures with corresponding figures converted in words.

#### **4. Pre-Bid Meeting**

The pre-bid meeting will be conducted if required (purchase committee recommendation) as per mentioned in critical date sheet at: the Office of Project Incharge, COETC, RARI, Durgapura- 302018, Jaipur.

Maximum 2 (Two) participants per bidder will be allowed to participate in the Pre-bid Meeting.

#### **5. Submission of bids and opening of the Technical bids:**

Last date for submission of bids will be as per schedule mentioned in critical date sheet above. Online Technical bids will be opened as per schedule mentioned in critical date sheet above at:

**Office of Project Incharge, COETC, RARI, Durgapura- 302018, Jaipur.**

**Sri Karan Narendra Agriculture University, Jobner- Jaipur -303329, India.**

The bids should be submitted online only at e-Procurement Portal. The bidders' authorized representative (maximum two) may choose to attend the bid opening/s, if desired so. Bids will be opened online as per date/time as mentioned in the Tender Critical Date Sheet.

The technical bids will be evaluated to shortlist the eligible bidder. The technical bids of only the shortlisted bidders shall be considered for further processing i.e. technical evaluation. Bidders whose technical bid is found to be acceptable and meeting the eligibility requirements as specified in this tender will be informed about the date and time of the opening of the Financial Bid.

#### **6. Opening of Financial Bids**

The online Financial Bids of the eligible bidders who are shortlisted after Technical Evaluation only will be opened in the presence of the bidders or their authorized representative (maximum two), who choose to attend, at the time place and date to be informed later.

The authorized representative of bidders, present at the time of opening of the bids shall be required to sign an attendance sheet as a proof of having attended the online Financial Bid opening.

The bidder's name, bid prices, discounts and such other details considered as appropriate by RARI, Durgapura- Jaipur- 302018 will be announced at the time of the opening of the bids.

Note: Technically accepted online competitive bids ONLY will be considered for the opening of online Financial Bids.

**\*\*\*END OF SECTION II\*\*\***

## SECTION III: INSTRUCTIONS TO BIDDERS (ITB)

### 1. Delivery Period / Project Timelines

The bidder is required to construct, supply, install and commission and has to provide on-site support of the item for which bid has been submitted to Rajasthan Agricultural Research Institute (RARI), Durgapura, Jaipur. The construction, delivery and installation at site must be completed within **18 months** (Eighteen months) from the date of placement of work order by Rajasthan Agricultural Research Institute (RARI), Durgapura, Jaipur- 302018 including the transportation to the site by the bidder. It is mandatory for the bidders who respond to this bid to meet these expectations as time is the essence of this contract and is tightly linked to RARI, Durgapura- Jaipur-302018 plans of completing the project within the available time frame.

### 2. Locations for the construction, supply, installation and warranty Services

The items as detailed in this document are to be supplied and installed at Rajasthan Agricultural Research Institute (RARI), Durgapura, Jaipur- 302018. The detail of consignee and firm address of the site for supply, installation and commissioning and on-site warranty support will be communicated in the Work Order.

### 3. Order Placements and Release of Payment

The supply order by Rajasthan Agricultural Research Institute (RARI), Durgapura, Jaipur-302018 and payment shall be released by: **Comptroller, SKNAU, Jobner-Jaipur.**

### 4. Eligible Bidders

4.1 The bidder or sister concern must be registered in AA/A Class in civil and electrical category GoR PWD or Equivalent in any central/other states department/PSU/Public Undertakings/Autonomous body *etc.*

4.2 **A. Turnover Required:** The bidder must upload a certificate issued by a Chartered Accountant (CA), Company Secretary (CS), or Auditor confirming the firm's turnover. The bidder should have an average annual financial turnover for the **five financial years 2020-21, 2021-22, 2022-23, 2023-24, and 2024-25 of at least 33% of the estimated cost of the work**, calculated up to the financial year ending of 2024-25.

**B- Net worth:** It should be positive at the time of submission of bid.

#### **C- Past Experience:**

Bidder should have completed at least **ONE** similar work not less than **60%** of the estimated contract value in last **5 financial year**₹

**Or**

Bidder should have completed at least **TWO** similar works not less than **40%** of the estimated contract value in last **5 financial year**₹

**Or**

Bidder should have completed at least **THREE** similar works not less than **30%** of the estimated contract value in last **5 financial year**₹

#### **D- Similar Work:**

Similar work: means any lab setup (Agriculture/ Healthcare/ Institution *etc.*) in government/ NGO's/ Private Sector/ PSU's including civil work, electrical work, sanitary work, HVAC along with lab equipment's, high tech nursery, aeroponics facility and speed breeding facility in a single contract with successful completion.

Bidder should be registered with Sales Tax/ Income Tax Department of Government of India and should possess a valid GST/ PAN Number/ Registration as on date of bid submission.

**Note:** Sri Karan Narendra Agriculture University, Jobner reserves the right to award/ reject the orders to any particular bidder without assigning any reason thereof.

#### **5. Amendment of Tender Document**

5.1 At any time prior to the deadline for submission of bids, Sri Karan Narendra Agriculture University, Jobner may, for any reason, whether on its own initiative or in response to the clarification request by a prospective bidder, modify the bid document.

5.2 All the amendments/ modifications in the bid documents will be binding on all the bidders and the same shall be suitably notified on the websites only ([www. sknau.ac.in](http://www.skna.ac.in), [https://sppp. rajasthan.gov.in/](https://sppp.rajasthan.gov.in/), [http://eproc. rajasthan.gov.in](http://eproc.rajasthan.gov.in/))

5.3 Sri Karan Narendra Agriculture University, Jobner at its discretion may extend the deadline for the submission of bids if the bid document undergoes changes during the bidding period, in order to give prospective bidders time to take into the consideration the amendments while preparing their bids.

5.4 Bidders should keep viewing the above-mentioned websites for any corrigendum/ change. There wouldn't be any newspaper advertisement towards the same. If any bidder misses the information published on the website and their bid is rejected, no complaint would be entertained.

#### **A. PREPARATION OF BIDS**

Bids shall be submitted online only at e-Procurement Portal: [https://eproc. rajasthan.gov.in/](https://eproc.rajasthan.gov.in/)

Bidders are advised to follow the instructions provided in Section-I above for the e-submission of the bids online through the State Public Procurement Portal for e-Procurement at [https://eproc.rajasthan. gov.in](https://eproc.rajasthan.gov.in/)

Bidder who has downloaded the tender from the Sri Karan Narendra Agriculture University, Jobner website and State Public Procurement Portal (SPPP) shall not tamper/modify the tender form including downloaded Financial Bid template in any manner. In case if the same is found to be tampered/ modified in any manner, bid will be summarily rejected and EMD would be forfeited and the bidder would be liable for suitable penal action.

Bidder should avoid, as far as possible, corrections, overwriting, erasures or postscripts in the bid documents. In case however any corrections, alterations, changes, erasures, amendments and/or additions have to be made in the bids, they should be supported by dated signatures of the same authorized person signing the bid documents.

## **6. Earnest Money Deposit (EMD)**

6.1. The tender documents must be accompanied by Earnest Money Deposit of (02% of the estimated cost, MSME exemption may be given as per rule) in the form of a Demand Draft (DD) drawn on any Nationalized/ Scheduled Bank, in favour of '**PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER**' payable at Jaipur.

Bids submitted without EMD will stand rejected. EMD will not be accepted in the form of cash/ cheque/ FDR/ BG or any other form except DD. No interest shall be payable on EMD.

6.2. The EMD will be returned to the bidder(s) whose offer is not accepted by Sri Karan Narendra Agriculture University, Jobner within 30 days from the date of opening of Financial Bids. In case of the bidder(s) whose offer is accepted the EMD will be adjusted against the Performance Security (Refer Clause 7 of Section IV). However, if the return of EMD is delayed for any reason, no interest/ penalty shall be payable to the bidder. The successful bidder, on award of contract/ order, must send the contract/ order acceptance in writing, within 07 working days of award of contract/ order, failing which the EMD will be forfeited.

### **6.3. The EMD shall be forfeited:**

6.3.1 If the bidder withdraws the bid during the period of bid validity specified in the tender.

6.3.2 In case a successful bidder, fails to furnish the Performance Security (Clause 7 of Section IV) in lieu of on-site warranty.

6.3.3 If the bidder fails to furnish the acceptance in writing, within 07 working days of award of contract/ order.

6.3.4 If the bidder fails to supply the material.

## **7. Period of validity of bids**

7.1. Bids shall be valid for minimum 90 days from the date of submission. Bid valid for a shorter period shall stand rejected.

7.2. Sri Karan Narendra Agriculture University, Jobner may ask for the bidder's consent to extend the period of validity. Such request and the response shall be made in writing only. The bidder is free not to accept such request without forfeiting the EMD. A bidder agreeing to the request for extension will not be permitted to modify his bid.

## **B. SUBMISSION OF BIDS**

The online bid shall be neat, plain and intelligible. Each page of the bid should be signed by the authorized person. They should not contain any terms and conditions, printed or otherwise, which are not applicable to the Bid. The conditional bid will be summarily rejected. Insertions, postscripts, additions and alterations shall not be recognized, unless confirmed by bidder's signature.

## **8. Deadline for Submission of Bids**

- 8.1 Bids must be submitted online before the due date and time as specified in the critical date sheet.
- 8.2 Sri Karan Narendra Agriculture University, Jobner may extend this deadline for submission of bids by amending the bid documents and the same shall be suitably notified on the websites only.

## **9. Late Bids**

The online bid submission would not be possible after the deadline for submission of bids.

## **C. BID OPENING AND EVALUATION OF BIDS**

### **10. Opening of Bids**

- 10.1 The technical bids will be evaluated to shortlist the eligible bidder. The technical bids of only the eligible bidders shall be considered for further processing (technical evaluation).
- 10.2 Bidder whose technical bid is found to be acceptable and meeting the eligibility requirements as specified in this tender will be informed about the date and time of the opening of the Financial Bid.
- 10.3 Sri Karan Narendra Agriculture University, Jobner will open Financial Bids of only the technically short-listed bids at the time and date to be informed later.

## **D. AWARD OF CONTRACT**

### **11. Evaluation of Proposals and Award Criteria**

- 11.1. The bidder must quote for all the items mentioned under Section V– Schedule of Requirement. The lowest price criteria shall be applied on the total composite amount (inclusive of all taxes) of all items taken together.
- 11.2. Preliminary scrutiny of the proposal will be made to determine whether they are complete, required processing fee (Tender Fee) and bid security (EMD) have been furnished, whether the uploaded documents have been properly signed and whether the bids are generally in order. Proposals not conforming to such preliminary requirements will be prima-facie rejected.
- 11.3. Bids complying with all the eligibility requirements mentioned under Section III Clause 4 of this tender document and fulfilling the specifications and schedule of requirements mentioned in Technical Comparison and Section-V shall be treated as substantially responsive bids. Responsiveness of the bids shall be determined on the basis of the contents of the bid itself and shall not be determined by extrinsic evidences. Sri Karan Narendra Agriculture University, Jobner, if required, may ask bidders for presentation on the solution offered. Failure on part of bidder to arrange the presentation on the date and place fixed shall result in the rejection of technical bids and financial bids of these bidders shall not be opened. Also, if it is found after

presentation that the solution offered is not meeting the specifications prescribed by, such bidders shall be treated as substantially non-responsive. Sri Karan Narendra Agriculture University, Jobner decision shall be final in this regard. The place for presentation shall be conveyed to the bidders at an appropriate date.

- 11.4. Financial Bids of only those bidders will be opened who are found to be substantially responsive and the work shall be awarded to the commercially lowest bidder.
- 11.5. Bidder should quote their rates by uploading in prescribed Performa in BOQ. xls only. Financial Bids/ prices/ rates other than the format provided or elsewhere in the Bid Document shall be rejected by Sri Karan Narendra Agriculture University, Jobner.
- 11.6. The rates quoted in figures would be converted in words in BOQ. xls. The bidder should carefully cross check the prices entered in figures with corresponding figures converted in words. In case of discrepancy between words and figures, the rates quoted in words shall be treated as final. The correct amount will be calculated by multiplying unit price with quantity and in case of any discrepancy, the corrected amount shall be considered and total of all corrected amount shall be bidder's total quoted amount.
- 11.7. In the copies of supply order/ contract/ agreement/ experience certificate submitted by the bidder, if the currency is other than Indian Rupees, the value of work in Indian Rupees shall be determined by using the exchange rate declared by Reserve Bank of India as on the last date of submission of technical/ Financial Bids and the eligibility of the bidder shall be determined accordingly.
- 11.8. If more than one bidder happens to quote the same lowest price, Project Incharge, COETC, RARI, Durgapura, Jaipur- 302018 reserves the right to split the order and award the contract to more than one bidder. The splitting in such case will be done on the basis of item wise lowest price quoted by the bidder.

## **12. Purchaser's Right to amend Scope of Work**

- 12.1 If, for any unforeseen reasons Project Incharge, COETC, RARI, Durgapura, Jaipur- 302018 is required to change the Scope of Supply, this change shall be acceptable to the bidder without change in the unit price quoted.
- 12.2 Project Incharge, COETC, RARI, Durgapura, Jaipur- 302018 reserves the right to reject one/ all the bids or cancel the tender without assigning any reasons there for.
- 12.3 Project Incharge, COETC, RARI, Durgapura, Jaipur- 302018 reserves the right to accord relaxation uniformly to all the bidder in case the bid submitted by all the bidders are found to have minor deviation.

## **13. Corrupt or Fraudulent Practices**

- 13.1 It is expected that the bidders who wish to bid for this project have highest standards of ethics.
- 13.2 Project Incharge, COETC, RARI, Durgapura, Jaipur- 302018 will reject bid if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices while competing for this contract;
- 13.3 Project Incharge, COETC, RARI, Durgapura, Jaipur- 302018 may declare a vendor ineligible, either indefinitely or for a stated duration, to be awarded a contract if it at any time determines

that the vendor has engaged in corrupt and fraudulent practices during the execution of contract.

**14. Interpretation of the clauses in the Tender Document / Contract Document**

14.1 In case of any ambiguity/ dispute in the interpretation of any of the clauses in this Tender Document, Project Incharge, COETC, RARI, Durgapura, Jaipur- 302018 interpretation of the clauses shall be final and binding on all parties.

**\*\*\*END OF SECTION III\*\*\***



## SECTION IV: SPECIAL CONDITIONS OF CONTRACT (SCC)

### **1. Prices**

- 1.1. The price quoted shall be considered firm and no price escalation will be permitted.
- 1.2. Bidders must quote the prices in INR only and as per the prescribed Performa in BOQ. xls only.
- 1.3. The prices quoted should be inclusive of installation, training, freight, insurance, packing, loading and unloading at destination and applicable taxes till destination. The packing shall be transporting worthy so as to prevent their damage or deterioration to goods during transit to their final destination as indicated in this document. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, and the remoteness of the Goods final destination and the absence of heavy handling facilities at all point in transit. However, risk in good shall continue with supplier till goods are delivered in good condition and installed at end user's site duly certified by Project Incharge, COETC, RARI, Durgapura, Jaipur- 302018.

### **2. Taxes and Duties:**

- 2.1. The basic price and all applicable taxes and/ or duties should be included in the price quoted. No Concession Tax Form (C/D) will be given by Project Incharge, COETC, RARI, Durgapura- 302018, Jaipur.
- 2.2. The cost and risk of the consignment rests with the bidder till it is delivered to the end user site *i.e.* RARI, Durgapura- 302018, Jaipur.

### **3. Software Licenses:**

The software mentioned in Schedule of Requirement is for Sri Karan Narendra Agriculture University, Jobner. The licenses should be in the name of Sri Karan Narendra Agriculture University, Jobner and legally valid for use. The successful bidder must supply paper licenses for the software and at least one set of media (Pendrive/SSD).

### **4. Completeness Responsibility:**

Notwithstanding the scope of work, engineering, supply and services stated in bid document, any equipment or material, engineering or technical services which might not be even specifically mentioned under the scope of supply of the vendor and which are not expressly excluded there from but which are necessary for the performance of Sri Karan Narendra Agriculture University, Jobner in accordance with the specifications and executing the contract to establish achievement of performance guarantee parameters, are to be provided for and rendered by the vendor without any extra charge so that the said project is completed in all respect.

## 5. Warranty and Support:

All the items covered in the schedule of requirements, shall carry minimum 3 (Three) years on site comprehensive warranty from the date of its installation and commissioning. The bidder must undertake to provide the on-site support during the warranty at RARI, Durgapura, Jaipur- 302018. The repairing/ rectification/ replacement/ configuration required, if any, must be done at site only. During the warranty, all complaints should be attended within 24 (Twenty-Four) hours and rectified within 3 (Three) working days from the time of complaint. In case the rectification of fault involves replacement of hardware the same should be carried out within 14 (Fourteen) working days from the date of intimation.

Failure to do so would result in the invoking of the Performance Security. The Performance Security will be released by Sri Karan Narendra Agriculture University, Jobner only after the submission of satisfactory performance certificate issued by end-user and verified after the completion of warranty period.

## 6. Payments:

Based upon quantity of activity and on the basis of total rates and premium allowed in the award with following breakup –

Phase	Stage description	% of payment
<b>Activity 1:</b> Construction of Plant Tissue Culture Laboratory Building (G+1) as per given plan <b>(19.99% of total cost)</b>	Approval of Master Plan and Preliminary Drawings: Submission and approval of Concept Design, Site Layout, Compliance Drawings, Project Execution Plan, soil investigation report, and movement of raw material for building.	20
	Foundation and Substructure Completion (Excavation, PCC, RCC footings, plinth beam, backfilling) for building	20
	RCC framework and casting for ground floor	10
	RCC framework and casting for first floor	10
	MEP and Interior Finishing (Flooring, false ceiling, wall finishing, doors/windows, facade)	20
	Final Handover of building	20
		<b>100%</b>
<b>Activity 2:</b> Supply, Installation and Commissioning of	On receipt of equipments at site and delivery challan (Equipment receiving will be done only after building structure is complete)	50%

Laboratory Equipments and Glasswares (54.33 % of total cost)	Installation of all equipment's glassware's and physical verification by University.	30%
	Final Handover and commissioning of equipments in working condition	20%
		<b>100 %</b>
Activity 3: Protected Structure Work (23.16 % of total cost)	Supply of raw material at construction site and frame erection.	30%
	Poly/net fixed and irrigation installed of Protected structure (Polyhouse, Aeroponics) work.	40%
	Automation completion of protected structure (Polyhouse, Aeroponics) work and final handover	30%
		<b>100%</b>
Activity 4: Parking Shed, Rain Water Harvesting and Composting Unit (2.50 % of total cost)	Parking Shed	50 %
	Rain water Harvesting (RWH with Recharging Shaft and repair of existing pond)	35 %
	Composting Unit	15 %
		<b>100 %</b>

### 7. Performance Security:

The successful bidder within time given by the authorities must submit a Performance Security equivalent to 05% of the order value on receipt of supply order from Sri Karan Narendra Agriculture University, Jobner in the form of a Demand Draft (DD) drawn on any Nationalized/ Scheduled Bank, in favour of 'PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER' payable at Jaipur.

Performance Security will not be accepted in the form of cash/ cheque/ FDR/ BG or any other form except DD. No interest shall be payable on Performance Security. EMD of successful bidder will be adjusted against the Performance Security and the remaining amount is required to submit by the successful bidder within 30 days on receipt of supply order from Sri Karan Narendra Agriculture University, Jobner.

The bidders registered with NSIC/ MSME may claim exemption from submission of Performance Security. In this case bidder should submit a copy of valid NSIC/ MSME Registration Certificate along with the Technical Bid. The certificate should be specifically applicable for construction, supply, installation, commissioning and on-site support of the equipment(s) required in the present tender for which bid has been submitted.

## **8. Penalty for Delayed Services:**

### **8.1 Liquidated damages for delay in delivery, installation and commissioning and demonstration:**

- If the seller fails to construct and deliver any or all of the Goods/Services within the original /re-fixed delivery period specified in the Purchase Order, this Institute will be entitled to deduct/recover the Liquidated Damages for the delay as per RTPP act 2012 and Rules 2013.

- In case of failure to supply the goods within the prescribed time and in accordance with the specifications give in the Quotations, the institute shall be free to cancel the order and make purchases from the next higher tenderer or from the open market as the case may be. In that case the loss sustained by the institute shall be recovered from the defaulting supplier. The institute will be at liberty to recover the loss from the permanent earnest money/or any other pending claims of the supplier without prejudice to its general right to affect recovery from the supplier.

### **8.2 Penalty for delayed services during warranty:**

- Sri Karan Narendra Agriculture University, Jobner reserves the right to levy penalty @ 1% of order value per week of delay beyond the scheduled timeline for resolution of complaint during warrant period *i.e.* all complaints should be rectified within 3 (Three) working days from the time of complaint. In case the rectification of fault involves replacement of some hardware the same should be carried out within 14 (Fourteen) working days from the date of intimation, subject to maximum of 05% of the order value.

- The penalties, if any shall be recovered from the Performance Security submitted by the successful bidder or from the Balance payment reserved with Sri Karan Narendra Agriculture University, Jobner. Sri Karan Narendra Agriculture University, Jobner may consider relaxing the penalty and delivery requirements, as specified in this document, if and to the extent that, the delay in performance or other failure to perform its obligations under the contract is the result of circumstances not attributed to the bidder. For any such relaxation, the bidder has to sought prior written approval from Sri Karan Narendra Agriculture University, Jobner by submitting proper justification with documentary evidences.

### **8.3 LIQUIDATED DAMAGES:**

- The time specified for delivery in the bid form shall be deemed to be the essence of the contract and the successful bidder shall arrange supplies within the period on receipt of order from the Purchasing Office₹
- In case of extension in the delivery period with liquidated damages, recovery of L. D. shall be made at such rates, as given below, of value of stores which the bidder has failed to supply:
  - Delay up to one- fourth period of the prescribed Delivery Period - 2.5%
  - Delay exceeding one fourth but not exceeding half of the Prescribed delivery

period - 5%

- Delay exceeding half but not exceeding three-fourth of the Prescribed delivery period - 7.5%
- Delay exceeding three- fourth of the prescribed period -10% Fraction of a day in reckoning the period of delay in supplies shall be eliminated if it is less than half a day. The maximum amount of agreed liquidated damage shall be 10%.

- If the supplier requires an extension of time in completion of contractual supply on account of occurrence of any hindrances, he shall apply in writing to the Project Incharge, COETC, RARI, Durgapura, Jaipur- 302018 for the same immediately on occurrence of the hindrances of the Project Incharge, COETC, RARI, Durgapura, Jaipur- 302018, but not after the stipulated date of completion of supply. The firms shall ensure extension of delivery period for delayed supplies. The payment shall only be released by purchase officer after sanction of extension in delivery period may be extended with or without liquidated damages. If the delay in the supply of goods is on account of force majeure i. e., which is beyond the control of the bidder, the extension in delivery period may be granted without Liquidated Damage.
- If the bidder is unable to complete the supply within the specified or extended period, the purchasing officer shall be entitled to purchase the goods or any part thereof from elsewhere without notice to the bidder on his (*i.e.*, bidders) account at his cost and risk, with the prior approved from the Project Incharge, COETC, RARI, Durgapura, Jaipur-302018. The bidder shall be liable to pay any loss or damage which the purchasing officer may sustain by reasons of such failure on the part of the bidder. The bidder shall not be entitled to any gain on such purchases made against default. The recovery of such loss or damage shall be made from any sums accruing to the bidder under this or any other contract with the University/government. If recovery is not possible from the bill and the bidder fails to pay the loss or damage within one month of the demand, the recovery of such amount or sum due from the bidder shall be made under the Rajasthan Public Demand Recovery Act, 1952 or any other law for the time being in force. In case supplier fails to deliver ordered goods, the risk purchases may be made at market rate from any other firm. It is mandatory for the approved supplier to acknowledge receipt of orders within seven days from the date of dispatch of order, failing which the procuring entity will be at liberty to initiate action to purchase the items on risk purchase provision at the expiry of the prescribed supply period.

#### **9. Jurisdiction:**

The disputes, legal matters, court matters, if any shall be subject to Jaipur jurisdiction only.

#### **10. Force Majeure:**

Sri Karan Narendra Agriculture University, Jobner may consider relaxing the penalty and delivery requirements, as specified in this document, if and to the extent that, the delay in performance or other failure to perform its obligations under the contract is the result of a

Force Majeure. Force Majeure is defined as an event of effect that cannot reasonably be anticipated such as acts of God (like earthquakes, floods, storms etc.), acts of states, the direct and indirect consequences of wars (declared or undeclared), hostilities, national emergencies, civil commotion and strikes at successful bidder's / OEM premises.

#### **11. Arbitration:**

All disputes of any kind arising out of supply, commissioning, acceptance, warranty maintenance etc., shall be referred by either party (Sri Karan Narendra Agriculture University, Jobner or the bidder) after issuance of 30 (thirty) days' notice in writing to the other party clearly mentioning the nature of dispute to a single arbitrator acceptable to both the parties. The venue for arbitration shall be Jaipur. The jurisdiction of the courts shall be Jaipur jurisdiction.

#### **12. Additional Performance Security:**

The lowest successful bidder shall have to deposit additional performance security as per the Rules of RTPP amended Notification of finance (GandT) department dated 22.10.2021 in 6` addition to performance Security as Specified in RTPP rule 75A. Additional Performance Security shall also be taken from the successful bidder in case of unbalanced bid. The Additional Performance Security shall be equal to fifty percent of Unbalanced Bid Amount. The Additional Performance Security shall deposit in lump sum by the successful bidder before execution of Agreement. The Additional Performance Security shall be deposited through e-Grass, Demand Draft, Banker's cheque, Government Securities or Bank Guarantee. (RTPP Rule 2013 and Time to time amendment shall be applicable)

Explanation: For the purpose of this rule :-

- (i) Unbalanced Bid means any bid below more than fifteen percent of Estimated Bid Value.
- (ii) Estimated Bid Value means value of subject matter of procurement mentioned in bidding documents by the Procuring Entity.
- (iii) Unbalanced Bid Amount means positive difference of eighty five percent of Estimated Bid Value minus Bid Amount Quoted by the bidder.
- (iv) The Additional Performance Security shall be refunded to the contractor after satisfactory completion of the entire work. The Additional Performance Security shall be forfeited by the Procuring Entity when work is not completed within stipulated period by the contractor.

**\*\*\*END OF SECTION IV\*\*\***

## SECTION V – SCHEDULE OF REQUIREMENT

<b>A. Construction of Plant Tissue Culture Lab (G+1) with Supply, Installation and Commissioning of Laboratory with comfort centrally air-conditioned system for complete laboratory</b>	<b>Total area – 13800 Sq Feet</b>
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**B. List of Equipment, Glassware and Plastic Wares etc.**

<b>a) TISSUE CULTURE LAB</b>		
S.N.	EQUIPMENTS	Qty.
1	Autoclave -High Pressure Horizontal Double Door Sterilizer – 300-400 L	2
2	Autoclave vertical 150-200 L capacity, Fully automatic,	2
3	Analytical Weighing Balance (Readability 0.01 mg to 250 gm)	3
4	Electronic Weighing Balance (Readability 500 g to 5 Kg)	2
5	Humidifier	3
6	Ec Meter portable pen type	1
7	pH meter-Table Top, Digital pH meter	2
8	Portable pH metre (Hand pH meter)	5
9	TDS Meter, Portable, Pen-type	1
10	RO + DM water unit	1
11	Media Boiler -100 L capacity, SS body	2
12	Media Dispenser -Bottle top digital 0-50 ml	5
13	600- 700 L Refrigerator Vertical (4°C temperature range)	5
14	Magnetic Stirrer-20 L capacity	1
15	Rotary Shakers and Incubator-8 L capacity	5
16	Hot Air oven (Capacity 100 L)	10
17	Hot Plate	1
18	Sealing machine 12" Table top	1
19	Bottle washing machine 30-50 bottle per minutes bottle dia 25 to 100 mm	2
20	Laminar air flow (Horizontal)- MS powder coated working size-6 X 2 ft	10
21	Glass Bead Sterilizer up to 300°C temperature	16
22	Dissecting Kits and Inoculation Instruments	10
23	Air Curtain-1500 mm	2
24	Thermometer Digital	1

25	Growth Room racks with cool LED Light Size -20' x 4' x 10' (7 shelf)	20 Set
26	Lux meter- portable	1
27	Automated Control System	3 Set
28	Pass Box with UV lamp	3
29	AHU/HVAC for Growth Room and Inoculation Room	6 set
30	Air conditioning for lab other area	10
31	CCTV camera 25 with DVR	1 Set
32	Audio system with mics (20) and speakers for Meeting Room	1 Set
33	Interactive Flat Panel Display 86" for Meeting Room	1
34	PTZ Camera for Meeting Room	1
35	Digital Podium for Meeting Room	2
36	Lab fire safety and fire alarm	1 Set
37	Computer System	5
38	Trolleys	10
39	300 ltrs Deep Freezer vertical (-20°C)	1
40	Microwave Oven (28 Ltr. or more)	2
41	Lab Cloths	20
42	Media Storage Rack	10
43	Micro-pipettes different Size i. e. 1-10 µl, 100-1000 µl, 1.0-5ml	3 Set
44	Scissor , stainless Steel, different sizes	10 each
45	Scalpel Stainless steel No.-3, length-10"	10 Set
46	Instrument stands, Stainless steel	20 No
47	Grading and Packing Table 3000x750mm	1
48	Exhaust and Ceiling Fan	2 Set
49	Automatic Cloth Washing Machine (Capacity Approx 10-15 Liter)	1
50	Paper pot making machine with compressor pot size ranges from 50 – 80 mm diameter and pot length should be up to 240 mm, Capacity 5000 Pots /hr	1 set
51	Printer	5 Set
52	Heater for Lab	5 Set
53	Vacuum cleaner 6-8 Ltrs Capacity	1
54	Fogger machine 8 ltrs per hrs capacity	1
55	Gas Burner	14 Set
56	Rotatory Shaker	01

<b>S.N. ELECTRIFICATION</b>		
1	Entire lab Electrification with all flexible and armored cable, PVC trouncing, Galvanized cable tray and accessories	1 set
2	Electrical Distribution Panel	1
3	Servo Stabilizer Capacity: 250 KVA, 3-phase	1
4	Diesel Genset with 120 KVA capacity	1
5	UV Lamp for Sterilize area 1200mm size	3 Nos
6	LED lightings for general illumination	95 Nos
7	Solar System for laboratory and greenhouses (On grid solar system with capacity to generate 100 kw power every day)	1 Unit
<b>S.N. Plastic-Ware</b>		
1	Beaker with Handle-500 ml, 1000 ml, 5000 ml and 10 ltrs (5 each)	20
2	Measuring cylinder-25 ml, 100 ml, 500 ml to 1000 ml (2 each)	8
3	Plastic Tray 320 x 260 x 70 mm (L x B x H)	100 Nos
4	Pipette stand, vertical, 28 places	1
5	Washing bottle, 500 ml	5
6	Spray Bottles, 500 ml	3
7	White plastic Trays (HDPE) Size: 408 x 408 x 105 mm (L x B x H)	4000
8	Test tube stands	15
9	Spatula	12
10	Bottle washing brushes	12
11	Glass plate with stopper	20
12	Automatic Hand Sanitizer Machine	2
13	Micropipettes	2 Set
<b>S.N. Glassware's</b>		
1	Beaker-250 ml	5
2	Conical Flask - 250 ml	4
3	Conical Flask - 500 ml	3
4	Conical Flask - 1000 ml	3
5	Measuring cylinder - 100 ml to 500 ml (3 each)	6
6	Reagent Bottle - 250 ml, 500 ml and 1000 ml (8 each)	24
7	Amber bottles - 500 ml	5
8	Glass Rod 7 x 205 mm	10
9	400 ml Culturing Bottles with caps and Glass	1,00,000
10	Pipette (0.1 to 20 ml)	1 Set

11	Test Tubes. Jumbo	200
12	Test tube stand	25
<b>Furniture and Office supplies</b>		
1	Office Chairs	10
2	Visitor / Meeting Room Chair	40
3	Reception table with Chair	1 set
4	Centralize meeting table -18 person sitting capacity	2 set
5	Office Table	2
6	Movable lab stool	16
7	Sofa Set 3-seater with one table	1 Set
8	Working Table 1500 x 750 mm	11 Set
9	Lab Central table with drawer and double sink- 3000 x1500 mm	1 set
10	Aluminum Ladder, 2 step and 7 step (2 each)	4 Nos
11	Plant washing and grading table with basin	1
12	Slipper stand	2
13	Instrument Table	01
14	Laboratory Stool	05
<b>S.N. Miscellaneous items</b>		
1	Dustbin with lid	10
2	Gloves leather	10 Boxes
3	Cotton Roll	100 Nos
4	Tissue Roll	20 Nos
5	Bucket	6
6	Apron full size	30
7	Surgical Blade, No-10, 100 pc pkt	25
8	Mopping Cloth	10
9	Slipper	20 pairs
10	Wrapping Roll	18
11	Data logger Unit	05
12	Water Distillation Unit	05
13	R.O. Unit System	05
<b>S.N. b) PLANT MOLECULAR and RTPCR LAB EQUIPMENTS</b>		<b>1 unit</b>
1	Premium U 410 Upright Deep Freezer ( -80 degree C) approx. 410 Ltrs	01
2	Master Cycler nexus gradient 230V/50-60HZ (PCR1) -RTPCR Machine	01
3	Centrifuge	02
4	Water Bath Shaker	01

5	Cyclo mixer / Vortex 2000 ml	01
6	Colling Incubator (BOD)	01
7	Thermal cycler	02
8	Refrigerator-400 L, 4-degree temp. range	01
9	Refrigerated Circulating bath 6 L	01
10	Gel Electrophoresis System with Power Pack	02
11	Weighing Balance for plant molecular lab	02
12	Shaking Incubator	01
13	Vertical Cylindrical Autoclave -100 L	01
14	Laminar Airflow -double seater	01
15	Deep Freezer ( -20 degree C) approx. 245 L	01
16	Water bath 8 L (with racks and Thermometer)	01
17	Millipore-three stage molecular grade water purifier	01
18	Vortex shaker	01
19	Refrigerator - Vertical 400 L	01
20	Nano drop / Spectro	01
21	Gel Documentation System with power pack	01
22	Geno-grinder	01
23	Transilluminator	01
24	Micro Centrifuge Machine	01
25	Water Purification System Type 3 and Type 1	01
26	Micro Pipette set with stand 1) 0.2-5 $\mu$ l 2) 0.5-10 $\mu$ l 3) 2.0-20 $\mu$ l 4) 10.0-100 $\mu$ l 5) 20.0-200 $\mu$ l 6) 100-1000 $\mu$ l	02 set
27	Biosafety Cabinet	01
28	Instrument Table	01
29	Working Table	01
30	Laboratory Stool	05
31	Internet facility	01 set
S.N.	<b>c) Protected Structures /Hi-tech nursery</b>	
I.	Creation of Polyhouse with Mist Chamber Structures – Total area: 550 sqm	01
II.	Greenhouse for Hardening of tissue cultured plant – Each unit: 500 sqm	02
III.	Hi-tech Green House Structure (Speed Breeding Facility) – Approx. 100 sqm	01
IV.	Aeroponics Facility with fully automated fertigation system for production of virus free mini tubers in potato - Area: 500 sqm	01
V.	Rain Water Harvesting with Recharge Shaft including renovation of existing open pond	01
VI.	Erection of Parking Shad of size Approximate 4500 Sqf.	01
VII.	Composting Unit Approximate 400 Sqf.	01

\*\*\*END OF SECTION V\*\*\*

**Annexure – I**

(On company Letter Head and to be signed by MD/ CEO/ Proprietor)

Date:

To

Project Incharge, COETC, RARI, Durgapura- 302018, Jaipur.

Dear Sir,

Subject: Authorization to sign the bid document

This has a reference to your tender no. .... dated ..... for supply, installation, commissioning and on-site support of equipment(s) / material required in the present tender for which bid has been submitted at Sri Karan Narendra Agriculture University, Jobner.

It is hereby confirmed that, Sh./ Smt. .... working as is entitled to act on behalf of our corporation/company/ firm/organization and empowered to sign this document as well as such other documents, which may be required in this connection.

The specimen signature of Sh./ Smt is as given below.

(Signature 1) (Signature 2)

I, ....., certify that I am <designation> of <company>, and that Sh./Smt..... whose specimen signatures are given above is authorized to bind the corporation by authority of its governing body.

Signature and company seal

Name

Designation

Email     Mobile

No.

## Annexure – II

(On company Letter Head)

Date:

To

Project Incharge, COETC, RARI, Durgapura -302018, Jaipur.

Dear Sir,

Subject: Bid Form

This has a reference to your tender no. .... dated ..... for supply, installation, commissioning and on-site support of equipment(s) / material required in the present tender for which bid has been submitted at Rajasthan Agricultural Research Institute, Durgapura-302018, Jaipur.

1. Having examined the 'Invitation for Bids', 'Instructions to Bidders' 'Special Conditions of Contract', 'Technical Compliance Document', 'Schedule of Requirements' and the Annexures for the above referred tender, we the undersigned offer to supply, install and commission and guarantee the whole of the said 'Scope of Work' in conformity with the said Special Conditions of Contract and Technical Specifications for the sum mentioned in Financial Bid submitted separately, or such other sum as may be ascertained in accordance with the conditions. The details of the items/ services for which we have submitted our Technical Bid and for which we have quoted the rates in our Financial Bid are given in required formats.
2. We have independently considered each and every clause of this tender document and given our informed consent to them.
3. We undertake, if our Bid is accepted, we shall commence the supply of items/ services/ manpower as per delivery schedule offered by us so as to fulfill our obligations as per this Tender Document to full satisfaction of purchaser.
4. If our Bid is accepted, we agree for the adjustment of EMD against performance security and will submit the remaining amount of performance security *i.e.* 05% order value to cover delivery, installation and warranty period for the supplied items.
5. We have independently considered the amount shown in 'Special Conditions of Contract' as per-estimated liquidated damages as well as penalty for delayed services during warranty period and agree that they represent a fair estimate of the damages likely to be suffered by you in the event of the work not being completed in time. We agree to abide by this Bid for a minimum period of 90 days from the date of opening and it shall be remained binding upon us and may be accepted at any time before the expiration of that period or any extended period mutually agreed to.

6. This bid, together with any further clarification/ confirmation given by us and your written acceptance thereof, shall constitute a binding contract between us.
7. We understand that you are not bound to accept the lowest or any offer you may receive against this bid.
8. If our Bid is accepted, we understand that we are to be held solely responsible for the due performance of the Contract.
9. All enclosures and relevant documents forming a part of the proposal are complete and attached herewith duly verified by officials authorized to do the same. All documents submitted are genuine and if Sri Karan Narendra Agriculture University, Jobner finds that we have submitted any forged document, Sri Karan Narendra Agriculture University, Jobner may reject our bid; forfeit the EMD and take stringent action against us as per Government of Rajasthan guidelines.
10. We accept that all doubts, concerns or ambiguity in the tender document (if any) would be uploaded by us on e-Procurement Portal on or before the last date specified for online clarifications as mentioned in the critical date sheet. If we raise any doubt, concerns, ambiguity issues, interpretation issues, after the above-mentioned last date, Sri Karan Narendra Agriculture University, Jobner may not consider the request or reply.
11. We will accept Sri Karan Narendra Agriculture University, Jobner internal technical and financial evaluation procedure and will not interfere in the process after submission of the bid. We shall not deviate from the bid process and not try to stall the process; if do so, Sri Karan Narendra Agriculture University, Jobner may take stringent action against us.
12. We undertake that our company is not under the declaration of ineligibility for corrupt and fraudulent practices. We also undertake that our company has not been blacklisted by any Government entity in India/ abroad till today.
13. We will follow all guideline mentioned in the tender documents.

For M/s (Name of the bidder)

Signature and company seal

Name

Designation

Email

Mobile No.

**Annexure – III**

(On company Letter Head)

Date:

To

Project Incharge, COETC, RARI, Durgapura - 302018, Jaipur.

Dear Sir,

Subject: Declaration Letter

This has a reference to your tender no. .... dated ..... for Construction of Plant Tissue Culture Lab and Protected Structures with Supply, Installation and Commissioning of Laboratory Equipments on Turnkey Basis and on-site support of equipment(s) / material required in the present tender for which bid has been submitted at Sri Karan Narendra Agriculture University, Jobner.

We confirm that the items that shall be supplied for Sri Karan Narendra Agriculture University, Jobner will not be refurbished / duplicate or acquired illegally in India/ third country. We undertake, if our bid is accepted, we will submit a letter from OEM endorsing that the equipment are brand-new at the time of supply.

The details of all the OEMs, make and model with detail technical specifications is offered in our technical bid for items. If Sri Karan Narendra Agriculture University, Jobner find that any information/ details submitted by us is incorrect, Sri Karan Narendra Agriculture University, Jobner may black list us and forfeit the EMD/ take stringent action against us as per Government of Rajasthan guidelines.

By signing this declaration letter we accept all terms and conditions specified in the tender document and agree that Sri Karan Narendra Agriculture University, Jobner's decision will be final and binding on us.

For M/s (Name of the bidder)

Signature and company seal

Name

Designation

Email

Mobile No.



**Annexure – IV**

(On company Letter Head)

Date: .....

Tender No.: .....

To

Project Incharge, COETC, RARI, Durgapura - 302018, Jaipur.

Dear Sir,

Sub: Undertaking to the effect that onsite support during the warranty in Jaipur will be provided by <Company Name> through its own Branch Office/ Service Centre/ local partner

This has a reference to your tender no..... dated for Construction of Plant Tissue Culture Lab and Protected Structures with Supply, Installation and Commissioning of Laboratory Equipments on Turnkey Basis and on-site support of equipment(s) / material required in the present tender for which bid has been submitted at Sri Karan Narendra Agriculture University, Jobner.

We undertake to provide the onsite support in Jaipur during the period of warranty through our own Branch Office/ Service Centre/ local partner within Rajasthan. In case <Company Name> is a successful bidder, details viz. Name, Address, Contact Person, Telephone/ Fax, Email etc. of our own Branch Office/ Service Centre/ local partner within Rajasthan along with an undertaking from the local dealer/ service provider within Rajasthan (if applicable) will be submitted by <Company Name> within 30 (thirty) days of the receipt of Supply Order from Sri Karan Narendra Agriculture University, Jobner.

Thanking you,

Yours Sincerely,

For M/s (Name of the bidder)

Signature and company seal

Name

Designation

Email

Mobile No.



**Annexure – V**

Date: .....

**MANUFACTURERS AUTHORIZATION FORM**

(On Manufacturers (OEM) letterhead)

To,

Project Incharge, COETC, RARI, Durgapura - 302018, Jaipur.

Ref: Tender Notice No. .... Dated .....

Name of Tender: .....

Whereas (Name of the Manufacturer) who are established and reputable manufacturers of (name and/or description of the goods) having factories at (address of factory) do hereby authorize (Name of the bidder with address), to submit a bid, and subsequently negotiate and sign the Contract with you against above referred Tender for the goods manufactured by us.

We hereby extend our full guarantee and warranty as per the Tender Conditions for the goods offered for supply and installation against this Tender. -----  
-----

(Signature for and behalf of the manufacturer)

Note: This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.



## Annexure-VI

### Annual Turnover Certificate

This is to certify that the Annual Turnover for the last three year of the firm M/s..... is as under. These data are true and correct. The Audited/CA certified Balance Sheet/Profit and Loss A/C is attached.

S. No.	Financial Year	Annual Turnover (INR in Lakh)
1.	2020-21	
2.	2021-22	
3.	2022-23	
4.	2023-24	
5.	2024-25	
	Total Turnover (INR)	
	Average Turnover (INR)	

Date:

Chartered Accountant/Auditor

Signature with seal

Name:

Designation:

Mobile No.

Email. Id:

Registration No.: UDIN:



**Annexure-VII**

**FALL CLAUSE CERTIFICATE**

This is to certify that we have offered the maximum possible discount to you in our Quotation No. \_\_\_\_\_ dated \_\_\_\_\_

The prices charged for the stores supplied under Rate Contract should under no event be higher than lowest prices at which the party sells the items of identical description to any other Govt. Organisation/ PSU's/ Central Govt, /State Govt. Autonomous bodies/Central/State Universities/Central/State Educational Institutions during the period of contract failing which the "FALL CLAUSE" will be applicable.

In case, if the price charged by our firm is more, purchasing will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier.

Seal and Signature of the Tenderer



## Annexure – VIII

(On company Letter Head)

### CHECK LIST

S. No.	Item Description	Details	Attached (Yes/ No)
A	Name and Address of the Company/Firm and its incorporation details		
B	The bidder or sister concern must be registered in AA/A AA/A Class in civil and electrical category GoR PWD or Equivalent in any central/other states department/PSU/Public Undertakings/Autonomous body etc.		
C	Tender Fee Details. Demand Draft for ₹ 10,000/- (Rupees Ten Thousand only) drawn on any Nationalized/ Scheduled Bank, in favours of 'PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER', payable at Jaipur.		
D	Processing fee of ₹ 2500/- (Rupees Two Thousand Five Hundred only) in the form of D. D./Banker cheque in favour of M. D., RISL payable at Jaipur.		
E	Earnest Money Deposit (EMD) Details. Demand Draft owards Earnest Money Deposit of ₹ 31,94,340/- (Rupees Thirty-One Lakhs Ninety-Four Thousand Three Hundred Fourty Only) from any Nationalized/ Scheduled Bank, in favour of 'PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER' payable at Jaipur.		
F	The bidder should have completed at least ONE similar work (Turnkey work in Lab setup in government which include Civil work, Electrical work, Sanitary work, HVAC, Lift along with life science/lab equipment's and furniture in a single contract) not less than ₹ (60% of the estimated cost of 1597.17 Lakhs) OR TWO similar works not less than ₹ (40% of the estimated cost of 1597.17 Lakhs) each OR THREE similar works not less than ₹ (30% of the estimated cost of 1597.17 Lakhs) each in last five financial yea₹		

G	GST Number/ Registration Certificate		
H	Duly filled Technical Bid with proper seal and signature of authorized person on each page of the bid submitted. Certificate of authority should be scanned and submitted as per format given at Annexure I.		
I	Bid Form by the bidder as per format given at Annexure II		
J	Declaration by the bidder as per format given at Annexure III		
K	Undertaking to the effect that the bidders have its own Branch Office/ Service Centre / Local Partner in Rajasthan or arrangement to provide onsite support through local dealer/ service provider as per format given at Annexure IV		
L	Technical Compliance Document in the form of Tech_Comp_Doc. pdf with detailed technical specification, make, model and cross reference compliance with the data sheets, Brochures and Manufacturer's Authorization Form (Annexure V)		
M	Details last five financial years annual turnover details. The bidder should have total Average turnover of minimum ₹ in last five financial years ending of March 31 <sup>st</sup> 2025 (Annexure VI)		
N	FALL CLAUSE CERTIFICATE as per format given at Annexure VII		
O	OEM letter from Manufacturers of equipment's and glassware's/ consumables		

Yours Sincerely,

For M/s (Name of the bidder)

Signature and company seal

Name

Designation

Email

Mobile No.




## Detailed Specifications

### SCOPE OF WORK

It Involves planning, designing, supply, installation, commissioning of Centre of Excellence for Tissue Culture (COETC) for important fruit and flowers in all respect and other contingent work related to civil, mechanical, Engineering, Architectural, design, Structural and Electrical works (Complete work)

**PART -I Construction of Plant Tissue Culture Lab (G+1) with Supply, Installation and Commissioning of Laboratory with comfort centrally air-conditioned system for complete laboratory**

#### **Technical Specifications:**

The Laboratory is designed as a Double story G+1 civil construction laboratory with comfort centrally air- conditioner system for complete laboratory, with fully furnished office spaces and toilet block, drinking water facilities. The laboratory has adequate space and equipment for production of 1,30,000 plants per cycle. Laboratory has proper arrangement for air circulation, electrical fittings required to run the facility with necessary electric connections and adequate loads.

#### **Brief Details for Laboratory:**

Main Particulars	Qty.
<b>TOTAL LABORATORY COVERED AREA: 13800 SQFT INFRASTRUCTURE STERILIZE AND SEMI- STERILIZE AREA:</b>  <ol style="list-style-type: none"><li>1. Media preparation and Chemical Storage Room</li><li>2. Sterilization / Autoclave Room</li><li>3. Media Storage Room Washing Area</li><li>4. Buffer Room</li><li>5. Inoculation Room</li><li>6. Growth Chambers</li></ol> <b>NON-STERILIZE AREA:</b>  <ol style="list-style-type: none"><li>1. Bottle Washing Area</li><li>2. Hand and Leg Wash Area</li><li>3. Conference Hall for minimum 18 persons sitting arrangement</li><li>4. Molecular Lab Room</li><li>5. RTPCR Lab Room</li><li>6. Rooms for Scientific Staff -</li><li>7. Training room</li><li>8. Wash Room</li><li>9. Changing Room</li><li>10. Reception Area</li><li>11. Grading cum primary hardening</li></ol>	01 Set

## A. Infrastructure

Sl. No.	Component details
<b>INFRASTRUCTURE:</b>	
<b>LABORATORY AREA</b>	
<p>The Laboratory is designed as a double stored G+1 complete civil work building including complete civil works such as the RCC framed structure (G+1), foundation, blockwork, roofing, waterproofing, and internal and external finishes. It also encompasses architectural interiors, including all internal partitions, false ceilings, flooring, doors, and windows. Specialized MEP services form a key component of the scope, involving the design, supply, installation, testing and commissioning of HVAC, electrical, plumbing, and fire-fighting systems. Additionally, the contractor is responsible for laboratory services, including the supply and installation of all fixed equipment such as laminar airflow hoods, autoclaves, biosafety cabinets, and modular furniture. The scope further extends to external development works, comprising the compound wall, gate and essential external utilities connectivity. G+1 structure dimensions: -</p> <p>Facility Length: 28.68m            Facility Width : 35.66m</p> <p>Total facility area: <b>13,800 SQFT</b></p> <p>Description</p> <ul style="list-style-type: none"> <li>• Civil and Architectural Works: - Complete RCC framed structure (G+1), foundation work, blockwork, roofing, waterproofing, and all internal and external finishes including specialized laboratory flooring and wall treatments.</li> <li>• Electrical Systems: - Complete electrical installation including power distribution, lighting systems, UPS backup, emergency power systems, and specialized laboratory electrical requirements.</li> <li>• Fire Fighting and Safety- Complete fire detection and suppression systems, emergency exits, safety equipment, and compliance with all fire safety regulations and standards.</li> <li>• HVAC and Environmental Control: Precision HVAC systems with HEPA filtration, positive/negative pressure controls, temperature and humidity regulation for critical laboratory areas and growth rooms.</li> <li>• Plumbing and PHE: - Made from 40 mm thick PUF insulated panel's clad with inner both side PPGI sheet complete with all accessories like locks and hinges as Flush Type.</li> <li>• CLEAN ROOM DOOR: - Made of 40 mm thick PUF insulated pane Water supply systems, drainage, sewage treatment, specialized laboratory water systems including RO plants, and waste management systems.</li> <li>• IT, Security and Utilities: - Network infrastructure, security systems, CCTV surveillance, access control systems, and integration of all utility services for seamless operations.</li> </ul>	




## Plant Tissue Culture Laboratory Area Specifications

### 1. Basic Laboratory Layout

S. No.	Area	Purpose	Key Equipment
1	Media Preparation Room	Preparation, sterilization and storage of nutrient media	pH meter, weighing balance, magnetic stirrer, autoclave, distillation unit, heating mantle
2	Sterilization and Washing Room	Cleaning and sterilizing glassware and instruments	Hot air oven, dishwasher, sink, drying rack, Autoclave
3	Inoculation Room (Laminar Air Flow Room)	Aseptic transfer of explants to culture medium	Laminar airflow cabinet, spirit lamp, micropipettes
4	Growth Room / Culture Room	Maintenance of cultures under controlled conditions	Culture racks with fluorescent/LED lights, AC, temperature and

### 2. Space (Approximate Area)

S. No.	Section	Recommended Area (Sqft)	Area (Sqft)
1	Media Preparation Room	150-200 Sqft	165 Sqft
2	Sterilization and Washing Room	120-170 Sqft	166 Sqft
3	Inoculation Room (Laminar Air Flow Room)	150-250 Sqft	240 Sqft
4	Office	120-150 Sqft	150 Sqft

### 3. Utilities Required

- Electricity: 3-phase, 5 kW minimum load Water: Distilled or deionized, ~50 liters/day. All expenses of electric connection shall be born by the party.
- Drainage: Proper outlet from media and washing areas
- Air Conditioning: Required in Inoculation and Culture Room
- Backup Power: UPS or generator for culture room continuity
- Septic Tank: including contraction of one unit of 50 users' septic tank with soakage well including provision of required numbers of man holes/ inspection chambers etc.



#### 4. RECOMMENDED COMBO (Premium Industrial Quality)

Zone	Flooring	Door	Window
Inoculation Room	Epoxy	Cleanroom GI	Fixed glass (sealed)
Media Room	Anti-skid tile	FRP	Fixed Aluminum With Glass
Growth Room	Vinyl	Cleanroom GI	Double-glazed
Washing Area	Kota	FRP	Aluminum
Office	Vitrified	Flush Door	Aluminum

#### ADDITIONAL FINISHING SPECIFICATIONS

S. No.	Item	Specification
1	Wall-Floor Coving	7.5 mm epoxy radius coving for sterile rooms
2	Skirting	10.0 mm epoxy / tile skirting
3	Ceiling	PVC-coated GI grid ceiling (Cleanroom) or Gypsum board (Office)
4	Paint	Epoxy paint inside labs, weather shield exterior

#### 5. WINDOWS — TYPE and MATERIALS

Zone / Area	Type	Material Specification	Features / Glass Type	Remarks
Laboratory Inoculation	Fixed Glass Windows (Sealed)	Aluminum frame	Double-glazed toughened glass (6+6 mm)	Maintain pressure and light entry
Growth Room	Small Fixed Glass Window	Aluminum section	Double-glazed / tinted	Maintain controlled environment
Admin Office Area	Sliding Casement UPVC Window	3-track Aluminum with mosquito mesh	5 mm toughened glass	Good ventilation
Greenhouse Walls	Polycarbonate Sheets (Transparent)	200-micron UV-stabilized	Diffused sunlight	Essential for uniform plant growth

❖ **Recommended Window Features**

- Double-glazed for insulation (reduces AC load)
- Silicone sealing to prevent contamination
- Inside corners to have coving (no dust accumulation)

❖ **DOORS — TYPE and MATERIALS**

Location	Door Type	Material Specification	Features / Fittings	Remarks
Inoculation and Culture Room	Cleanroom Door (Flush Type)	Powder-coated GI/SS-304 frame, 45 mm PU-filled panel	Airtight seal, SS lever handle, rubber gasket	Must maintain positive pressure
Media Prep and Washing Area	PVC Coated Metal Door / FRP Door	40–45 mm thick solid panel	Moisture resistant, chemical safe	Budget-friendly yet durable
Growth Room Entry	Double Door with Airlock Option	Powder-coated GI double leaf	Self-closing, air-tight	Keeps contamination away
Office and Record Room	Laminated Flush Door	30–35 mm flush with teak laminate	Modern look	Cost-effective for dry areas
Main Entrance	Aluminum / Toughened Glass Door	10 mm clear toughened glass	Sliding/hinged	For premium appearance

❖ **Recommended Door Hardware**

- SS 304 hinges, lever handles, door closers (Godrej / Dorma / Hafele/ Equivalent or higher make/brand) Magnetic gasket for airtight sterile doors
- All fasteners and hinges should be rust-proof (SS 304)

❖ **FLOORING — ROOM-WISE DETAILS**

Zone / Area	Recommended Flooring Type	Material Specification	Finish Features and	Remarks
Inoculation Room	Seamless Epoxy Antibacterial Flooring	3 mm self-leveling epoxy (with ESD option)	Seamless, anti-fungal, anti-static, washable	Best for Sterile work area
Media Preparation Room	Anti-skid Ceramic / Epoxy Coated Tile	600x600 mm vitrified tiles with epoxy grout	Chemical and acid resistant, easy cleaning	Must handle chemical spills

Washing and Sterilization Room	Heavy Duty Industrial Tile / Kota Stone (mirror polished)	20–25 mm thick	Non-slippery, withstands heat and moisture	Economical and durable
Growth / Culture Room	Vinyl Sheet Flooring (Homogeneous PVC)	2 mm thick hospital-grade vinyl (e. g. Armstrong, LG, Wonder floor)	Anti-static, smooth, washable	Comfortable under AC
Corridors / Office / Record Room	Vitrified Tile Flooring	600x600 mm or 800x800 mm	Glossy, low maintenance	Enhances aesthetics

❖ **Recommended Brand Options**

- **Epoxy Flooring:** Asian Paints ApcoGuard / Fosroc / Sika / Flowcrete/Equivalent or higher make/brand
- **Vinyl Flooring:** Armstrong / Wonderfloor / LG Hausys / Responsive/Equivalent or higher make brand
- **Tiles:** Kajaria / Somany / Johnson / Nitco/Equivalent or higher make/brand

❖ **ADDITIONAL FINISHING SPECIFICATIONS**

S. No.	Item	Specification
1	Wall-Floor Coving	7.5 mm epoxy radius coving for sterile rooms
2	Skirting	10.0 mm epoxy / tile skirting
3	Ceiling	PVC-coated GI grid ceiling (Cleanroom) or Gypsum board (Office)
4	Paint	Epoxy paint inside labs, weather shield exterior

## B. Detailed Specification of Plant Tissue Culture Laboratory Equipment's:-

a) TISSUE CULTURE LAB EQUIPMENTS:			
S.N	Equipment	Company	Specification
1	Autoclave - High Pressure Horizontal Rectangular Double Door Sterilizer	Thermolab/ Bionexis/ PSI/Krew/ Equivalent or higher	<ul style="list-style-type: none"> <li>Capacity shall be more than 300-400 Litres</li> <li>Horizontal Autoclave or Horizontal Sterilizer units shall be made of 304 grade stainless steel. These machines shall have external chamber, internal chamber, boiler, lid and jacket. These all shall be made of 304 grade stainless steel. External chamber shall be corrosion resistant and painted.</li> <li>Chamber will be of tray/carriage loading design</li> <li>Design shall be rectangular and cylindrical type.</li> <li>Working Pressure shall vary from 5 to 30 PSI.</li> <li>Working Temperature required is 121°C (maximum operating upto 135°C).</li> <li>All control valves to chamber and jacket will be pneumatic</li> <li>Touchscreen HMI with advanced PCL shall be provided with assurance of accuracy</li> <li>It shall be equipped with pressure gauge, steam release valve and safety valves.</li> <li>Boiler shall be with ISI marked water immersion type industrial heating elements.</li> <li>Safety Valve shall be present for excess pressure inside jacket and steam generator.</li> <li>Mechanical time alarm shall be present that regulates sterilization time and activates buzzer when sterilization cycle completes.</li> <li>Chamber manufacturing and testing as per ASME guidelines</li> <li>Standard Accessories: SS304 Sterilizing tray shall be included with extra gaskets</li> <li>Power Supply shall be 440 Volts, three phase</li> <li>There shall be Digital temperature control and display.</li> </ul>
2	Autoclave Vertical with Pulley Set	Narang Medical Ltd./Thymol Autoclave India/ PSI/Krew/ Equivalent or higher	<ul style="list-style-type: none"> <li>Capacity shall be ~200 and automatic with complete SS</li> <li>It will have touch screen programmable logic control with advanced options</li> <li>Inner Chamber shall be made up of thick S. S.</li> <li>Outer Chamber shall be made up of S. S. Immersion type heater will be provided. Lid is made up of S. S and die pressed.</li> <li>It shall have single lever closing of lid and external square panel design.</li> <li>It shall have over temperature safety with independent alarm</li> <li>It shall be equipped with pressure gauge, steam release valve and safety valves.</li> <li>This instrument shall be supplied with S. S Basket and spare gaskets.</li> <li>Pressure controls shall be with spring valves.</li> <li>It shall be used for sterilization under working steam pressure up to 30 PSI.</li> <li>It shall be fitted with silicone rubber gasket joint less, to work on 230 volts A./C. only and Glass water level outside.</li> </ul>

3	Analytical balance	Mettler Toledo/Sartorius /wenser/ Equivalent or higher	<ul style="list-style-type: none"> <li>Weighing Capacity shall be 0.01 mg to 250 gm with accuracy of 10 mg</li> </ul>
4	Electronic Weighing Balance	Wenser/Mettler Toledo/ Sartorius/ Equivalent or higher	<ul style="list-style-type: none"> <li>Weighing Capacity shall be 500 gm - 5 kg.</li> </ul>
5	Humidifier	Levoit Oasis Mist Smart and Honeywell Cool Moisture/ Equivalent or higher	<ul style="list-style-type: none"> <li>Protec Antimicrobial Cleaning Cartridge. ...</li> <li>Moisture Type: Invisible Cool Moisture.</li> <li>Room Size: Medium.</li> <li>Run Time: 18 Hours on Low Setting.</li> <li>Tank Capacity: .8 Gallons.</li> </ul>
6	EC meter	LABMAN / Sper Scientific Ltd/ Equivalent or higher	<ul style="list-style-type: none"> <li>It shall be portable, pen-type and shall take accurate readings for EC (Electrical Conductivity).</li> </ul>
7	pH meter	LABMAN Digital and Sper Scientific Ltd/ Equivalent or higher	<ul style="list-style-type: none"> <li>pH shall be tabletop, digital pH meter as a portable, benchtop meter, or can be mounted on the wall to save space.</li> <li>There shall be 5.5-inch screen with 150° viewing angle. There shall be easy to read LCDs screen in the pH meter.</li> <li>The full set shall include digital pH meter, five smart pH electrode, buffer and cleaning solution sachets (2 each), bench cradle with electrode holder, wall mount, and adapter.</li> </ul>
8	pH meter	LABMAN and Sper Scientific Ltd/ Equivalent or higher	<ul style="list-style-type: none"> <li>Pen type pH meter shall be portable, pen-type compensation in a single portable pocket device.</li> <li>pH tester resolution shall be 0.1 resolution.</li> <li>Calibration shall be automatic two-point calibration.</li> <li>Display shall be multilevel LCD display for temperature, pH, battery level and instability Indicator.</li> </ul>
9	TDS Meter	Nelofe and Machine Control Systems/ Equivalent or higher	<ul style="list-style-type: none"> <li>It shall be portable, pen-type accurate readings for TDS (total dissolved solids).</li> <li>Measuring range shall be up to 2000 ppm (mg/l).</li> <li>It shall be exposed temperature probe for fast response.</li> <li>It shall have large multilevel LCD.</li> <li>The large LCD shall display TDS, temperature, calibration tag, battery level and instability indicator.</li> </ul>
10	RO + DM Water Unit	Acroama Water Treatment System and Raindrops Water Technologies/ Equivalent or higher	<ul style="list-style-type: none"> <li>It shall have 100 LPH Capacity with 1 R. O. Cabinet made of SS Body.</li> <li>It shall be Floor mounted/ wall mounted.</li> <li>Purification rates shall be 100 litre per hour.</li> <li>Duty Cycle shall be 500Ltrs/ day.</li> <li>U. V. lamp wattage shall be 11 watts.</li> <li>U. F. membrane shall be of 0.1 to 0.01 microns.</li> <li>Life of U. V. lamp shall be 5000 Hrs of operation.</li> <li>There shall be Auto Flushing system with Power Input of 240 watts.</li> <li>Input Voltage shall be 230V, 50 HZ.</li> </ul>

11	Media Boiler	Thermax and Forbes Marshall/PSI/Equivalent or higher	<ul style="list-style-type: none"> <li>Capacity of tank shall be 100 litres with stainless-steel body. <ul style="list-style-type: none"> <li>Interior vessels, including the chamber, are made of high-grade, corrosion-resistant, high-polished Stainless Steel</li> <li>Includes automatic lid locks, overpressure protection (typically up to 2.5–3.5 bar), high-temperature alarms, and sometimes, sterilization chambers that are hydraulically tested.</li> </ul> </li> </ul>
12	Media Dispenser	Systec GmbH/ and Integra Biosciences AG / Reva/ Equivalent or higher	<ul style="list-style-type: none"> <li>Media dispenser shall distribute fix preset volume of the media in each bottle.</li> <li>Digital bottle top Dispenser capacity 50ML</li> </ul>
13	Refrigerator Vertical	LG and Samsung/Godrej /Pannasonic/ Equivalent or higher	<ul style="list-style-type: none"> <li>5 star rating</li> <li>Double door with total capacity between 600-700 litres,</li> <li>It shall be frost-free.</li> <li>The refrigerator shall be equipped with multiple shelves, bins, and drawers for easy access to your items.</li> </ul>
14	Magnetic Stirrer	Labman and Remi/ Equivalent or higher	<ul style="list-style-type: none"> <li>Capacity shall be 20 Litres.</li> <li>Magnetic stirred shall have heating plate.</li> <li>Top plate of nano crystalline ceramic size shall be of dimensions of about 180 x 180 mm.</li> <li>PT100 prob with Stand shall be there.</li> <li>Maximum plate temperature shall be 550 °C, liquid temperature shall be 280°C.</li> <li>Maximum Speed shall be between 200-2200 RPM.</li> <li>Magnetic bar length shall be 25 mm.</li> <li>Power: 1000 W, Voltage: 230V</li> <li>Excellent Resistance from Thermal Shock and Corrosive Liquids.</li> <li>Protection Class: IP 21</li> <li>Plate size shall be 456 x 118 mm.</li> </ul>
15	Rotary Shaker and Incubator	Thermo Fisher Scientific and Eppendorf/ Equivalent or higher	<ul style="list-style-type: none"> <li>It shall have 8 litres capacity.</li> <li>It shall be capable of mixing various solutions in glass vessels or test tubes of different sizes.</li> <li>The speed Range shall be between 50 to 400 rpm.</li> <li>It shall have Flasks Capacity as following: 5 x 500 ml / 9 x 250 ml.</li> <li>Digital Count Down Timer: 99 min</li> </ul>
16	Hot Air Oven	Ferrotek Equipment and Thermo Fisher Scientific/PSI/ Equivalent or higher	<ul style="list-style-type: none"> <li>It shall have dimensions - 4' x 5' x 4' (W x D x H).</li> <li>The oven shall be made for small to medium-sized samples.</li> <li>It shall be made of high-quality materials to ensure durability and reliability.</li> <li>The chamber volume shall be above 100 Litres.</li> <li>Temperature Range: AMB. +10 TO 250/ AMB. +18 TO 482 (°C/°F)</li> <li>TEMP. - 0.5, 0.6, 0.8/ 0.9, 1.08, 1.44.</li> </ul>
17	Hot Plate	Bajaj /Airex Electricals/Remi / Equivalent or higher	<ul style="list-style-type: none"> <li>It shall be standard kitchen type hotplate.</li> <li>Shall operate at temperature 5 to 300 Degree Centigrade.</li> <li>Will have base size 150 x 150 mm with LED display</li> <li>Will have time 0-999 minutes</li> </ul>

18	Sealing Machine	Shri Vinayak Packaging Machine Pvt. Ltd. and E. C Machines/ Equivalent or higher	<ul style="list-style-type: none"> <li>• 220-240V power, 3-12mm sealing widths, temperatures up to 300°C, and speeds ranging from manual to 16 m/min. Industrial band sealers often handle up to 15kg</li> </ul>
19	Bottle Washing Machine	Krones and Technogen Enterprise/ Reva/ Equivalent or higher	<ul style="list-style-type: none"> <li>• The dimensions shall be approximately 1550 x 1700 x 1300 mm.</li> <li>• Cabinet of washing Machine shall be made of SS 304.</li> <li>• Product output shall be more than 30-50 bottle/ minute.</li> <li>• Bottle sizes shall be 25 to 100 mm diameter.</li> <li>• The maximum height shall be 280-300 mm.</li> <li>• Power shall be 3 HP, 3 phase.</li> </ul>
20	Laminar Air Flow (Horizontal)	Sai samarth Scientific/ Krew/ Tekbio/Protech/ Equivalent or higher	<ul style="list-style-type: none"> <li>• Overall size shall be 6' x 2' x 2' (Width x Depth x Height) SS body (External and Internal)</li> <li>• Hepa Filter shall be of 0.22 micron with 5 micron prefilter</li> <li>• The body shall be made up of mild steel and duly powder coated.</li> <li>• Air intake shall be from Top Vertical and Air flow shall be Horizontal.</li> <li>• 1000-1250 Lux LED Light shall be available on the working platform.</li> <li>• UV light for sterilizing cabinet.</li> <li>• Working area shall be made up of Stainless steel and shall be anti-glare.</li> <li>• There shall be permissible sound limits.</li> <li>• Operating voltage shall be 220 V <math>\pm</math> 9% A/C.</li> <li>• Power cord shall be 3-meter-long with 15 Amp plug.</li> <li>• Front cover shall be made of toughened glass with height adjustable type.</li> <li>• Automatic working of blower starts at prefixed level.</li> </ul>
21	Glass Bead Sterilizers	Lab Energetic and Shimas Star Scientific Instruments/ Equivalent or higher	<ul style="list-style-type: none"> <li>• The Cabinet dimensions shall be approximately 150 x 155 x 225 mms.</li> <li>• Crucible (Brass) size shall be 50 mm x 137 mm.</li> <li>• Preset temp. range: 245 – 265°C.</li> <li>• Initial stabilization time shall be 30 minutes.</li> <li>• Power shall be 250 watts.</li> <li>• Input voltage shall be 230V, 50 HZ.</li> </ul>
22	Dissecting Kits and Inoculation Instruments	Home Science Tools and Fisher Scientific/ Equivalent or higher	<ul style="list-style-type: none"> <li>• Dissecting kit for all 8 working Laminar flow Cabinets – Forceps (16 set 10" length and shall be made with stainless steel grade SS 410)</li> <li>• Scalpel (16 set 10" length and shall be made with stainless steel No.-3)</li> <li>• Trollies Double shelf (24; made of stainless-steel frame with wheels for easy movability, size shall be 2'11"(L) x 1'6"(W) x 4'6"(H))</li> <li>• Instrument Stands (16; made of Stainless steel)</li> <li>• Scissors Set (16 Set of different size)</li> <li>• Knife Set (16 Set of different size)</li> </ul>

23	Air Curtains	Mitzvah Air Curtains and Cronax Industries/ Sai samarth Scientific/Dplfin / Equivalent or higher	<ul style="list-style-type: none"> <li>• Industrial air curtains shall be installed at the entry points and Inner corridor partition.</li> <li>• Automatic air curtains shall have inbuilt sensors and shall come with remote.</li> <li>• Air Curtains shall be M. S. Powder coated.</li> <li>• The dimensions shall be-W 1500 mm x D 230 mm x H 212 mm.</li> <li>• The size shall be 4 feet.</li> <li>• Power input shall be 580 watts.</li> <li>• Voltage shall be 230V 50 HZ.</li> <li>• CFM capacity shall be 1100.</li> <li>• RPM shall be 2700/2100.</li> <li>• Noise Level shall be 50-70db.</li> <li>• No. of blowers shall be 4 and No. of motors shall be 2.</li> <li>• Blower shall be made of material ABS.</li> </ul>
24	Thermometer Digital portable	Apollo Pharmacy Oval Thermometer and MOLED Infrared Digital Thermometer/ Equivalent or higher	<ul style="list-style-type: none"> <li>• Display shall be LCD.</li> <li>• It shall be Thermo Hygrometer.</li> <li>• Temperature Range (°C) shall be -50 to 70° C; Humidity Range (RH %) shall be 10 to 99% RH and Humidity Accuracy shall be ±3% RH (50% to 80%) or ± 5%.</li> <li>• Resolution shall be 0.5 to 1%.</li> <li>• Power shall be of Battery AAA 1.5 V.</li> </ul>
25	Growth Racks with LED Light	Fluortronix Innovations Private Limited and Nexsel Future Pvt. Ltd/ Sai Samarth/Raddos / Equivalent or higher	<ul style="list-style-type: none"> <li>• Each Rack Size: 20' x 4'x 10' (L x W x H) – 15 Nos.</li> <li>• Working Shelf in each rack – 7 Nos.</li> <li>• No of tray in each rack – 273 Nos.</li> <li>• Total No. of trays in 15 racks – 4095 Nos.</li> <li>• No of bottles in each tray – 25 Nos.</li> <li>• Total No. Bottles in 4095 x 25 – 1,02,375 Nos.</li> <li>• Shelf to shelf distance – 27cm</li> <li>• Shelf Color: Square M. S. pipe white shade powder coating finish with anti-corrosive and humidity resistant.</li> <li>• Fluorescent LED Tube lights: Five 18W LED tube lights in each shelf of each rack to fulfil the required light intensity ranging from 2000 to 5000 Lux.</li> <li>• One separate on/off switch is provided for every self.</li> </ul>
26	Lux Meter	Testo and Lutron/ Equivalent or higher	<ul style="list-style-type: none"> <li>• Measuring light intensity range will be upto 20,000 lux on each shelf</li> <li>• Display: 2.5 digit: 1999 point</li> <li>• Power supply will be 9v</li> <li>• Sampling rates will be 2.5/Sec</li> <li>• Auto power: on/off including protected sensor cap</li> </ul>
27	Automated Control System	Siemens and ABB/ Equivalent or higher	<ul style="list-style-type: none"> <li>• Automated control system shall have digital display of temperature.</li> <li>• It shall have automatic photoperiod and dark period control as per timer set.</li> <li>• It shall have sensors for temperature and humidity.</li> </ul>

28	Pass Box with UV lamp	Patel Scientific Instruments Pvt./ Sai samarth LTD/ Sai samarth Scientific/ Equivalent or higher	<ul style="list-style-type: none"> <li>• It shall have overall size 600mm (L) x 600mm (depth) x 600mm (height).</li> <li>• There shall be UV -Inbuilt.</li> <li>• Pass box cabinet- SS304</li> <li>• Covering: Bottom and Top Side</li> <li>• Door interlocking shall be electrically operated solenoid locking coil operated/ magnetic sensor to operate the coil.</li> </ul>
29	AHU/HVAC for Growth Rooms and lab	Bluestar/ Carrier/ Daikin/ O-General/ Panasonic/Voltas/ Equivalent or higher	<ul style="list-style-type: none"> <li>• Supply Installation, testing and commissioning of Double skin Floor mounted Air handling Unit Panel thickness in mm 43+/-2, panel insulated with cfc free puff of 40+/-2 kg/m3, centrifugal Backward curved blade fan, drive sets, squirrel cage 3 phase induction motor -for all growth room and Inoculation room.</li> <li>• Will have 4 row deep DX-coil,</li> <li>• 35 mm SP WG, pre filter before cooling Coil, Blower</li> <li>• 5% fresh air Damper Unit may be factory/site assembled.</li> <li>• Air Pressure Module to be installed in all growth rooms and culturing rooms (Sterilized Zone of Facility) for pressure maintenance.</li> <li>• Standard Microprocessor based air-cooled Condensing unit with scroll compressors, air-cooled condenser, and expansion valve control panel equipped with such features display of current/ phase, auto sequence starting and stopping of compressor etc.</li> <li>• Split Airconditioning for lab other area like -Reception, Office, Meeting room , training room and molecular lab .</li> </ul>

30	Air-conditioning for lab Rest area	Daikin and Mitsubishi/ Equivalent or higher	Capacity (T)	1.5
			Star Rating - As Per BEE	5 Star
			Power Supply	230 V / 50 Hz / Single Phase
			Cooling Capacity (Rated Min-Max)	3.15(1.4-3.50)kW
			Heating Capacity (Rated Min-Max)	3.60(1.1-4.10)kW
			Total Input (Rated Min-Max)-Cooling	1.04(0.36-1.27)kW
			Total Input (Rated Min-Max)-Heating	0.995(0.37-1.2)kW
			Indian Seasonal Energy Efficiency Ratio (ISEER)	5

31	CCTV Camera 25 with DBR	Hikvision and Dahua/ Equivalent or higher	<ul style="list-style-type: none"> <li>• 16 Channel 4K.</li> <li>• 1 PTZ</li> <li>• Bullet camera shall be 4MP.</li> <li>• Dome camera shall be 4MP.</li> <li>• There will be CP-PLUS Full Giga Switch 16 port POE Switch.</li> <li>• Surveillance shall have 8 TB Hard Disk to retain recording of one month</li> <li>• Camera boxes are required.</li> <li>• Cat6 Cable shall be used.</li> <li>• Power back up to operate camera</li> <li>• LED screen of 55 inches for viewing</li> <li>• System shall be well connected</li> <li>• GSM based alert with software</li> </ul>
32	Audio system with mics (20) and speakers for Meeting Room	Bosch/ Ahuja/ Peoplelink/ Equivalent or higher	<ul style="list-style-type: none"> <li>• System Type</li> <li>• Fully integrated digital conference audio system suitable for 15–25 participants</li> <li>• Should support: Wired (preferred) or hybrid system</li> <li>• Expandability up to minimum 30 units</li> <li>• System shall include: Chairman unit ; Delegate units</li> <li>• Central Control Unit (CCU) / DSP Amplifier</li> <li>• Speaker system</li> <li>• Chairman Microphone Unit</li> <li>• Type: Tabletop / flush mount gooseneck microphone</li> <li>• Gooseneck Length: <math>\geq 45</math> cm</li> <li>• Frequency Response: <math>\geq 100</math> Hz – 16 kHz</li> <li>• Sensitivity: <math>\sim -60</math> dBV or better</li> <li>• Features: Priority override switch (mandatory); Talk switch with LED indication</li> <li>• Delegate Microphone Units</li> <li>• Quantity: 20 units</li> <li>• Type: Tabletop gooseneck</li> <li>• Features: Push-to-talk / request-to-speak, LED status indicator, Auto switch-off (preferred), Built-in speaker (preferred)</li> <li>• Central Control Unit (CCU) / DSP</li> <li>• Capacity: Minimum 20 mic units expandable to 40+</li> <li>• Connectivity: Daisy-chain / CAT6 / RJ45</li> <li>• Audio Processing: AEC (Echo cancellation) ; AGC (Auto gain control); Noise suppression</li> <li>• Line out for amplifier: USB / LAN (preferred for VC integration)</li> <li>• Recording: USB recording (preferred)</li> <li>• Amplifier System</li> <li>• Power Output: 120–250 W RMS</li> <li>• Inputs: Mic + Line + AUX</li> <li>• THD: <math>\leq 1\%</math></li> <li>• Protection: Short circuit ; Overload ; Thermal</li> <li>• Speaker System</li> <li>• Type: Wall-mounted or ceiling speakers</li> <li>• Quantity: 2–4 units</li> <li>• Power Rating: 20–40 W each</li> <li>• Frequency Response: 80 Hz – 18 kHz</li> <li>• Sensitivity: <math>\geq 88</math> dB</li> <li>• Impedance: 8 Ohm or 100V line compatible</li> <li>• System Performance Requirements</li> <li>• Signal-to-Noise Ratio: <math>\geq 65</math> dB</li> </ul>

			<ul style="list-style-type: none"> <li>• Total Harmonic Distortion: <math>\leq 0.5\%</math> (mic level)</li> <li>• Feedback suppression: Required</li> <li>• Connectivity and Cabling</li> <li>• Shielded cables / CAT6 structured cabling</li> <li>• Connectors: XLR / RJ45</li> <li>• Integration Features</li> <li>• Compatible with: PTZ camera system</li> <li>• Video conferencing platforms Digital podium</li> <li>• Power Supply</li> <li>• Input: 220–240V AC, 50 Hz with Surge protection</li> <li>• Installation and Commissioning</li> <li>• Complete SITC (Supply, Installation, Testing and Commissioning) Acoustic calibration required</li> <li>• Compliance and Certification</li> <li>• OEM should be ISO certified</li> <li>• Equipment should comply with:</li> <li>• CE / FCC / BIS (as applicable)</li> <li>• 13. Warranty</li> <li>• Minimum 3 Years On-site OEM Warranty</li> </ul>
33	Interactive Flat Panel Display 86" for Meeting Room	BenQ ViewSonic/ Equivalent or higher	<ul style="list-style-type: none"> <li>• <b>Display and Touch:</b> <ul style="list-style-type: none"> <li>○ <b>Screen:</b> 4K Ultra HD display with support for full-channel 4K UI display.</li> <li>○ <b>Glass:</b> <math>\geq 3.2\text{mm}</math> anti-glare tempered glass with 9H hardness.</li> <li>○ <b>Touch Points:</b> 40 points multi-touch; writing display supports opaque objects (finger, pen, etc.).</li> <li>○ <b>Response Time:</b> <math>\leq 10</math> ms.</li> <li>○ <b>Life Span:</b> Minimum 50,000 hours</li> <li>○ Touch Accuracy: <math>\leq \pm 1</math> mm</li> <li>○ Object Recognition: Finger, stylus, opaque object</li> </ul> </li> <li>• <b>Integrated Mini PC/OPS Specifications:</b> <ul style="list-style-type: none"> <li>○ <b>Processor:</b> All-in-One (AIO) CPU/OPS with <b>Intel Core i5 Processor or higher</b></li> <li>○ <b>Memory/Storage:</b> 16 GB RAM and 512 GB SSD or higher.</li> <li>○ <b>Operating System:</b> Windows 11 Pro.</li> <li>○ Dual-band WiFi + LAN port in OPS with at least 4 USB ports</li> </ul> </li> <li>• <b>Android System Features:</b> <ul style="list-style-type: none"> <li>○ <b>OS:</b> LED Touch Panel with Android 13 or higher with EDLA Certification (Google Certified)</li> <li>○ <b>Hardware:</b> Octa-Core processor, 8 GB RAM minimum, and 128 GB ROM minimum.</li> <li>○ <b>Compliance:</b> EDLA and OPS compliant.</li> </ul> </li> <li>• <b>Camera and Audio:</b> <ul style="list-style-type: none"> <li>○ <b>Camera:</b> 4K UHD AI Camera (<math>\geq 8</math> MP, Sony sensor preferred). Field of View <math>\geq 100^\circ</math></li> <li>○ <b>Features:</b> Sound Localization, Intelligent Framing, and AI-Powered features. Auto framing + speaker tracking</li> </ul> </li> </ul>

			<ul style="list-style-type: none"> <li>○ <b>Microphone:</b> Integrated at least 6-Array Mic (8 preferred).</li> <li>○ <b>Speakers:</b> 2 x 20W Speake<sup>₹</sup></li> <li>• <b>Connectivity:</b></li> <li>○ Dual Band Wi-Fi 6.0 and Bluetooth 5.0.</li> <li>• <b>Certifications</b></li> <li>○ BIS Certified</li> <li>○ CE / FCC compliant</li> <li>○ EDLA certification (preferred, not mandatory)</li> <li>• <b>Warranty and Cost:</b></li> <li>○ <b>Warranty:</b> 3-year On-site OEM Warranty</li> </ul>
34	PTZ Camera for Meeting Room	Renowned and top brands / Equivalent or higher	<ul style="list-style-type: none"> <li>• <b>Resolution and Imaging:</b> It provides 4K Ultra HD (3840×2160) resolution and utilizes a 1/1.8 inches CMOS sensor with 8.42 effective megapixels.</li> <li>• <b>Advanced Tracking:</b> The camera is equipped with AI-Humanoid tracking and auto framing capabilities.</li> <li>• <b>Zoom and Lens:</b> It offers a minimum 20x optical zoom and 16x digital zoom. The lens has a focal length of f=6.25mm – 125mm and an aperture range of F1.58–F3.95.</li> <li>• <b>Control and Compression:</b> The system supports preset positions for PTZ control. Video compression formats include H.265, H.264, and MJPEG, while audio supports AAC encoding with an external microphone input.</li> <li>• <b>Installation and Warranty:</b> The unit is designed to be installed with a ceiling-mounted stand, the cost of which is inclusive in the price. It comes with a 3-year on-site OEM warranty</li> </ul>
35	Digital Podium for Meeting Room	Gloubus/Promark/Akin/Equivalent or higher	<ul style="list-style-type: none"> <li>• 15/4GB Ram/500GB HDD</li> <li>• Display - Touch Screen 21.5" Motorized Tilt Mech.</li> <li>• Operating System Windows 10</li> <li>• Gooseneck Mic</li> <li>• 1 Wireless MIC and Receiver</li> </ul>

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36	Lab Fire Safety and fire alarm	Notifier and Morley-IAS / Equivalent or higher	<ul style="list-style-type: none"> <li>• There shall be fire extinguisher system installed in each chamber with clear visibility in the event of fire.</li> <li>• Two Zone Conventional Fire Alarm Control Panel, with features such as non-latching zones, false alarm management, twin-wire (SAV wire) selection by DIL switch, fire and fault relay, 500mA rated 2 sounder circuit, allows one man walk test, Approved by LPCB for EN 54-2, EN 54-4.</li> <li>• Conventional Optical Smoke Detector with double dust trap chamber, internal algorithm processing for optimised performance, central LED for 360o view of detector status.</li> <li>• Conventional Manual Call Point, with resettable type glass element, clearly visible alarm flag in activated state, provided with custom reset key.</li> <li>• Conventional Wall Sounder for providing Audible Alarms in response to the output signal from the control panel, 32 selectable tone and adjustable sound level, maximum output volume @ 1M distance 100 dB(A), output tone frequency range 440 Hz to 2900 Hz, Approved by LPCB for EN 54-3 standard.</li> <li>• Ceasefire ABC Powder MAP-90, Fire Extinguisher, 2 Kg</li> <li>• Ceasefire ABC Powder MAP-90, Fire Extinguisher, 6 Kg.</li> </ul>
37	Computer System	Dell/HP/Lenovo Pink Series/ASUS/ Equivalent or higher	<ul style="list-style-type: none"> <li>• Processor 13<sup>th</sup> Gen Intel® Core™ i5-1334U, 10 cores</li> <li>• Operating System Windows 11/10 Pro.</li> <li>• Memory 16 GB DDR5</li> <li>• Storage 1 TB SSD</li> <li>• All in One Computer</li> <li>• Display 27" Non-Touch FHD</li> </ul>
38	Trolleys	Raddos/Sai samrth/Tekbio / Equivalent or higher	<ul style="list-style-type: none"> <li>• SS Trolley</li> <li>• Size of 24" x 18" No. of trays 2 No's. Tray made of Stainless Steel with Stainless Steel (304 grade) Frame and with wheels.</li> </ul>
39	Deep Freezer vertical (- 20C)	Remi/Celfrost/ Truefrost/Vr Scientific Instruments/ Equivalent or higher	<ul style="list-style-type: none"> <li>• Temperature range ( -20°C)</li> <li>• Door opening: double door top opening</li> <li>• Freezer capacity: 300 Liter Deep Freezer.</li> <li>• Effortlessly switch between deep freezing and cool modes, catering for specific storage requirements.</li> <li>• Maintain the ideal temperature ranging from -24 to +8 Degree C.</li> <li>• Powered by a 230V/50Hz/1Ph power supply and R 290 refrigerant.</li> <li>• Castor wheels at the bottom enable simple movement of the freezer around workspace.</li> <li>• safe with a built-in lock and defrost drain.</li> <li>• Optional protective voltage stabilizer to safeguard the machine against severe voltage fluctuations</li> </ul>
40	Microwave Oven	Godrej/IBM/Samsung /LG/ Whirlpool/ Equivalent or higher	<p>Microwave oven has features.</p> <ul style="list-style-type: none"> <li>• Capacity: 28 Ltrs</li> <li>• Convection: Can be used for baking along with grilling, reheating, defrosting and cooking</li> <li>• Control: Touch Keypad (Membrane) is sensitive to touch and easy to clean</li> <li>• Special Features: Steam Clean, Two Stage Cooking, Quick</li> </ul>

			Start, Quick Defrost
41	Lab Cloths	Sheel or any other Biotech and Nuaire/ Equivalent or higher	Complete Set Mask, Gloves, Appearance ETC.
42	Media Storage Rack	Sai Samarth/ Fusiontek /Raddos/ Equivalent or higher	Tray and frame made of Stainless Steel (304 grade). Ht. 6' along with 5 shelves
43	Micro- pipettes	Gilson/ Thermo Fisher Scientific/ Eppendorf/ Equivalent or higher	Micro-pipettes different Size <i>i.e.</i> 1-10 µl, 100-1000 µl, 1.0- 5ml
44	Scissors	Life Technologies India Pvt. Ltd./ Equivalent or higher	Stainless steel of different sizes
45	Scalpel	HMD Healthcare and Swann-Morton/ Equivalent or higher	Stainless steel no 3, length 10"
46	Instrument stands	On-Stage and KandM/ Equivalent or higher	Stainless steel with standard size or as per requirement
47	Grading and Packing Table	UFlex and Fabtech/ Equivalent or higher	Stainless steel with standard size or as per requirement
48	Exhaust and Ceiling Fans	Orient Electric and Crompton Greaves/ Equivalent or higher	As per the requirement
49	Automatic Cloth Washing Machine	Godrej/IBM/ LG/Samsung/ Equivalent or higher	Automatic Cloth Washing Machine (Capacity Approx 10- 15 ltr.) Energy efficient. 5 Star Rating Tube Material - SS
50	Paper Pot making machine	Fuchang Machinery/ Elepot and Ministon Engineering Services/	<b>A. Basic System</b> 1. The basic unit should be highly efficient, reliable with low maintenance. 2. The system should be preferably semi-automatic. 3. The system is required for meeting existing requirement for plug so that only one size pot is required. However, the

		Equivalent or higher	<p>system should also be capable to update / upgrade to various pot size depending upon the requirement.</p> <p>4. The pot size ranges from 50 – 80 mm diameter and pot length should be up to 240 mm</p> <p>5. The capacity of pot making should be better than 5.000 pots per hour.</p> <p><b>B. Other accessories / spares / raw materials</b></p> <p>1. Paper</p> <p>a. The paper should be natural and environmental friendly with 100 % degradable.</p> <p>b. The decomposing time should be below 1.5 year (Note: This property of paper should be clearly mentioned on the brochure of instrument and / or a certificate from the manufacturer is to be attached).</p> <p>c. The bidder has to supply atleast 10 rolls of paper with the system at no extra cost.</p> <p>2. Peat moss</p> <p>a. Suitable substrate should have low fertilizer content so as to add / mix the specific requirement nutrient dosage of crop</p> <p>b. The substrate should ideally supply in bag with a capacity of more than 250 kgs per bag.</p> <p>c. The bidder has to supply at least 140 bags with the system at no extra cost.</p> <p>d. The bidder has to give a compliance certificate for the supply of consistent and uniform peat moss for at least five year</p> <p>3. Compressor The bidder has to provide a compressor with a minimum 250 liters at no extra cost.</p> <p>a. The compressor should have atleast three phase 5HP motor of reputed brand.</p> <p>4. Trays</p> <p>a. The bidder has to provide plastic cavity tray so as to accommodate the pots of above-mentioned size.</p> <p>b. The bidder have to supply atleast 500 trays with the system suitable for 70 mm size plug at no extra cost.</p>										
51	Printer (Small - Four)	Kyocera/canon/ Brother/ Equivalent or higher	Copy, Print, Scan, Copy/Print Speed (A4) (Mono) 35 ppm 40 ppm Paper size:- A4/ Legal Duplex Printing Paper size: A5R - A4/Legal Capacity of Startup Toner 1,000 pages.										
	Printer (Big- One) with trolley	Kyocera/canon Brother/ Equivalent or higher	<table border="1"> <tr> <td>Description of Stores</td> <td>Multifunction Machine Printer with Minimum 1 Year On Site Warranty, including Cartridge</td> </tr> <tr> <td>Print Technology</td> <td>Laser</td> </tr> <tr> <td>Type of Printing</td> <td>Colour</td> </tr> <tr> <td>Bypass Tray Facility</td> <td>Yes</td> </tr> <tr> <td>Minimum Print Speed per Minute</td> <td>25</td> </tr> </table> <p>A4, A3 and Legal</p>	Description of Stores	Multifunction Machine Printer with Minimum 1 Year On Site Warranty, including Cartridge	Print Technology	Laser	Type of Printing	Colour	Bypass Tray Facility	Yes	Minimum Print Speed per Minute	25
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Print Technology	Laser												
Type of Printing	Colour												
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52	Heater for Lab	Thermo Fisher Scientific and H. L. Scientific Industries / Havells/ Brother/ Equivalent or higher	Wattage: 2900 W Type: Oil Filled Heater with PTC Heater
53	Vacuum cleaner	Karcher and Dyson	1400 watt Powerful suction and blower function vacuum cleaner Capacity – 6-8 litre
54	Fogger Machine	Himedia Equivalent or higher	Fast, Safe, and nontoxic fumigation, Aerial Disinfection Capacity – 8 litre/hour
55	Gas Burner	Prestige Elica Equivalent or higher	Standard as per lab of tissue culture
56	Rotary Shaker	PSI/Krew/ Equivalent or higher	The equipment shall be a laboratory rotary shaker with variable speed range of 20–250 RPM or better. The shaker shall provide orbital shaking motion with adjustable platform suitable for flasks and bottles. The unit shall have digital speed control with timer facility for continuous and timed operation.

#### ELECTRIFICATION:

1.	Electric Work	ISI Mark Material	<ul style="list-style-type: none"> <li>Entire lab Electrification with all flexible and armored cable, PVC trunking, Galvanized cable tray and accessories.</li> </ul>
2.	Electric Distribution Panel		
3	Servo Stabilizer	V-Guard/ Servomax, Equivalent or higher	<ul style="list-style-type: none"> <li>Capacity: 250 KVA or more</li> </ul>
4	Diesel Genset	Mahindra Powerol and Kirloskar Oil Engines/ Equivalent or higher	<ul style="list-style-type: none"> <li>With quality change over</li> </ul>
5.	UV lamp for Sterilize area	Hitech UV and Riva Appliances/ Equivalent or higher	<ul style="list-style-type: none"> <li>As per requirement</li> </ul>
6.	LED Lighting for General Illumination	Philips/ Havells /Equivalent or higher	<ul style="list-style-type: none"> <li>As per requirement</li> </ul>

*San*

*(Signature)*

7	Solar System for laboratory and greenhouses	TATA/Adani/Equivalent or higher	On grid solar system with capacity to generate 100 kw power every day
<b>PLASTIC WARE:</b>			
1	LABSOL/Tarson /Microtech Polymers/ Equivalent or higher	Beaker with Handle, Five of each with capacity: 500ml, 1000ml, 5000ml, 10,000ml	20
2		Measuring cylinder, Two of each with capacity: 25ml, 100ml, 500ml, 1000ml	8
3		Plastic tray : 320x260x70 mm	100
4		Pipette stand, 1 of vertical, 28 places	1
5		Washing bottle, 500 ml each	5
6		Spray Bottles, 500 ml each	3
7		White plastic Trays HDPE, 408 x 408 x 105 mm	4000
8		Test tube stands	15
9		Spatula	12
10		Bottle washing brushes	12
11		Glass plate with stopper (7" x 9" x 0.5)	20
12		Automatic Hand sanitizer machine	2
13		Micropipettes (volume range 1µL to 5000 µL )	2 Set
<b>Glassware:</b>			
1	Borosil and Biohall equivalent or	Beaker, 250 ml each	5
2		Conical flasks, capacity 250 ml, 500 ml 3000ml	10
3		Measuring cylinder, capacity 100 ml and 500 ml	6
4		Reagent Bottle, size 250 ml, 500 ml and 1000 ml	24
5		Amber bottles, 500 ml each	5
6		Glass Rod, 7 x 205 mm	10
7		Culturing Bottles with caps, capacity 400 ml	100000
8		Pipettes, (volume range 01 to 20 ml)	1 Set
9		Test Tubes	200
10		Test tube stand	25
<b>Furniture and Office supplies:</b>			
1	Godrej / Cell bell/ Raddos/ Equivalent or higher	Office Chairs	7
2		Visitor / Meeting Room Chair	40
3		Reception table with chair	1
4		Meeting Table with 10 person sitting capacity	2
5		Office Table	2
6		Movable lab stool	15
7		Sofa Set 3-seater with one table	1Set
8		Working table 1500 x 750mm	10 Set
9		Lab Central table with drawer and double sink 3000 x 1500mm	1
10		Aluminum ladder 2 Steps	2
11		Aluminum ladder 7 Steps	2

12		Plant washing and grading table with basin	1
13		Slipper stand	2
<b>Miscellaneous items:</b>			
1		Dustbin	10
2		Gloves	10 Boxes
3		Cotton Roll	100
4		Tissue Roll	20
5		Bucket	6
6		Apron full size	30
7		Surgical Blade, No.10, 100 pc pkt	25 Pkt
8		Mopping Cloth	10
9		Slipper	20 pairs
10		Wrapping Roll 2" width	18
11		Data logger Unit	05
12	Aquaguard/Kent/	Water Distillation Unit	05
13	Equivalent or higher	R.O. Unit System	05
<b>b) Plant Molecular and RT PCR Lab:</b>			
1	Celfrost Truefrost/ Haier/ Equivalent or higher	<b>Upright Deep Freezer (-80 degree C) approx. 410 Ltrs</b> The deep freezer shall be an upright <b>-80°C ultra-low temperature freezer</b> with a minimum temperature range of <b>-50°C to -86°C</b> suitable for long-term biological sample storage. The system should be supplied with stainless steel inner chamber, lockable insulated doors, storage racks, voltage stabilizer compatibility, and minimum one-year comprehensive warranty. It shall have audio-visual alarms for high/low temperature, power failure, door open, and sensor malfunction with battery backup facility.	01
2	Biorad/Thermo/ Equivalent or higher	<b>RTPCR Machine</b> The system shall be a <b>96-well real-time PCR instrument</b> with 0.2 mL block format supporting validated reaction volumes of 10–100 µL and temperature range of 4–99.9°C with Peltier-based heating and cooling. It shall include bright-white LED excitation, CMOS camera detection with minimum six decoupled optical filters, excitation range 450–680 nm and detection range 500–730 nm for multiplex fluorescence analysis. The instrument must provide fast ramp rate (up to 6.5°C/sec), temperature accuracy ±0.25°C, uniformity ±0.5°C, gradient function, automated lid operation, and interruption recovery during runs. The system shall support fast and standard chemistries, minimum 5-plex multiplexing, detection sensitivity up to single copy, wide dynamic range, positional bias elimination, and compatibility with common fluorophores (FAM, SYBR Green, VIC, ROX, Cy5 or equivalent). Supplied software shall support multiplex amplification, melt curve, gene expression and allelic discrimination analysis with 21 CFR Part 11 compliance, along with computer (Intel i5 or higher), printer, and 2 kVA UPS with minimum 60-minute backup.	01

3	Eppendorf/ Neuaton/ Equivalent or higher	<p><b>Centrifuge</b></p> <p>The centrifuge shall be a <b>bench-top high-speed microcentrifuge</b> equivalent to Eppendorf Centrifuge 5430 R with maximum speed up to <b>17,500 rpm</b> and minimum <b>30,000 × g RCF</b> capacity. The system shall support multiple rotor options accommodating microtubes (0.2–2.0 mL), 15/50 mL tubes, and microplate/deep-well plates with automatic rotor recognition and imbalance detection. The refrigerated model shall provide temperature control from <b>-11°C to +40°C</b>, brushless maintenance-free motor, electronic lid lock, and low noise operation (&lt;54 dB). The centrifuge must include user-friendly digital interface with programmable operation, storage of user programs, rapid acceleration/deceleration, and aerosol-tight QuickLock® rotor system or equivalent safety mechanism. The unit shall be CE/ISO certified and supplied with suitable rotors, installation, demonstration, and minimum <b>two-year comprehensive warranty</b> from authorized service provider.</p>	02
4	Tekbio/ Krew/ Everflow Scientific Instruments and Fortuna Technology/ Equivalent or higher	<p><b>Water Bath Shaker</b></p> <p>The equipment shall be a <b>laboratory shaking water bath</b> with working capacity of <b>20–40 liters (approx. 25±2 L)</b> and temperature range from <b>ambient +5°C to 95°C or better</b>. The system shall provide microprocessor-based PID temperature control with digital LED/LCD display having temperature accuracy of <b>±0.5°C or better</b> and uniformity within <b>±0.5°C</b>. The unit shall incorporate <b>orbital or reciprocating shaking motion</b> with adjustable speed range of <b>20–250 RPM</b> and shaking amplitude between <b>10–25 mm</b>, along with digital timer facility (0–99 h 59 min). Inner chamber and shaking platform shall be made of <b>SS-304 stainless steel</b>, with powder-coated mild steel outer body and stainless-steel gabled lid to prevent condensation dripping. The equipment must include safety features such as over-temperature protection, low water level cut-off, alarm system, drainage outlet, and minimum one-year comprehensive warranty with installation support</p>	01
5	Remi/ Thermo Fisher/Neuati on/ Equivalent or higher	<p><b>Cyclo mixer / Vortex 2000ML</b></p> <p>The equipment shall be a <b>microprocessor-controlled or motor-driven vortex mixer</b> providing orbital mixing motion with variable speed range of <b>0–2500/3000 RPM</b> and approximately <b>4 mm orbit diameter</b>. The vortex mixer shall support <b>continuous and touch operation modes</b>, suitable for mixing tubes, bottles, and containers up to <b>2 L capacity</b> with heavy-duty continuous-duty motor. The unit shall include interchangeable attachments such as general-purpose cup head, flask/bottle holder, and microtube attachment for multiple tube sizes.</p>	01
6	Remi/Tekbio/ Elektrotechni k Limited/ Igene Labserve Private Limited/ Equivalent or higher	<p><b>Cooling Incubator (BOD)</b></p> <p>The equipment shall be a <b>microprocessor-controlled laboratory/BOD incubator</b> with temperature range of <b>5°C to 60°C (or better)</b> using PID-based digital temperature control system. The incubator shall provide temperature accuracy of <b>±0.5°C or better</b> with uniformity within <b>±0.5°C to ±2.0°C</b>, supported by forced air circulation for uniform temperature distribution. Inner chamber shall be made of <b>AISI 304 stainless steel</b> with rounded corners and insulated using minimum <b>75 mm CFC-free PUF insulation</b> for efficient thermal performance.</p>	01

7	Eppendorf/ Thermo/Biorad/ Equivalent or higher	<p><b>Thermal cycler</b> Modular, multi-block thermal cycler, Block Configurations (Interchangeable), 2 × 96-well (0.2 mL) blocks 2 × Flat Blocks for OpenArray™ plates, Single 96-well (0.2 mL) block,: Temperature range: 0°C to 100°C, Maximum ramp rate: 6.0°C/sec, Average ramp rate: 3.0°C/sec, Temperature accuracy: ±0.25°C, Temperature uniformity: ±0.5°, Up to 6 independent temperature zones for gradient PCR, Supports 10–100 µL reaction volumes, Touchscreen control panel: ≥8.0-inch color touchscreen interface, Built-in protocol simulation: Supports replication of other thermal cycler ramp rates, Remote access: Web and cloud-enabled interface for programming and monitoring, Connectivity ports: USB, Ethernet, Wi-Fi, Power supply: Compatible with 220–240V AC, System must support: Method creation, Data export via USB, Device calibration via software.</p>	02
8	Samsung/LG/ IBM/Godraj// Equivalent or higher	<p><b>Refrigerator-400 ltr, -4-degree temp. range</b> Vertical laboratory-grade design with a temperature range of 2°C to 8°C Digital temperature controller with LED/LCD display, temperature accuracy of ±0.5°C to 1°C, and an integrated alarm system for temperature deviations or power failure.</p>	01
9	Labtron/PSI/ Krew/ Equivalent or higher	<p><b>Refrigerated Circulating bath 6Ltrs</b> The equipment shall be a refrigerated circulating water bath with nominal capacity of approximately 6 liters and temperature range from –20°C to +100°C or better. The system shall provide microprocessor-based PID temperature control with accuracy of ±0.1°C, stability up to ±0.05–0.1°C, and digital LED/LCD display with minimum 0.1°C resolution. The unit shall have combined heating (1000–1500 W) and refrigeration system with cooling capacity of approximately 300–400 W, ensuring rapid temperature stabilization.</p>	01
10	Biorad/Tekbio/ Equivalent or higher	<p><b>Gel Electrophoresis system with power pack</b> Gel tray size: Minimum 14 × 16 cm or larger (expandable to 14 × 20 cm or 14 × 25 cm with optional trays), Sample capacity: ≥100 samples per run (using multiple combs), Gel casting system: Integrated leak-proof system; no need for taping or sealing Construction material: UV-transparent, high-impact acrylic or equivalent. Electrode system: Embedded platinum electrodes; corrosion-resistant and replaceable, Multigel capacity: Allows simultaneous casting and running of two or more gels, Buffer volume range: 1.5 to 3.5 liters (adjustable depending on tray size) Chamber design: Low-buffer volume for cost-effective runs, yet wide format for heat dissipation, Safety lid: Locking safety lid with attached leads for enhanced user safety. Color-coded electrodes: Clearly marked anode (red) and cathode (black) Built-in bubble level for platform adjustment, Tray compatibility: Must include or support multiple tray sizes: 14 × 16 cm, 14 × 20 cm, 14 × 25 cm, Comb options: Includes combs for high-throughput, ≥2 × 50-well combs (1 mm or 1.5 mm thick), Additional combs for 20, 30, or 40 wells per row, Well format: Configurable for both wide and deep wells, Max voltage: ≥150 V, Max current: ≥400 mA,</p>	02

11	Sartorius/Wensler/ Equivalent or higher	<b>Analytical Weighing Balance</b> Digital Display / top loading, Better than 0.001 g readability / precision, Linearity 0.2 mg, More than 200 g capacity, With balance to PC cable.	01
		<b>Weighing Balance</b> The balance shall have minimum capacity of 250–320 g with readability (least count) of 0.1 mg and fast stabilization time of $\leq 5$ seconds.	01
12	PSI/Tekbio/Krew/ Equivalent or higher	<b>Shaking Incubator</b> The equipment shall be an <b>integrated orbital shaking incubator</b> with SS-304/316 inner chamber, powder-coated mild steel outer body, double-walled front door with tempered glass viewing window, and high-density PUF insulation. The unit shall provide temperature range of <b>ambient +5°C to 60–70°C</b> with microprocessor-based PID controller, temperature accuracy up to $\pm 0.5^\circ\text{C}$ , uniformity $\pm 0.5^\circ\text{C}$ , and forced air circulation system. The incubator shall incorporate <b>orbital shaking mechanism</b> driven by maintenance-free brushless motor with adjustable speed range <b>30–300 RPM</b> and stainless-steel universal platform with interchangeable flask clamps.	01
13	PSI/Tekbio/Krew/ Equivalent or higher	<b>Vertical Cylindrical Autoclave -100 Ltrs</b> Capacity 100 Ltr With double wall construction and inner outer and carriers corrosion resistant Stainless Steel grade 304 Sheets to be argon welded ground and polished and to be of service free internal Operating temperature $121 \pm 3^\circ\text{C}$ Temperature accuracy $\pm 0.5^\circ\text{C}$ at $120^\circ\text{C}$ Lid, flanges ,fly screw, crosspin ,heater cover stand S.S. 304, outlet valve for cleaning With temperature calibration function and high temperature and pressure resistant silicon gasket Should be electrically heated by means of I.S.I. quality immersion heaters with working pressure 15 PSI. With hydraulically single lever handy-rise open device Should have CE certified built in analog pressure gauge with 0-400 psi for indicating actual pressure With two Nos. safety valve and one manual exhaust valve, quick release coupling and handle with heater cover stand PID Controller must have temperature cum timer display and 0.1o resolution with Auto Purging and Exhaust (Solenoid Valve), Water level digital, backlit LCD display for all information including process and set value.	01
14	Sai Samarth/Tekbio / Krew/Equivalent or higher	<b>Laminar Airflow -double seater</b> The unit shall be a double-seated Horizontal Laminar Air Flow workstation of approximate size 6' × 2' × 2', providing ISO-class clean air environment with airflow velocity $0.45 \pm 0.1$ m/s and noise level below 70 dB. The system shall be equipped with mini-pleat HEPA filters having minimum 99.99% efficiency at 0.3 $\mu\text{m}$ particle size, along with pre-filters (90% efficiency up to 10 $\mu\text{m}$ ) for effective air purification. The workstation shall include vibration-free motor-blower assembly with ¼ HP motor, aluminum anodized impellers, and spring suspension mounting for low noise and smooth operation. Working chamber shall consist of SS-304 work table, toughened glass side panels, powder-coated MS outer body, LED illumination ( $\geq 800$ lux), UV germicidal lamp, and microcontroller-based control panel with hour meter.	01
15	Bluestar/Celfrost /Trufrost	<b>Deep Freezer (-20 degree C) approx. 245 Ltrs</b> The equipment shall be a <b>vertical deep freezer</b> with storage capacity	01



	Equivalent or higher	of approximately 240–250 liters and operating temperature range up to –20°C or lower. The freezer shall be equipped with <b>microprocessor-based digital temperature controller</b> with LED/LCD display and temperature accuracy of ±2°C or better.	
16	PSI/Tekbio/ Equivalent or higher	<b>Waterbath 8 L (Without racks and Thermometer)</b> The equipment shall be a digital laboratory water bath with minimum 8-liter capacity suitable for routine laboratory incubation and heating applications. The unit shall provide temperature range from ambient +5°C to 95–100°C with microprocessor-based PID temperature controller and digital LED/LCD display. Temperature accuracy shall be ±0.5°C or better with uniform heating ensured through efficient heating system and proper circulation.	01
17	Millipore/ Sigma/ Thermo Fisher Scientific/ Equivalent or higher	<b>Type-III molecular grade water purifier</b> The system shall produce ASTM Type-III / ISO 3696 Grade-3 laboratory water with conductivity ≤20 µS/cm (or better), effective removal of ions, organics, bacteria, and particles using final ≤0.2 µm filtration. Purification technology shall include pre-treatment cartridge, activated carbon filtration, and high-efficiency Reverse Osmosis (RO) module, configured as compact bench-top or wall-mounted unit. The unit shall be provided with 30–40 L HDPE storage reservoir with automatic level control, recirculation facility for maintaining water quality, and digital display for conductivity, resistivity, and temperature monitoring. The system shall deliver minimum 8–10 L/hour production rate with adjustable dispensing up to 2 L/min and volumetric dispensing facility, along with alarms for cartridge/membrane replacement and system safety monitoring. The equipment shall operate on potable tap water supply (1–6 bar pressure), include data logging facility, automatic sanitization, required accessories, on-site installation, and minimum one-year comprehensive warranty, compliant with ISO/CE standards.	01
18	Remi/Neuation / Equivalent or higher	<b>Vortex shaker</b> The equipment will be used for agitation and quick mixing of samples in tubes, flasks or small containers. The speed range should be at least 200-3000RPM with adjustment knob for controlling the speed. The equipment should allow for both continuous handfree vortexing as well as touch mode for quick, intermittent mixing by pressing down on mixer's platform. The equipment should be equipped with interchangeable tops with single tube mode, microcentrifuge tubes, as well as microplates. The vortexer should have an anti-slip base to prevent movement during operation especially at high speeds, and should operate with minimum noise	01
19	Samsung/LG/ Goderaj/ Equivalent or higher	<b>Refrigerator - Vertical 400 Ltrs</b> Temperature range: 2-8°C Style type: Vertical Capacity: 400 Lite Dimensions (in Inches): 22-28(W)x20-24(D)x70-80(H). Digital controller.	01
20	Thermo Fisher Scientific/ DeNovix/ Blueray/ Equivalent or higher	<b>Nano drop / Spectro</b> Type: Microvolume (pedestal) + cuvette spectrophotometer. Control: Touchscreen + PC-controlled via NanoDrop PC Software, Measurement modes: Pedestal + cuvette, Sample volume (pedestal): 1–2 µL, Sample volume (cuvette): ≥500 µL Measurement time: <8 seconds, Wavelength range: 190–850 nm Wavelength accuracy: ±1 nm, Spectral resolution: ≤1.8 nm (FWHM)	01

		at Hg 254 nm), Absorbance range: Pedestal: 0.04 to 550 A (10 mm equivalent), Cuvette: 0 to 1.5 A, Detection limit (dsDNA): Pedestal: 2 ng/μL, Cuvette: 0.2 ng/μL, Max concentration (dsDNA): Pedestal: 27,500 ng/μL, Cuvette: 750 ng/μL, Supported analytes: dsDNA, ssDNA, RNA, oligonucleotides, proteins, Purity ratios: A260/A280, A260/A230.	
21	Bio-Rad Laboratories and Thermo Fisher Scientific/ Equivalent or higher	<p><b>Gel Documentation System</b></p> <p>The system shall be an advanced gel documentation and chemiluminescence imaging system capable of detecting applications including chemiluminescence, fluorescence, stain-free protein gels, DNA/RNA gels, and dyes such as Ethidium Bromide, SYBR Safe/Gold, Coomassie Blue, FITC, Texas Red, Cy2, PicoGreen, SYPRO Ruby, and equivalent fluorophores. The instrument shall be equipped with true 16-bit cooled CCD/CMOS camera (≥8 MP resolution) having pixel size ≥6.45 × 6.45 μm, dynamic range ≥4 orders of magnitude, and Peltier cooling up to -30°C absolute or -50°C below ambient. The system shall include motorized zoom lens (C-mount, f/1.2) with autofocus, automatic iris control, flat-field correction, and multiple illumination sources including trans-UV, trans-white, epi-white, and optional trans-blue light for safe dye applications. The imaging chamber shall support sample size ≥28 × 36 cm, incorporate slide-out UV transilluminator, automatic exposure optimization (Signal Accumulation Mode), and capability for stain-free gel and blot imaging with total protein normalization. The system shall be supplied with integrated image acquisition and analysis software (license-free for multiple computers), publication-ready image export, required demonstration kits, compatible computer system, CE/EN61010 certified safety compliance, installation, training, and minimum one-year comprehensive warranty.</p>	01
22	IKA / PRO Scientific/ Equivalent or higher	<p><b>Genogrinder</b></p> <p>Fast and efficient extraction of nucleic acids, proteins and other molecules • Disruption principle: High-speed shaking of samples in 1.5 ml or 2.0 ml microtubes with stainless steel or glass beads • Kits compatibility: All kits to work for purifying RNA/DNA/Protein • LID: Double-locking lid for safe operation • Operation: Sound insulation and suspension system for quiet, vibration-free operation • Clamp: Fully adjustable clamp for simple front loading of vials or microplates • Sample visibility: Interior LED lighting and large window for clear sample visibility • Throughput: 2 x 96 collection microtubes (1.5ml) or 2 x 24 microtubes (2ml) • Sample processing time: 1-2 minutes • Adjustable clamp speed: 500 to 1700 stokes / min</p>	01
23	Thermo Fisher Scientific and Syngene/ Equivalent or higher	<p><b>Transilluminator</b></p> <p>The unit shall be a UV <b>Transilluminator</b> suitable for visualization of DNA/RNA gels stained with Ethidium Bromide, SYBR Safe, or equivalent dyes. The system shall provide <b>UV wavelength of 302 nm (or multiple wavelength option)</b> with uniform illumination area of minimum <b>20 × 20 cm</b>.</p>	01
24	Thermo Fisher Scientific/Neu ation/	<p><b>Micro Centrifuge Machine</b></p> <p>The equipment shall be a bench-top microcentrifuge capable of achieving maximum speed of ≥15,000 rpm with relative centrifugal</p>	01

	Eppendorf/ Equivalent or higher	force (RCF) of $\geq 20,000 \times g$ . The centrifuge shall accommodate minimum 12–24 tubes of 1.5/2.0 mL capacity with aerosol-tight rotor and automatic rotor recognition facility. The system shall have microprocessor-based digital control with adjustable speed, timer, and LCD/LED display for RPM/RCF and run time settings.																			
25	Milli-Q (Merck KGaA) and Thermo Fisher Scientific/ Equivalent or higher	<b>Water Purification System Type 3 and Type 1</b> The system shall produce ASTM Type-I ultrapure water and ASTM Type-III purified water from a single integrated unit using potable tap water as feed source. The unit shall include integrated pretreatment module with booster pump, water softener, activated carbon filtration, and customized pretreatment based on feed water quality to ensure long membrane life and reduced operating cost. Purification technology shall comprise reverse osmosis, ion exchange, activated carbon adsorption, optional UV irradiation, and final 0.2 $\mu\text{m}$ sterile filtration for removal of ions, organics, particles, and microorganisms. Type-III water quality shall provide output up to 8 L/hour, conductivity $\leq 20 \mu\text{S/cm}$ with $\geq 98\%$ ion rejection and integrated 5–8 L storage reservoir; Type-I water shall deliver 18.2 M $\Omega$ -cm resistivity, conductivity 0.055 $\mu\text{S/cm}$ , TOC <5 ppb, and microbial count <1 CFU/1000 mL. The system shall support feed water conductivity up to 1500 $\mu\text{S/cm}$ , provide dispensing flow up to 1 L/min, suitable for daily consumption up to 10 L ultrapure water, and be supplied with installation, accessories, and minimum one-year comprehensive warranty.	01																		
26	Eppendorf/ Thermo scientific/ Equivalent or higher	<b>Micro Pipette set</b> <table border="1" style="margin-left: 20px;"> <tr> <td>1.</td> <td>:</td> <td>0.2-5 <math>\mu\text{l}</math></td> <td>2.</td> <td>:</td> <td>0.5-10 <math>\mu\text{l}</math></td> <td>3.</td> <td>:</td> <td>2.0-20 <math>\mu\text{l}</math></td> </tr> <tr> <td>4.</td> <td>:</td> <td>10.0-100 <math>\mu\text{l}</math></td> <td>5.</td> <td>:</td> <td>20.0-200 <math>\mu\text{l}</math></td> <td>6.</td> <td>:</td> <td>100-1000 <math>\mu\text{l}</math></td> </tr> </table>	1.	:	0.2-5 $\mu\text{l}$	2.	:	0.5-10 $\mu\text{l}$	3.	:	2.0-20 $\mu\text{l}$	4.	:	10.0-100 $\mu\text{l}$	5.	:	20.0-200 $\mu\text{l}$	6.	:	100-1000 $\mu\text{l}$	02 set each
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27	-	<b>Biosafety Cabinet</b> Foot Class II BSC Specifications Dimensions: Nominal Width: 4 feet Internal Working Width: Approximately 46–49 inches Interior Materials: Single-piece Grade 304 stainless steel with coved corners Airflow and Filtration: Type: Class II, Type A2 (30% exhaust, 70% recirculation). Filters: H14 HEPA/ULPA filters (99.995% or 99.999% efficiency at Velocity: Inflow Downflow Safety and Construction: Sash: Motorized or manual tempered glass, typically with an 8-inch or 10-inch working sash opening. Controller: Digital microprocessor with LED/LCD display for velocity and alarms. Lighting: UV lamp with timer and LED/fluorescent lighting	01																		
28	PSI/Tekbio/ Equivalent or	Instrument table as per requirement in lab.	01																		

	higher		
29	PSI/Tekbio/ Equivalent or higher	Working table as per requirement in lab.	01
30	PSI/Tekbio/ Equivalent or higher	Laboratory Stool as per requirement in lab.	05
31	CISCO / ARUBA / Equivalent or higher	<b>Internet facility:</b> 1. 24 Port Giga POE Switch with Uplink Port - 01 no. 2. 24 Port Patch Panel (Loaded)- 01 no. 3. Wi-Fi Access Point wi-fi 6 enabled (Indoor)-08 no. 4. CAT-6 UTP Cable (as per requirement) 5. 21U Network Rack with Accessories - 01 no. 6. LIU (OFC) 24 Port (Loaded)-01 no. 7. CAT-6 I/O (Keystone, Face Plate and Box)-04 no. 8. CAT-6 Patch Cord 0.5 mtr. (Rack side)-04 no. 9. CAT-6 Patch Cord 2.0 mtr. (User side)-04 no.	01

### C. Protected Structure Work

L. Creation of Polyhouse with Mist Chambers- Rajdeep/Sheel/Saveer/Dharni/Jain/ Equivalent or higher		
<b>Primary Hardening Unit</b>		
<b>Main Particulars of Area</b>	<b>Dimensions</b>	<b>Units</b>
Total Area of Hardening unit	5788sq. ft. (538 sq. m.)	
Hardening Size	28m x 19.2m. (L x W)	01 No.
Number of bays	2 Nos.	
Each bay width	9.6m.	
Corridor width	2.5 m.	
Hard. Unit length	28 m.	
Hard. Unit width	19.2 m.	
Side Height	3.5 m.	
Centre Height	5.3 m.	
Vestibule (Ante room)	3 x 3 x 2.5m. (L x W x H)	01 No.
Sliding door	2m x 1.2m	02 Nos.
1	<b>STRUCTURE:</b> A. All Structure, Rafters, Perlins, Trusses are hot dip galvanized and design as per IS 875 standard to take a wind load up to 100 km/h. Specification: - Hot dip galvanized Steel Structure: Using galvanized tubular structure section. 1) Pipes sections to be used for different Structural Member -Columns: 80 mm x 50 mm x 2mm thick Trusses: Top cord 60 mm x 2mm; Bottom cord: 48mm x 2mm; Bracing 25 NB, A- class GI steel pipe; structural member will be fitted with zinc plated nuts and bolts without welding. Purlins: 42 mm O. D. x 1.8mm thick. Gutter slope: In 1 side 1% with 160mm PVC down pipe along with accessories. All G. I pipe sections are galvanized with zinc coating 275g/m <sup>2</sup> . Nuts and other metallic parts: This includes all the elements required for joining and water tightens components (such as fittings, clamps, screws and nuts plated against corrosion)	1 set
2	<b>VESTIBULE (Ante Room):</b> Size: 2.5m x 4m x 2.5m (L x W x H) = 1 No. Covered with 6mm thick Polycarbonate sheet for roof, and all sides. Door: Hitech aluminium sliding door -2 Nos.	1 set
3	<b>COVERING:</b> Roof, front wall, end wall, and sidewalls of the Primary Hardening sets and double room for rigid covering. 6mm thick clear polycarbonate sheet, with Aluminum Profile, EPDM gasket, Silicon sealant, and accessories.: Sheet thickness 6mm Structure 2 TS Area Weight 1.3 kg/m <sup>2</sup> Light Transmission 79±3%	1 set

4	<p><b>SHADING SYSTEM:</b>  Internal Shading System: by Reflective, thermal-aluminum-screen silver with a motorized mechanism with Rack and Pinion, driving shaft, pull rod clamp, operated expanding and retracting mechanism inside the hardening unit External Shading System: by 75% shade net with a manual mechanism with rolling arrangements.</p>	1 set
5	<p><b>LIGHT: -</b>  250-watt Special LED Lights for plants providing essential photosynthesis wave length to the plants for optimum growth and production- 12 Nos.</p>	1 set
6	<p><b>HIGH PRESSURE ULTRA FINE FOGGING SYSTEM WITH 15 TO 20 MICRONS OF WATER PARTICLE SIZE</b>  The general details of the system are:  High Pressure Pump (1500 PSI) Appropriate Motor Pump: 220 V AC, 50 cycle, Single phase, Nozzle type high pressure Nozzles, Brass body and SS insert Nozzle ID: 0.15mm, High Pressure Pipe  Water Requirement: Water should be of good quality with low PH and TDS. Ideal water is DM water. Potable drinking water is the workable option.  Electrical Requirement: 220 V, single phase, 50 cycle.</p>	1 set
7	<p><b>EVAPORATIVE FAN and PAD COOLING:</b>  A) 1.8 m tall x 19.2m long x 150mm Evaporative Cooling thick evaporative CELDEC cooling pad, complete with 3T-WMC technology. (This technology is developed by Saveer Biotech Limited for application in Green House under Department of Scientific and Industrial Research, Government of India recognized RandD facility to meet Indian condition requirement).  - All necessary framing material of Aluminum required supporting distribution and returning piping.  - Gutters, down spout end caps and drip pan, plumbing kit, pump 220 volt  - 3 phase 50 cycles, Drilled PVC piping cap, pad retainer, all suspension hardware.  - Metal flashings as required to seal pad to vent opening, 100mm thick evaporative cooling pad material.  Pad Area: 1.8 m x 19.2 m x 150 mm (w x h x Thickness) Construction Material Aluminum Profiles: Tray Sides, Top etc.  Top Frame will be openable type from outside for service point of view. Plastic Profiles: Water Distribution tray.  Cooling Media: 150 mm thick celdek 7090/500  At velocities of 1 to 3 M/s to give efficiency from 60 to 95%. Miscellaneous: Fasteners, Galvanized, Rivet- Aluminum.  <b>Water storage Tank:</b> Cemented underground tank 1000 Ltr Pump: 3HP Mono block (Crompton or Kirloskar)- 02 Nos.  <b>Screen Filter:-</b> 120 mesh  <b>NOTE:-</b> By this system temperature lowers by 10°C±2°C near the cooling Pad, when outside maximum humidity should be below 40% and temperature 35°C or above. Whole cooling system based on CT 5000 Technology.</p>	1 set
	<p>B) SLOW SPEED AXIAL FLOW FAN-36" single speed belt driven slow speed axial flow fan 3-phase, 50 HZ)</p>	4 Nos
	<p>C) AIR CIRCULATION FANS -Horizontal airflow fan complete with Heavy duty mounting 415V single speed, 2300 CFM, SS body frame.</p>	4 Nos.
	<p>D) INSECT CAGE: Size :19.2m x 1.8 m x 2.6 m (l x w x h) covered with – 50 Mesh Nylon net for extra protection from dust, fitted on the Cooling pad dog house with aluminium profile and locking spring with double entry provision Structure made by 42mm x1.8mm Hot Galvanized pipe Arc and Purlin by 32 x 32 x 1.8mm Galvanized pipe. Foundation pipe 50mm OD.</p>	1 set

8	<b>HEATING SYSTEM:</b> Biotech Heat Convector Gerat, Code-13244-00473 By electric heat convector great system 2.5 KW. Complete uniform heat circulation system has been given in this heat, so that the heat can be blown in the complete area. Special heat convector greet system for to maintain required temperature.	4 Nos.
9	<b>ELECTRICAL WIRING: -</b> Electrical wiring as required for connecting lights, fans, motor and pump to main electrical control panel with flexible and copper armoured cable (make Havells/ Finolex/ KEI). All electrical device high quality ISI approved fittings. No Loose wire will be used for any equipment's.	1 set
10	<b>MICRO PROCESSOER BASED CONTROL PANEL:</b> Monitor Panel Code No. 002264- 00304, which includes Light, Temperature and Humidity Control System. For details of Microprocessor Photosynthesis Monitor Panel kindly see the below data- a) Technical feature of Photoperiodic Timer - Cycle: 24 hrs minimum ON/OFF period 30 minutes. - Accuracy: $\pm 10$ sec/day - Input: 200-240 VAC, phase – single. - Ambient: 5°C to 45°C, RH up to 85% normally. b) Technical feature of Temperature Control System - Temp. Range: 0.1 to 59.9°C. Accuracy: $\pm 1$ °C. - Hysteresis: 0.4°C with sensor probe Pt-100 Sensor cord 5 mete₹ - Input: 200-240VAC (110 VAC available on demand), phase-single. - Ambient: 5°C to 45°C, RH up to 85% normally. c) Relative Humidity Control System: It maintains RH in the range of $\pm 4\%$ . - Range: 40% to 85%. - Real RH: $\pm 2\%$ . $\pm 1$ digit (at 45%). - Input: 220VAC (110VAC available on demand), phase- single. - Ambient: 5° to 45°C, RH up to 95%.	1 set
11	<b>CIVIL WORK:</b> Foundation wall for all sides of hardening unit along with the buffer room. WIDE Based 1' below earth's surface, 1' above earth's surface, as kick-board 9" wide. Frame base block height 2'. Floor: 2" sand/soil filling and over than ground cover fixed Pathway: 1m wide pathway front, back and center of each bay. Plinth Protection: 2' wide all around the hardening unit along with buffer room	1 set

**II. Green House for Hardening of plants- Rajdeep/Sheel/Saveer/Dharni/Jain/ Equivalent or higher**

			<b>1 Complete Unit</b>																		
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	Centre Height	5.3 m.	
	Vestibule (Ante room)	Size: 2.5m. x 4m. x 2.5m. (L x W x H)	02 Nos.
	Sliding door	2m x 1.2m	04Nos.
	Shape	Arc	
1	<b>STRUCTURE:</b> All galvanized steel is used standards to take withstand of wind speed 100 km./hour. End wall and side wall framing Aluminum corner trims, aluminum ridge bar and Galvanized gutter trim Brackets and fasteners as required to assemble frame, including Columns- 80mm x 50mm -2mm thick, Trusses- 50mm x 50mm - 2mm thick, Truss Bracing- 34mm and Purlins- 50mm x 50mm and 40mm x 40mm, Girt – 50mm x 50mm with tighten components		
2	<b>CLADDING:</b> Roof covered with 200micron polyfoil and all side walls will be covered by 70:30 UV stabilized shade net green/black color combination with fixed by GI Profile with zigzag spring.		
3	<b>VESTIBULE (Ante Room):</b> Vestibule: (Ante Room) at each side of hardening unit - 02 nos. each Size: 2.5m x 4m x 2.5m (L x W x H). Covered 200micron polyfilm sheet for roof, and all sides. Door: Hitech aluminum sliding door -4 Nos.		
4	<b>FOGGING SYSTEM: -</b> Overhead Fogging System with 4-way fogging nozzle, 7LPH each with micro tube, G. I. wire rope tensioner LLDPE pipe, pump, filter, PVC and CPVC pipe and accessories. Piltz Timer: for automatic operation of fogging pump		
5	<b>ELECTRIFICATION: -</b> All wires will be of copper and desired load (make Havells/ Finolex/ KEI) and switches. Each feature has own electric line with MCB and will be underground in PVC pipe complete set with A grade work. Copper flexible cable for connected the pump with timer with all accessories.		
6	<b>CIVIL WORK:</b> A) Structure will be raised on C. C. (concrete cement) blocks 2'x1'x1' B) Foundation wall for all sides of hardening unit along with the buffer room. WIDE Based 6"below earth's surface, 6" above earth's surface, C) Floor: 2" sand/soil filling and over than ground cover fixed		

III. Hi-tech Green House Structure (Speed Breeding Facility)	
<b>Name of Work:</b>	<b>Construction of Hi-tech Green House Structure (Speed Breeding Facility) as per the details below</b>
	The vendor MUST visit the site and place his/her quotation accordingly. The maker has to give a guarantee of at least 15 years for its stability and durability. The platform must hold the weight of the facility (with all operative components such as heavy equipment's, pots filled with soil etc.) for that period and there should not be any accident due to weak foundation or support.
<b>Wall Panelling System</b>	Sandwich type Double skin GSS Pre/ Powder -coated Metallic wall panels of 80 mm thickness with PUF (polyurethane foam)/PIR with a density of 40+/- 2 Kg/m <sup>3</sup> insulation with all supports and accessories.
<b>Wall Panelling System with inbuilt Risers</b>	Sandwich type Double skin GSS Pre/ Powder -coated Metallic wall panels of 80 mm thickness with PUF/PIR with a density of 40+/- 2 Kg/m <sup>3</sup> insulation with all supports and accessories
<b>Ceiling System</b>	Sandwich type Non-Walk-on type Double skin GSS Pre/ Powder -coated Metallic ceiling panels of 80 mm thickness with PUF/PIR with a density of 40+/- 2 Kg/m <sup>3</sup> insulation with all supports and hanging arrangement. To include all cutouts for light fixtures and HEPA/air diffusers, sealed with silicone to prevent air leakage
<b>3D covings and corner profiles</b>	Suitable radius coving at all wall-to-wall, wall-to-ceiling, and wall-to- floor junctions. To be powder coated to match wall panels
<b>Door System</b>	Clean Room GSS pre coated doors with PUF insulation complete with door frame iron mongrey, closers handles and sight glass other accessories.
<b>Fire Exit Door</b>	Each chamber with Sight glass, door closer and Panic Bar with other required accessories
<b>Facility Area</b>	With International standard "Resin based Epoxy" coating of 2 mm thickness on concrete surface. Providing and applying a thick primer and thick self-levelling topping. As per IS: 4631 standards
<b>Important Notes</b>	<ol style="list-style-type: none"> <li>1) All the supporting structures should be of G.I.</li> <li>2) Platform should be from P.C.C 1:2:4 with height of 1' from ground level after dressing and levelling and 4" thickness and the flooring of PVC with 2 mm thickness.</li> <li>3) Electrical distribution panel with electrical incoming cable (Aluminium Armoured Cable with suitable size) from source speed breeding Facility include with all power points and internal wiring. (Approx. -100m)</li> <li>4) Providing S.S Sink with S.S Tab and Water Pipe CPVC 32mm Dia line from greenhouse to the proposed water tank (Qty-02) mounted on GI Stand at speed breeding Facility (Approx -100m).</li> <li>5) The speed Breeding Facility should have Smoke Detector.</li> <li>6) G.I Benches with drain system of required size to accommodate Pots.</li> <li>7) All the lights of the facility should be control with timer.</li> <li>8) Providing of the following for internet connection: <ol style="list-style-type: none"> <li>a) Fibre optic cable from TACF to speed breeding 100 meter</li> <li>b) media convertor from optical to Lane</li> <li>c) 16 port giga byte switch</li> <li>d) 4u rack</li> <li>e) cat 6 cable as per requirement.</li> </ol> </li> <li>9) The vendor needs to submit the structural and civil drawings with the bid.</li> <li>10) The Defect Liability period should be of 03 year</li> </ol>
<b>Requirements</b>	<ul style="list-style-type: none"> <li>• Light proof facility with controlled temperature, humidity and ventilation facility for speed growth of plants (at least for 300 pots of 20 cm diameter size;</li> </ul>

	<p>more the better)</p> <ul style="list-style-type: none"> <li>• There are two speed breeding chambers (12 ft- L × 12 ft- B × 10 ft - H). Entry and operation modules for each chamber should be separate. All these speed growth chambers should be independent entities with dedicated control, operational and maintenance measures. Fault in one chamber MUST NOT affect the other chamber. There should be air curtains at the entrance of these chambers</li> <li>• The facility should accommodate at least 300 pots (20 cm diameter size pot). More the better. Maximum utility of the space will be appreciated.</li> <li>• There should be one seating room. In the seating room, there should be one right size table and at least five office chairs</li> <li>• There should be one buffer room. There should be one control room</li> <li>• There should be one separate vestibule area/room. This should have strong air curtain.</li> <li>• An approach road with paver blocks from main road upto entry door of anti-room needs to be provided.</li> </ul>
<b>Temperature Range</b>	<p><b>Temperature range: 10°C to 40°C ±1°C</b></p> <ul style="list-style-type: none"> <li>• Temperature Control: +/- 1°C at control point.</li> <li>• Temperature Safety Limits:</li> <li>• Programmable High and Low temperature limits tracking alarm, automatically following programmed set point.</li> <li>• Independent, high and low temperature limits for secondary safety.</li> <li>• Audible alarm for both safety devices and automatic Chamber power off on reaching limits.</li> <li>• Vertically adjustable sensing device in the growth area to sample Chamber area of accurate temperature and humidity control and recording to avoid measurement error by lamp radiation.</li> </ul>
<b>Humidity Control</b>	<ul style="list-style-type: none"> <li>• RH: 40% to 90% ± 3%. Humidity stress should be zero. The cooling arrangement should be done accordingly. Humidity ( Upto 90% ) using Ultra Sonic Humidifier and Dehumidifier to maintain RH up to 40-90% ,including humidifier stand as required .</li> <li>• It should have a dry sensor to direct measure humidity in % RH.</li> <li>• PVC connection for de-ionized water supply from the source.</li> </ul>
<b>CO<sub>2</sub></b>	<ul style="list-style-type: none"> <li>• CO<sub>2</sub> Range: 350 - 1200 ppm with CO<sub>2</sub> Cylinder with manifold, pressure regulators, automatic solenoid valve, SS Pipelines and other required accessories.</li> </ul>
<b>Light</b>	<ul style="list-style-type: none"> <li>• Should be programmable and adjustable to retain and subtract any of the following wavelengths and intensity as per user's requirement. That means options for all these wavelengths should be there.</li> <li>• Multispectral LED lights with independent regulation of color channels (including cool white, blue, green, red and far-red), which is very important for speed breeding.</li> <li>• Wavelengths: 450nm, 660nm, 735nm and 5700K White /</li> <li>• Wavebands: Blue (450nm), Green (520nm), Red (630, 660nm), Far Red (735nm), and White (5700K) Typical Output: ~ 1000 μmol/s or more</li> <li>• Fixture Efficacy: 2.6 μmol/J or higher</li> <li>• Peak PPF: 1500 μmol/m<sup>2</sup>/s @ 50cm or better</li> <li>• The user should be able to move all lights up and down by motorized grid mechanism. If there is an automated system for height adjustment, that will</li> </ul>

	<p>be preferred.</p> <ul style="list-style-type: none"> <li>• Programming and control: Independent level programming to set up day/night programming including duration of light and dark.</li> <li>• Table wise light grid system – each light grid must cover the table with uniform intensity. The grid should be integrated</li> <li>• with above mentioned LED Light or better advanced light: Light Intensity: upto 1000 <math>\mu</math>mole or more</li> </ul>
<b>Drip Irrigation System</b>	<ul style="list-style-type: none"> <li>• Drip lines</li> <li>• Solenoid valves for zone control or any other control system Irrigation timer and controller</li> <li>• Flow sensors Reservoir 1000 L</li> </ul>
<b>Air management / HVAC System / Humidification</b>	<ul style="list-style-type: none"> <li>• <b>Air Handling Unit:</b> Double skin air handling unit constructed out of 24/ 24 G GI sheets with 25 mm PUF section in between and comprising of following sections: Pre filter section with 10 Micron filter</li> </ul> <p><b>6 Row Deep Dx type</b></p> <ul style="list-style-type: none"> <li>• Cooling coil section with coils. The Blower section shall feature a DIDW Fan driven by an Inverter-duty motor coupled with a <b>Variable Frequency Drive (VFD)</b>. The VFD shall allow for continuous modulation of airflow volume based on static pressure and thermal load requirements, rather than fixed-speed operation.</li> <li>• Blower section with DIDW Fan, drive set Pulley, Fine Filter section with 5/3-micron filter. Mixing box with fresh air module and provision for aluminum aerofoil dampers for SA and RA damper, Common base frame with Vibration isolation pads for Motor Blower Assembly. Suitable inspection doors for filter, coil and blower sections are provided in the unit. Flanged connection at the outlet of AHU provided for integrating to the main Duct line. Standard as applicable for Clean Rooms or similar facilities:</li> </ul> <p><b>Condensing Unit:</b></p> <ul style="list-style-type: none"> <li>• (ONE WORKING ONE STANBY) The Condensing Unit shall feature <b>Inverter-driven Scroll Compressors</b> capable of stepless capacity modulation (from 10% to 100%). The unit must adjust cooling capacity dynamically to match the heat load, avoiding the 'stop-start' cycling of standard fixed-speed compressors</li> <li>• Air-cooled condensing unit of suitable capacity with scroll compressor of reputed make complete with copper piping, refrigerant gas, HP and LP cutouts, control panel Thermostatic. expansion valves, Control System shall be upgraded to a <b>DDC (Direct Digital Control) or PLC-based system with PID (Proportional-Integral-Derivative) loop logic</b>. The controller must modulate the VFD fan speed and Compressor capacity to maintain temperature stability within <math>\pm 0.5^{\circ}\text{C}</math> and Relative Humidity within <math>\pm 3\%</math> of the setpoint. The system shall not rely on simple thermostatic on/off tripping. Air-cooled Condenser coil with suitable size fan etc. Note: The refrigerant piping is included upto 5 Rmt length.</li> </ul> <p>Note- Including all equipment brick with plaster foundation work and G.I Structure frame with metro sheet complete as required.</p> <p><b>Ducting /INSULATION WITH ALUMINIUM CLADDING (For AHU):</b></p> <ul style="list-style-type: none"> <li>• Ducting made out of 22-gauge GI sheet with proper gasketing, supports, rods etc and fabricated as per standards. All flange joints shall be Angle flange and shall be sealed with RTV Sealant to make it air tight. Angle iron</li> </ul>

	<p>frames shall be provided wherever required as per the duct sizes. The leak testing of ducts shall be conducted as per applicable standards.</p> <ul style="list-style-type: none"> <li>• However, temperature and humidity MUST be maintained in the range as described above. There should be no humidity stress in any arrangement. There should be suitable chiller, cooling coils, air mixing fans etc which can run the facility without any hiccups for at least 15 year<sup>±</sup></li> </ul>	
<b>Room and Envelope Specifications of Speed Breeding Chambers</b>	<b>Parameter</b>	<b>Specification</b>
	Room Size (One)	12 ft (L) × 12 ft (B) × 10-12 ft (H)
	Room Size (One)	12 ft (L) × 12 ft (B) × 10-12 ft (H)
	Admin Office (One)	10 ft (L) x 10 ft (L) x 10-12 ft (H)
	Floor Area	288 ft <sup>2</sup> (26.8 m <sup>2</sup> )
	Volume	≈ 81.6 m <sup>3</sup>
	Wall Construction	PUF insulated panels
	Insulation Thickness	80mm ( $\lambda \approx 0.022 \text{ W/m}\cdot\text{K}$ )
	Windows	None (fully enclosed)
Door	Insulated, gasket-sealed	
<b>Split Air Conditioner and Lights</b>	<p><b>For Admin Office, Control Room and Corridor</b></p> <ol style="list-style-type: none"> <li>1. 5 Star AC 2 TR – in admin office.</li> <li>2. General illumination in corridor and office</li> </ol>	
<b>UPS</b>	<ul style="list-style-type: none"> <li>• 5 KVA with half hour backup for PAR Lights and Automation with accessories.</li> </ul>	
<b>Automation Control System</b>	<p><b>Automation Control System: software. Features:</b></p> <ul style="list-style-type: none"> <li>• Control system will be capable of Real time clock programming of temperature, relative humidity and lighting status.</li> <li>• Control system for drip irrigation/fertigation</li> <li>• Microcontroller based control system.</li> <li>• Touch display</li> <li>• Multi set-point programming.</li> <li>• Experiment protection via temperature limit shutdown. Auto-restart when temperature is normal.</li> <li>• Temperature/Rh%/light/CO<sub>2</sub> high and low deviation alarm.</li> <li>• Auto restarts in case of power failure with in-built battery.</li> <li>• Alarm history of last 15 alarms</li> <li>• Data recording facility of minimum 30 days with 1-minute interval.</li> <li>• Data logging is in excel and graphical format.</li> <li>• Average hourly values of parameters for analysis of research.</li> <li>• Remote access to local computer.</li> <li>• Remote access from anywhere on computer when connected to internet.</li> <li>• Email Alarm Alert system</li> <li>• Control system along with all electric wiring and electrical switch gear panel with all safety features.</li> </ul> <p><b>VIRTUAL CHAMBER SOFTWARE:</b> To access and monitor in chamber from one location to fulfil user need give solution for centralized system that has following features</p> <ul style="list-style-type: none"> <li>• To work on networked Windows/MAC computer</li> <li>• To facilitate user to communicate directly with the local control system</li> <li>• Same programming facilities as local control system</li> <li>• Accessible via. Internet from anywhere</li> <li>• Online service diagnostic by service personal</li> <li>• Chamber usage tracking and reporting by user</li> <li>• Global email alerts</li> </ul>	

<b>Computer System with Printer</b>	27" FHD AIO computer with i5 Processor, 1 TB SSD and 8 GB DDR4/5 RAM and UPS system in Seating Room with auto dual printer
<b>RO System</b>	RO System-100 LPH capacity and Tank with G.I stand for Ro Water 200 Ltr with water controlling sensor should be provided along with plumbing fittings for humidifier with 1000Ltrs storage tank with G.I stand for fresh water.
<b>CCTV CAMERA</b>	<ul style="list-style-type: none"> <li>CCTV Camera Setup including 4 Nos. Bullet IP Camera (4 MP) having 3.6 mm focal length and 30 m IR Range, 4 channel NVR, 1 TB hard disk and b8 port PoE switch all housed in 6U Rack</li> </ul>
<b>Safety Systems</b>	<ul style="list-style-type: none"> <li>Fire alarm</li> <li>CO2 leak detection Fire detection</li> <li>Emergency shutoff button</li> <li>Waterproof fixtures</li> <li>Non-slip flooring</li> <li>Electrical insulation and safety measures</li> <li>ISI approved cables, switches and appliances Fire dampers for AHU supply and return air duct</li> </ul>
<b>Fire Alarm system</b>	<ul style="list-style-type: none"> <li>08 Fire detector, 2 Zone Conventional panel with battery agni/apollo make, Armoured cable for Inter link new panel to reception panel – 1000-meter, Hooter-2, MCP-2, HDP Pipe 400meter</li> </ul>
<b>Electrical Wiring</b>	<ul style="list-style-type: none"> <li>All wires must be of copper and desired load and switches imported make, extra switches also provided as stand by. Each feature has own electric line with MCB and will be underground in PVC conduit pipe complete set with A grade work. Wiring for internet connection should be provided.</li> <li>Chamber to be compatible with Indian Power supply 415Volt ± 10%, 3-Phase-50Hz-A.C. supply Neutral and Ground. Complete wiring from electricity supply meter to speed breeding control panel with protection to power fluctuations and automatic phase changer.</li> </ul>
<b>Note:- All the utility services components like AHU, Chiller, Motors should be placed under shade (Metro sheet).</b>	

#### APPROVED MAKES OF MATERIALS

Sr. No.	Items	ACCEPTABLE MAKE
1	Wall and roof ceiling puff panel	GMP, FABTECH, SYNERGY/ JINDAL SPAN, LLYODS, TARAKTECH, SAFECLEAN, Equivalent or higher
2	Clean room door	GMP, FABTECH, SYNERGY/METAFLEX, TARAKTECH, SAFECLEAN, Equivalent or higher
3	Air conditioning system (DX System)/ chiller	O GENERAL, DAIKIN, Equivalent or higher
4	Copper pipe	MANDEV, HINDUSTAN, Equivalent or higher
5	Copper pipe insulation	ARMAFLEX, VIDOFLEX, HINDUSTAN, Equivalent or higher
6	Electrical power cables	HAVELLS, FINOLEX, ORTON CABLES, LAPP, Equivalent or higher
7	MCB, PDB, ELCB	HAVELLS, SCHNEIDER
8	Air curtain	EURONICS, Equivalent or higher

9	Contactora/relay	ABB, SCHNEIDER, HAVELLS, Equivalent or higher
10	CPVC pipes/valves	ASTRAL, FINOLEX
11	RO system	KENT, LIVPURE, Equivalent or higher
12	Puff panel inbuilt clean room LED Lights	HAVELLS, PHILIPS, WIPRO, Equivalent or higher
13	Modular switch/socket/modular Plate	HAVELLS, MK, LEGRAND, ABB, ANCHOR, Equivalent or higher
14	PVC conduit	FINOLEX, JKG, Equivalent or higher
15	PVC flooring	WONDER FLOOR, RMG, Equivalent or higher
16	Enamel paint	BERGER, ASIAN, Equivalent or higher
17	MS C chanals/MS angles / GI pipes/	TATA, JINDAL, Equivalent or higher
18	Double compression gland/copper Thimble	ACTION, DELTA, PHONEIX, Equivalent or higher
19	Water tank	SINTEX , ASTRAL, KARMOD, SUN STELLAR, Equivalent or higher
20	PVC pipe	Astral, Finolex, Equivalent or higher
21	LED lights and fittings	Havells, Phillips, WIPRO, Equivalent or higher
22	Chair and table	Durian, GODREJ, Equivalent or higher
23	AHU	Zeco, Waves, EDGETECH, Equivalent or higher
24	G. I pipes and channel/ G.I sheet	TATA, JINDAL, SAIL, Equivalent or higher
25	Metro sheet	TATA, JINDAL, SAIL, Equivalent or higher
26	SPLIT AC	DAIKIN, OGENERAL, Equivalent or higher
27	Water Pump	Crompton, Kirloskar, Equivalent or higher

**Note:-** Quality equivalent to proposed make only will be accepted. The Vendor has to assure the quality is as good as the proposed make. Any substandard quality will be rejected, not accepted.

IV. Aeroponics Facility with fully automated fertigation system - Rajdeep/Sheel/Saveer/Dharni/Jain/Equivalent or Higher		01 Complete Facility
1	<p><b>STRUCTURE:</b></p> <p>A. All Structure, Rafters, Perlin's, Trusses are hot dip galvanized and design as per IS 875 standards to take a wind load up to 100 km/h.</p> <p>Specification: - Hot dip galvanized Steel Structure: Using galvanized tubular structure section.</p> <p>1) Pipes sections to be used for different Structural Member -Columns: 80 mm x 50 mm x 2mm thick Trusses: Top cord 60 mm x 2mm; Bottom cord: 48mm x 2mm; Bracing 25 NB, A-class GI steel pipe; structural member will be fitted with zinc plated nuts and bolts without welding. Purlins: 42 mm O. D. x 1.8mm thick. Gutter slope: In 1 side 1% with 160mm PVC down pipe along with accessories.</p> <p>All G. I pipe sections are galvanized with zinc coating 275g/m<sup>2</sup>.</p> <p>Nuts and other metallic parts: This includes all the elements required for joining and water tightens components (such as fittings, clamps, screws and nuts plated against corrosion).</p>	1 Set

2	<p><b>TUNNEL FOR GROWING CHANNEL</b></p> <p><b>Description</b></p> <p>A. This tunnel is made of hot dip galvanized steel (40 x 40 x 1.8 mm and 32 x 32 x 1.8mm)</p> <p>B. It is designed to withstand 20 Kgs weight approx/ sq mt₹ - 200 micron black and white film</p> <p>C. It is covered with Black and White UV Stabilized sheet.</p> <p>D. Platform Size: 2500 cm x 80 cm (L x w) Material supporting Plant with life of 3 to 4 yrs approx.</p> <p>E. HDPE fogger pipe support for 32mm dia GI Pipe.</p> <p>F. Film fixed with Aluminum profile and Locking Spring.</p> <p>G. Each tunnel drain water connected with common drain (Client Scope) through 110mm PVC pipe</p> <p>Each tunnel having with Plant supporting clamp and strip with three nut bolt L type as per sample quantity 2 no in each base frame of growing tunnel</p>	1 set
3	<p><b>VESTIBULE (Ante Room):</b></p> <p>Vestibule – 1, Size: 6m x 4m x 2.5m (L x W x H) = 1 No. with double door entry Covered with 6mm thick Polycarbonate sheet for roofs, and all sides.</p> <p>Vestibule – 2, Size: 2.5m x 4m x 2.5m (L x W x H) = 1 No. with double door entry Covered with 6mm thick Polycarbonate sheet for roofs, and all sides</p> <p>Washbasin: – 01No. in buffer room</p> <p>Change Room: Size 1.5m x 1.5m = 2 Nos.</p> <p>Window air conditioning 1.5 ton for PLC control Panel</p> <p>Doors Sliding: For entry, Entry into the greenhouse: Size 1.2m wide x 2m tall single sliding doors complete clear 6mm thick polycarbonate glazing, top and bottom tracks, jambs, flashings and installation hardware.</p> <p>Air Curtain: Provision for an air curtain 1200mm size with auto ON/OFF mechanism while entry for control the Insect entry at main entry of pre-entry room.</p> <p>Buffer room entire structure made by 50 x 50 x 2mm hot Galvanized pipe without welding. All types of clamps will be hot dip Galvanized.</p>	01 Sets
4	<p><b>COVERING:</b></p> <p>Attaching the Plastic on Roof, Side wall, End walls and middle partition of Greenhouse with 200-micron Clear UV stabilized, Anti Sulphur and anti-condensation poly film. This is done in a specially designed profile and accompanying spring which is clicked into it.</p> <p>Later on, the spring can be clipped out in order to fit new plastic. The profile does not get distorted, and the profile can also be used again.</p>	1 set

5	<p><b>INTERNAL THERMAL SCREEN:</b></p> <p>a) Internal Thermal Screen mechanism using Rack and Pinion System with motor, chain coupling, pinion, rack, seem connector, connector for rack and handspike, spacer, axle, handspike, handspike driving clip, support wheel, profile, spring.</p> <p>b) Internal Thermal Screen with screen Ratio of 50:50%</p> <p>c) 3- Phase Gear motor- complete set.</p>	1 set
6	<p><b>EXTERNAL SHADING:</b></p> <p>External shading screen 75% with Manual rolling gear box with driving shaft. Qty- Two rolling gear box per bay</p> <p>External Shading will be operated at 30cm above the roof Polyfilm. Galvanized structure above the polyfilm made by hot Galvanized pipe Arc 42mm OD x 1.8mm thickness pipe. Wind protection Arc 34mm OD to be provided at every 4m Truss Arc and will be fixed by hot dip Galvanized clamp and nut bolts.</p>	1 set
7	<p><b>FOGGING SYSTEM:</b></p> <p>To increase the humidity inside the greenhouse up to 85% ± 5% by providing misting nozzles (Micro misting/fogger with LPD) hanging type having water discharge 28 LPH each nozzle, with pump heavy duty pump, with PVC tank and filters etc.</p>	1 set
8	<p><b>EVAPORATIVE FAN and PAD COOLING:</b></p> <p>1.6 mtr tall x 76.8m long x 150mm Evaporative Cooling thick evaporative CELDEC cooling pad, complete with 3T-WMC technology. (This technology is developed by Saveer Biotech Limited for application in Green House under Department of Scientific and Industrial Research, Government of India recognized RandD facility to meet Indian condition requirement).</p> <ul style="list-style-type: none"> <li>- All necessary framing material of Aluminum required supporting distribution and returning piping.</li> <li>- Gutters, down spout end caps and drip pan, plumbing kit, pump 220 volt</li> <li>- 3 phase 50 cycles, Drilled PVC piping cap, pad retainer, all suspension hardware.</li> <li>- Metal flashings as required to seal pad to vent opening, 100mm thick evaporative cooling pad material.</li> <li>- Pad Area: 1.6 mtr x 76.8 mtr x 150mm (w x h x Thickness)</li> </ul> <p>Construction Material</p> <p>Aluminum Profiles: Tray Sides, Top Etc.</p> <p>Top Frame will be openable type from outside for service point of view.</p> <p>Plastic Profiles: Water Distribution tray.</p> <p>Cooling Media: 150mm thick celdek 7090/500</p>	1 set

	<p>At velocities of 1 to 3 M/s to give efficiency from 60 to 95%. Miscellaneous: Fasteners, Galvanized, Rivet- Aluminum.</p> <p>Water Storage Tank: Cemented underground tank 10,000 Ltr – 1 No. Pump: 1.5HP Mono block (Crompton or Kirloskar)- 02 Nos.</p> <p>Screen Filter:- 120 mesh</p> <p>NOTE:-By this system temperature lowers by 10°C±2°C near the cooling Pad, when outside maximum humidity should be below 40% and temperature 35°C or above. Whole cooling system based on CT 5000 Technology.</p>	
	B) SLOW SPEED AXIAL FLOW FAN- 48" single speed belt driven slow speed axial flow fan 3-phase, 50 HZ)	16 Nos.
	C) AIR CIRCULATION FANS -Horizontal airflow fan complete with Heavy duty mounting 415V single speed, 2300 CFM, SS body	16 Nos.
	D) INSECT CAGE Size: 76.8m x 1.8 m x 2.6 m ( l x w x h) covered with – 50 Mesh Nylon net for extra protection from dust, fitted on the Cooling pad dog house with aluminium profile and locking spring with double entry provision Structure made by 42mm x 1.8mm Hot Galvanized pipe Arc and Purlin by 32 x 32 x 1.8mm Galvanized pipe. Foundation pipe 50mm OD.  - Gravel filling – 3" thick on floor area	1 set
9	<p>HEATING SYSTEM:</p> <p>Biotech Heat Convector Gerat, Code-13244-00473 By electric heat convector gerat system 2.5 KW. Complete uniform heat circulation system has been given in this heat, so that the heat can be blown in the complete area. Special heat convector gerat system for to maintain required temperature.</p>	10 Nos.
11	<p>DOSATRON AUTOMATIC IRRIGATION and FERTIGATION SYSTEM:</p> <p>Supply and Installation of Dosatron Automatic Fertigation Unit</p> <p>We offer automatic fertigation unit which runs without electricity, the technology has been tested internationally and fit in very well for automatic fertigation system. Pump Capacity: 3m<sup>3</sup>/hr.</p> <p>Pipe Size: 1" NPT Pressure: 2 to 120 PSI</p> <p>Ratio: 1:500 to 1:50</p> <p>Percentage: 0.2 to 2%</p> <p>Included Accessories: Set of legs, manual bypass, suction hose with strainer, vacuum breaker, operating manual.</p>	1 set
12	<p>IRRIGATIONSYSTEM:</p> <p>For Growing Tunnel</p> <p>A) Fogging system with frequency drive pump, 7LPH one bay fogger, HDPE pipe and supporting clamps fixed on M. S. angle support in open fields area from</p>	1 complete set

	storage tank to Greenhouse with clamps as per below details.	
	A) 3-phase pump with Frequency drive and plumbing accessories	
	B) 7LPH fogger with connector fixed under each growing tunnel at 40cm below net pot-	
	C) 32mm HDPE pipe 10kg/cm <sup>2</sup> pressure range approx 25m on each growing tunnel with individual control valve at main inlet and one valve for drain - 1 complete set for each growing tunnel. Total 02 Runner of 32mm in each 80cm wide tunnel with Individual control.	
	D) 90mm,75mm,63mm HDPE pipe, 10kg/cm <sup>2</sup> pressure with accessories for main line	
	E) 3" Butterfly valve on main inlet.	
	F) Manifold assembly with butterfly valve for Irrigation and Fertigation with Three-disc filter 2" size - 01 set.	
	I) Pressure Release Valve- 2" size -02 nos.	
	G) Solenoid valve 2" -06 Nos.	
	H) Flow meter -4" size at main irrigation Line-	
	I) Insulation of main Irrigation pipe 90mm, 75mm, 63mm with 25mm insulation and wrapped from outer sides with 0.5mm aluminium sheet.	
	(J) Automation VFD Panel for run the irrigation pump as per PLC panel	
	(K) Dosatron room size 4m x 4m x2.5m covered with PPGI sheet for accommodate fertigation unit with lockable door.	
13	CHILLER -- for Irrigation and fertigation - for maintain root irrigation water temperature 10 to 12 degree.	1 Set
14	LIGHT:- 250watt Special LED lights for plants providing essential photosynthesis wave length to the plants for optimum growth and production.	24 Nos.
15	ELECTRICAL WIRING: - Electrical wiring as required for connecting lights, fans, motor and pump to main electrical control panel with flexible and copper armoured cable (make Havells/ Finolex/ KEI). All electrical device high quality ISI approved fittings. No Loose wire will be used for any equipment's.	1 Complete set
16	CONTROL PANEL FOR AUTOMATION: <b>a) Control Panel Automation:</b> • Electrical Panel including Distribution Panel • Power Supply to all connected load	1 Complete set

	<ul style="list-style-type: none"> <li>• PLC with 2 AI + 16 DO + 16 DI</li> <li>• Colour HMI – touch screen</li> <li>• Temperature + RH Transmitter</li> <li>• Software – PLC + HMI Software development</li> <li>• Other Accessories</li> <li>• UPS of 1 KVA for monitoring</li> <li>• Above controls are for Cooling, Heating, Lights and Humidification.</li> <li>• Individual MPCB for each 3-phase connected load.</li> <li>• MCB and ELCB for all Single-phase load.</li> <li>• MCCB- at main cable entry points.</li> <li>• Manual switch-over option is provided.</li> <li>• Auto Irrigation Control signal included in panel.</li> </ul> <p>b) The PLC will be provided with RJ45 Communication.</p> <p>c) Greenhouse Zone temperature and RH Sensor -, Tunnel Sensor</p>	
17	<p><b>CIVIL WORK:</b></p> <p>Foundation wall for all sides of greenhouse along with the buffer room.</p> <p>WIDE Based 1' below earth's surface, 1' above finished floor level, as kick-board 9" wide. Frame base block height 2'.</p> <p>Floor</p> <p>Tunnel Floor: coving under tunnel</p> <p>Floor Height- minimum 30cm above natural ground level.</p> <p>Pathway: 1m wide pathway front, back and center of each bay covered by tile flooring.</p> <p>Plinth Protection: 2' wide all around the greenhouse along with buffer room</p>	1 Set

Sr.No. D. Parking Shed, Rain Water Harvesting and Composting Unit		
1	<b>Parking Shed</b>	
	Apollo/Jindal/TA TA/ Equivalent or higher	<ul style="list-style-type: none"> <li>• Parking shed with MS hollow pipe 100 mm Post with truss size 100 x 50 mm, purloins length- 50 x 50 mm including GS profile sheets 0.6 mm thick roofing.</li> <li>• Flooring: Flooring with M-30 interlocking paver blocks 80 mm thick followed by PCC 1:4:8 with provision of cement concrete flooring ramp 2m wide.</li> </ul>
2	<b>Rain Water Harvesting System</b>	
		<ul style="list-style-type: none"> <li>• Provision of rain water harvesting system with recharge shaft. Item includes construction of three numbers bricks masonry chambers including digging of borewell upto depth of Approx</li> </ul>

		100 m	
		<ul style="list-style-type: none"> <li>• Renovation of existing open pucca pond of capacity approximate 12 lakh litres with minor repairing including provision of brick masonry chambers and PVC pipe 200 mm diameter (To carry out the rainwater from building to pond).</li> </ul>	
3	<b>Composting Unit</b>		
		<ul style="list-style-type: none"> <li>• Construction of composting unit for disposal of garbage <i>etc.</i> area approx.. 4000 cuf with kaccha floor.</li> <li>• There should be provision of turning with tractor mounted turner.</li> <li>• The construction should be of pakka using bricks and palstering</li> </ul>	One

## ANNEXURE-1: FINANCIAL BID FORMAT SCHEDULE

(To be filled by bidders on firms' letterhead)

### FINANCIAL BID FORMAT

The financial bid is to be submitted by the bidder only in BoQ format (. XLS) available at e-Procurement portal.

Procuring Entity:	
Bid Name:-	
NIT Reference No. -	
Bidder Name:	
<b>PRICE SCHEDULE</b>	

Sr. No	Name of the item	Qty.	Rate in (₹) Per Unit	GST (in ₹) per unit	Amount (₹) (including GST) per unit (5+6)	Total Amount (₹) (including GST) (7*3)
1.	2.	3.	4.	5.	6.	7.
1.						

**\*TO BE FILLED ONLINE AT EPROC in BOQ ONLY**

**Please Note:**

1. GST would be as applicable.
2. Reproduced / re-word-processed formats or Bidder's own formats for the price quotations will disqualify the bid.



**ANNEXURE-2: BANK GUARANTEE FORMAT – PERFORMANCE**  
**SECURITY (PBG)**

(To be stamped in accordance with Stamp Act and on a Stamp Paper purchased from Rajasthan State only and to be issued by a Nationalized/Scheduled Bank having its branch at Jaipur and payable at par at Jaipur, Rajasthan)

To,

The Project Incharge, COETC, RARI, Durgapura, Jaipur,

Sri Karan Narendra Agriculture University,

Jobner, Jaipur-303329 (Raj).

1. In consideration of the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** payable at Jaipur. (here in after called "Procuring Entity") having agreed to exempt M/s (hereinafter called "the said Contractor(s)" from the demand, under the terms and conditions of an Agreement No dated made between the

SKNAU through ... and.. (Contractor) for the work

(hereinafter called "the said Agreement") of Security Deposit for the due fulfillment by the said Contractor (s) of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs (rupees ... only), we (indicate the name of the Bank), (hereinafter referred to as "the Bank") at the request of

Contractor(s) do hereby undertake to pay to the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** payable at Jaipur an amount not exceeding ₹ (Rupees only) on demand.

2. We (Indicate the name of Bank), do hereby undertake to pay Rs (Rupees only), the amount due and payable under this guarantee without any demur or delay, merely on a demand from the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** payable at Jaipur. Any such demand made on the bank by the PROJECT INCHARGE COETC shall be conclusive as regards the amount due and payable by the Bank under this guarantee. The Bank Guarantee shall be completely at the disposal of the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** and We (Indicate the name of Bank), bound ourselves with all directions given by **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** regarding this Bank Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding ₹ (Rupees only).

3. We (indicate the name of Bank), undertake to pay to the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU,**

**JOBNER'** payable at Jaipur any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any Court or Tribunal or Arbitrator etc. relating thereto, our liability under these presents being absolute, unequivocal and unconditional.

4 We... (indicate the name of Bank) further agree that the performance guarantee herein contained shall remain in full force and effective up to <DATE> and that it shall continue to be enforceable for above specified period till all the dues of **PROJECT INCHARGE COETC** under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till the **PROJECT INCHARGE COETC** certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5 We ..(indicate the name of Bank) further agree with the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** that the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** or any indulgence by the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** to the said Contractor(s) or by any such matter or thing whatsoever which would but for this provision, have effect of so relieving us.

6 The liability of us [indicate the name of Bank), under this guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s)

7 We guarantee except with the previous consent of the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** in writing. (indicate the name of Bank), lastly undertake not to revoke this

8 This performance Guarantee shall remain valid and in full effect, until it is decided to be discharged by the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'**. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to ₹..... only Rupees)

9. It shall not be necessary for the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** to proceed against the contractor before proceeding against the Rank and the guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** may have obtained or obtain from the contractor.

10. We (indicate the name of Bank) verify that we have a branch at Jaipur. We undertake that this Bank Guarantee shall be payable at any of its branch at Jaipur. If the last day of expiry of Bank Guarantee happens to be a holiday of the Bank, the Bank Guarantee shall expire on the close of the next working day.

11. We hereby confirm that we have the power(s) to issue this guarantee in your favor under the memorandum and articles of Association/constitution of our hank and the undersigned is/are the recipient of authority by express delegation of power(s) and has/have full power(s) to execute this guarantee for the power of attorney issued by the bank

Dated. day of. Bank) Designation) For and on behalf of the <Bank> (Indicate the Signature (Name and

Bank's Seal

The above performance Guarantee is accepted by the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'**

For and on behalf of the **PROJECT INCHARGE COETC**

Signature (Name and Designation

**ANNEXURE-3:**

**DRAFT AGREEMENT FORMAT**

(to be mutually signed by selected bidder and procuring entity) (To be furnished on a non-judicial stamp of Rs 500.)

This Contract is made and entered into on this..... day of..... 2025 by and between **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** , having its head office at Sri Karan Narendra Agriculture University, Jobner, Jaipur 303329, Rajasthan (herein after referred to as Procuring Entity/ **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** which term or expression, unless excluded by or repugnant to the subject or context, shall include his successors in office and assignees on ONE PART

And M/s..... a company registered under the Indian Companies Act, 1956 with its registered office at (herein after referred as the "Successful Bidder/Supplier) which term or expression, unless excluded by or repugnant to the subject or context, shall include his successors in office and assignees on the OTHER PART.

Whereas, Procuring Entity is desirous of appointing an agency for <project titles> as per the Scope of Work and Terms and Conditions as set forth in the BID document dated..... of NIB No.....>

And whereas

M/s..... represents that it has the necessary experience for carrying out the overall work as referred to herein and has submitted a bid and subsequent clarifications for providing the required services against said NIB and BID document. issued in this regard, in accordance with the terms and conditions set forth herein and any other reasonable requirements of the Procuring Entity from time to time.

And whereas

Procuring Entity has accepted the bid of supplier and has placed the Work Order vide Letter No dated on which supplier has given their

acceptance vide their Letter

No. dated

And whereas

The supplier has deposited a sum of ₹

the form of ref no (Rupees dated in Bank and valid up to as security deposit for the due performance of the contract.

Now it is hereby agreed to by and between both the parties as under: -

1. The NIB Ref. No. document dated Issued and BID by **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** along with its enclosures/ annexures, wherever applicable, are deemed to be taken as part of this contract and are binding on both the parties executing this contract.
2. In consideration of the payment to be made by **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** to supplier at the rates set forth in the work order no..... dated..... will duly supply the said articles set forth in "Annexure-I: Bill of Material thereof and provide related services in the manner set forth in the BID, along with its enclosures/ annexure and Technical Bid along with subsequent clarifications submitted by supplier.
3. The **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** do hereby agree that if supplier shall duly supply the said articles and provide related services in the manner aforesaid observe and keep the said terms and conditions of the BID and Contract, the **PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER'** will pay or cause to be paid to supplier, at the time and the manner set forth in the said conditions of the BID, the amount payable for each and every project milestone and deliverable. The mode of Payment will be as specified in the BID document.
4. The timelines for the prescribed Scape of Work, requirement of services and deployment of technical resources shall be effected from the date of work order ie. and completed by supplier within the period as specified in the BID document.
5. In case of extension in the delivery and/ or installation/ completion/commissioning period is granted with full liquidated damages, the recovery shall be made on the basis of following percentages of value of the contract:
  - a) Delay up to one fourth period of the prescribed delivery period, successful installation and completion 2.5%
  - b) Delay exceeding one fourth but not exceeding half of the prescribed delivery period, successful installation and completion 5.0%
  - c) Delay exceeding half but not exceeding three fourth of the prescribed delivery period, successful installation and completion 7.5%
  - d) Delay exceeding three fourth of the prescribed delivery period, successful installation and completion 10.0%

**Note:**

- I. Fraction of a day in reckoning period of delay in supplies/ maintenance services shall be eliminated if it is less than half a day.
  - II. The maximum amount of agreed liquidated damages shall be 10%.
  - III. If supplier requires an extension of time in completion of contractual supply on account of occurrence of any hindrances, he shall apply in writing to the authority which had placed the work order, for the same immediately on occurrence of the hindrance but not after the stipulated date of completion of supply.
  - IV. Delivery period may be extended with or without liquidated damages if the delay in the supply of goods in on account of hindrances beyond the control of supplier.
- 6 All disputes arising out of this agreement and all questions relating to the Interpretation of this agreement shall be decided as per the procedure mentioned

In the BID document.

In witness where of the parties have caused this contract to be executed by their Authorized Signatories on this day of 2026

Signed By:	Signed By:
Designation: Company:	(Authorized Signatory) <b>PROJECT INCHARGE, CENTER OF EXCELLANCE FOR TISSUE CULTURE (COETC), SKNAU, JOBNER</b>
In the presence of	in the presence of
Designation: Company:	Designation:
Designation: Company:	Designation:



## ANNEXURE-4

प्रपत्र -'A'

### बिडदाताओं द्वारा घोषणा

मैं/हम घोषणा करता हूँ/करते हैं कि मैंने/हमने जिन मालों/सेवाओं/संकर्मों के लिए बिड दी है, उनका/उनके/मैं/हम अधिकृत फर्म हैं।

यदि यह घोषणा असत्य पाई जाए तो किसी भी अन्य कार्रवाई, जो की जा सकती है, पर प्रतिकूल प्रभाव डाले बिना, मेरी/हमारी प्रतिभूति को पूर्ण रूप से जब्त (forfeit) किया जा सकेगा तथा बिड को, जिस सीमा तक उसे स्वीकार किया गया है, रद्द किया जा सकेगा।

बिडदाता का नाम एवम हस्ताक्षर मय मोहर  
मोबाइल नंबर  
ईमेल

## ANNEXURE-5

प्रपत्र -'B'

### बिडदाता द्वारा घोषणा

मैं/हम घोषणा करता हूँ/करते हैं, कि हमने जिन मालों/सेवाओं/संकर्मों को जहाँ कहीं भी प्रदान की है, वहाँ पिछले 3 वर्षों में सेवाओं में कमी होने के कारण हमें किसी भी सरकारी विभाग/उपक्रम /कम्पनी द्वारा ब्लैकलिस्ट नहीं किया गया है।

हम यह भी घोषणा करते हैं कि हमें किसी भी न्यायालय द्वारा सामान प्रदायगी में कोई वाद लम्बित नहीं है तथा इस विषयान्तर्गत हमें किसी भी न्यायालय द्वारा दण्डित नहीं किया गया है।

बिडदाता का नाम एवम हस्ताक्षर मय मोहर

मोबाइल नंबर

ईमेल

## ANNEXURE-6

प्रपत्र -'C'

### Price fall clause प्रमाण पत्र

मैं/हम घोषणा करता हूँ/करते हैं, कि मेरे/हमारे द्वारा जो सेवा/मालं सप्लाई/संकर्म किये जायेंगे, उसमे वर्तमान खुली बोली की प्रस्तुत दरों से कम दरों पर किसी भी विभाग, निगम, बोर्ड, अन्य स्वायत्तशापी संस्था आदि मे समान तरह के संकर्म नहीं किये जायेंगे और यदि कम दरों पर ऐसे संकर्म किये जाते है तो दरे स्वतः ही उस तिथि से तदनुसार ही Downward संशोधित मानी जाएगी।

बिडदाता का नाम एवम हस्ताक्षर मय मोहर

मोबाइल नंबर

ईमेल

**ANNEXURE-7**

*FORM NO.1 [See rule 83 of RTPP]*

Memorandum of Appeal under the Rajasthan Transparency in Public Procurement Act, 2012

Appeal No.....of.....

Before the.....(First/Second Appellate Authority)

**1. Particulars of Appellate:**

- (i) Name of the Appellate:
- (ii) Official Address, if any:
- (iii) Residential address:

**2. Name and address of the respondent (S):**

- (i)
- (ii)
- (iii)

3. Number and date of the order appealed against and name and designation of the officer/authority who passed the order (enclose copy), or a statement of a decision, action or omission of the Procuring Entity in contravention to the provisions of the Act by which the Appellate is aggrieved:

4. If the Appellate proposes to be represented by a representative, the name and postal address of the representative:

5. Number of affidavits and documents enclosed with the appeal:

6. Ground of appeal:

.....  
.....  
.....  
.....(Supported by an affidavit)

7. Prayer:

.....  
.....  
.....  
.....

Place:.....Date:.....

**Appellate Signature**

- 1. First Appellate Authority: **Vice Chancellor, SKNAU, Jobner.**
- 2. Second Appellate Authority: **Principal Secretary, Agriculture.**





AGREEMENT NO.....

Year.....

OFFICE OF ESTATE OFFICE  
SRI KARAN NARENDRA AGRICULTURE UNIVERSITY, JOBNER

Sub - Division.....

Name of Work.....

Name of Contractor.....

Sanction No..... Dt..... Ra.....

Technical Sanction No.....

Job No.....

(a) Stipulated Date of Start of work.....

(b) Stipulated Date of Completion of Work.....

(c) Actual Date of Completion.....

Extension applied on & Sanctioned.....

Vide : Estate officer order No..... Dt..... 201.....

Details of Documents

Page

(a) Percentage Rate Tender R.P.W.A. 100  
(See rule 322 & notes 1 below rule 331)

(b) Schedule A to F

(c) Schedule H

(d) Schedule G

(e) Schedule

(f) General Specification and Conditions of Contract

(g) Contractor's Labour Regulations

(h) .....

(i) .....

No.

Date

Copy forwarded to :

1. Comptroller S.K.N.A.U. Jobner,

2. The Accounts Officer/

3. The Assistant Engineer/JEN Shri.....

4. Auditor

5. Shri/M/s..... Contractor

Amended Up to 10.03.2010

**SRI KARAN NARENDRA AGRICULTURE UNIVERSITY, JOBNER**  
**OFFICE OF THE ESTATE OFFICER**  
**NOTICE INVITING TENDERS FOR WORKS**

1. Tenders are hereby invited on behalf of the vice chancellor, Sri Karan Narendra Agriculture University, Jobner for the work of ..... from enlisted contractors of the appropriate class. Contractor's enlisted with CPWD, PWD, Postal, Telecom, Railway, MES, other State Governments/Central Government Undertakings/Organisations equivalent to 'AA' and 'A' Class of Rajasthan are also eligible after giving prescribed Earnest Money to tender for works as under :
  - (i) Contractors equivalent to 'AA' Class of Rajasthan Works of which cost exceeds Rs. 1.5 crores
  - (ii) Contractors equivalent to 'A' Class of Rajasthan Works of which cost exceeds Rs. 1.5 crores but not exceed Rs. 3.00 crores.
2. Contract document consisting of the detailed plan, complete specifications, the schedule of the quantities of the various classes of work to be done and the set of conditions of contract to be complied with by the persons whose tender may be accepted, which will also be found printed in the form of tenders, can be seen at the office of the Estate Officer, SKW/AAU, Jobner on any working day during office hours.
3. Tenders, which should always be placed in sealed covers with the name of the work written on the envelopes, will be received by the Estate Officer, SKW/AAU, Jobner up to ..... am/pm (time) on the ..... (date) and will be opened by him in his office at ..... am/pm (time) on ..... (date) in the presence of such Contractors or their authorised representatives, as are present.
4. Tenders are to be submitted on prescribed form which can be obtain from the office of the Estate Officer, SKW/AAU, Jobner on payment of a sum of Rs. .... In cash or by demand draft. The sale of tender forms will start at least ..... days before the date of receipt of tenders. The sale of tender will be closed one day before actual time of receipt of tender. Before submitting tenders, it should be ensured that all the tender papers including Conditions of Contract are signed by the tenderer. Eligibility to get tender forms shall be with reference of the amount mentioned in the NIT.
5. The work is to be completely finished to the satisfaction of the engineer in charge within ..... months from the 10<sup>th</sup> day after the date of written order to commence the work.
6. Earnest Money amounting Rs. .... must accompany each tender, and each tender is to be in a sealed cover, superscribed "Tender for ....." and addressed to the Estate Officer, Sri Karan Narendra Agriculture University, Jobner. Earnest Money in bankers cheque in the name of officer inviting tender or Demand Draft of Nationalised/Scheduled Banks, should be deposited with the cashier or authorised clerk and his receipt should be attached with tenders. In case of tenders for works of which tendered cost is Rs. 5 crores and above, Earnest Money of Rs. 10 lac. shall be accepted in cash as above and remaining part of Earnest Money can be accepted either in the form of Bank Guarantee (Form RPWA 87) or in cash. Enlisted contractors shall be required to deposit 1/2% of estimated cost of work as Earnest Money while tendering within their enlistment zone. For outside their zone, 2% Earnest Money shall be required to be deposited.
7. The security deposit @ 10% of the gross amount of the running bill shall be deducted from each running bill and shall be refunded as per rules on completion of the contract as per terms and conditions. However, the amount of security deposit deducted from running bills shall not be converted into any mode of securities like bank guarantee, FDR etc. The earnest money deposited shall however be adjusted while deducting security deposit from first running bill of the contractor. There will be no maximum limit of security deposit. However a contractor may elect to deposit full amount of security deposit in the shape of bank guarantee or any acceptable form of security before or at time of executing agreement. In that case E.M. may be returned only after deposition of full 100% as above, However in case during execution cost of work exceeds as shown at the time of depositing 10% as above, balance security deposit shall be deducted from the Running Account Bills.

1

AS

5

8. The acceptance of the tender will rest with the Competent Authority who does not bind it self to accept the lowest tender, and reserves to itself the authority to reject any or all of the tenders received without assigning any reason.
9. Tender forms as issued from the office(s) mentioned above (Para 4), must be returned, with all enclosures, to the Estate Officer, SKW/ AU, Jabner on the date of receipt of tenders. :
10. No refund of tender fees is claimable for tenders not accepted or forms returned or for tenders not submitted.
11. The tenders for works shall remain open for acceptance for the period as given below from the date of opening of financial bid :

1.	For tender to be accepted by Estate Officer	45 days
2.	For tender to be accepted by Building Committee	60 days
✓ 3.	For tenders to be accepted by Building Council	90 days

Note :- Communication of acceptance of tender shall also be within the above limits.

If any tenderer withdraws his tender prior to expiry of said validity period or mutually extended period or makes modifications in the rates, terms and conditions of the tender within the said period. Which are not acceptable to the department, or fails to commence the work in the specified period/ fails to execute the agreement the department shall, without prejudice to any, other right or remedy, be at liberty to forfeit the amount of earnest money given in any form absolutely. If any contractor, who having submitted a tender does not execute the agreement or start the work or does not complete the work and work has to be put to retendering, he shall stand debarred from participating such retendering in addition to forfeiture of Earnest Money/Security Deposit and other action under agreement.

12. All tenders, in which any of the prescribed conditions are not fulfilled or which have been vitiated by errors in calculations totalling or other discrepancies or which contain over-writing in figures or words or corrections not initialed and dated, will be liable to rejection.
13. Enlisted Contractors, will be required to pay Earnest Money @ 1/2% of estimated cost of work put to tender, in case of work for which they are authorised to tender under Rules for enlistment of contractors, but the amount to the extent of full Earnest money shall be liable to be forfeited in the event of circumstances explained in Clause 11 above. Degree/Diploma holder Engineers may pay Earnest Money equal to one half of the normal rates, subject to the provisions of Rules for enlistment of Contractors.
14. The tender should be accompanied with income Tax and Sales Tax Clearance Certificates from the concerned departmental authorities, without which the tenders may not be entertained.
15. The whole work, may be split up between two or more contractors or accepted in part and not in entirely if considered expedient.

Signature of the Estate officer  
for and on behalf of the Vice Chancellor SKW/ AU

Jabner

## CONTRACT FOR WORK

### GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS

1. All works proposed for execution by Contract, will be notified in a form of invitation to tender pasted on public places and on a board hung up in the office of and signed by the Estate officer or other duly authorised Engineer. The form of invitation to tender will state the work to be carried out, as well as the date of submitting and opening of tenders and the time allowed for carrying out the work, also the amount of Earnest Money to be deposited with the tender and the amount of the Security Deposit to be deposited by the successful tenderers and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and estimated rates/scheduled rates and any other documents required in connection with the work signed for the purpose of identification by the Estate officer shall be open for inspection by the Contractor at the office of the Estate officer or other duly authorised Engineer during office hours.
2. In the event of the tender being submitted by a firm, it must be signed separately by each partner, thereof, or in the event of the absence of any partner, it must be signed on his behalf, by a person holding a Power of Attorney, authorising him to do so. Such power of Attorney will be submitted with the tender and it must disclose that the firm, is duly registered under the Indian Partnership Act, by submitting the copy of registration certificate.
3. Receipts for payments, made on account of a work when executed, by a firm must also be signed by the several partners, except where the contractor are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners or by some other person having authority to give effectual receipts for the firm.
4. Any person, who submits percentage rate tender, shall fill up the usual printed form stating at how much percent above or below the rates specified in Schedule G, he is willing to undertake the work. Only one rate of percentage, more or less, on all the estimated rates/scheduled rates shall be mentioned. Tenders, which propose any alteration in the work, specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, will be liable to rejection. No single tender shall include more than one work, but Contractors, who wish to tender for two or more works, shall submit a separate tender for each work. Tenders shall have the name and number of work, to which they refer, written outside the envelope.
5. The Estate officer or other duly authorised Engineer will open the tenders in the presence of any contractor(s) or their authorised representatives who may be present at the time, and will announce and enter the rates/amounts of all tenders in the Register of Opening of Tenders, (Form FPWA 20A). In the event of the tender being accepted, a receipt for the Earnest Money deposited shall be given to the contractor, who shall sign copies of the specifications and other documents mentioned in Rule 1. In the event of a tender being rejected, the Earnest Money forwarded with such unaccepted tenders shall, be returned to the Contractor making the same.
6. The Estate officer or any other duly authorised Engineer shall have the right of rejecting all or any of the tender without assigning any reason.
7. The receipt of an Accountant, Cashier or any other official, not authorised to receive such amount, will not be considered as an acknowledgment of payment to the Estate officer or other duly authorised Engineer.
8. The memorandum of work tendered for, memorandum of materials and of tools and plant to be supplied by the Department and their rates, shall be filled in and completed in the office of the Estate officer or duly authorised Engineer before the tender form is issued.
9. If it is found that the tender is not submitted in proper manner, or contains too many corrections and or unreasonable rates or amounts, it would be open for the Estate officer not to consider the tender, forfeit the amount of earnest money and/or delist the contractor.
10. The tenderer shall sign a declaration under the Official Secrets Act for maintaining secrecy of the tender documents, drawings or other records connected with the work given to him in form given below. The unsuccessful tenderers shall return all the drawings given to them.

**Declaration :**

"I/We hereby declare that I/We shall treat the tender documents, drawings and other records, connected with the work, as secret confidential documents, and shall not communicate information derived therefrom to any person other than a person to whom I/We am/are authorised to communicate the same or use the information in any manner prejudicial to the safety of the same."

11. Any percentage rate tender containing item-wise rates, and any item rate tender containing percentage rate below or above estimated / scheduled rates, will be summarily rejected. However, if a tenderer voluntarily offers a rebate for payment within a stipulated period, this may be considered.
12. On acceptance of the tender, the name of the accredited representative(s) of the contractor (with a photograph and signature attested), who would be responsible for taking instructions from the Engineer in charge, shall be communicated to the E.O.
13. Sales tax or any other tax on materials, or Income Tax in respect of the contract shall be governed by Clause 38 A, B, C and D of the Conditions of Contract. Deduction of Income Tax at source will be made as per provisions of the Income Tax Act, in force from time to time.
14. The tender to work shall not be witnessed by a Contractor or contractors who himself/himself has/have tendered or who may and has/have tendered for the same work. Failure to observe the secrecy of the tenders will render tenders of the contractors, tendering as well as witnessing the tender, liable to summary rejection.
15. If on check there are discrepancies the following procedure shall be followed.
  - (i) Where there is a difference between the rates in figures and words, lower of the two rates shall be taken as valid and correct rate.
  - (ii) When the rate quoted by the contractor in figures and in words tallies, but the amount is not worked out correctly, the rate quoted by the contractor shall be taken as correct and not the amount worked out.
  - (iii) While quoting rates, if rate/rates against any item or items are found to be omitted, the rate given in the Schedule 'G' by the department for such items will be taken into account while preparing comparative statement and contractor shall be bound to execute such item on 'G' Schedule rates.
  - (iv) In case where percentage is given but the 'above' or 'below' not scored, the tender will be non-responsive.
16. The Contractor shall comply with the provisions of the Apprenticeship Act, 1961, and the rules and orders issued there under, from time to time. If he fails to do so, his failure will be a breach of the contract and the original sanctioning authority in his discretion may cancel the contract. The Contractor shall also be liable for any pecuniary liability arising on account of violations by him of the provisions of the Act.
17. The Contractor shall read the specifications and study the working drawings carefully before submitting the tender.
18. The site for execution of the work will be made available as soon as the work is awarded. In case, it is not possible for the Department to make the entire site available on the award of the work, the Contractor shall arrange his working programme accordingly. No claim, whatsoever, for not giving the site in full on award of the work or for giving the site gradually in parts will be tenable. The contractor may satisfy himself regarding site, acquisition of land, approach roads etc.
19. The tender documents show already the specific terms and conditions on which tenders are required by the University, hence, all tenders should be in strict conformity with the tender documents and should be fulfilled in, wherever necessary, and initiated incomplete tenders are liable to be rejected. The terms and conditions of the tender documents are firm, as such conditional tenders are liable to be rejected.
20. The tenderer, while submitting tender, must provide adequate information regarding his financial, technical and organisational capacity and working experience to execute the work of the nature and magnitude.
21. The Estate officer or other duly authorised Engineer reserves the right to ask for submission of samples as in respect of material for which the tenderer has quoted his rates before the tender can be considered for acceptance. If the tenderer, who is called upon to do so, does not submit within seven days of written order to do so, the E.O. shall be at liberty to forfeit the said earnest money absolutely.

22. The Contractor shall submit the list of the works, which are in hand (progress), in the following form:

Name of work	Name and Particular of the Sub Division/Division, Where work is being executed	Amount of work	Position of works in progress	Remarks
1	2	3	4	5

23. The Contractor should quote his rates only in one language i.e. either in Hindi or English. Rates should be quoted in figures as well as in words. In case a Contractor has quoted rates in both the languages, and the rates so quoted differ, then the lower of the two shall be treated as the rate quoted by the Contractor.
24. All additions, deletions, corrections and overwritings, must be serially numbered and attested by the Contractor at every page, so also by the officer opening the tenders, so as to make further disputes impossible on this score.
25. After acceptance of the tender, the Contractor or all partners (In the case of partnership firm), will append photographs and signatures duly attested, at the time of execution of agreement.
26. If any contractor, who having submitted a tender does not execute the agreement of start the work or does not complete the work and the work has to be put to retendering, he shall stand debarred from participating in such retendering in addition to forfeiture of Earnest Money/Security Deposit and other action under agreements.
27. The tender documents shall be issued to those contractors only having valid enlistment as on the date of issue of documents.
28. (a) If a tenderer reduces the rates voluntarily after opening of the tenders/negotiations, his offer shall stand cancelled automatically, his earnest money shall be forfeited and action for debarring him from business shall be taken as per enlistment rules.  
 (b) If a non-tenderer offers lower rates after opening of tenders, action for debarring him from business shall be taken as per enlistment rules.
29. Contractors shall submit only unconditional tenders. Conditional tenders are liable to be rejected summarily.

**Tender for works**

I/We hereby tender for the execution for the Vice Chancellor of the SKNAU of the work specified in the underwritten memorandum within the time specified such memorandum at the rates, (in figures).....% (as well as in words) ..... percent below/above the amount, entered in the schedule 'G' in all respects in accordance with the specification, design drawings and instruction in writing referred in rule 1 in all respect accordance with such conditions so far as applicable. I/We have visited the site of work and am/are fully aware of all the difficulties and conditions likely to affect carrying out the work. I/We have fully acquainted myself/ourselves about the conditions in regard to accessibility of site and quarries/kilns, nature and the extent of ground, working conditions including stacking, of materials, installation of tools & plant, conditions effecting accommodation and movement of labour etc. required for the satisfactory execution of contract.

**Memorandum**

- (a) General description of work.....
- (b) Estimated cost Rs.....
- (c) Earnest Money Rs..... @ 2% for enlisted contractor outside the SKNAU and 1/2% for enlisted in E.O. SKNAU.
- (d) Security Deposit :

(i) "The security deposit @ 10% of the gross amount of the running bill shall be deducted from each running bill and shall be refunded as per rules on completion of the contract as per terms and conditions. However, that amount of security deposit deducted from running bills shall not be converted into any mode of securities like bank guarantee, FDR etc. The earnest money deposited shall however be adjusted while deducting security deposit from first running bill of the contractor. There will be no maximum limit of security deposit.

(ii) However, a contractor may elect to deposit of full amount to 10% security deposit in the shape of bank guarantee or any acceptable form of security before or at the time of executing agreement. In that case earnest money may be refunded only after deposition of full 10% as above, However, in case during execution cost of work exceeds as shown at the time of depositing 10% as above, balance security deposit shall be deducted from the Running Account Bills."

(iii) Bank Guarantee shall in all cases be payable at the tenderer.

- (e) Time allowed for the completion of work (to be reckoned from the 10th day after the date of written order to commence the work) is ..... months. Should this tender be accepted in whole or in part, I/We hereby agree to abide by and fulfill all the terms and provision of the conditions of contract annexed hereto and of the Notice Inviting Tender, or in default thereof, to forfeit and pay to the Vice Chancellor SKNAU or his successors in office, the sum of money mentioned in the said conditions. A sum of Rs..... is for warded herewith is the form of Cash, Bank-draft, Bankers cheque as Earnest Money.

This amount of E.M. Shall absolutely be forfeited to the Vice Chancellor SKNAU or his successor in office without prejudice to any other right or remedies the Vice chancellor of SKNAU or his successor in his office, should I/we fail to commence the work specified in the above memorandum.

Signature of Witness  
Witness address & occupation

Signature of Contractor  
Address of Contractor

Date : .....

The above tender is hereby accepted by me on behalf of the  
vice chancellor, S.K. Naik Agriculture University, Jabalpur.

Date : .....

Estate Officer

## CONDITIONS OF CONTRACT

### Clause 1 : Security Deposit :

"The security deposit @ 10% of the gross amount of the running bill shall be deducted from each running bill and shall be refunded as per rules on completion of the contract as per terms, and conditions. However, the amount of security deposit deducted from running bills shall not be converted into any mode of securities like bank guarantee, FDR etc. The earnest money deposited shall however be adjusted while deducting security deposit from first running bill of the contractor. There will be no maximum limit of security deposit.

However, a contractor may elect to deposit full amount of 10% security deposit in the shape of bank guarantee or any acceptable form of security before or at the time of executing agreement. In that case earnest money may be refunded only after depositing of full 10% as above. However, in case during execution cost of work exceeds as shown at the time of depositing 10% as above, balance security deposit shall be deducted from the Running Account Bills."

All compensation or other sums of money payable by the Contractor to University under the terms of his contract may be deducted from or paid by the sale of a sufficient part of his Security Deposit, or from interest arising therefrom, or from any sums, which may be due or may become due to the Contractor by the University on any account whatsoever, and in the event of his Security Deposit being reduced by reason of any such deduction on sale as aforesaid, the Contractor shall within ten days thereafter, make good in cash or Bank Guarantee or Nationalised/Scheduled bank, an aforesaid any sum of sums which may have been deducted from or raised by sale of his Security Deposit or any part thereof.

In case of Bank Guarantee of any Nationalised/Scheduled Bank is furnished by the Contractor to the University, as part of the Security Deposit and the bank goes into liquidation or, for any reason, is unable to make payment against the said Bank Guarantee, the loss caused thereby shall fall on the Contractor and the Contractor shall forthwith, on demand, furnish additional security to the University to make good the deficit.

The liability or obligation of the bank under the Guarantee Bond shall not be affected or suspended by any dispute between the Estate officer and the Contractor, and the payment, under the Guarantee Bond by the bank of the university shall not wait till disputes are decided. The bank shall pay the amount under the Guarantee, without any demur, merely on a demand from the University stating that the amount claimed is required to meet the recoveries due or likely to be due from the Contractor. The demand, so made, shall be conclusive as regards, to amount due and payable by the bank, under the guarantee limited to the amount specified in the guarantee Bond. The guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

The Bank Guarantee shall remain valid upto the specified date unless extended on demand by the Estate officer, which shall include the period of completion of the contract and the defect removal period as per terms of the Agreement. Bank's liability shall, stand automatically discharged unless a claim in writing lodged with the Bank within the period stated in the Bank Guarantee including the extended period. After satisfactory completion of the contract and clearance of all dues by the contractor, the Estate officer or duly authorised Engineer will discharge the Bank Guarantee after expiry of the original or the extended period, as the case may be. In case the date of expiry of the Bank Guarantee is a holiday, it will be deemed to expire on the close of the next working day.

University is not concerned with any interest accruing to the Contractor on any form of Security (primary or collateral) lodged by him with the Bank or any sums payable to sureties obtained by the Bank as counter guarantee to secure its own position. These will be the matters between the Bank and the Contractor.

### Clause 2 : Compensation for delay :

The time allowed for carrying out the work, as entered in the tender, shall be strictly observed by the Contractor and shall be reckoned from the 10th day after the date of written order to commence the work given to the Contractor. If the contractor does not commence the work within the period specified in the work order, he shall stand liable for the forfeiture of the amount of Earnest Money and Security Deposit. Besides, appropriate action may be taken by the Estate officer to debar him from taking part in future tenders for a specified period or black list him. The contractor shall, throughout the stipulated period of completion of the contract, be proceeded with all due diligence, time being essence of the contract, on the part of the contractor. To ensure good progress during the execution of work, the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month (save for special jobs), to complete 1/8th of the whole of the work before 1/4th of whole time allowed under the contract has elapsed, 3/8th of the work before 1/2 of such time has

elapsed and 3/4th of the work before 3/4 of such time has elapsed. If the contractor fails to complete the work in accordance with this time schedule in terms of cost in money, and the delay in execution of work is attributable to the contractor, the contractor shall be liable to pay compensation of the University at every time span as below :-

A. Time Span of full	1/4th	1/2th	3/4th	Full
Stipulated period	(.....days)	(.....days)	(.....days)	(.....days)
B. Work to be completed in terms of money	1/8th	3/8th	3/4th	Full
	(Rs.....)	(Rs.....)	(Rs.....)	(Rs.....)
C. Compensation payable by the contractor for delay attributable to the contractor at the stage :	2.5% of Scheduled Work remained unexecuted on the last day of (1/4) time span	5% of Scheduled Work remained unexecuted on the last day of (1/2) time span	7.5% of Scheduled Work remained unexecuted on the last day of (3/4) time span	10% of Scheduled Work remained unexecuted on the last day of contracted full period

**Note :** In case delayed period over a particular span is split up and is jointly attributable to university and contractor the competent authority may reduce the compensation in proportion of delay attributable to university over entire delayed over that span after clubbing up the split delays attributable to university and this reduced compensation would be applicable over the entire delayed period without paying any escalation. Following illustration is given first time span of 8 months, delay is of 30 days which is split over as under :-

5 days (attributable to government) + 5 days (attributable to contractor) + 5 days (attributable to government) + 5 days (attributable to contractor) + 5 days (attributable to government) + 5 days (attributable to contractor). Total delay is thus clubbed to 15 days (attributable to government) and 15 days (attributable to contractor). The normal compensation of 30 days as per clause 2 of agreement is 2.5% which can be reduced as  $2.5 \times 15/30 = 1.25\%$  over 30 days without any escalation by competent authority.

The contractor shall, further, be bound to carry out the work in accordance with the date and quantity entered in the progress statement attached to the tender.

In case the delay in execution of work is attributable to the contractor, the spanwise compensation, as laid down in this clause shall be mandatory. However, in case the slow progress in the one time span is covered up within original stipulated period, then the amount of such compensation levied earlier shall be refunded. The price escalation, if any, admissible under clause 45 of Conditions of Contract would be admissible only on such rates and cost of work, as would be admissible if work would have been carried out in that particular time span. The Engineer-in-charge shall review the progress achieved in every time span, and grant stagewise extension in case of slow progress with compensation, if the delay is attributable to contractor, otherwise without compensation.

However, if for any special job, a time schedule has been submitted by the Contractor before execution of the agreement, and it is entered in agreement as well as same has been accepted by the Estate officer, the Contractor shall complete the work within the said time schedule. In the event of the Contractor failing to comply with this condition, he shall be liable to pay compensation as prescribed in foregoing paragraph of this clause provided that the entire amount of compensation to be levied under the provisions of this Clause shall not exceed 10% of the value of the contract. While granting extension in time attributable to the University reasons shall be recorded for each delay.

#### Clause 8 : Risk & Cost Clause :

The Estate officer the Competent Authority defined under rules may, without prejudice to his rights against the Contractor, in respect of any delay or inferior workmanship or otherwise, or to any claims for damages in respect of any breaches the contract and without prejudice to any rights or remedies under any of the provision of this contract of otherwise, and whether the date for completion has or has not elapsed, by notice in writing, absolutely determine the contract in any of the following cases :-

- (i) If contractor having been given by the Estate officer, a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in any inefficient or otherwise improper or unworkmanlike manner, shall omit to comply with the requirements of such notice for a period of seven days, thereafter, or if the Contractor shall delay or suspend the execution of the work so that either in the judgment of Estate officer (which shall be final and binding) he will be unable to secure completion of the work by the date for completion of he has already, failed to complete the work by that date.
- (ii) If the Contractor, being a company, shall pass a resolution or the Court shall make an order that the company shall be wound up or if a receiver or a manager, on behalf or a creditor, shall be appointed or if circumstances shall arise, which entitle the Court or Creditor to appoint a receiver or a manager or which entitle the Court to make a winding up order.
- (iii) If the contractor commits breach of any of the terms and conditions of this contract.
- (iv) If the Contractor commits any acts mentioned in Clause 19 here of :  
When the Contractor has made himself liable for action under any of the cases aforesaid, the Estate officer on behalf of the Vice Chancellor of SIC/IAU shall have powers.
- (a) To determine or rescind the contract, as aforesaid (of which determination or rescission notice in writing to the Contractor under the hand of the Estate officer shall be conclusive evidence) upon such determination or rescission, the earnest money, full security deposit of the contract shall be liable to be forfeited and shall be absolutely at the disposal of the university.
- (b) To employ labour paid by the university and to supply materials to carry out the work or any part of the work, debiting the Contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certified by the Estate officer shall be final and conclusive against the Contractor and crediting him with the value of the work done in all respects in the same manner and at the same rates, as if it had been carried out by the contractor under the terms of this contract. The certificate of the Estate officer, as to the value of the work done, shall be final and conclusive evidence against the Contractor provided always that action under the sub-clause shall only be taken after giving notice in writing to the Contractor. Provided also that if the expenses incurred by the department are less than amount payable to the Contractor at his agreement rates, the difference shall not be paid to the Contractor.
- (c) After giving notice to the Contractor to measure up the work of the Contractor and to take such part thereof, as shall as unexecuted out of his hands and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original Contractor, if the whole work had been executed by him (if the amount of which excess, the certificate in writing of the Estate officer shall be final and conclusive) shall be borne and paid by the original Contractor and may be deducted from any money due to him by university, under this contract or on any other account, whatsoever, or from his Earnest Money, Security Deposit, Enlistment Security or the proceeds of sale thereof, or a sufficient part thereof as the case may be. In the event of any one or more of the above courses being adopted by the Estate officer, the Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of contract. And, in case action is taken under any of provisions aforesaid, the Contractor shall not be entitled to recover or be paid, any sum for any work thereof or actually performed under this contract unless and until the Estate officer has certified, in writing, the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

**Clause 4 : Contractor remains liable to pay compensation, if action not taken under Clause : 3**

- (i) In any case in which any of the powers conferred by Clause 3 hereof, shall have become exercisable and the same shall have not been exercised, the non-exercise, thereof, shall not constitute waiver of any of the conditions hereof, and such power shall, not with standing, be exercisable in the event of any future case of default by the Contractor for which, by any clause or clauses hereof, he is declared liable to pay compensation amounting to the, whole of his Security Deposit/Earnest Money/Enlistment Security and the liability of the Contractor for past and future compensation shall remain unaffected.

**Power to take possession of, or require removal, sale of Contractor's Plant :**

- (ii) In the event of the Estate officer putting in force, powers vested in him under the proceeding, **clause 3 he may**, if he so desires, take possession of all or any tools, plants, materials and stores, in or upon the works or the site, thereof, or belonging to the contractor or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in account, at the contract rates, or in case of these not being applicable, at current market rates, to be certified by the Estate officer or duly authorized Engineer (whose certificate, thereof, shall be final and conclusive), otherwise require him to remove such tools, plant, materials or stores from the premises (within a time to be specified in such notice), and in the event of the Contractor failing to comply with any requisition, the Estate officer or other duly authorized Engineer may remove them at the Contractor's expenses sell them by auction or private sale on account of the Contractor and at his risk in all respects, and the certificate of the Estate officer or other duly authorized Engineer, as to the expenses of any such removal, and the amount of the proceeds and expense of any such sale **shall be final and conclusive** against the Contractor.

**Clause 5 : Extension of Time :**

If the Contractor shall desire an extension of time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds, he shall apply, in writing, to the Estate officer within 30 days of the date of the hindrance, on account of which he desires such extension as aforesaid, and the Authority Competent to grant extension under the rules/delegations of powers or other duly authorized Engineer shall, if in his opinion, (which shall be final) reasonable grounds be shown therefor, authorize such extension of time, if any, as may, in his opinion, be necessary or proper, if the period of completion of contract expires before the expiry of the period of one month provided in this Clause, the application for extension shall be made before the expiry of the period stipulated for completion of the contract. The competent authority shall grant such extension at each such occasion within a period of 30 days of receipt of application from contractor and shall not wait for finality of work. Such extensions shall be granted in accordance with provisions under clause (2) of this agreement.

**Clause 5 A : Monthly Return of Extra Claims :**

Contractor has to submit a return every month for any work claimed as extra. The Contractor shall deliver the return in the office of the Estate officer and obtain Receipt Number of the Receipt Register of the day on or before 10th day of every month during the continuance of the work covered by this contract, a return showing details of any work claimed as extra by the contractor which value shall be based upon the rates and prices mentioned in the contract or in the Schedule of Rates in force in the District for the time being. The contractor shall be deemed to have waived all claims, not included in such return, and will have no right to enforce any such claims not included, whatsoever be the circumstances.

**Clause 6 : Final Certificate :**

On completion of the work, the Contractor shall send a registered notice of the Estate officer giving the date of completion and sending a copy of it to the officer accepting the contract, on behalf of the Vice chancellor and shall request the Estate officer to give him a certificate of completion, but no such certificate shall be given nor shall the work be considered to be complete until the contractor shall have removed from the site on which the work shall be executed, all scaffolding, surplus materials and rubbish and cleared off the dirt from all wood work, doors, walls, floors, or there parts of any building in, upon or about which the work is to be executed or of which he may have possession for the execution thereof, he had filled up the pits. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and cleaning off dirt and filling of pits on or before the date fixed for completion of the work, the Engineer-in-charge may, at the expense of the contractor remove such scaffolding, surplus materials and the rubbish and dispose of the same, as he thinks fit, and clean off such dirt and fill the pits as aforesaid, and the contractor shall forthwith pay the amount of all expenses, so incurred, and shall have no claim in respect of any such

scaffolding or surplus materials, as aforesaid, except for any such actually realized by the sale thereof. On completion, the work shall be measured by the Estate officer himself or through his subordinates, whose measurements shall be binding and conclusive against the contractor. Provided that, if subsequent to the taking of measurements by the subordinate as aforesaid, the Estate officer had reason to believe that the measurements taken by his subordinates and acknowledged by the Contractor and to take measurements again, after giving reasonable notice to the Contractor, and such re-measurements shall be binding on the Contractor.

Within ten/thirty days of the receipt of the notice, Estate officer shall inspect the work and if there is no visible defects on the face of the work, shall give the contractor a certification. If the engineer incharge find that the work has been fully completed it shall be mentioned in the certificate so granted. If, on the other hand, it is found that there are certain visible defects to be removed, the certificate to be granted by Estate officer shall specifically mention the details of the visible defects along with the estimate of the cost for removing there defects. The final certificates of the work shall be given after the the visible defects pointed out as above have been removed.

(Delete whichever is not applicable). (Ten days will apply to works at the headquarters of Estate officer and thirty days for works at other place.)

**Clause 7 : Payment on Intermediate Certificate to be regarded as advance :**

No payments shall be made for works estimated to cost less than rupees twenty five thousand, till after the whole of the works shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than Rupees twenty five thousand, the contractor shall on submitting the bill therefor, be entitled to receive a monthly payment proportionate of the part, thereof, then approved and passed by the Estate officer whose certificate of such approval and passing of sum, so payable, shall be final and conclusive. Running Account Bill shall be paid within 15 days from presentation. But all such intermediate payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad unsound and imperfect or unskillful work to be removed and taken away and re-constructed or re-erected, or considered as an admission of the due performance of the contract, or any part thereof, in any respect, or the accruing of any claim, nor shall it conclude, determine, or effect in any way the powers of the Estate officer under these conditions or any of them to the final settlement and adjustment of the accounts of otherwise or in any other way vary of the effect the contract. The final bill shall be made/submitted by the Contractor within one month of the date fixed or completion of the work otherwise the Estate officer, certificate of the measurements and of the total amount payable for the work accordingly shall be final and binding on all parties.

**Clause 7 A : Time Limit for Payment of Final Bills :**

The final bill shall be paid within 3 months on presentation by the contractor after issuance of final completion certificate in accordance with clause 6 of the conditions of contract. If there shall be any dispute about any items of the work, then the undisputed item(s) only, shall be paid within the said period of 3 months. If a final bill (which contains no disputed item or disputed amount of any item) is not paid within the period of 3 months from presentation of final bill or 6 months from the date of receipt of registered notice regarding completion of work in accordance with clause 6 of the condition of the contractor the defects, if any shall be brought to the notice of the higher authority. The period of 3 months shall commence from the date of rectification of the defects. The higher authority shall ensure that in no case final bill should be left unpaid after 9 months from the receipt of, registered notice regarding completion of work. The contractor shall submit a memorandum of the disputed items along with justification in support within 30 days from the disallowance thereof, and if he fails to do so, his claims shall be deemed to have been fully waived and absolutely extinguished.

**Clause 8 : Bills to be submitted monthly :**

A bill shall be submitted by the Contractor each month or on before the date fixed by Estate officer for all work executed in the previous month and the Estate officer shall take or cause to be taken the requisite measurement for the purpose of having the same verified and the claim, as far as admissible, authorized or paid, if possible, before the expiry

of ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed, as aforesaid the Estate officer may deput a subordinate to measure up the said work in the presence of the Contractor, whose signature in the Measurement Book will be sufficient warrant and the Estate officer prepare a bill from such Measurement Book, which shall be binding on the Contractor in all respects.

**Clause 8 A : Contractor to be given time to file objection to the Measurements, recorded by the Department :**

Before taking any measurement of any work, as have been referred to in preceding Clauses 6, 7 & 8 the Estate officer or subordinate, deput by him shall give reasonable notice to the contractor. If the contractor fails to be present at the time of taking measurements after such notice or fails to sign or to record the difference within a week from the date of measurement in the manner required by the Estate officer, then in any such event, the measurements taken by the Estate officer or by the subordinates deput by him, as the case may be, shall be final and binding on the Contractor and the Contractor shall have no right to dispute the same.

**Clause 9 : Bill to be on printed forms :**

The Contractor shall submit all bills on the printed forms, to be had on application, at the office of the Estate officer and the charges in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the tender at the rates herein after provided for such work.

**Clause 9 A : Payment of Contractor's Bills to Banks :**

Payments due to the Contractor may if so desired by him, be made to his Bank instead of direct to him, provided that the contractor has furnished to the Estate officer (i) an authorization in the form of a legally valid document, such as a Power of Attorney conferring authority on the Bank or receive payments, and (ii) his own acceptance of the correctness of the account made out, as being due, to him, by University or his signature on the bill or other claim preferred against University before settlement by the Estate officer of the account or claim, by payment to the Bank, While the receipt given by such bank shall constitute a full and sufficient discharge for the payment; the Contractor should, whenever possible, present his bill duly receipted and discharged through his banker. Nothing, herein contained, shall operate to create in favour of the Bank any rights vis-a-vis the Vice Chancellor.

**Clause 10 : Stores supplied by Government :**

If the specification or estimate of the work provides for the use of any special description of material, to be supplied from Estate officer stores, or if, it is required that contractor shall use certain stores to be provided by the Estate officer specified in the schedule or memorandum hereto annexed, the Contractor shall be bound to procure and shall be supplied such materials and stores as are, from time to time, required to be used by him for the purpose of the contract only, and the value of the full quantity of materials and stores, so supplied, at the rates specified in the said schedule or memorandum, may be set off or which may be deducted from any sum, then due or thereafter become due, to the contractor under the contract or otherwise or against or from the Performance Guarantee and or Security Deposit or the proceeds of sale, if the same is held in university securities, the same on a sufficient portion thereof being in this case, sold for this purpose. All material supplied to the contractor, either from departmental store or with the assistance of the university shall remain the absolute property of University. The Contractor shall be the trustee of the Stores/Materials, so supplied/procured, and these shall not, on any account be removed from the site of work and shall be, all times, open to inspection by the Estate officer. Any such material, unused and in perfectly good condition at the time of completion or determination to pay the price of such materials in accordance with the provision of Clause 10 B ibid. But the Contractor shall not be entitled to return any such materials, unless with such consent, and shall have no claim for compensation on account of any such materials, so supplied to him as aforesaid being unused by him, or for any wastage in or damage to any such materials. For the stores returned by the contractors, he shall be paid for at the price originally excluding storage charges, in case of materials supplied from departmental stores and actual cost including freight, cartage, taxes etc., paid by the Contractor

in case of supplies received with the assistance of University which, however, should in no case exceed market rate prevailing at the time the materials are taken back. The decision of the Estate officer, as to the price of the stores returned, keeping in view its conditions etc., shall be final and conclusive. In the event of breach of the aforesaid condition, the Contractor shall in addition to throwing himself open to account for contravention of the terms of the license or permit and/or for criminal breach of trust, pay to the university all advantages or profits resulting, or which in the usual course, would result to him by reason of such breach. Provided that the Contractor shall, in no case be entitled to any compensation or damage on account of any delay in supply or non-supply or non-supply thereof, all or any such materials and stores.

**Clause 10 A : Rejection of materials procured by the Contractor :**

The Estate officer shall have full powers to require the removal from the premises of all materials which in his opinion, are not in accordance with the specifications and, in case of default, the Estate officer shall be liberty to employ other person (s) to remove the same without being answerable or accountable for any loss or damage, that may happen or arise to such materials to be substituted thereof, and in case of default, Estate officer may cause the same to be supplied and all costs, which may attend such removal and substitution, are to be born by the Contractor.

**Clause 10 B : Penal rate in case of excess consumption :**

The Contractor shall also be charged for the materials consumed in excess of the requirements calculated on the basis of standard consumption approved by the department, at double of the issue rate including storage and supervisory charges or market rate, whichever ever is higher. A Material Supply and Consumption Statement, in prescribed Form RPWA 35A shall be submitted with every Running Account Bill, distinguishing material supplied by the University and material procured by the Contractor himself. The recovery for such material shall be made from Running Account Bill next after the consumption and shall not be deferred Certificate of such nature shall be given in each Running Account Bill.

**Clause 10 C : Hire of Plant and Machinery :**

Special Plant and Machinery, required for execution of the work, may be issued to the Contractor, if available, on the rates hire charges and other terms and conditions as per departmental Rules, as per Schedule annexed to these conditions. Rates of such plant & Machinery shall be got revised periodically so as to bring them at par with market rate.

**Clause 11 : Works to be executed in accordance with specifications, Drawings Order etc. :**

The Contractor shall execute the Whole and every part of the work in the most substantial and satisfactory manner and both as regards materials and otherwise in every respect in strict accordance with the Specification. The Contractor shall also conform exactly fully and faithfully to the designs, drawings and instructions in writing relative to the work signed by the Estate officer and lodged in his office and to which the Contractor shall be entitled to have access at such office or on the site of the work for the purpose of the inspection during office hours and the contractor shall, if so required, be entitled at his own expenses, to make or cause to be made copies of specifications and of all such designs, drawings and instructions, as aforesaid. A certificate of executing works as per approved design and specifications etc. shall be given on each Running Account Bill.

The specifications or work, material, methodology of execution, drawings and designs shall be signed by the Contractor and Estate officer while executing agreement and shall form part of agreement.

**Clause 12 :**

The Estate officer shall have power to make any alternations, omissions or additions to or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary during the progress of the work and the contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Estate officer, and such alternation, omission, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work, which the contractor may be directed to do in the manner above

specified as part of the work, shall be carried out by the contractor on the same conditions in all respects on which he agreed to do his main work. The time for the completion of the work shall be extended in the proportion that the altered additional or substituted work bears to the original contract work, and the certificate of the Estate officer shall be conducive as to such proportion. The rates for such additional altered or substituted work under this clause shall be worked out in accordance with the following provisions in their respective order.

- (i) If the rates for the additional, altered or substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work at the same rates as per specified the contract for the work.
- (ii) If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, the such rates will be derived from the rates for a similar class of work as are specified in the contract for the work.
- (iii) If the rates for the altered, additional or substituted work cannot be determined in the manner specified in the sub-clauses (i) to (ii) above, then the rates for such composite work item shall be worked out on the basis of the concerned Schedule of Rates of the District/area specified above minus/plus the percentage which the total tendered amount bears to the estimated cost of the entire work put to tender. Provided always that if the rate for a particular part or parts of the item is not in the Schedule of Rates, the rate for such part or parts will be determined by the Estate officer on the basis of the prevailing market rates when the work was done.
- (iv) If the rates for the altered, additional or substituted work item cannot be determined in the manner specified in sub-clauses (i) to (iii) above, then the contractor shall within 7 days of the date of receipt of order to carry out the work, inform the Estate officer of the rate which it is his intention to charge for such class of work supported by analysis of the rate or rates claimed and the Estate officer shall determine the rates on the basis of prevailing market rates, and pay the contractor accordingly. However, the Estate officer by notice in writing, will be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates on items falling under the clause.
- (v) Except in case of item relating to foundations contained in sub-clause (i) to (iv) above shall not apply contract or substituted items as individually exceed the percentage set out in the tender documents under Clause 12 A.

For the purpose of operating of Clause 12(v) the following works shall be treated as work relating to foundations :

- (a) For buildings, compound wall, plinth level or 1.2 meters (4 ft.) above ground level whichever is lower, excluding items above flooring and D.P.C. but including base concrete below the floors.
- (b) For abutments, piers, retaining wall of culverts and bridges, walls of water reservoir and the bed of floor level.
- (c) For retaining walls, where floor levels is not determinate 1.2 meters above the average ground level or bed level.
- (d) For roads, all items of excavation and filling including treatment of sub base and soiling work.
- (e) For water supply lines, sewer lines underground storm water drains and similar work, all items of work below ground level except items of pipe work for proper masonry work.
- (f) For open storm water drains, all items of work except lining of drains.
- (g) Any other items of similar nature which Estate officer may decide relating to foundation.

The rate of any such work, except the item relating to foundations, which is in excess of the deviation limit shall be determined in accordance with the provisions constrained in Clause 12A.

**Clause 12A :**

The quantum of additional work for each item shall not exceed 50% of the original quantity given in the agreement and the total value of additional work shall not exceed 20% of the total contract value, unless otherwise mutually agreed by the E.O. and the Contractor. This limit shall not be applicable on items relating to foundation work which shall be executed as per original rates or provision of clause 12(f) to (iv).

In case of contract substituted items or additional items, which results in exceeding the deviation limit laid down in this clause except items relating to foundation work which the contractor is required to do under clause 12 above, the contractor shall within seven days from the receipt of order, claim revision of the rate supported by proper analysis in respect of such item for quantities in excess of the deviation limit notwithstanding the fact that the rates for such items exist in the tender for the main work or can be derived in accordance with provision of sub clause (ii) of clause 12 and the Estate officer may revise their rates having diverted in accordance with the provision of sub clause may revised there rates having regard to the prevailing market rates and the contractor shall be paid in accordance with the rates so fixed. The Estate officer shall, however, be at liberty to cancel his order to carry out such increased quantities of work by giving notice in writing to the contractor and arrange to carrying it out in such manner on he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates of items falling under this Clause.

All the provision of the preceding paragraph shall equally apply to the decrease in rates of items for quantities in excess of the deviation limit notwithstanding the fact that the rates for such items exist in the tender for the main work or can be derived in accordance with the provision of sub-clause (ii) of the preceding clause 12 and E.O. may revise such rates having regard to the prevailing market rates unless otherwise mutually agreed by E.O. and the Contractor.

**Clause 13 : No compensation for alterations in or restriction of work to be carried out :**

If, at any time after the commencement of the work, the University shall, for any reason, whatsoever, not require the whole work thereof, as specified in the tender, to be carried out, the engineer in charge shall give notice in writing, if the fact to the Contractor, who shall have no claim to any payments or compensation, whatsoever an account of any profit or advantage, which he might have derived from the execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out. Neither, shall he have any claim for compensation by reason of alterations having been made in the original specifications, drawings and design and instructions, which shall involve any curtailment of the work as originally contemplated. Provided, that the Contractor shall be paid the charges for the cartage only, of materials actually brought to the site of the work by him for bonafide use and rendered surplus as a result of the abandonment or curtailment of the work or any portion thereof, and taken them back by the Contractor provided, however that the engineer-in-charge shall have, in all such cases, the option of taking over all or any such materials at their purchase price or at local market rates whichever may be less. In the case of such stores, having been issued from University Stores, charges recovered, including storage charges, shall be refunded after taking into consideration any deduction for claim on account of any deterioration or damage while in the custody of the contractor, and in this respect the decision of the E.O. shall be final.

**Clause 14 : Action and compensation payable in case of bad work :**

If, it shall appear to the Building Council or any authorized or the Estate officer or his subordinates in-charge of the work, or to the committee of retired officers/officers appointed by the University for the purpose that any work has been executed with unsound, imperfect or unskillful workmanship, or with material of any inferior description, or that any material or articles provided by him for the execution of the work unsound or of a quality inferior to that contracted or otherwise not in accordance with contract, the Contractor shall on demand in writing from the Estate officer, specifying the work/materials or articles complained of, notwithstanding that the same may have been inadvertently passed, certified and paid for, will rectify or remove and reconstruct the work, so specified, in whole or in part, as the case may be, removed the materials or articles, so specified, and provide other proper and suitable materials or articles, at his own cost and in the even of his failing to do so, within a period to be specified by the Estate officer in his demand, as aforesaid, then the Contractor shall be liable to pay compensation at the rate of one percent, on the tendered amount of work for every week, not exceeding ten percent, while his failure to do so shall continue, and in the case of any such failure the engineer-in-charge may rectify or remove and re-execute the work or remove and replace with others, the materials or articles complained of as the case may be, at the risk and expenses, in all respects of the contractor.

**Clause 15 : Work to be open to inspection : Contractor or his responsible Agent to be present :**

All work, under or in course of execution or executed in pursuance of the contract shall, at all times, be open to inspection and supervision of the Estate officer and his superior officers and his subordinates and any other authorized agency of the University and the contractor shall, at all time during the usual working hours, and at all other times at which reasonable notice of the intention of the Estate officer or his subordinate and any other authorized agency of university committee of retired officer/officers appointed by the university for the purpose to visit the works shall have been given to the contractor, either himself be present to receive order and instruction or have a responsible agent, duly accredited in writing, present for purpose. Orders given to the Contractor's agent shall be considered to have the same force as if the had been given to the Contractor himself.

**Clause 16 : Notice to be given before any work is covered up :**

The Contractor shall give not less than 7 days notice, in writing, to the Estate officer or his subordinate in charge of the work, before covering up or otherwise placing beyond the reach or measurement any work in order that the same may be measured, and correct dimensions thereof, be taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up or place beyond the reach of measurement any work without the consent in writing of the Estate officer of the work, and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained, the same shall be uncovered at the Contractor's expenses or in default thereof no payment or allowance shall be made for such work, or for the materials, with the same was executed.

**Clause 17 : Contractor liable for damage done and for imperfections :**

If the Contractor or his work people or servants shall break, deface injure or destroy any part of a building, in which they may be working or any building, road, fence, enclosure, or cultivated ground contiguous to the premises on which the work or any part of its is being executed, or if any damage shall happen to the work, while in progress, from any cause, whatsoever, or any imperfections become apparent in it within a period specified in Clause 37, after a Certificate, final or otherwise of its completion, shall have been given by the Estate officer may cause the same to made good by other workmen and deduct the expense (of which the certificate of the Engineer in charge shall be final) from any sums that may be then, or at any time thereafter, any become due to the contractor, or from this security deposit, or the proceeds of sale thereof, or of a sufficient portion thereof.

**Clause 18 : Contractor to supply Plant, Ladders, Scaffolding etc.**

The Contractor shall arrange and supply at his own cost, all material (except such special materials, if any, as may, in accordance with the contract, be supplied from the Estate officer stores), plants, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works requisite or proper for the proper execution of the work, whether original, altered, or substituted, and whether included in the specification or other documents, forming part of the contract, or referred to in these conditions or not, or watch may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge as to any matter as to which, under these conditions, he is entitled to be satisfied of which he is entitled to require, together with carriage thereof, to and from the work. The contractor shall also arrange and supply, without charge, the requisite number of persons with the means and materials, necessary for the purpose of setting out work and counting, weighting and assisting, in the measurement or examination at any time and from time to time of the work, or materials. Failing his so doing, the same may be provided by the Estate officer at the expense of the contractor, and the expenses may be deducted from any money due to the Contractor under the contract, or from his Performance Guarantee and or security deposit or the proceeds of sale thereof, or a sufficient portion thereof. The contractor shall also provide all necessary fencing and lights required to protect the public from accident and shall, be bound to bear the expenses of defense of every suit, action or other proceeding at law, that may be brought by any person for injury sustained owing to neglect of the above precautions, and to pay any damages and costs, which may be awarded in any such suit, action proceeding to any such person or which may, with the consent of the Contractor, be paid to compromise any claim by any such person.

**Clause 19 : Work not be sub-let, Contractor may be rescinded and Security/Deposit and Performance Guarantee Forfeited for subletting, bribing or if Contractor becomes insolvent :**

The contract shall not be assigned or sublet without the written approval of the Estate officer, and if the Contractor shall assign or sublet his contract or attempt so to do, or become insolvent, or commence any insolvency proceedings or make any composition with his creditors, or attempt so to do, or if any bribe, gratuity, gift, loan, requisite reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given promised or offered by the contractor or any of his servants or agents, to any public officer or person, in the employ of University in any way, relating to his office or employed or if any such office a person shall be cover, in any way, directly or indirectly interested in the contract, the Estate Officer may, there upon, by notice, in writing rescind the contract and the Performance Guarantee and Security Deposit of the Contractor shall, thereupon, stand forfeited and be absolutely at the disposal of University and the same consequences shall ensue as, if the contract had been rescinded under Clause 3 hereof, and in addition the Contractor shall not be entitled to recover or be paid for any work thereof, actually performed under the contract.

**Clause 20 : Sums payable by way of compensation to be considered as reasonable compensation without reference to actual loss :**

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of University without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

**Clause 21 : Changes in constitution of firm :**

Where the Contractor is a partnership firm, the previous approval, in writing, of the Estate officer shall be obtained before any change is made in the constitution of the firm. Where the Contractor is an individual or a Hindu undivided family business concern, such approval, as aforesaid, shall likewise be obtained before the Contractor enters into any partnership agreement were under the partnership firm would have the right to carry out the work thereby undertaken by the Contractor. If, previous approval as aforesaid, is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 19 hereof, and the same action may be taken, and the same consequences shall ensue, as provided in the said Clause 19.

**Clause 22 : Works to be under direction of Engineer-in-charge :**

All the works to be executed under the contract shall be executed under the direction and subject to the approval in all respect, of the engineer-in-charge of the SIKJAU for the time being, who shall be entitled to direct at a what print a points or in what manner, they are to be commence, and from time to time carried on.

**Clause 23 : Standing Committee for Settlement of disputes :**

If any question, difference or objection, whatsoever shall arise in any way, in connection with or arising out of this instrument of the meaning of operation of any part thereof, of the right duties or liabilities of either part then, save in so far, as the decision of any such matter, as herein before provided for, and been so decided, every such matter constituting a total claim of Rs. 50,000/- or above, whether its decision has been otherwise provided for and whether it has been finally decided accordingly or whether the contract should be terminated, or has been rightly terminated, and as regards the rights of obligations of the parties, as the result of such termination, shall be referred for decision of the empowered Standing Committee, which would consist of the followings.

- (i) Vice Chancellor
- (ii) Comptroller
- (iii) Registrar
- (iv) SE. P.W.D. Jaipur / Jaipur
- (v) Estate Officer (Member-Secretary)

The Engineer-in-charge, on receipt of application along with non-refundable prescribed fee, (the fee would be two percent of the amount in dispute, not exceeding Rs. one lac) from the Contractor, shall refer the disputes to the committee with in a period of one month from the date of receipt of application.

Procedure and Application for referring cases for settlement by the Standing committee shall be as given in Form RPWA 90.

**Clause 23 A : contractor to indemnify for infringement of Patent or design :**

Contractor shall fully indemnify the University against any action, claim or proceeding, relating to infringement or use of any patent or design, or any alleged patent or design rights and shall pay any royalties, which may be payable in respect of any article or part thereof included in the contract, in the event of any claims made under or action brought against University. In respect of any such matters as aforesaid, the Contractor shall be immediately noticed thereof, and the Contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from provided that the contractor shall not be liable to indemnify the SKYA U, the infringement in the patent or design or any alleged patent, or design right is the direct result of an order passed by the Estate officer in this behalf.

**Clause 24 : Imported Store articles to be obtained from University :**

The Contractor shall obtain from the stores of the Estate officer, all imported store articles which may be required for the work or any part thereof or in making up articles required thereof, or in connection therewith, unless he has obtained permission in writing, from the Estate officer to obtain such stores and articles from elsewhere. The value of such stores and articles, as may be supplied to the Contractor by the Estate officer, will be debited to the Contractor, in his account, at the rates shown in the schedule attached to the contract, and if they are not entered in the schedule, they will be debited at cost price which for the purpose of the contract, shall include the cost or carriage and all other expenses, whatsoever which shall have been incurred in obtaining delivery of the same at the stores aforesaid plus storage charges.

**Clause 25 : Lump-sums in estimates:**

When the estimate, on which a tender is made includes lump sums, in respect of parts of the work, the Contractor shall be entitled to payment in respect of the item of work involved, or the part of the work in question at the same rates, as are payable under the contract for such items or if the part of the work in question is not, in the opinion of the Estate officer capable of measurement, the estate officer may at his discretion pay the lump sum amount entered in the estimate and the certificate in writing of the Estate officer shall be final and conclusive with regard to any sum or sums payable to him under the provisions of this clause.

**Clause 26 : Action where no Specification :**

In case of any Class of work for which there is no such specification as is mentioned in Rule 1, such work shall be carried out in accordance with the detailed specification of the department and also in accordance with the instructions and requirement of the Estate officer.

**Clause 27 : Definition of work :**

The expression "works" or "work" where used in these conditions shall, unless there be something either in subject or context, repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.

**Clause 27 A: Definition of Engineer-in-charge :**

The term "Engineer in charge" means the Estate officer who shall supervise and be in charge of the work, and who shall sign the contract on behalf of the vice chancellor SKYA U, Jobner.

**Clause 27 B : Definition of University or S.K.Y.A.U. :**

The terms university mean Sri Karan Narendra Agriculture University, Jobner

**Clause 27 C : Definition of the Vice Chancellor :**

The terms of vice chancellor means the vice chancellor of Sri Karan Narendra Agriculture University, Jobber.

**Clause 28 :**

It cannot be guaranteed that the work will be started immediately after the tenders have been received. No claims for increase of rate will be entertained, if the orders for starting work are delayed.

**Clause 29 : Payments at reduced rates on account of items of work not accepted and not completed to be at the discretion of the Estate Officer.**

The rates for several items of works, estimated to cost more than Rs. 1,000/-, agreed within, will be valid only when the item concerned is accepted, as having been completed fully in accordance with the sanctioned specifications. In cases, where the item of work are not accepted, as so completed, the Estate officer may make payment an account of such items, at such reduced rate as he considers reasonable, in the preparation of final or on account bills, and his decision in the matter shall be final and binding.

**Clause 29 A : Payments at part rates :**

The rates for several items of works may be paid at part rates provisionally in running bills in proportion to the quantum of item executed at the discretion of the Estate officer. In cash of the item rate, if the rate quoted for certain items are very high in comparison to the average/overall tendered premium, then the payment at running stages shall not be made more than the average sanctioned premium. The deferred payment, will however be released after successful completion of the work.

**Clause 30 : Contractor's percentage, whether applied to net or gross amount of bills :**

The percentage referred to in the "Tender for works" will be deducted/added-from/to the gross amount of the bill before deducting the value of any stock issued.

**Clause 31 : Contractor to adhere to labour laws/regulation :**

The Contractor shall adhere to the requirements of the Workmen's Compensation Act and Labour Legislation in force from time to time and be responsible for and shall pay any compensation to his workmen which would be payable for injuries under the Workmen's Compensation Act, hereinafter called the said Act. If such compensation is paid by the University as principal employer under sub section (1) of section 12 of the said act. On behalf of the contractor it shall be recoverable by the SKMAU from the Contractor under Sub Section (2) of the said section. Such compensation shall be recovered in the manner laid down in Clause I of the Conditions of Contract.

**Clause 32 : Withdrawal of work from the Contractor :**

If the Estate officer shall at any time and for any reasons, whatever, including inability to maintain prorata progress, think any portion of the work should not be executed or should be withdrawn from the contractor, he may, by notice in the writing to that effect, require the contractor not to execute the portion of the work specified in the notice, or may withdraw from the Contractor the portion of work, so specified, and the Contractor shall not be entitled to any compensation by reason of such portion of work having been withdrawn from him. The Estate officer may supplement the work by engaging another agency to execute such portion of the work at the cost of the original contractor, without prejudice to his rights under clause 2. He shall also be competent to levy compensation for delay in progress. The recovery of excess cost shall be made from next available running bill or any other claim and shall not be deferred.

**Clause 33 :**

The contract includes clearance, leveling and dressing of site within a distance of 15 meters of the building on all sides except where the building adjoins another building.

**Clause 34 : Protect works :**

The contractor shall arranged to protect, at his own cost, in an adequate manner, all cut stone work and other work, requiring protection and to maintain such protection, as long as work is in progress. He shall remove and replace this protection, as required by the Estate officer from time to time. Any damage of the work, so protected no matter how it may, be caused, shall made good by the Contractor free of cost.

All templates, forms, moulds, centering, false works and models, which in the opinion of the Estate officer are necessary for the proper and workman like execution of the work, shall be provided by the Contractor free of cost.

**Clause 35 : Contractor liable for settlement of claims caused by his delays :**

If the progress of the work has fallen so much in arrears as to prevent other contractors on the work, from carrying out their part of the work within the stipulated time, he will be liable for the settlement of any claim, put in by any of these contractors for the expenses of keeping their labour unemployed, to the extent considered reasonable by the Estate officer.

**Clause 36 A :**

The liability, if any, on account of quarry fees, royalties, octroi and any other taxes and duties in respect of materials actually consumed on public work, shall be borne by the Contractor.

**Clause 36 B :**

The cost of all water connections, necessary for the execution of work, and the cost of water consumed and hire charges of meters and the cost of electricity consumed in connection with the execution of work, shall be paid by the Contractor, except where otherwise specifically indicated.

**Clause 36 C : Payment of Sales Tax, and any other Taxes :**

Royalty or other tax on materials, issued in the process of ful-filling contract payable to the Government under rules in force, will be paid by the Contractor himself.

**Clause 36 D :**

In respect of goods and materials procured by the Contractor for use in works under the contract sales tax will be paid by the Contractor himself. But in respect of all such goods manufactured and supplied by the Contractor and works executed under the contract, the responsibility of payment of sales tax would be that of the Estate officer

**Clause 37 : Refund of Security Deposit :**

Security Deposit will be refunded after the expiry of the period, as prescribed below :-

- (a) In case of contracts relating to hiring to trucks and other T&P transportation including the loading unloading of materials, the amount of Security Deposit is refundable along with the final bill.
- (b) **Supplies of material :** As per provisions of the G.F & A.F.I.
- (c) **Ordinary repairs :** 3 months after completion of the work provided of final bill has been paid.
- (d) **Original works/special repairs/renewal works :** Security Deposit will be refunded 6 months after completion or expiry of one full rainy season, or after expiry of defect liability period as defined in the special condition of agreement whichever is later provided the final bill has been paid.
- (e) In case of original work/special repairs works costing more then Rs. 10 lacs, partial amount or S.D. will be refunded during the defect the liability period @ 10% of S.D. amount after lapse of one year of completion and thereafter 10% of original amount of the S.D. at the end of each subsequent year. The remaining amount of S.D. be refunded after the expiry of defect liability period as per latest order of F.D. of Gov. of Raj.

**Clause 38 : Fair Wage Clause :**

- (a) The Contractor shall pay not less than fair wages/minimum wages to laborers engaged by him on the work as revised from time to time by the government but the University shall not be liable to pay anything extra for it except as stipulated in price escalation clause (clause 45) of the agreement.

**Explanation :** "Fair Wage" means minimum wages for time or piece work, fixed or revised by the State Government under the Minimum Wages Act, 1948.

- (b) The Contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wages to labourers indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said Work as if the labourers have been immediately or directly employed by him.
- (c) In respect of all labourers immediately or directly employed on the work for the purpose of the contractor part of his agreement, the Contractor shall comply with or cause to be complied with the Public Works Department Contractor's Labour Regulations made, or that may be made by the Government, from time to time, in regard to payment of wages, wage period, deductions from wages, recovery of wages not paid, and unauthorized deductions maintenance of wages register, wage card, publication of scale of wages and other terms of employment inspection and submission of periodical return and other matters of a like nature.
- (d) The Estate officer shall have the right to deduct from the money due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers, by reasons of non-fulfillment of the conditions of the contract, for the benefit of the worker or workers, non-payment of wages or of deductions made there from, which are not justified by the terms of the contract, or as a result of non-observance of the aforesaid regulations.
- (e) Vis-a-Vis the university, the Contractor shall be primarily liable for all payments to be made and for the observance of the regulations aforesaid, without prejudice to his right to claim indemnity from his sub-contractors.
- (f) The regulations, aforesaid, shall be deemed to be part of this contract and any breach, thereof, shall be deemed to be breach of the contract.

**Clause 39 : Contractor to engage technical staff :**

The Contractor shall engage the technical staff, as follows, on the contract works.

- (a) For works costing Rs. 100 lacs and above- One Graduate Engineer.
- (b) For works costing between Rs. 50 lacs to Rs. 100 lacs- One qualified diploma holder having experience of not less than 3 years.
- (c) For works costing between Rs. 15 lacs and Rs. 50 lacs- One qualified diploma holder.

The technical staff should be available at site, whenever required by Engineering-in-charge to take instructions.

**Clause 39 A :**

The Contractor shall comply with the provisions of the Apprenticeship Act, 1961 and the Rules and Orders issued, there under, from time to time. If he fails to do so, his failure will be a breach of contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

**Clause 40 : Safety Code :**

The Contractor shall follow the safety code of the Department.

**Clause 41 : Near Relatives barred from tendering :**

The Contractor shall not be permitted to tender for works, in university in which his near relatives is posted as Divisional Accountant or as an officer in any capacity between the grades of the Estate officer and Assistant Engineer (both inclusive). He shall also intimate the names of persons, who are working with him in any capacity or are subsequently employed by him and who are near relatives to any officer in the University. Any breach of this conditions by the Contractor would render him liable to be removed from the approved list of contractors of the Department. If such facts is noticed (a)

before sanction of tender, his offer shall be declared invalid and earnest money shall be forfeited, (b) after sanction of the tender then the tender sanctioning authority may at his discretion forfeit his earnest money, performance guarantee, security deposit and enlistment deposit and the work/remaining work may allot to any registered contractor on the same rates as per rules.

Note : By the term 'near relative' is meant wife, husband, parents and grand-parents, children and grand children, brothers and sisters, uncles and cousins and their corresponding in-laws.

**Clause 42 : Retired Officer barred for 2 years :**

No Engineer of Officer rank, employed in Engineering or Administrative duties in Estate office of university is allowed to work as Contractor for a period of 2 years of his retirement from University service without the previous permission of University. The contract is liable to be cancelled, if either the Contractor or any of his employee is found, at any time, to be such a person, who had not obtained the permission of University aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

**Clause 43 : Quality Control :**

The university shall have right to exercise proper Quality Control measures. The Contractor shall provide all assistance to conduct such tests.

**Clause 43 A:**

The work (whether fully constructed or not) and all materials, tools and plant, scaffolding, temporary buildings and other things connected therewith, shall be at the risk of the contractor until the work has been delivered to the Estate officer and a certificate from him, to the effect, obtained.

**Clause 44 : Death of Contractor :**

Without prejudice to any of the rights or remedies under the contract, if the Contractor dies, the legal heirs of the Contractor or the Vice Chancellor or duly authorized Engineer shall have the option of terminating the contract without any compensation.

**Clause 45: Price Variation Clause :**

If during the progress of the contract of value exceeding Rs. 50 lac (accepted tendered amount minus cost of material supplied by the department), and where stipulated completion period is more than 6 months (both the conditions should be fulfilled) the price, of any materials/bitumen/diesel/petrol/cement and steel incorporated in the works (not being materials to be supplied by the department) and or wages of labour-increases or decreases, as compared to the price and/or wages prevailing at the date of opening of tender or date of negotiations for the work the amounts payable to contractors for the work shall be adjusted for increase or decrease in the rates of materials (excepting those materials supplied by the department)/labour/bitumen diesel/petrol/cement and steel. If negotiated rates have been accepted, prices as on the date of negotiation shall be considered for price adjustment. Similarly, if rates received on the date of opening of tenders have been accepted then prices on the date of opening of tender shall be considered for price adjustment.

Increase or decrease in the cost of labour/material/bitumen/diesel/petrol cement and steel shall be calculated quarterly in accordance with the following formula :

**(A) Labour :**

$$V_L = 0.75 \times \frac{R}{100} \times R \frac{I_1 - I_2}{I_1}$$

$V_L$  = Increase of decrease in the cost of work during the quarter under consideration due to change in rates for labour.

R = The value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in the clause.

$L_{10}$  = The average consumer price index for industrial workers (whole-sale prices) for the quarter in which tender were opened/negotiated (as Reserve Bank of India Journal/Labour Bureau Shimla, for the area).

$L_1$  = The average consumer price index for industrial workers (whole-sale prices) for the quarter of calendar year under consideration (as published in Reserve Bank of India Journal/Labour Bureau Shimla, for the area).

$P_1$  = Percentage of labour components.

Note: in case of revision of minimum wages by the Government or other competent authority, nothing extra would be payable except the price escalation permissible under this clause.

**(B) Material (excluding material supplied by the department).**

$$V_m = 0.75 \times \frac{L_1}{L_{10}} \times R \times \frac{L_{10} - L_1}{L_{10}}$$

$V_m$  = Increase or decrease in the cost during the quarter under consideration due to change in rates of material.

$R$  = The value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in the clause.

$L_{10}$  = The average wholesale price index (all commodities) for the quarter in which tenders were opened/negotiated (as published in Reserve - Bank of India Journal/Economic Adviser to Government of India. Ministry of Industries for the area).

$L_1$  = The average wholesale price index (all commodities) for the quarter under consideration (as published in Reserve Bank of India Journal/Economic Adviser to Government of India. Ministry of Industries, for the area).

$P_m$  = Percentage of material component (excluding materials supplied by the Department).

**(C) Bitumen :**

$$V_b = 0.75 \times \frac{B_1}{B_0} \times R \times \frac{B_0 - B_1}{B_0}$$

$V_b$  = Increase or decrease in the cost of work during the quarter under consideration due to change in rates for bitumen

$R$  = The value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in the clause.

$B_0$  = The average wholesale price for bitumen of the day of opening of tenders/negotiation, as published by the Economic Adviser to Govt. of India, Ministry of Industry.

$B_1$  = The average wholesale price index for bitumen for the quarter under consideration as published weekly by the Economic Adviser, Government of India, Ministry of Industry.

$P_b$  = Percentage of bitumen component excluding bitumen supplied by the Department (Specified in the sanctioned estimate of the work).

**(D) Petroleum :**

$$V_f = 0.75 \times \frac{F_1}{F_0} \times R \times \frac{F_0 - F_1}{F_0}$$

$V_f$  = Increase or decrease in the cost of work during the quarter under consideration due to change in rates for fuel and lubricants.

$R$  = The value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in the clause.

$F_0$  = The average wholesale price index of POL as published by the Economic Adviser to the Government of India, Ministry of Industry on the day of opening at tender/negotiations.

$F_1$  = The average wholesale price index of POL for the quarter under consideration as published weekly by the Economic Adviser to the Government of India, Ministry of Industry for the quarter under consideration.

$P_f$  = Percentage of Fuel and lubricants component excluding fuel and Lubricants supplied by the Department (Specified in the sanctioned, estimate for the work).

$R$  = Total work done during the quarter as prescribed under this clause.

Note : For application of this clause price of POL is chosen to indicate fuel and lubricant component.

(E) Cement :

$$V_c = 0.75 \times \frac{P_c}{100} \times R \times \frac{L_{c1} - L_{c2}}{L_{c2}}$$

- $V_c$  = Increase of decrease in the cost of work during the quarter under consideration due to change in rates of cement  
 $R$  = The value of the work done in rupees during the quarter under consideration excluding the cost of cement supplied by the department and excluding other items as mentioned in the clause.  
 $L_{c1}$  = The average wholesale price index for the quarter in which tenders were opened/negotiated (as published by the Economic Adviser to Government of India, Ministry of Industries).  
 $L_{c2}$  = The average wholesale price index for the quarter under consideration (as published by the Economic Adviser to Government of India, Ministry of Industries).  
 $P_c$  = Percentage of cement components (excluding cement supplied by the Department).

(F) Steel :

$$V_s = 0.75 \times \frac{P_s}{100} \times R \times \frac{L_{s1} - L_{s2}}{L_{s2}}$$

- $V_s$  = Increase of decrease in the cost of work during the quarter under consideration due to change in rates of steel.  
 $R$  = The value of the work done in rupees during the quarter under consideration excluding the cost of steel supplied by the department and excluding other items as mentioned in the clause.  
 $L_{s1}$  = The average wholesale price index for the quarter in which tenders were opened/negotiated (as published by the Economic Adviser to Government of India, Ministry of Industries).  
 $L_{s2}$  = The average wholesale price index for the quarter under consideration (as published by the Economic Adviser to Government of India, Ministry of Industries).

**Clause 45 A : Price Variation in installation of elevators, supply/installation of Centrally Air Conditioning and Central Evaporating Cooling Works :**

In all cases of contracts for installation of elevators, supply/installation of Central Air Conditioning and Central Evaporating Cooling Works, the Price quoted shall be based on the Indian Electrical and Electronic Manufacturer Association (IEEMA) Price variation clause based on the cost of raw materials/components and labour cost as on the date of quotation tender, and the same is deemed to be related to wholesale price index number of metal products and All India Average consumer price index number of industrial workers as specified below, in case of any variation in these index numbers, the price shall be adjustment up or down in accordance with following formula.

$$P = \frac{P_0}{100} \left[ 15 + 35 \frac{M_{p0}}{M_{p1}} + 25 \frac{W_0}{W_1} + 15 \frac{M_{p0}}{M_{p1}} \right]$$

Where  $P$  = Price payable as adjusted in accordance with the price variation formula.

$P_0$  = Price quoted/confirmed.

$M_{p0}$  = Wholesale Price Index Number for metal products as published by the office of the Economic Adviser, Ministry of Industry, Government of India, in their weekly bulleting, Revised Index Number of Wholesale Price (Base : 1981-82 = 100) for the week ending first Saturday of the relevant calendar month. The relevant month shall be that in which price was offered or negotiated whichever is later.

$W_0$  = All India Average Consumer Price Index Number for Industrial Workers (Base : 1982 = 100), as published in Labour Bureau, Ministry of Labour, Government of India, for relevant calendar month. The relevant month shall be the in which price was offered or negotiated whichever is later.

The above index number  $M_{p0}$  &  $W_0$  are those published by IEEMA as prevailing of the first working day of the calendar month four month prior to the date of tendering.

$M_{p1}$  = Wholesale Price Index Number of Metal Products as published by the office of Economic Adviser, Ministry of Industry, Government of India, in their weekly bulletin Revised Index Number of wholesale price (Base : 1981-82 = 100)

The applicable wholesale Price Index Number for Metal Products as prevailing on 1st Saturday of the Month covering the date FOUR months prior to the date of delivery and would be as published by IEEMA.

$W_{(0)}$  - All India Average Consumer Price Index Number for industrial workers (Base : 1982 = 100) as published by Labour Bureau, Ministry of Labour, Government of India. The applicable All India Consumer Price Index Number of industrial workers prevailing for the FOUR months prior to the date of completion of installation/Progress parts of installation are to be as published by IEEMA. The date of delivery shall be the date on which the manufactured material is actually supplied at site. The date of completion of installation (or progress part of installation shall be the date of which the work is notified as being completed and is available, for inspection/duly tested), in the absence of such notification, the date of completion is not intimated, such completion shall be considered by the Engineer-in-charge which shall be final.

Note - 1 The Wholesale Price Index Number for number for Metal, Products is published weekly by the office of the Economic Adviser, but if there are changes, the same are incorporated in the issue appearing in the following week. For the purpose of this price variation Clause, the final index figures shall apply.

Note - 2 The sole purpose of the above stipulation is to arrive at the entire contract under the various situations. The above stipulation does not indicate any intentions to sell materials under this contracts as movables.

Note - 3 The indices  $M_p$  &  $W_o$  are regularly published by IEEMA in monthly basic price circulars based on information bulletins from the authorities mentioned. These will be used for determining price variation and only IEEMA Circulars will be shown as evidence, if required.

#### General Conditions for admissibility or Escalation

1. The exact percentage of labour/material excluding materials to be supplied by the department/bitumen/diesel and petrol, cement, steel component and labour for the work shall be approved by the authority while sectioning the detailed Estimates.
2. The break-up of components of labour/materials (excluding materials to be supplied by the department/bitumen/diesel) and petrol cement steel as indicated in Clause 45 have been pre-determined as below:
 

(a) Labour .....	Percent
(b) Material .....	Percent
(c) Bitumen .....	Percent
(d) Diesel and Petrol(POL) .....	Percent
(e) Cement .....	Percent
(f) Steel .....	Percent
.....	
Total .....	.....
3. While allowing price escalation the following shall be deducted from the value of work done (R) : (a) Cost of material supplied by the Department (b) Cost of services rendered as per clause 34, (c) of Secured Advance/ an advance added earlier but deducted agreed rates.
4. The first statement of escalation shall be prepared at the end of three months in which the work was awarded and the work done from the date of start to the end of this period shall be taken into account. For subsequent statement cost of work done during every quarter shall be taken into account. At the completion of work done during the last quarter of fraction thereof shall be taken into account.
5. For the purpose of reckoning the work done during any period, the bills prepared during the period shall be considered. The dates of recording measurements in the Measurement Book by the Assistant Engineer shall be the guiding factor to decide the bills relevant to any period. The date of completion, as finally recorded by the competent authority in the Measurement Book shall be the criterion.
6. The index relevant to any quarter for which such compensation is paid, shall be the arithmetical average of the indices relevant of the calendar month.
7. Price adjustment clause shall be applicable only for the work that is carried out within the stipulated time or extension thereof, as are not attributable to the contractor.
8. If during the progress in respect of contract works stipulated to cost Rs. 50 lac or less the value of work actually done excluding **cost of material** supplied by the Department exceeds Rs. 50 lac and completion period is more

- than 6 months, then escalation would be payable only in respect of value of work in excess over Rs. 50 lac from the date of satisfying both the conditions.
9. Where originally situated period is 6 months or less but actual period of execution excess beyond 6 months or account of reasons not attributable to contractor, escalation amount would be payable only in respect of extended period if amount of work is more than Rs. 50 lac.
  10. In case the contractor does not make prorata progress in the first or another time span and the short fall in progress is covered up by him during subsequent time span within original stipulated period then the price escalation of such work expected to be done in the previous time span shall be nationally given based upon the price index of that quarter in which such work was required to be done.
  11. No claims for price adjustment other than those provided herein, shall be entertained.
  12. If the period of completion period attributable to Government exceeds twelve months but cost does not exceed more than Rs. 50 lac no escalation is admissible.
  13. Similarly, if cost of works increases more than Rs. 50 lac but completion period including extended period attributable to Government is less than 6 months, no escalation is admissible.
  14. No provisional escalation is payable on the basis of indices of the previous quarter in absence of non publication of indices for concerned quarter by the RBI.
  15. Escalation is always payable quarterly and no provisional escalation is payable monthly or fortnightly.
  16. In case at the time of executing agreement both the condition (completion period 6 months and amount of work Rs. 50 lac) for admissibility of price escalation are not fulfilled and subsequently due to additional work and extension of time attributable to Government, both the conditions become fulfilled in that case the escalation shall be payable from the date of satisfying both the conditions and only for work done beyond Rs. 50 lac and in period of work beyond 6 months.
  17. The contractor shall for the purpose of this conditions keep such books of account and other document as are necessary to show the amount of any increase climbed or reduction available and shall allow inspection of the same by a duly authorized representative of Government and further shall at the request of the Engineer-in-charge furnish verified in such a manner as the Engineer-in-charge may require.

**Clause 46 : Force Majeure :**

Neither party shall be liable to each other, for any loss or damage, occasioned by or arising out of acts of God such as unprecedented floods, volcanic eruptions, earthquake of other invasion of nature and other acts.

**Clause 47 : General Discrepancies and errors :**

In case of percentage rate tenders, if there is any typographical or clerical error in the rates shown by the department in the "G" Schedule, the rates as given in the basic Schedule of Rates of the Department for the area shall be taken as correct.

**Clause 48 : Post Payment Audit & Technical Examination :**

The Government shall have right to cause an audit and technical examination of the works, and the final bills of the as a result of such audit and technical examination, any sum is found to have been over paid in respect of any work done by the Contractor under the contract or any work claimed by him to have been done by him under the contract and found not to have been executed below specification, the Contractor shall be liable to refund the amount of over payment and it shall be lawful for department to recover the same from him in the manner prescribed in Clause 50 or in any other manner legally permissible and if it is found that the contractor was paid less than what was due to him under the contractor, in respect of any work executed by him under it, the amount of such under payment shall be duly paid by the university to the Contractor.

**Clause 48 A: Pre Check or Post Check or Bills:**

The University shall have right to provide a system of pre-check of Contractor's bills by a specified Organization and payment by an Engineer or an Accounts Officer/Sr. Accounts Officer / Chief Accounts Officer / Financial Advisor, as the University may in its absolute discretion prescribe. Any over - payments / excess payment detected, as a result of such pre-check or post-check of Contractor's bills, can be recovered from the contractor's bills in the manner, hearing before provided and the Contractor will refund such over/excess payments.

**Clause 48 B : Check Measurement:**

The department reserves to itself, the right to prescribe a scale of check measurement of work in general, or specific scale for specific works or by other special orders (about which the decision of the department shall be final) Checking of measurement by superior officer shall supersede measurements by the subordinates officer and the former will become the basis of the payment. Any over / excess payment detected, as a result of such check measurement or otherwise at any stage up to the date of completion and the defect removal period specified else-where in this contract, shall be recoverable from the Contractor, as any other dues payable to the university.

**Clause 49 : Dismantled Materials :**

The Contractor in course of the work, should understand that all material e.g. stone, bricks, steel and other materials obtainable in the work by dismantling etc. will be considered as the property of the university and will be disposed of to the best advantage on the university. As per direction of the **Engineer-in-charge**.

**Clause 50 : Recovery from Contractors :**

Whenever any claim against the Contractor for the payment of a sum of money arises out of or under the contract, the Department shall be entitled to recover such sum by appropriating in part or whole of the Performance Guarantee and / or security deposit, security deposit at the same time enlistment of the contractor. In the event of security being insufficient or if no security has been taken, thereafter, may become due to the Contractor, under this or any other contract with the university. Should this sum be not sufficient to cover the full amount recoverable the Contractor shall pay to the Department on demand the balance remaining dues.

The department shall, further, have the right to effect such recoveries under Public Demands Recovery Act.

**Clause 51 : Jurisdiction of Court :**

In the event of any dispute arising between the parties hereto, in respect or any of the matters comprised in this agreement, the same shall be settled by a competent court having jurisdiction over the place, where agreement is executed any by no other court, after completion of proceedings under Clause 23 of this contract.







**Notes : For filling in the progress Statement Form**

1. Columns 2, 3 and 4 must be initialed and dated by the Contractor.
2. Column 4 must be initialed and dated by the Estate officer or other duly authorized Engineer also.
3. The date in column 2 should correspond to the date on which the order to commence work is given to the contractor read with Clause 2 of the conditions of contract.
4. The date in column 3 must correspond to the period stated in Sub Clause (e) of the Memorandum below\* Tender for works.
5. Column 4. This will ordinarily be worked out proportionately; thus if Rs.24,000/- is the cost of the whole or part of work tendered for, and six months period of completion, then the monthly rate of progress should be Rs. 4,00 - If necessary quantities may also be specified in this column at the discretion of the Estate officer.
6. The Certificate as to intimation of acceptance of tender printed at the foot of the form, must be signed and dated both by the Estate officer or other duly authorized Engineer and the Contractor.

**ANNEXURE TO APPENDIX XI**  
**SRI KARAN NARENDRA AGRICULTURAL UNIVERSITY CONTRACTORS**  
**LABOUR REGULATIONS**

1. **Short title :** These regulations may be called "The Sri Karan Narendra Agriculture University Contractor's Labour Regulations."
2. **Definition :** If these regulations unless otherwise expressed or indicated, the following words and expressions shall have the meaning hereby assigned to them respectively, that is to say :
  - (i) "**Labour**" means workers employed by a Swami Keshwanand Rajasthan Agricultural University contract directly, or indirectly through a subcontractor or other person or by an agent on his behalf.
  - (ii) "**Fair Wage**" means minimum wages for time or piece work fixed or revised by the State Government under the Minimum Wages Act, 1948.
  - (iii) "**Contractor**" shall include every person whether sub-contractor or headman or Agent employing labour on the work taken on contract.
  - (iv) "**Wages**" shall have the same meaning as defined in the Payment of Wages Act and includes time as well as piece rate wages.
3. **Display of Notice regarding wages etc.:** The contractor shall (a) before he commences his work on contract display and correctly maintain and continue to display in conspicuous places on the work notices in English and the correctly maintain in Hindi by the majority of the workers giving the rate of wages which have been certified by the Estate Officer or Labour Commissioner, as fair wages and the hours of work for which such wages are earned, and (b) send a copy of such notices to the Certifying Officers.
4. **Payment of Wages :**
  - (i) Wages due to every worker shall be paid to him direct.
  - (ii) All wages shall be paid in current coin or currency or in both.
5. **Fixation of wage periods :**
  - (i) The contractor shall fix the wage periods in respect of which the wages shall be payable.
  - (ii) No wage period shall exceed one month.
  - (iii) Wages of every workman employed on the contract shall be paid before the expiry of ten days after the last day of the wage period in respect of which the wages are payable.
  - (iv) When the employment of any worker is terminated by or on behalf of the contractor, the wages earned by him shall be paid before the expiry of the day succeeding the one of which his employment is terminated.
  - (v) All payment of the wages shall be made on a working day except when the work is completed before the expiry of the wage period, in which case, final payments shall be made within 48 hours of the last working day.

**Note :** The term "working day" means a day on which the labour is employed in progress.

6. **Wage Book and Wage slips etc.**
  - (i) The Contractor shall maintain a Wage Book of each worker in such form as may be convenient but it shall include the following particulars :
    - (a) Rate of daily or monthly wages.
    - (b) Nature of work on which employed.
    - (c) Total number of days worked during each wage period.
    - (d) Total amount payable for the work during each wage period.
    - (e) All deductions made from the wages with an indication in each case of the ground for which the deduction is made.
  - (ii)
    - (i) Wages actually paid for each wage period.
    - (ii) The contractor shall also maintain a wage slip for each worker employed on the work.
    - (iii) The Estate Officer may grant an exemption from the maintenance of the wage books and wage slips to a contractor who, in his opinion, may not directly or indirectly employ more than 50 persons on the work.

7. **Fines and deductions which may be made from wages :**
- (i) The wages of a worker shall be paid to him without any deductions of any kind except those authorized, namely the following :
    - (a) Fines.
    - (b) Deductions for absence from duty i.e. from the place or places where, by the terms of his employment, he is required to work. The amount of deduction shall be in proportion the period for which he was absent.
    - (c) Deductions for damages to or loss of goods expressly entrusted to employed person for custody or for loss or any other deductions of money, which he is required to account where such damages or losses are directly attributable to his neglect or default.
  - (i-a) The University may, from time to time, allow deductions other than those specified in clause i above.
  - (ii) No fines shall be imposed on a worker and no deductions for damage or loss shall be made until worker has been given an opportunity of showing cause against each fine or deductions.
  - (iii) The total amount of fines, which may be imposed in any one wage period on a worker, shall not exceed an amount equal to three paise in rupee of the wage payable to him in respect of that wage period.
  - (iv) No fine imposed on any worker shall be recovered from him by installments or after the expiry of 60 days from the date on which it was imposed.
8. **Register of fines etc. :** The contractor shall maintain a register of fines and of all deductions for damage or loss. Such register shall mention the reasons for which fine was imposed or deduction for damage or loss was made. The Contractor shall maintain both in English and local Indian Language, a list approved by the Labour Commissioner clearly stating the acts and omission for which penalty of fine may be imposed on a workman and display it in a good conditions in a conspicuous place on the work.
9. **Preservation of Register :** The wage register, the wage card and the register fines deductions required to be maintained under these regulations, shall be preserved for 12 months after the date of the 1st entry made in them.
10. **Powers of Labour Welfare Officer to make investigation of enquiry :** The Labour Welfare Officer or any other person, authorized by the State Government on their behalf, shall have power to make enquires with a view to ascertaining and enforcing due and proper observance of the fair wage clauses and provisions of the fair wage clauses and provisions of the regulations. He shall investigate into any complaint regarding default made by the Contractor or Sub-Contractor in regard to such provisions.
11. **Report of Labour Welfare Officer :** The Labour Welfare Officer or other person, authorized as aforesaid, shall submit a report of the result of his investigation or enquiry of the Estate Officer concerned indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractors bill be made and the wage and other dues be paid to the labour concerned in case an appeal is made by contractor under clause 12 of these regulations, actual payment to Labours will be made by the Estate Officer after the Labour Commissioner had given decision on Such appeal.
12. **Appeal against the decision of Labour Welfare Officers :** Any person aggrieved by the decision and recommendation of the Labour Welfare Officer or other persons, so authorized, may appeal against such decision to the Labour Commissioner within 30 days from the date of decision forwarding simultaneously a copy of his appeal to the Estate officer concurred but subject to such appeal the decision of the Officer shall be final and binding upon the contractor.
- 12-A No party shall be allowed to be represented by a lawyer during any investigation, enquiry, appeal or any other proceedings.
13. **Inspection of Wages Books and Slips :** The Contractor shall allow inspection of the wage books and wage slips and register of fines and deductions to any of his workers or to his agent at a convenient time and place after due notices in received or to the Labour Welfare Officer or any other person authorized by the State Government on his behalf.
14. **Submission of Return :** The Contractor shall submit periodical returns, as may be specified from time to time.
15. **Amendments :** The State Government may, from time to time, add to or amend these regulations and on any questions as to the application, interpretational effect of these regulations, the decision of the Labour Commissioner to the Government of Rajasthan or any other person authorized by the State Government in that behalf, shall be final.

**SCHEDULE OF FAIR WAGE TO BE GIVEN BY ESTATE OFFICER,  
LIST OF ACTS AND COMMISSIONER FOR WHICH FINE CAN BE IMPOSED**

(1) Willful insubordination or disobedience whether alone or in combination with another. (2) The fraud or dishonesty in connection with the contractor's business or property of the University. (3) Taking or giving bribes or any illegal gratification. (4) Habitual late attendance. (5) Drunkenness, fighting, riot or disorderly or indecent behavior. (6) Habitual negligence. (7) Smoking near or around the area where combustible or other materials are stocked. (8) Habitual indiscipline. (9) Causing damage work in progress or to property of the university or the contractor. (10) Sleeping on duty. (11) Malingering or showing down work. (12) Giving of false information regarding name, age, father's name. (13) Habitual loss of wage cards supplied by the employers. (14) Unauthorized use of employer's property or manufacturing or making of unauthorized articles at the work places. (15) Bad workmanship in construction and maintenance by skilled workers which is not approved by the department and for which contractors are compelled to undertake rectification. (16) Making false complaints and/or misleading statement. (17) Engaging, in trade within the premises of the establishment. (18) Any delinquency of business affairs of the employers. (19) Collection or canvassing for the collection of any money within the premises of an establishment unless authorized by the employer. (20) Holding meeting inside the premises without previous sanction of the employer. (21) Threatening or intimidating any workmen or employee during the working hours within the premises.

Particulars	Rates which the materials will be charged to the contractor			Place of Delivery
	Unit	Rs.	NP.	
Doors, with Chowkhats				
Doors, with Chowkhats				
Doors, with Chowkhats				
Windows with Chowkhats				
Windows with Chowkhats				
Windows with Chowkhats				
Steel Shapes				
Steel Shapes				
Steel Shapes				
Bars Mild Steel				
Sheets plain, G.I.				
Sheets plain, Corrugated G.I.				
etng, Wire				
Belts Tower				
Belts Tower				
Locks, Mortice				
Locks, Mortice Rim				
Hinge, Butt				
Hinge, Butt				
Hinges, Spring				
Cement, Portland				

Note : The person or firm submitting the tender should see that the rates in the above schedule are filled up by the Engineer in charge of the issue of the form prior to the submission to the tender.

(Signature of Contractor)

(Signature of Engineer)

**Progress Statement referred to in Clause 3 of Conditions of Contract**

Name of Work	Date from which the work should be commenced	Date by which the work should be completed	Monthly rate of Progress
1	2	3	4

The Contractor has been informed that his tender has been accepted.

Date :  
Engineer in charge/Estate officer

Date :  
Contractor

**NOTES FOR FILLING IN THE PROGRESS STATEMENT FORM  
ON THE LAST PAGE**

1. Columns 2, 3 and 4 must be initialed and dated by the contractor.
2. Column 4 must be initialed and dated by the Estate officer or other duly authorized Engineer also.
3. The date in column 2 should correspond to the date on which the order to commence work is given to contractor, specified in line 3, clause 2, page 3 of the "condition of contract".
4. The date in column 3 must correspond to the period stated in clause (f) page 2, of the tender.
5. Column 4, This will ordinarily be worked out proportionately; thus if Rs. 24,000/- is the cost of the whole portion of work tendered for, and six months period of completion, then the monthly rate of progress should be Rs. 4,000. If necessary, quantities may also be specified in this column at the discretion of the Estate officer.
6. The certificate as to intimation acceptance of tender printed at the foot of the form, must be signed and dated both by the Estate officer or other duly authorized Engineer and the contractor.

**STATEMENT OF PAYMENTS & RECOVERIES TO BE ATTACHED WITH THE AGREEMENT OF WORKS**

S.No. of Bill	Gross Amt. of Bill	Progressive Total Amt. of Bills	Recoveries										Net Amount of Payment	C.B./Vt.No. & Date	Dated Initials of	
			Materials TBP	Quantity Hours	Amount	S.D.	Income tax deduction	Sales Tax	Royalty	Other Recoveries	Total Recoveries	S.A.O.			E.O.	
1	2	3	4(a)	4(b)	4(c)	4(d)	4(e)	4(f)	4(g)	4(h)	4(i)	4(j)	5	6	7	8

राजस्थान सरकार  
वित्त (जी. एण्ड टी.) विभाग

क्रमांक: एफ 1(8)वित्त/सकिलेनि/2011

जयपुर, दिनांक: 4 फरवरी, 2013  
परिपत्र सं. - 3/2013

परिपत्र

जैसा कि आपको विदित है राजस्थान राजपत्र में जारी अधिसूचना दिनांक 24.01.2013 द्वारा राजस्थान लोक उपापन में पारदर्शिता अधिनियम, 2012 (Rajasthan Transparency in Public Procurement Act, 2012) एवं राजस्थान लोक उपापन में पारदर्शिता नियम, 2013 (Rajasthan Transparency in Public Procurement Rules, 2013) राज्य में दिनांक 28.01.2013 से प्रभावी हो गये हैं। सम्स्त उपापन संस्थाएँ (Procurement Entities) जिसमें राज्य सरकार के सम्स्त विभाग, सरकार के स्वामित्वाधीन या नियंत्रणाधीन कोई भी राज्य पब्लिक सेक्टर उद्यम, सविधान द्वारा स्थापित या गठित कोई भी निकाय जिसके व्यय की पूर्ति राज्य की समेकित निधि से की जाती है, राज्य विधान मण्डल के किसी अधिनियम द्वारा स्थापित या गठित कोई निकाय या बोर्ड या निगम या प्राधिकरण या सोसायटी या न्यास या स्थायक निकाय या राज्य सरकार के स्वामित्वाधीन या नियंत्रणाधीन कोई निकाय, सम्मिलित है, के द्वारा सामग्री, सेवा, संकर्म (Works) के उपापन (Procurement) के नामलों में उक्त अधिनियम एवं नियमों की अमरशा पालना सुनिश्चित किया जाना आवश्यक है।

उक्त अधिनियम की धारा 50 के अन्तर्गत राज्य उपापन सुविधा प्रकोष्ठ (State Procurement Facilitation Cell) का गठन किया जा चुका है। उक्त प्रकोष्ठ का नोडल अधिकारी संयुक्त सचिव, वित्त (जीएण्डटी) विभाग को बनाया गया है यदि उपापन संस्था उक्त अधिनियम एवं नियमों के संदर्भ में कोई जानकारी की अपेक्षा रखती है तो प्रशासनिक विभाग के माध्यम से प्रकरण राज्य उपापन सुविधा प्रकोष्ठ को प्रेषित किया जा सकता है।

उक्त अधिनियम की धारा 17 में दिये गये प्रावधान के तहत राज्य लोक उपापन पोर्टल (<http://sppp.raj.nic.in>) बना दिया गया है। उपापन संस्था अधिनियम की धारा 17 (2) एवं राजस्थान लोक उपापन में पारदर्शिता नियम, 2013 के प्रावधानों के अनुसार पालना सुनिश्चित कराएँ।

Doel

उक्त अधिनियम के अध्याय 3 एवं नियमों के अध्याय 7 के अनुसार बोली लगाने वाला या भावी बोली लगाने वाला (bidder or prospective bidder) उपापन प्रक्रिया के दौरान उपापन संस्था के किसी निर्णय, कार्रवाई या लोप, इस अधिनियम या इसके अधीन जारी नियमों के उपबन्धों के उल्लंघन में है तो वह अपील दाखिल कर सकेगा। इस संबंध में बोली दस्तावेजों, पूर्व अर्हता दस्तावेजों, रजिस्ट्रीकरण दस्तावेजों में प्रथम अपील अधिकारी का पदाभिहित (designated) विनिर्दिष्ट (specified) उल्लेख उपापन संस्था द्वारा किया जाना आवश्यक है। अतः, अधिनियम की धारा 3 (2) में उल्लिखित समस्त विभाग/संगठन अपने स्तर पर प्रथम अपील अधिकारी का निर्धारण कर वित्त विभाग को दिनांक 15 फरवरी, 2013 तक सूचित करें। यहां यह उल्लिखित करना उपयुक्त होगा कि प्रथम अपील अधिकारी उपापन संस्था से एक स्तर उच्च होना आवश्यक है। द्वितीय अपील अधिकारी राज्य सरकार के विभागों के लिये संबंधित प्रशासनिक विभाग होगा। यदि प्रशासनिक विभाग स्वयं उपापन संस्था या प्रथम अपील अधिकारी है तो वित्त विभाग प्रथम/द्वितीय अपील अधिकारी होगा। ऐसे मामलों में जहां वित्त विभाग प्रथम अपील अधिकारी है तो द्वितीय अपील अधिकारी प्रकरण विशेष के अनुसार राज्य सरकार द्वारा पदाभिहित (designated) किया जायेगा।

उक्त अधिनियम के अनुसार सामग्री, सेवा, राकम के उपापन के लिये स्टेण्डर्ड बिडिंग डॉक्यूमेंट्स प्रक्रियाधीन है। अधिनियम की धारा 59 (Savings) के अनुसार इस अधिनियम में उपबन्धित सामग्री, सेवा एवं राकमों के उपापन से संबंधित समस्त नियम, विनियम, आदेश, अधिसूचनाएं, विभागीय संदेशावली, निर्देशिकाएं, उपविधियां, शासकीय आपन या परिपत्र जो इस अधिनियम के प्रारम्भ की तारीख को प्रवृत्त थे, उनके इस अधिनियम के उपबन्धों से संगत होने की सीमा तक तब तक प्रवृत्त बने रहेंगे जब तक कि उनको इस अधिनियम के अधीन बनाये या जारी किये गये नियमों, मार्गदर्शक सिद्धान्तों, अधिसूचना या यथास्थिति आदेश द्वारा निरस्त या अतिक्रमित नहीं कर दिया जाता। अतः, उक्त अधिनियम एवं नियमों के अनुसार सामग्री या सेवा के उपापन के लिये वर्तमान प्रचलित बिड दस्तावेज सामान्य वित्तीय एवं लेखा नियम पार्ट II में दिये गये SR फार्म 14, 15, 16 और 17 तथा राकम के उपापन के लिये सार्वजनिक निर्माण वित्तीय एवं लेखा नियम के अपेण्डिक्स XI में दिये गये वर्तमान प्रचलित दस्तावेज बोली दस्तावेजों के रूप में अधिनियम व नियमों के प्रावधानों की सीमा तक प्रयोग किये जा सकेंगे, जब तक कि नवीन स्टेण्डर्ड बिडिंग डॉक्यूमेंट्स जारी नहीं किये जाते हैं। तथापि निम्नांकित सलग्नक (Annexures) वर्तमान प्रचलित बोली दस्तावेजों के साथ सम्मिलित किये जायेंगे ही बिड दस्तावेज जारी किया जाना सुनिश्चित किया जाये—

**Annexure A : Compliance with the Code of Integrity and No Conflict of Interest**

**Annexure B : Declaration by Bidders regarding Qualifications**

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**Annexure C : Grievance Redressal during Procurement Process**  
**Annexure D : Additional Conditions of Contract**

अतः प्रशासनिक विभाग अपने अधीन समस्त विभागी, कार्यालयों एवं संगठनों से उक्त निर्देशों की कठोरता से पालना सुनिश्चित करावें।

संलग्न: Annexure A to D




(अखिल अरोरा)

शासन सचिव, वित्त (बजट)

प्रतिलिपि निम्नांकित को सूचनाार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित है-

1. निजी सचिव राजस्थान/मुख्यमंत्री/समस्त मंत्रीगण/राज्य मंत्रीगण।
2. निजी सचिव, मुख्य सचिव/समस्त अति. मुख्य सचिव/समस्त प्रमुख शासन सचिव/समस्त शासन सचिव/समस्त विशिष्ट शासन सचिव।
3. सचिव, राजस्थान विधान सभा राजस्थान, जयपुर। 4. सचिव, लोकसभसचिव, राजस्थान, जयपुर।
5. सचिव, राजस्थान लोक सेवा आयोग, अजमेर। 6. रजिस्ट्रार, राजस्थान उच्च न्यायालय, जोधपुर/जयपुर।
7. समस्त संयुक्त शासन सचिव/उप शासन सचिव/सचिवालय के समस्त अनुभाग/विभाग।
8. प्रधान महालेखाकार (सहिल लेखा परीक्षा) राजस्थान, जयपुर।
9. महालेखाकार (प्राप्ति एवं वाणिज्यिक लेखा परीक्षा)/[ए एण्ड ई] राजस्थान, जयपुर।
10. समस्त विभागाध्यक्ष/जिला कलेक्टर/संभागीय आयुक्त।
11. रजिस्ट्रार, राजस्थान जिला सेवा अधीन अधिकरण, जयपुर। 12. समस्त कोषाधिकारी।
13. सिस्टम एनालिस्ट: वित्त विभाग को भेजकर लेख है कि परिपत्र को जो दिनांक विभाग की वेबसाइट पर प्रकाशित करवाने की व्यवस्था करावे।



(उर्मिला जाँसी)

संयुक्त सचिव

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## Annexure A : Compliance with the Code of Integrity and No Conflict of Interest

Any person participating in a procurement process shall -

- (a) not offer any bribe, reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or to otherwise influence the procurement process;
- (b) not misrepresent or omit that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
- (c) not indulge in any collusion, Bid rigging or anti-competitive behavior to impair the transparency, fairness and progress of the procurement process;
- (d) not misuse any information shared between the procuring Entity and the Bidders with an intent to gain unfair advantage in the procurement process;
- (e) not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
- (f) not obstruct any investigation or audit of a procurement process.
- (g) disclose conflict of interest, if any; and
- (h) disclose any previous transgressions with any Entity in India or any other country during the last three years or any debarment by any other procuring entity.

### Conflict of Interest:-

The Bidder participating in a bidding process must not have a Conflict of Interest.

A Conflict of Interest is considered to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

- i. A Bidder may be considered to be in Conflict of Interest with one or more parties in a bidding process if, including but not limited to:
  - a. have controlling partners/ shareholders in common; or
  - b. receive or have received any direct or indirect subsidy from any of them; or
  - c. have the same legal representative for purposes of the Bid; or
  - d. have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Procuring Entity regarding the bidding process; or
  - e. the Bidder participates in more than one Bid in a bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the Bidder is involved. However, this does not limit the inclusion of the same subcontractor, not otherwise participating as a Bidder, in more than one Bid; or
  - f. the Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Goods, Works or Services that are the subject of the Bid; or
  - g. Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as engineer-in-charge/ consultant for the contract.

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## Annexure B : Declaration by the Bidder regarding Qualifications

### Declaration by the Bidder

In relation to my/our Bid submitted to ..... for procurement of ..... in response to their Notice Inviting Bids No..... Dated..... I/we hereby declare under Section 7 of Rajasthan Transparency in Public Procurement Act, 2012, that:

1. I/we possess the necessary professional, technical, financial and managerial resources and competence required by the Bidding Document issued by the Procuring Entity;
2. I/we have fulfilled my/our obligation to pay such of the taxes payable to the Union and the State Government or any local authority as specified in the Bidding Document;
3. I/we are not insolvent, in receivership, bankrupt or being wound up, not have my/our affairs administered by a court or a judicial officer, not have my/our business activities suspended and not the subject of legal proceedings for any of the foregoing reasons;
4. I/we do not have, and our directors and officers not have, been convicted of any criminal offence related to my/our professional conduct or the making of false statements or misrepresentations as to my/our qualifications to enter into a procurement contract within a period of three years preceding the commencement of this procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
5. I/we do not have a conflict of interest as specified in the Act, Rules and the Bidding Document, which materially affects fair competition;

Date:  
Place:

Signature of bidder  
Name :  
Designation:  
Address:

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## **Annexure C : Grievance Redressal during Procurement Process**

The designation and address of the First Appellate Authority is \_\_\_\_\_

The designation and address of the Second Appellate Authority is \_\_\_\_\_

### **(1) Filing an appeal**

If any Bidder or prospective bidder is aggrieved that any decision, action or omission of the Procuring Entity is in contravention to the provisions of the Act or the Rules or the Guidelines issued thereunder, he may file an appeal to First Appellate Authority, as specified in the Bidding Document within a period of ten days from the date of such decision or action, omission, as the case may be, clearly giving the specific ground or grounds on which he feels aggrieved:

Provided that after the declaration of a Bidder as successful the appeal may be filed only by a Bidder who has participated in procurement proceedings:

Provided further that in case a Procuring Entity evaluates the Technical Bids before the opening of the Financial Bids, an appeal related to the matter of Financial Bids may be filed only by a Bidder whose Technical Bid is found to be acceptable.

- (2) The officer to whom an appeal is filed under para (1) shall deal with the appeal as expeditiously as possible and shall endeavour to dispose it of within thirty days from the date of the appeal.
- (3) If the officer designated under para (1) fails to dispose of the appeal filed within the period specified in para (2), or if the Bidder or prospective bidder or the Procuring Entity is aggrieved by the order passed by the First Appellate Authority, the Bidder or prospective bidder or the Procuring Entity, as the case may be, may file a second appeal to Second Appellate Authority specified in the Bidding Document in this behalf within fifteen days from the expiry of the period specified in para (2) or of the date of receipt of the order passed by the First Appellate Authority, as the case may be.

### **(4) Appeal not to lie in certain cases**

No appeal shall lie against any decision of the Procuring Entity relating to the following matters, namely:-

- (a) determination of need of procurement;
- (b) provisions limiting participation of Bidders in the Bid process;
- (c) the decision of whether or not to enter into negotiations;
- (d) cancellation of a procurement process;
- (e) applicability of the provisions of confidentiality.

### **(5) Form of Appeal**

- (a) An appeal under para (1) or (3) above shall be in the annexed Form along with as many copies as there are respondents in the appeal.
- (b) Every appeal shall be accompanied by an order appealed against, if any, affidavit verifying the facts stated in the appeal and proof of payment of fee.

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(c) Every appeal may be presented to First Appellate Authority or Second Appellate Authority, as the case may be, in person or through registered post or authorised representative.

**(6) Fee for filing appeal**

(a) Fee for first appeal shall be rupees two thousand five hundred and for second appeal shall be rupees ten thousand, which shall be non-refundable.

(b) The fee shall be paid in the form of bank demand draft or banker's cheque of a Scheduled Bank in India payable in the name of Appellate Authority concerned.

**(7) Procedure for disposal of appeal**

(a) The First Appellate Authority or Second Appellate Authority, as the case may be, upon filing of appeal, shall issue notice accompanied by copy of appeal, affidavit and documents, if any, to the respondents and fix date of hearing.

(b) On the date fixed for hearing, the First Appellate Authority or Second Appellate Authority, as the case may be, shall,-

(i) hear all the parties to appeal present before him; and

(ii) peruse or inspect documents, relevant records or copies thereof relating to the matter.

(c) After hearing the parties, perusal or inspection of documents and relevant records or copies thereof relating to the matter, the Appellate Authority concerned shall pass an order in writing and provide the copy of order to the parties to appeal free of cost.

(d) The order passed under sub-clause (c) above shall also be placed on the State Public Procurement Portal.

**Memorandum of Appeal under the Rajasthan Transparency in Public Procurement Act, 2012**

Appeal No ..... of .....  
Before the ..... (First / Second Appellate Authority)

**1. Particulars of appellant:**

(i) Name of the appellant:

(ii) Official address, if any:

(iii) Residential address:

**2. Name and address of the respondent(s):**

(i)

(ii)

(iii)

**3. Number and date of the order appealed against and name and designation of the officer / authority who passed the order (enclose copy), or a statement of a decision, action or omission of the Procuring Entity in contravention to the provisions of the Act by which the appellant is aggrieved:**

**4. If the Appellant proposes to be represented by a representative, the name and postal address of the representative:**

**5. Number of affidavits and documents enclosed with the appeal:**

**6. Grounds of appeal:**

.....  
.....  
..... (Supported by an affidavit)

**7. Prayer:**

Place .....

Date .....

Appellant's Signature

## Annexure D : Additional Conditions of Contract

### 1. Correction of arithmetical errors

Provided that a Financial Bid is substantially responsive, the Procuring Entity will correct arithmetical errors during evaluation of Financial Bids on the following basis:

- i. if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Procuring Entity there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected,
- ii. if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- iii. if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (i) and (ii) above.

If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be disqualified and its Bid Security shall be forfeited or its Bid Securing Declaration shall be executed.

### 2. Procuring Entity's Right to Vary Quantities

- (i) At the time of award of contract, the quantity of Goods, works or services originally specified in the Bidding Document may be increased or decreased by a specified percentage, but such increase or decrease shall not exceed twenty percent, of the quantity specified in the Bidding Document. It shall be without any change in the unit prices or other terms and conditions of the Bid and the conditions of contract.
- (ii) If the Procuring Entity does not procure any subject matter of procurement or procures less than the quantity specified in the Bidding Document due to change in circumstances, the Bidder shall not be entitled for any claim or compensation except otherwise provided in the Conditions of Contract.
- (iii) In case of procurement of Goods or services, additional quantity may be procured by placing a repeat order on the rates and conditions of the original order. However, the additional quantity shall not be more than 25% of the value of Goods of the original contract and shall be within one month from the date of expiry of last supply. If the Supplier fails to do so, the Procuring Entity shall be free to arrange for the balance supply by limited Bidding or otherwise and the extra cost incurred shall be recovered ~~from the~~ Supplier.

**3. Dividing quantities among more than one Bidder at the time of award (In case of procurement of Goods)**

As a general rule all the quantities of the subject matter of procurement shall be procured from the Bidder, whose Bid is accepted. However, when it is considered that the quantity of the subject matter of procurement to be procured is very large and it may not be in the capacity of the Bidder, whose Bid is accepted, to deliver the entire quantity or when it is considered that the subject matter of procurement to be procured is of critical and vital nature, in such cases, the quantity may be divided between the Bidder, whose Bid is accepted and the second lowest Bidder or even more Bidders in that order, in a fair, transparent and equitable manner at the rates of the Bidder, whose Bid is accepted.

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Signature Not Verified

Digitally signed by  Date: 2018.08.03 20:17:38 IST  
Location: Rajasthan 



## Special Conditions of contract regarding Defect Liability Period for works.

### Civil Works:-

Defect liability period for Building structure and other Civil works 3 years reckoned from date of actual completion of the Building 2 years for the defects pertaining to Sanitary works, Electrical Joinery works & Painting works. Generally, following defects for D.L.P.

1. Surface cracks on R.C.C. work.
2. Cracks in masonry, walls, pillars, etc.
3. Dampness appeared on surface of wall ceiling, floors, etc.
4. De-laminations and unevenness of surface.
5. Leakage, cracks in drainage system, dampness in sunk portions.
6. Defects in paint works, distemping, white-wash, etc. & unevenness in shade, peeling out, flakes on the surface, etc.
7. Cracks, settlement, unevenness, opening of joints in floorings.
8. Doors, Windows and Ventilators opening and closing are Fitting & fixtures are not functioning smoothly.
9. Steel fabrication works not grinded properly and finished.
10. Leakage/chocking in pipelines, taps, valves, showers, wash Sanitary-ware fitting not functioning smoothly.
11. External services for storm water, sewerage, rain water harvest not functioning properly.

In addition to the above items the engineer-in-charge may add more items of the nature of work which seems to be covered under 2 year guarantee from the date of commissioning.

## GENERAL

### 1. Inspection of works during Defect Liability Period:

The contracting agency shall undertake joint detailed inspection with the Engineer-in-charge/ AEn, at least once in three months in case of Road/Bridge/C.D. works. The Engineer-in-charge can reduce this frequency in case of emergency. The Contracting agency shall forward to the Engineer-in-charge the record of inspection and rectification within 15 days after each inspection. The Contracting agency shall pay particular attention on those sections, which are likely to be damaged during rainy season.

Once register has to be maintained by every AEn for recording the details of works in his jurisdiction under defect liability period.

### 2. Conditions regarding Security Deposit

#### \* Security for DLP

The contracting agency shall have to furnish security deposit in the form of Bank Guarantee for DLP as per requirements of clause 10 of Contract Agreement, valid from the date of completion, which shall be assigned by the Engineer-in-charge.

#### Forfeiture of SD

If in case contraction agency fails to rectify the defects within the period notified to him by the Engineer-in-charge concerned under the contract agreement, the Engineer-in-charge shall serve a final notice within a specified time from reckoned from the date of issue to rectify the defects. In case the contraction agency not responding to notice and fails in rectification of defects the Engineer-in-charge will get the defects removed at the expense and cost of the contracting agency. Action such as encashment of Bank Guarantee and action under enlistment rules etc. shall be taken against the contracting agency by the competent authority.

*[Handwritten signature]*

*[Handwritten mark]*

In addition to the above, any defects identified by the user and/or Engineer-in-charge shall be rectified by the contracting agency within notified period assigned by the Engineer-in-charge.

### Electrical Works:-

12. The defect liability under DLP for 2 years shall be from the completion of the works reckoned by the Engineer-in-charge.

13. The defect shall be in case of non-functioning of the following items:

Internal and External wiring, panels, cables, LT installation from distribution to end use points, MCBs/DBs, ELCBs, earthing, Switchgear, distribution panels, panel switchgears, panel instruments, MCC, cable trenching, Lugs, connecting wire and any other items specified in the contract.

14. Repair and Replacement – The items covered under defect liability shall be replaced and/or repaired as directed by the Engineer-in-charge.

15. Time period for repair/replacement – The Engineer in charge shall notify to the contracting agency and/ or his representative on phone and in writing for rectification of the defect within the prescribed period which may be in hours/days depends on the nature and severity of defect.

16. Consumable Articles – Consumable Articles like tube rods, C.F. fuses, Batteries, Gas filling will be replaced by the client department at their own cost and arrangement.

17. Other items:

1. D.G. Set including fitting and fixtures.
2. Lifts and Escalators.
3. Air cooling/Air conditioning/Heating System.
4. Fire fighting system.
5. CCTV EPABX

The defect arises due to earthquake, cyclone, and natural calamities shall not be the responsibility of contractor agency.

*[Handwritten signature]*

*[Handwritten mark]*



Ministry of Labour, Industrial Relations & Welfare  
 Government of India  
 New Delhi

*My dear Sir,*

The Building and Other Construction Workers' (Regulation of Work and Condition of Service) Act, 1948 was enacted to regulate the employment of workers of the workers who are engaged in building construction work and to provide for their safety, health and welfare and Act of 1948, now also provides the construction workers' welfare Board - important welfare activities for the workers on different subjects, like organization of employees (financially and construction) and

You might be knowing that there is no act, which has special attention of Hon'ble Chief Minister, Chief Secretary and Secretary, Finance, etc. We need not to mention in at the implementation Act is going to be discussed and reviewed at state level in the next

With a view of augmenting the resources of the welfare Board under the Act of 1948, a separate corresponding Act, named "The Building and Other Construction Workers' Welfare Act, 1958" was also provide for the levy and collection of cess on the gross of monthly wages of the employees. The new Act, also also, provides for the levy of cess on the employer to assisting officer, assessment of cess, penalty for non-payment and recovery of amount due under the Act.

Section 21 of the Act provides for levy of Cess on the gross of the monthly wages of the workers. The Ministry of Labour, Industrial Relations & Welfare, Government of India, vide its notification dated 18.5.58, has provided for the levy of Cess on the gross of monthly wages of the employees. The new Act also provides for the levy of cess on the employer to assisting officer, assessment of cess, penalty for non-payment and recovery of amount due under the Act.

Where the levy of cess payable by the employer under the Building and Other Construction Workers' Welfare Act, 1958, shall not be deducted the Cess payable from the gross paid for the purpose of the assessment of contribution...

*Yours faithfully,*

*(Signature)*

by a DD for an amount of Cash payable on the completion of construction.

- (iii) In other cases, an employer may pay amount of Cash for the estimated cost of construction with the commencement of work.

That the collected Cash shall be transferred by the Govt. or local authorities or zone collectors to the Board as prescribed within 10 days of its collection along with the challan.

I call your attention to inform you that a writ petition filed by National campaign committee, CI Labour Union of India & others before the Hon'ble Supreme Court regarding non-implementation of Act in the State and the State Govt. has to submit its affidavit before the Court in terms of implementation of the said Act in the State.

Hence, you're requested to extend your full cooperation for frequent meetings of the concerned departments, P.W.D., local authorities and contractors related to building and other construction works to resolve the pending issues regarding their responsibilities for the establishments and beneficiaries. Submission, collection and transfer of funds in reverse mode, so that the proper implementation of the Act can be carried out and the respective progress to the Hon'ble SC may be reported accordingly. Your early and practical suggestions are well-come.

NOTE: *regards*

Shri Atul Bhasma, IAS,  
District Commissioner,  
Ajmer (Raj)

13/11/20

**Item Wise BoQ**

Tender Inviting Authority: Project Incharge COETC, RAMI Durgapura Jaipur

Name of Work: E-Tender for Construction of Plant Tissue Culture Lab and Protected Structures with Supply, Installation and Commissioning of Laboratory Equipment's on Turnkey Basis

Contract No:

Name of the Bidder/  
Bidding Firm/  
Company:

**PRICE SCHEDULE**

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )

NUMBER #	TEXT #	NUMBER #	NUMBER #	NUMBER #	NUMBER #	NUMBER #	NUMBER #	NUMBER #	NUMBER #	NUMBER #
Sl. No.	Item Description	BASIC RATE In Figures To be entered by the Bidder in Rs. P	GST (if applicable in Percentage)	GST Amount in Rs. P	TOTAL AMOUNT excluding taxes in Rs. P	TOTAL AMOUNT including taxes in Rs. P	TOTAL AMOUNT in Words			
1	2	7	8	9	11	12	13			
1	EBRD									
101	E-Tender for Construction of Plant Tissue Culture Lab and Protected Structures with Supply, Installation and Commissioning of Laboratory Equipment's on Turnkey Basis for the financial Years 2026-2027			0.00	0.00	0.00	0.00 INR Zero Only			
Total in Figures					0.00	0.00	0.00 INR Zero Only			
Quoted Rate in Words		INR Zero Only								

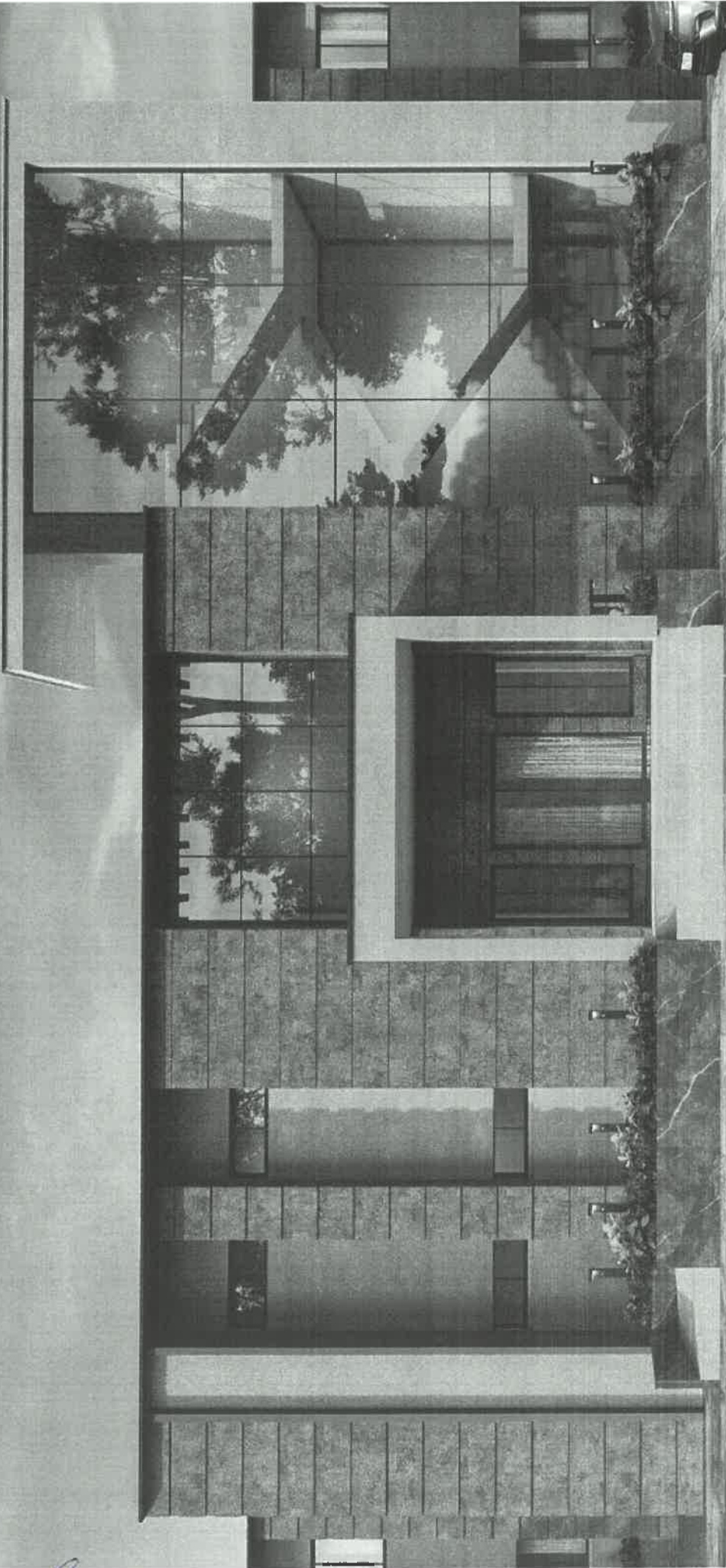
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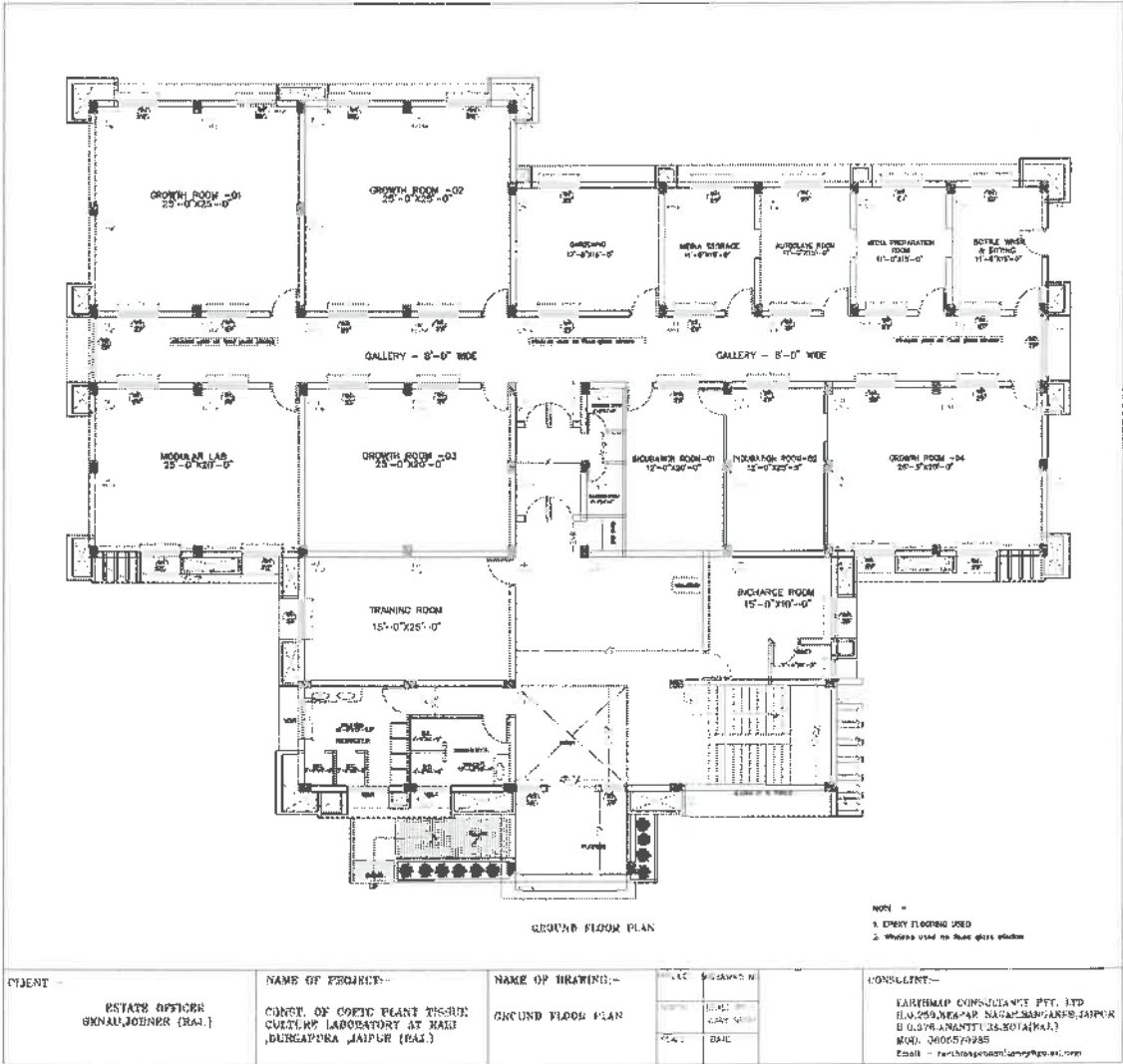
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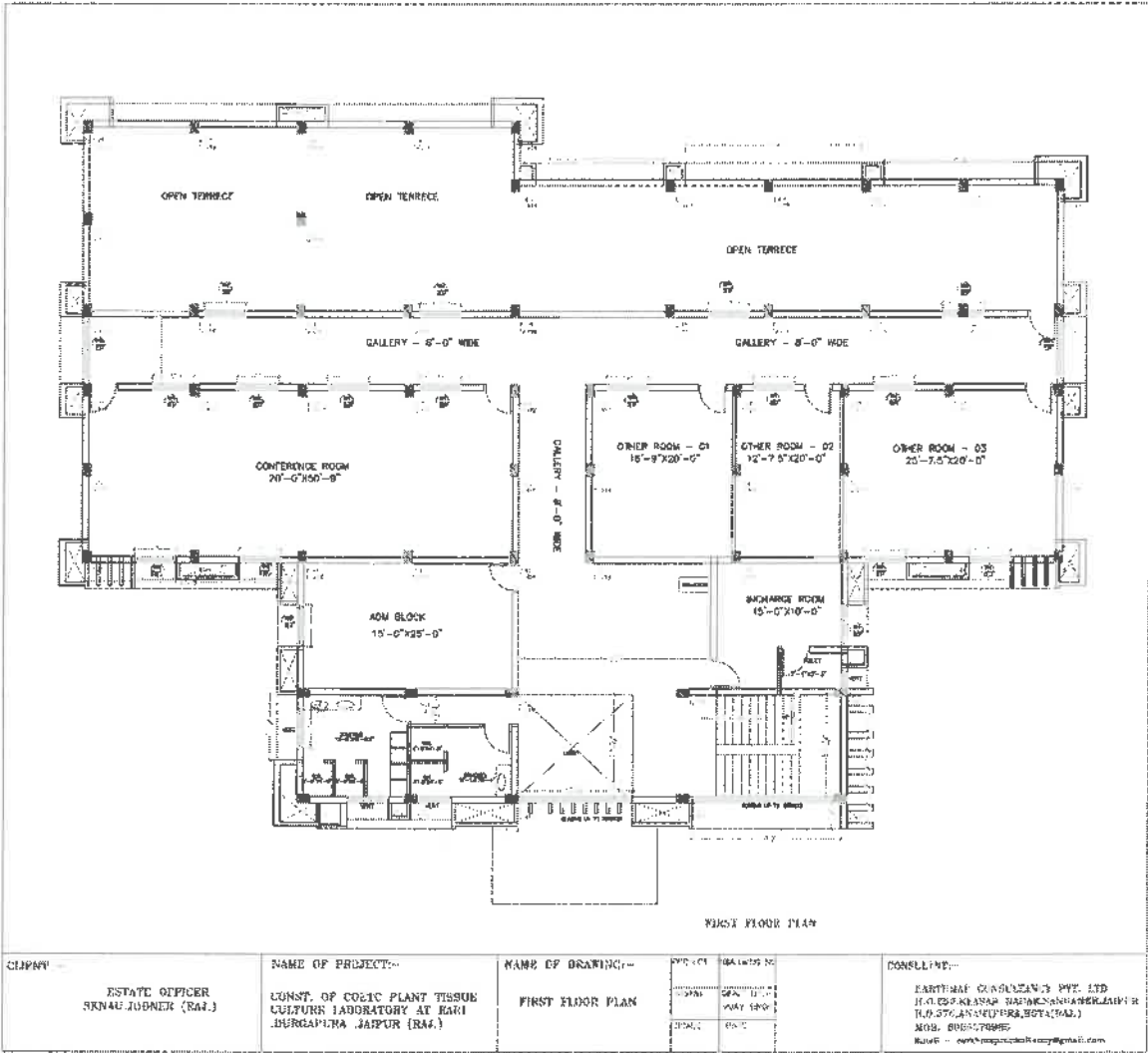
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*Sunil*

*(Signature)*

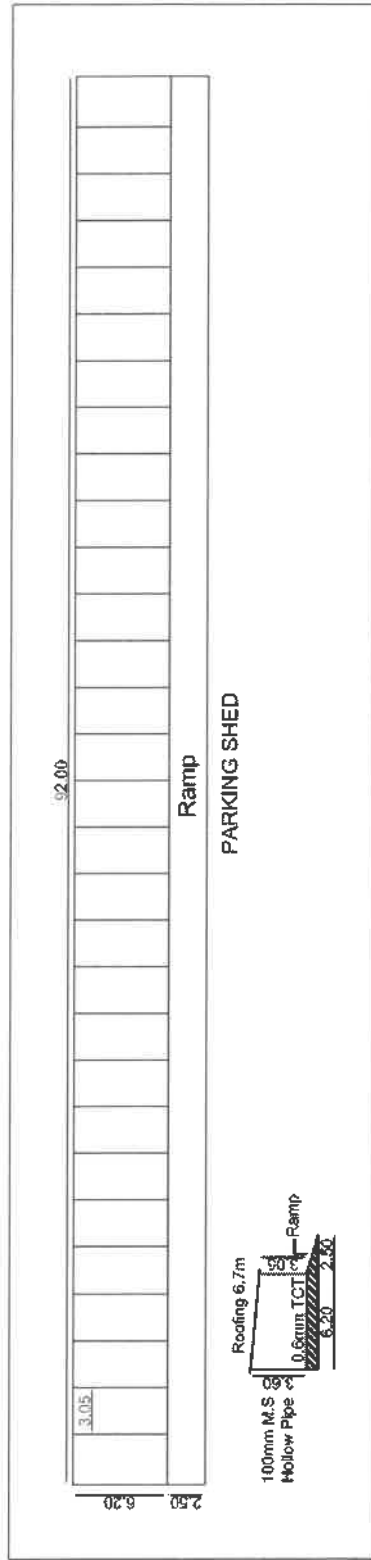


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Parking Shed

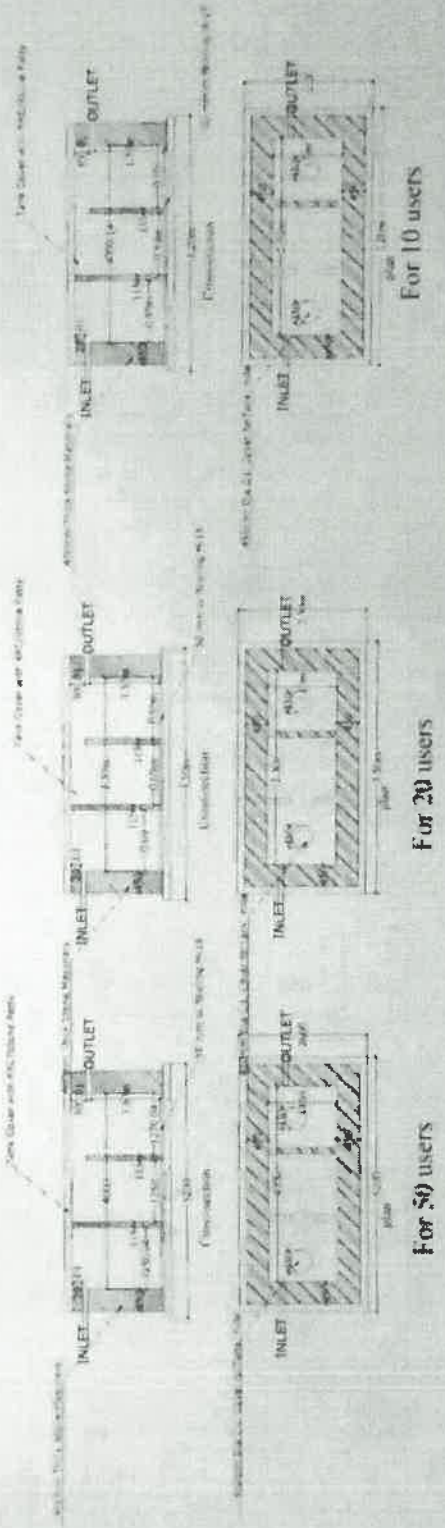
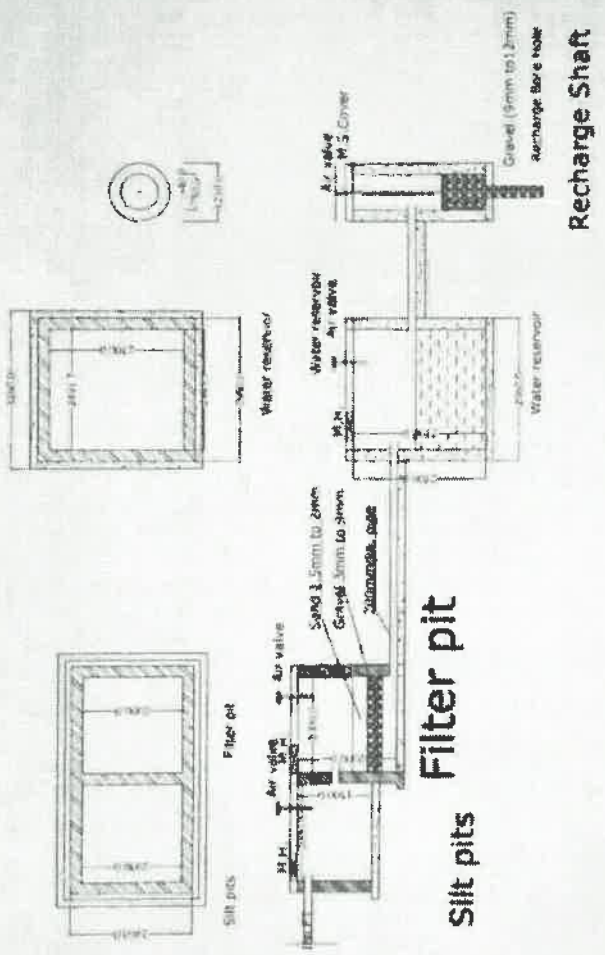
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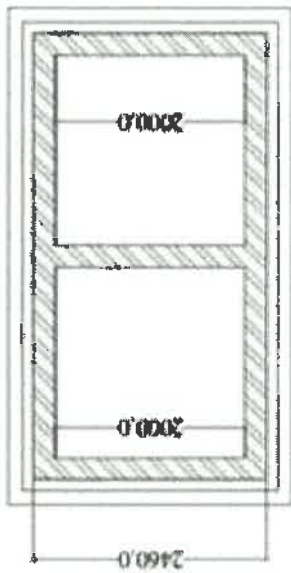
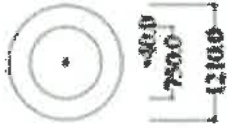
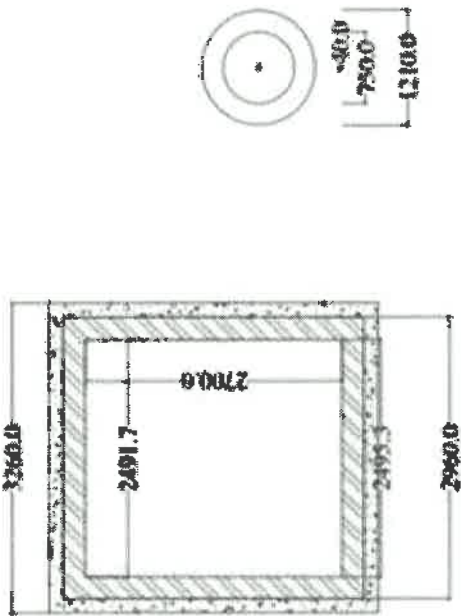
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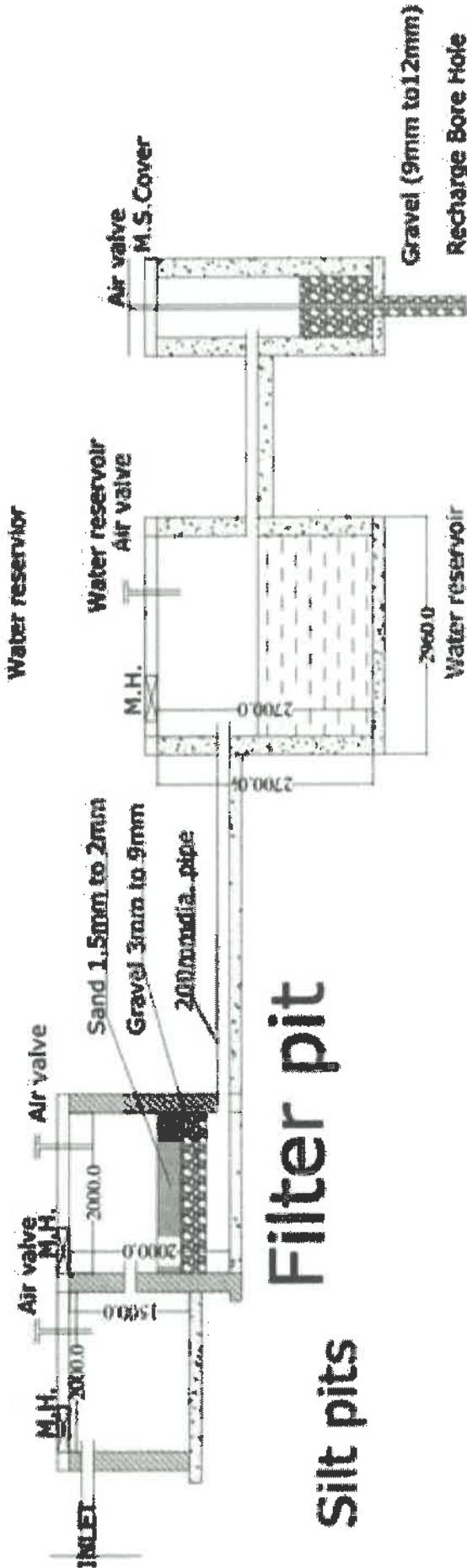
# Septic Tank Details

*Jan*



Silt pits

Filter pit

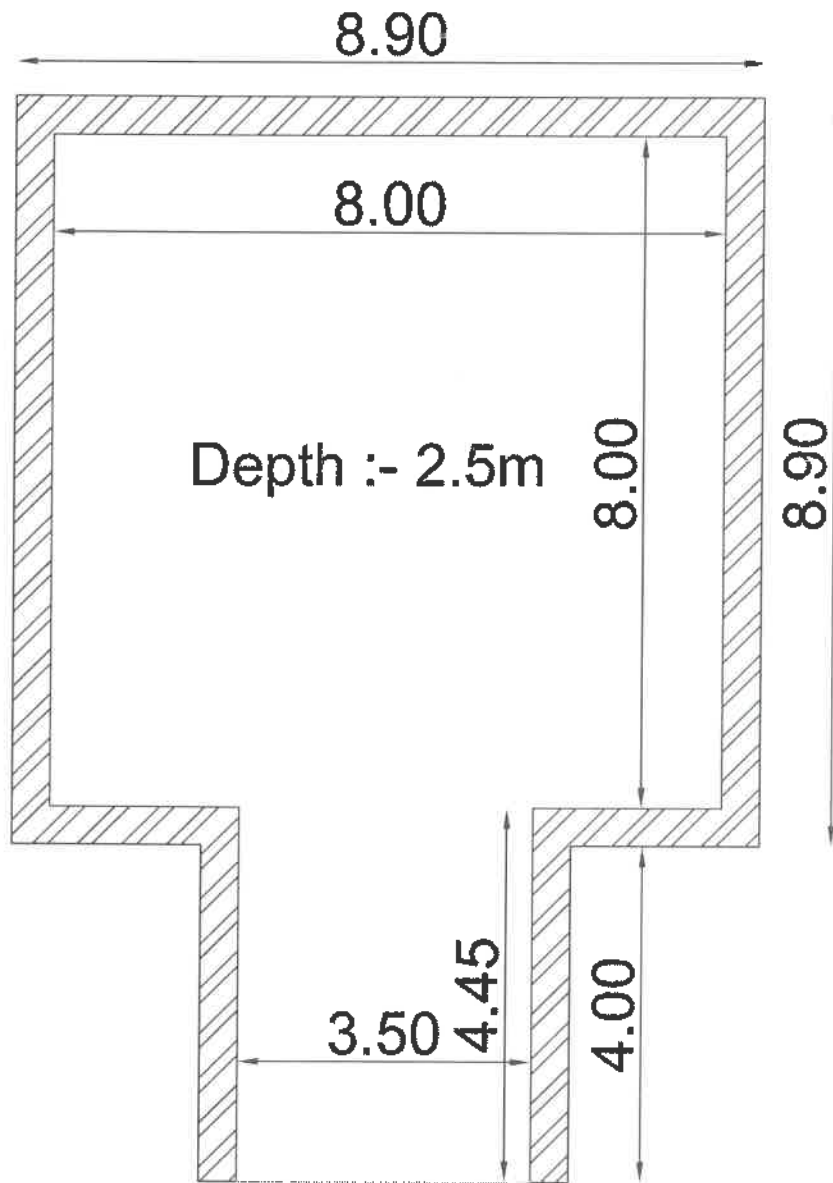


Filter pit

Silt pits

Recharge Shaft

*Q*



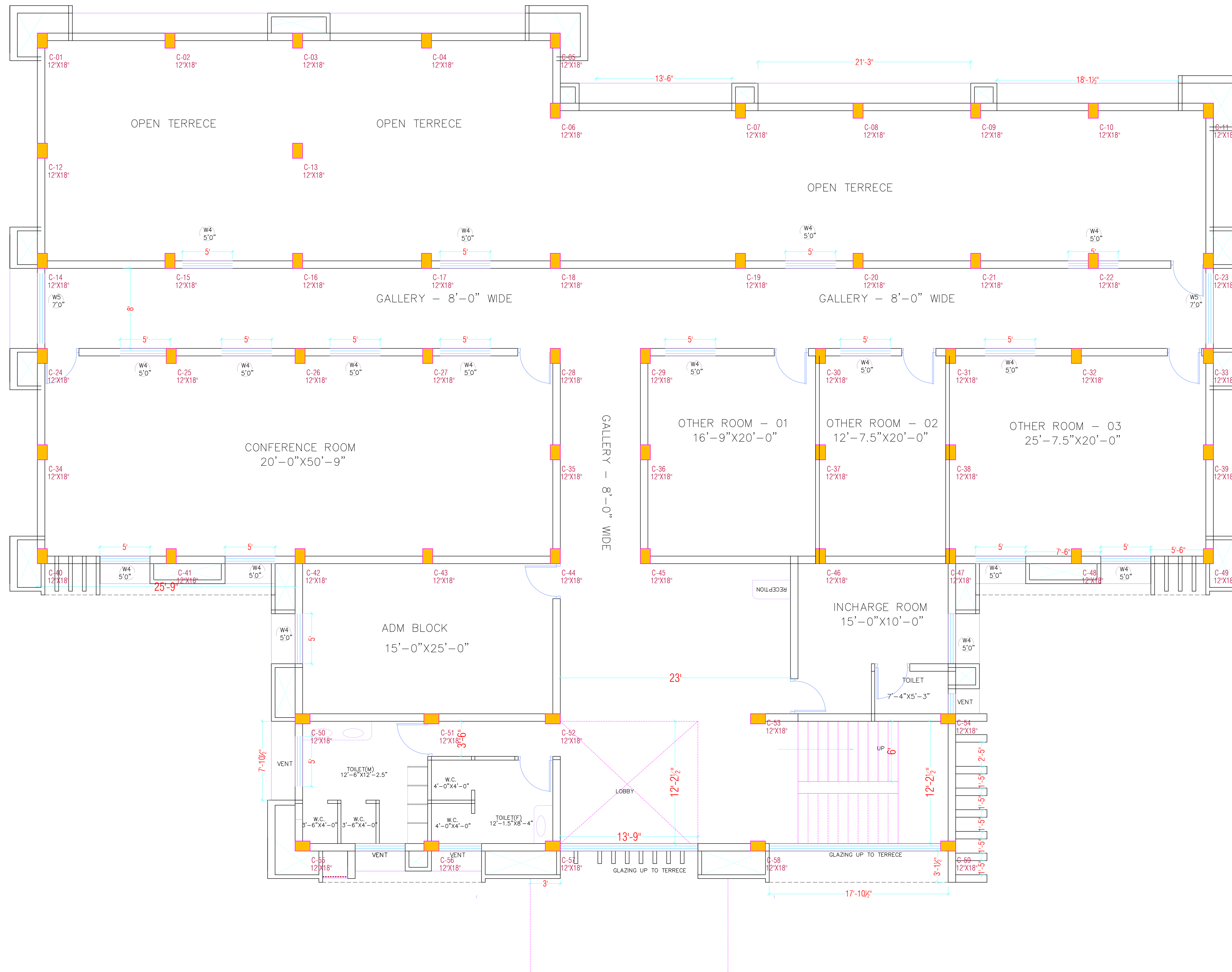
**COMPOST PIT**

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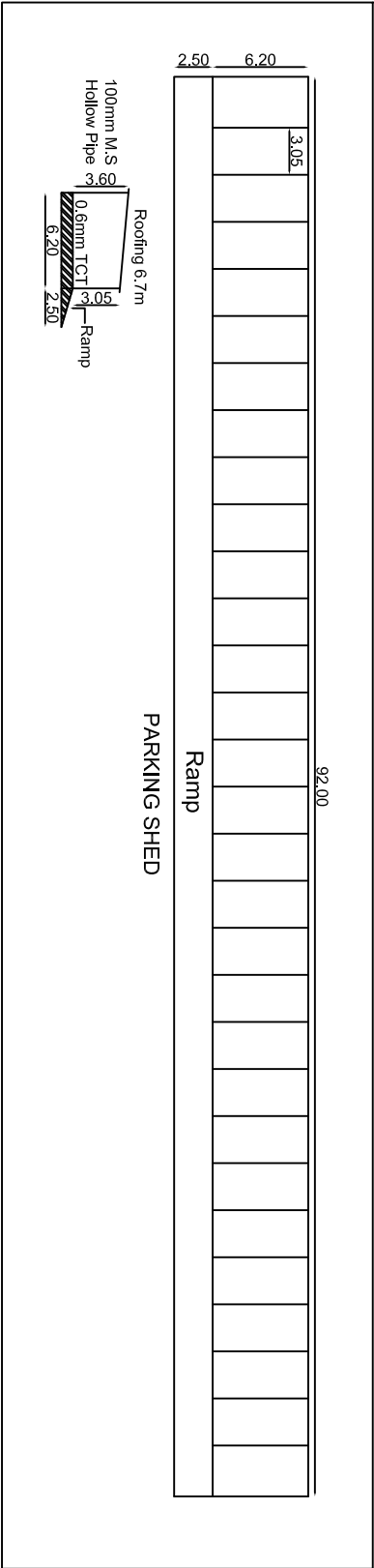


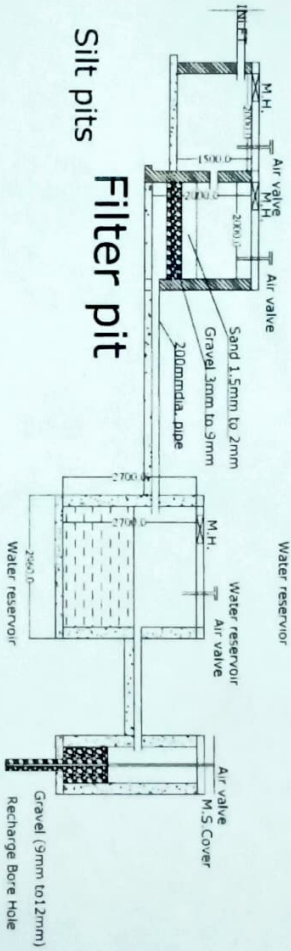
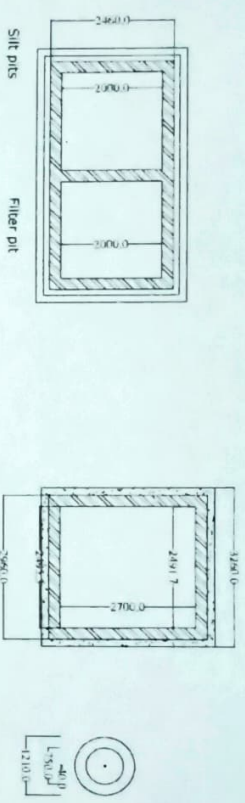




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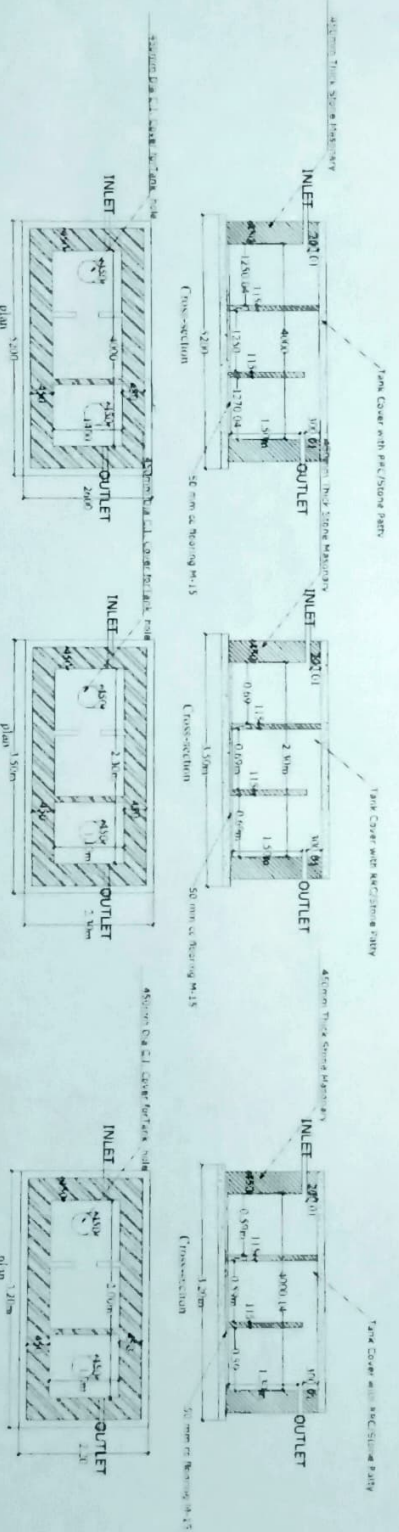
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			NORTH	DEALT BY:- VIJAY SINGH	
			SCALE	DATE	





Silt pits  
Filter pit

Recharge Shaft

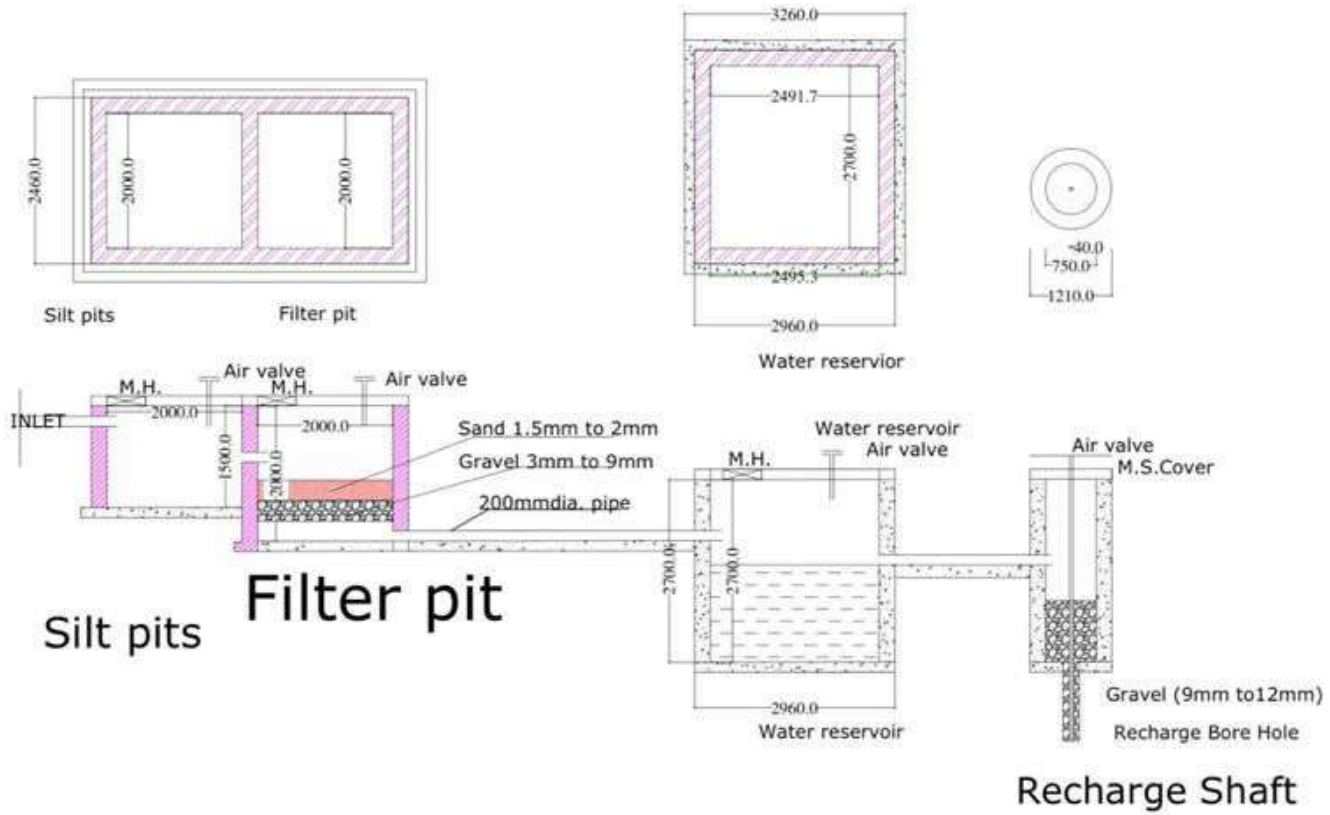


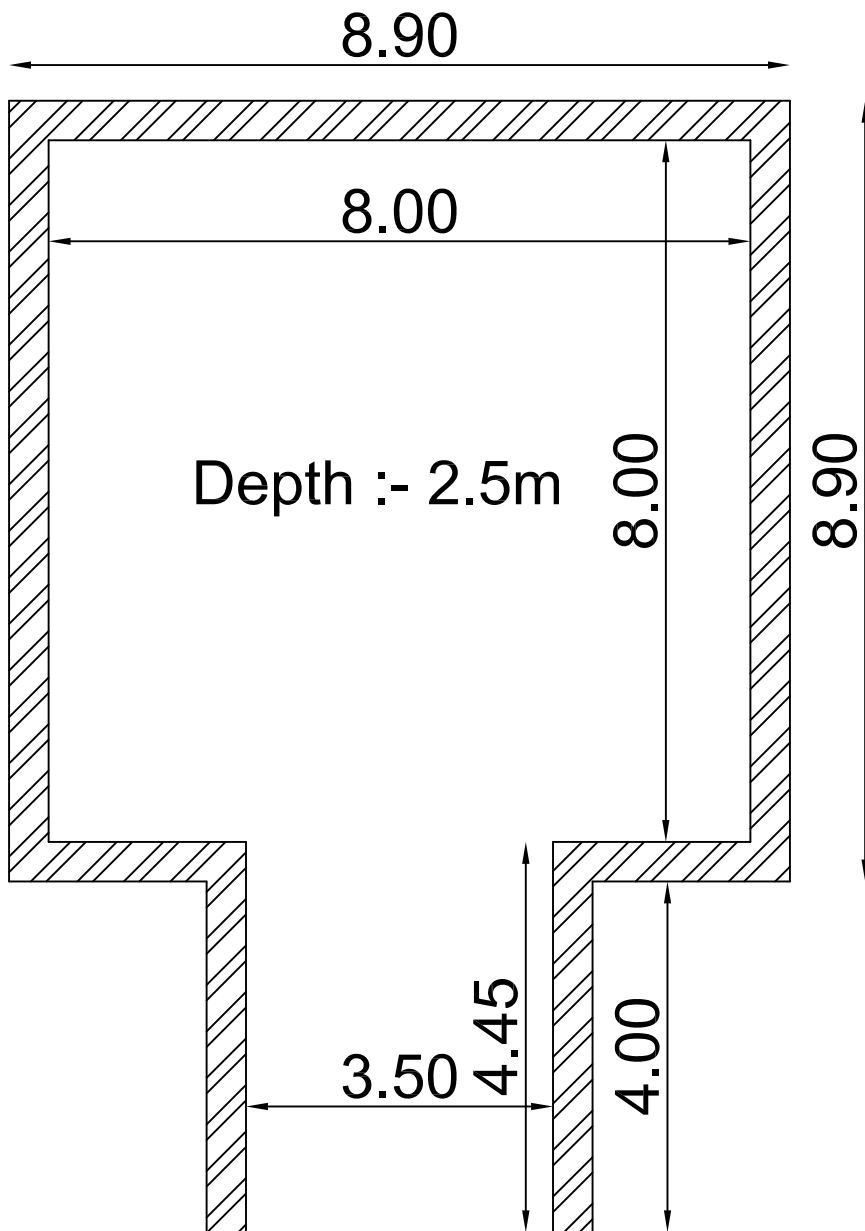
For 50 users

For 20 users

For 10 users

# Septic Tank Details





# COMPOST PIT