



VISHAL SAGAR  
I.A.S.

Director, JSAC

JSAC

Letter No. JSAC/2023/26

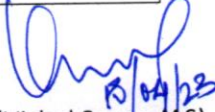
Date : 18/04/2023

**Tender Notice No. JSAC/09/2023**

Jharkhand Space Applications Center (JSAC), Dept. of Information Technology & e-Governance, Government of Jharkhand invites online sealed Bids (Technical and Commercial) for **ESTABLISHMENT OF STATE OF THE ART REMOTE SENSING AND GIS TRAINING LAB at T.A. DIVISION BUILDING, DHURWA, RANCHI, JHARKHAND.**

The complete description, tender document & participation details can be seen and downloaded from the website <https://jsac.jharkhand.gov.in> and <https://jharkhandtenders.gov.in>. The important date and time of the tender is as follows:

Date of Publication	20/04/2023
Last Date and Time for receipt of tender offers online	12/05/2023 at 5.00 p.m.
Last Date of Receipt of DD in physical form (Fee and EMD)	12/05/2023 at 5.00 p.m.
Date and Time of Opening of Technical Bid	15/05/2023 at 11.00 AM at Jharkhand Space Applications Center Engineer's Hostel-I, Dhurwa Ranchi - 834004
Date and Time of Opening of Price Bid (Commercial Offer)	Will be communicated after opening and evaluation of technical bids.
Bid Validity for acceptance	31.08.2023

  
(Vishal Sagar, IAS)  
Director, JSAC

**JHARKHAND SPACE APPLICATIONS CENTER**

**Department of Information Technology & e-Governance**

Engineer's Hostel-I, Gol Chakkar, Dhurwa, Ranchi - 834 004  
Tel. 0651 - 2401719 :: Email - directorjsac@gmail.com

# e-TENDER NOTICE

JharkhandSpaceApplicationsCenter  
Department of Information Technology & e-Governance  
2<sup>nd</sup> Floor, Engineer's Hostel - I, Dhurwa, Ranchi

1. On behalf of the Government of Jharkhand, the Director, Jharkhand Space Applications Center (JSAC), Dept. of Information Technology & e-Governance, Government of Jharkhand invites online sealed Bids (Technical and Commercial) for **ESTABLISHMENT OF STATE OF THE ART REMOTE SENSING AND GIS TRAINING LAB at T.A. DIVISION BUILDING, DHURWA, RANCHI, JHARKHAND.**
2. For complete description, tender document & participation details, please visit our website <https://jsac.jharkhand.gov.in> and <https://jharkhandtenders.gov.in>
3. The tender document may be downloaded from our website <https://jsac.jharkhand.gov.in> and <https://jharkhandtenders.gov.in> and the fee should be paid in the form of Demand Draft.
4. The details are given below:

<b>Tender Reference</b>	<b>JSAC/09/2023 Date :20/04/2023</b>
Price of Tender Document	Rs 5000/-
Pre-bid Conference date & place	<b>24.04.2023 at 3.00 p.m.</b> JharkhandSpaceApplicationsCenter Engineer's Hostel-I, Dhurwa Ranchi – 834004
Last Date and Time for receipt of tender offers online	<b>12.05.2023 at 5.00 p.m.</b>
Last Date of Receipt of DD in physical form (Fee and EMD) at JSAC office	<b>12.05.2023 at 5.00 p.m.</b>
Date and Time of Opening of tender offers (Technical offer)	<b>15.05.2023 at 11.00 a.m.</b> At Jharkhand Space Applications Center Engineer's Hostel-I, Dhurwa Ranchi – 834004
Date and Time of Opening of Price Bid (Commercial Offer)	Will be communicated after opening of technical bids.

5. Bids should remain valid for acceptance up to **31.08.2023.**

Sd/-  
Director  
Jharkhand SpaceApplicationsCenter, Ranchi

## **CHAPTER 1**

### **QUALIFICATION CRITERIA**

- The bids must be complete in all respect and should cover the entire scope of work as stipulated in the Tender document. The request for proposal is open to all bidders who qualify the eligibility criteria as given below:

<b>S.N.</b>	<b>PRE-QUALIFICATION CRITERIA</b>
1	The tender document fee is to be paid through Demand Draft in favour of Jharkhand Space Applications Center payable at Ranchi.
2	The bidder has to be a company/proprietor/partnership firm registered under any relevant Law/Act of Govt. of India. (Supporting documentary evidence need to be enclosed)
3	The Earnest Money Deposit (EMD) is to be paid through Demand Draft in favour of Jharkhand Space Applications Center payable at Ranchi.
4	The bidder should have GST registration and latest GST return certificate should be submitted along with GST registration certificate.
5	The average annual turnover of the company must exceed Rs. 1.00 crore (One Crore only) during the last five financial years 2018-19, 2019-20, 2020-21, 2021-2022, and 2022-23. The bidder should have at least one completed project for supply and setup of Remote Sensing and GIS Training Lab/IT Training Lab or similar project of minimum order values of 50 Lakhs in Govt.(State/Central),PSUs, Institutes, Universities during last 05(five) years. [Copies of work completion certificate or performance certificate against the work order to be submitted.]
6	The Bidder should submit Audited Balance sheet along with Profit and Loss account, for the years 2018-19, 2019-20, 2020-21, 2021-2022, and 2022-23. [Copy of audited balance sheet along with Profit and Loss account to be submitted]
7	The Bidder should have quality Management System Standard ISO 9001:2015 certified. [A valid certificate to be submitted.]
8	A self-certificate by bidder to be submitted that company has not been blacklisted in any state of India.
9	Letter for acceptance of all Terms and Conditions.
10	Signed tender document.
11	The bidder must quote all items of requirement list & must have capability of executing entire work on Turnkey Basis

**Note:**No extra documents should be annexed with the tender.

#### **2. Evaluation Criteria and Award of Contract**

The Evaluation Committee will check the submission as per the evaluation criteria. Those are selected after the scrutiny shall be called for a Technical Presentation as evaluated hereafter. The committee will evaluate the technical bids as per the "Tech Score Criteria" mentioned in the following table. The technical presentation will be of maximum 10 minutes duration.

Evaluation of the technical presentation shall be conducted by the evaluation committee and shall be based on the past experience of the Bidder in execution of similar projects. JSAC may also seek written clarifications from the Bidder soon after the bids submitted by them, during the evaluation process. The primary function of clarifications in the evaluation process is to clarify ambiguities and uncertainties, if any arising out of the evaluation of the bid documents.

<b>Tech Score Criteria (Total 100 marks)</b>			
<b>A</b>	<b>Specific experience to the assignment / job</b>	<b>50 Marks</b>	<b>Proofs to be submitted</b>
	Sub Criteria		
A.1	The bidder's average annual turnover in last 5 financial years. <ul style="list-style-type: none"> <li>• 1 Cr – 2 Cr = 5 Marks</li> <li>• More than 2 Cr =10 Marks</li> </ul>	10 marks	Audit reports to be submitted certified by CA
A.2	The Bidder with following certifications: Valid ISO 9001:2008/2015 Certification - 5 Marks	5 Marks	Certificate copy to be enclosed.
A.3	The bidder should have at least one completed project for supply and setup of Remote Sensing and GIS Training Lab/IT Training Lab or similar project <ul style="list-style-type: none"> <li>• Up to 50 lakh =15 marks</li> <li>• 50 lakh – 1 cr= 25 marks</li> <li>• More than 1 Cr = 35 marks</li> </ul>	35 marks	Work orders/ Agreements/ Completion Certificates from Government Departments
<b>B</b>	<b>Proposed Methodology and work plan</b>	<b>50 Marks</b>	<b>Power Point Presentation in RFP response</b>
	Sub Criteria		
B.1	Layout Design in 2D and 3D  Fair = 5 marks, Good=10 marks, Very Good = 15 marks, Excellent = 20 marks	20 marks	Layout Drawings to be submitted in 2D and 3D design showing the different options for optimal utilization of space with futuristic design
B.2	Execution plan  Fair = 1 mark, Good=2 marks, Very Good = 5 marks, Excellent = 10 marks	10 marks	Different identified task and step wise approach for completion of entire work
B.3	Timeline for completion  3-4 months = 5 marks 3months = 10 marks	10 marks	Proposed timeline for completion of entire work with details of timeline of item wise task completion
B.4	Brand/Quality of material  Fair=1 mark, Good=2 marks, Very Good= 5	10 marks	Details of brands and quality of material to be supplied as per the

	marks, Excellent = 10 marks		requirement for training lab
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I. The minimum score to get qualified for financial opening is 70 marks.

II. All the qualified bidders in technical round will be called for financial opening. The final selection will be based on the Quality cum Cost Based Selection (QCBS) Method. Technical Bid Score will get a weightage of 70% (denoted by TS and Financial Bid Score a weightage of 30% (denoted by FS).

III. The bids quoted as per the financial bid format will be considered for financial evaluation.

**Combined evaluation of Technical and Financial Bids**

The Final Combined Score (S) shall be computed for each firm by assigning 70% Technical weightage (TW) to the Technical Score (TS) and 30% financial weightage (FW) to Financial Score (FS) using the formula given below:

Calculation of Final Score (S) = (TS x 0.7) + (FS x 0.3) (rounded off to 2 decimal places)

The Bidder securing Highest Composite Bid Score (S) will be selected for the Award of the Project.

## CHAPTER2

### SCOPE OF WORK

1. Establishment of Remote Sensing and GIS Training lab in the Hall of approx. 1400 Sq feet area. Layout design to be prepared for sitting arrangement and optimum utilization of space.
2. Supply and installation of Computer System, Plotter-cum-scanner, Colour Printer (A3 Size), 20 KVA UPS, Air Conditioner (2 Ton), NAS storage with Server (30 TB), Network Switch, Rack, Cables, I/O box etc., Providing and laying electrical wiring with all required conduit, cables and MCBs, CCTV camera with backup system, Smartboard, Computer Table and Chairs, PA system, Partitioning with sliding door using desired material, Dismantling of existing false ceiling and new False ceiling work, Lighting and ceiling fan installation, Dismantling of existing iron racks, Earthing, Replacement of existing aluminum windows with UPVC Windows with vertical blind, Replacement of wooden door, Demolition of existing attached washroom, Water proofing as per requirement, Painting, Anti-termite and rat treatment, Fire Extinguisher of desired capacity, type and number
3. Integration of all components and onsite warranty of all the equipment supplied under the contract at least for a period of 3 years from the date of final acceptance and testing. **Entire work needs to be executed on turnkey basis.**

## CHAPTER 3

### Terms and Conditions

1. Tenderers are advised to study all technical and commercial aspects, instructions, forms, terms and specifications carefully in the tender document. Failure to furnish all information required in the Tender Document or submission of a bid not substantially responsive to the Tender document in every respect will be at the tenderer's risk and may result in the rejection of the bid. It will be imperative on each bidder to fully acquaint himself with all the local conditions and factors, which would have any effect on the performance of the contract.
2. Sealed offers prepared in accordance with the procedure enumerated in tender document should be submitted to the Director, Jharkhand Space Applications Center, 2<sup>nd</sup> Floor Engineer's Hostel-1, Dhurwa, Ranchi-834004, not later than the date and time laid down and at the address given in the tender document.
3. All bids must be accompanied by an Earnest Money Deposit (EMD) of Rs. 5,00,000/- (Rupees Five Lakh Only) in the form of Bank Draft Valid for period of 3 months drawn from a scheduled bank in favour of Jharkhand Space Applications Center payable at Ranchi. Tenders not accompanied by Earnest Money or incomplete in any respect will be rejected outright.
4. This tender document is not transferable.
5. The categories of items and quantity will be as per requirements. Director, Jharkhand Space Applications Center reserves the right to increase or decrease the quantity or delete some or all of the items depending on the needs of the project without assigning any reasons.
6. The tenderer should indicate specifically the Make & Model of the items, Price including Taxes/Excise duty, other duties (if any), and levies chargeable quantitatively against each item. No additional information will be entertained after due date. Blank Price Bid (mentioning the required quantity) should be submitted in the technical Bid.
7. The tender should be submitted in Two cover system i.e. a: Technical Bid and b: Price Bid. There should be proper indication of the contents on each envelope.
8. The draft must be in a separate sealed envelope indicating the amount, tender notice number, and due date enclosed with the bid.
9. The Bid must be submitted along with the **tender specific manufacturers authorization letters** addressed to the Director, JSAC for Computer system, plotter-cum-scanner, NAS storage with server

and furniture itemsonly from the manufacturer with name, phone number, address and e-mail id of signatory.

10. Director, Jharkhand Space Applications Center reserves the right to reject any or all tenders without assigning any reason whatsoever.
11. The tenders will be opened on the date and time indicated in the presence of tenderers if any present on the occasion. If the date of opening is declared to be a holiday the tenders will be opened on the next working day.
12. Printed conditions of the firm sent along with the quotation, if any, shall not be binding on us.
13. On acceptance of tender, the date of completion should be strictly adhered to otherwise, Director, Jharkhand Space Applications Center reserves the right not to accept the completionin full or in part. In case the order is not executed within the stipulated period, Director, Jharkhand Space Applications Center will be at liberty to forfeit the earnest money of the tenderer.
14. The Bidder should offer all equipment of state of the art quality & branded products.
15. The Bidder shall be willing to offer Annual Maintenance Contract(AMC),  
at a reasonable price after expiry of the Warranty period of Three Years.
16. The Bidder should have local support center in Ranchi else the bidder has to submit a declaration to establish a support center in Ranchi within a time period of one month after work completion.
17. To fulfill the eligibility criteria for bidding, the consortium of parties will not be allowed.



## CHAPTER 4

### IMPORTANT LIMITS AND VALUES RELATED TO BID

<b>S.N.</b>	<b>Item</b>	<b>Description</b>
<b>1.</b>	Bid Security (EMD)	<b>Rs. 5 Lakhs</b> (Rupeesfivelakhs Only)
<b>2.</b>	Bid Validity Period	<b>90</b> days from the date of opening of bid.
<b>3.</b>	Bid Security Validity Period	<b>90</b> days from the date of opening of bid.
<b>4.</b>	Implementation Period	<b>3</b> Months from the date of signing of contract.
<b>5.</b>	Warranty Period	<b>3 Years</b> from the date of final acceptance of completion of work.
<b>6.</b>	Project duration	Three months from Date of Signing of Agreement.
<b>7.</b>	Implementation cum Performance Guarantee Value (in Rupees.)	<b>10%</b> of contract value
<b>8.</b>	Implementation cum Performance Guarantee validity period	<b>180</b> days after the warranty period.
<b>9.</b>	Period for submission of Implementation cum Performance Guarantee	Within <b>10</b> days of receipt of letter of notification of award.
<b>10.</b>	Period for signing contract	Within <b>10</b> days from the date of receipt of letter of notification of award.
<b>11.</b>	Penalty for delay in implementation	Please refer penalty clause 3 in Chapter 7.
<b>12.</b>	Address for correspondence of clarifications	Director JharkhandSpaceApplicationsCenter Engineer's Hostel-I, Dhurwa Ranchi – 834004 <b>Phone:</b> 0651-2401719 E-mail: directorjsac@gmail.com

## **CHAPTER 5**

### **INSTRUCTIONS TO BIDDERS**

#### **1. Introduction**

On behalf of the Govt. of Jharkhand, the Director, JSAC, Dept. of IT& e-Governance, Government of Jharkhand invites sealed Bids (Technical and Commercial) **ESTABLISHMENT OF STATE OF THE ART REMOTE SENSING AND GIS TRAINING LAB at T.A. DIVISION BUILDING, DHURWA, RANCHI, JHARKHAND.**

#### **2. How prices have to be quoted**

The Performa of the bid price form is in Annexure C. If required the tendering authority may at a later stage (i.e. after the finalization of contract or at the time of agreement) ask for a component wise breakup of the price.

It is mandatory that bidder has to inspect the training hall before bid submission and clarify doubts if any. The visit to training hall can be scheduled after prior appointment before pre-bid meeting or on the same day of pre-bid meeting. The bidder is advised to inspect and examine the site and satisfy himself as to the conditions prevailing at site and its surroundings regarding extent of work, scope and conditions under which the work is required to be executed.

#### **3. Pre-Bid Conference**

A Pre-Bid conference of all the intending Bidders will be held at the scheduled date and time as indicated in the **Schedule of the Tender**. Intending Bidders will be allowed to suggest suitable modifications in the clauses indicated in this tender. Only the authorized representatives of the bidders will be allowed to attend the Pre-Bid meeting. The JSAC will communicate such changes in specifications that are accepted, to all the intending bidders who have obtained the bid document. All such changes will become a part of this document and binding on all the Bidders.

#### **4. Cost of Tender Document**

This document will be available downloaded from the website <https://jsac.jharkhand.gov.in> and <https://jharkhandtenders.gov.in>. However, such downloaded document will have to be accompanied by payment of Rs. 5000/- in the form of Demand Draft at the time of submission of bids.

#### **5. Cost of Tender**

The Bidder shall bear all costs associated with the preparation and submission of its tender, and the JSAC will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the tendering process.

#### **6. Non-transferable Tender**

The tender document is not transferable. Only the party who has purchased this tender form shall be entitled to quote.

### **7. Offer Validity Period**

The tender offer must be valid for 90 days. Any offer falling short of the validity period is liable for rejection.

### **8. Completeness of Tender Offer**

The Bidder is expected to examine all instructions, forms, terms, conditions and specifications in the Tender Documents. Failure to furnish all information required by the tender documents or submission of a tender offer not substantially responsive in every respect to the tender documents will be at the Bidder's risk and may result in rejection of its tender offer. The tender offer is liable to be rejected outright without any intimation to the Bidder if complete information as called for in the tender document is not given therein, or if particulars asked for in the Forms / Performa in the tender are not fully furnished.

### **9. Two Bid System Tender (To be submitted online)**

The offers shall be in two separate parts containing **Technical** and **Commercial** Offers. The technical and financial documents should be uploaded in prescribed folders.

#### **9.1 Technical Offer (To be submitted online);**

The Technical Offer (T.O.) should be complete in all respects and contain all information asked for, except prices. It should not contain any price information. The T.O. should indicate whether **products and services asked** for are quoted, and that all requirements therefore are quoted. No documents, brochures, leaflet, etc. should be submitted in loose form. **All the pages of the tender should be numbered, signed and stamped before scanning and uploading.**

The format for submission of Technical Offer is as follows:

1. Essential Documents
2. Tender Offer Form (**Annexure A**) duly filled in.
3. Bidder's Detail (**Annexure B**)
4. Earnest Money Deposit (scan copy Demand Draft)
5. Other relevant documents establishing the Bidder's eligibility to participate in the tender

### **Documents Establishing Bidders Eligibility and Qualifications**

The Bidder shall furnish, as part of its tender offer, documents establishing the Bidder's eligibility to participate in the tender and its qualifications to perform the Contract as mentioned in Qualification Criteria section.

The Bidder shall also enclose Certificate/Undertaking that the Bidder has quoted for all the items specified in the price schedule.

Letter for acceptance of all Terms and Conditions of the tender document, and Power of Attorney in favour of the person signing the bids should be enclosed.

### **Earnest Money Deposit**

Bidders are required to pay Rs. 5 Lakhs (Rs. Five Lakhs Only) in the form of Demand Draft as Earnest Money Deposit (EMD) along with their offer.

Unsuccessful Bidder's EMD will be discharged/ returned within 30 days after the expiration of the period of tender offer validity prescribed by JSAC.

The successful Bidder's bid security will be discharged upon the Bidder executing the Contract and furnishing the Performance Security.

The bid security may be forfeited. If a Bidder withdraws its tender during the period of bid validity or in case of a successful Bidder, if the Bidder fails:

- i. To sign the contract in accordance with the terms and conditions
- ii. To furnish performance security as specified in the terms and conditions

### **9.2 Commercial Offer (To be submitted online);**

The Commercial Offer must be given in the prescribed folder in the online e-tender application. The price bid should not contradict the Technical Offer in any manner.

Bidder should submit their prices only in the Bid Form (**Annexure - C**) given in the tender. Price quoted other than the bid form shall be liable to be rejected. The Bid Form must be filled in completely, without any errors, erasures or alterations. The price should be inclusive of all taxes. The Bid form prices must not contain any conditions. Conditional Bid Form is liable to be rejected.

### **10. Signing of Tender Offers**

The tender offer shall be typed or written in ink and shall be signed by the Bidder or a person or persons duly authorized in writing to bind the Bidder to the Contract. Power-of-attorney accompanying the tender offer shall indicate such authorization. The person or persons signing the Tender Offer shall put initial on all pages of the Tender Offer, except for laminated printed literatures/ brochures.

The Tender Offer shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case the person or persons signing the offer shall initial such corrections.

### **11. Erasures or Alterations**

Offers containing erasures or alterations will not be considered. There should be no hand-written material, corrections or alterations in the offer. Technical details must be completely filled up. Correct technical information being offered must be filled in. Filling up of the Technical Detail Form using

terms such as “OK”, “accepted”, “noted”, “as given in brochure / manual” is not acceptable. The JSAC may treat offers not adhering to these guidelines as unacceptable.

### **12. Fixed Price**

The Commercial Offer shall be on a fixed price basis, **inclusive of all taxes and levies**. No price variation should be asked for relating to increases in customs duty, service tax, excise tax, dollar price variation, etc. Price quotation accompanied by vague and conditional expressions such as "subject to immediate acceptance", "subject to confirmation before sales", etc. will be treated as being at variance and shall be liable for rejection.

### **13. Submission of Tender Offers**

Tender offer must be applied online on or before the closing date along with all the information and attachments. JSAC may, at its discretion, extend this deadline for submission of offers by amending the Tender Documents, in which case all rights and obligations of JSAC and tender previously subject to the deadline will thereafter be subject to the deadline as extended.

### **14. Late Tender Offers**

The online tender submission process for the vendor will be closed as per specified date. There will be no any Late Tender Offer.

### **15. Preliminary Scrutiny**

Prior to the detailed evaluation, the JSAC will determine the substantial responsiveness of each offer to the tender documents. For purposes of these Clauses, a substantially responsive bid is one that conforms to all the terms and conditions of the Tender Documents without material deviations. The JSAC's determination of an offer's responsiveness is to be based on the contents of the tender offer itself without recourse to extrinsic evidence.

The JSAC will scrutinize the offers to determine whether they are complete, whether required technical documentation has been furnished, whether the documents have been properly signed, and whether the offers are in order.

The JSAC will reject a tender offer determined as not substantially responsive for such Bidder and will not be opened.

The JSAC may waive any minor infirmity or irregularity in a tender offer, which does not constitute a material deviation. This shall be binding on all Bidders and the JSAC reserves the right of such waivers.

### **16. Clarifications of Offers**

To assist in the scrutiny, evaluation and comparison of offers, the JSAC may, at its discretion, ask some or all Bidders for technical clarification of their offer. The request for such clarifications and the response shall be in writing. To speed up the tender process, the JSAC, at its discretion, may ask for any technical clarification to be submitted by means of facsimile by the

Bidder. In such cases, original copy of the document describing the technical clarifications must be sent to the JSAC by means of courier/in person.

### **17. Short-listing of Bidders**

The JSAC will short-list technically qualified Bidders and commercial offers of only these qualified Bidders will be opened.

### **18. Technical and Financial Evaluation Committee**

The committee constituted by competent authority will open and evaluate the tender. The decision of the committee will be final. The Bidders will have to quote for all the items in the Price Schedule. Certificate/Undertaking stating that the Bidder has quoted for all the items prescribed in the price schedule. This certificate should be accompanied with the technical offer. Non-submission of this certificate will be treated as incomplete non-responsive tender and hence will be rejected in the technical scrutiny.

The technical bid will be evaluated for all essential requirements with supporting documents. After evaluation of the documents, all the bidders fulfilling pre-qualification criteria will be further evaluated based on their experience, capability and competence. A list of essential requirements is given below:

<b>S.N.</b>	<b>Essential requirements</b>	<b>Compliance</b>	<b>Page No. /Remarks</b>
1	Submission of tender document fee(Scan Copy of Demand Draft)	Yes/No	
2	Submission of Earnest Money Deposit (EMD)(Scan Copy of Demand Draft)	Yes/No	
3	Certificate of registration under any relevant Law/Act of Govt. of India as a company/proprietor/partnership	Yes/No	
4	Submission of GST registration certificate and latest GST return certificate	Yes/No	
5	Submission of work completion certificates or performance certificates against the work order for at least one completed project of supply and setup of GIS Training Lab/IT Training Lab or similar project of minimum order values of 50 Lakhs in State/Central Govt.,PSUs, Institutes/Universities during last 05(five) years.	Yes/No	
6	Audited Balance sheet along with Profit and Loss account, for the years 2018-19, 2019-20, 2020-21, 2021-2022, and 2022-23.	Yes/No	
7	Quality Management System (ISO 9001:2015 certified)	Yes/No	

8	Submission of a self-certificate by company that company has not been blacklisted in any state of India.	Yes/No	
9	Letter for acceptance of all Terms and Conditions.	Yes/No	
10	Signed tender document.	Yes/No	
11	Certificate stating that entire work will be executed on Turnkey Basis	Yes/No	
12	Duly filled Tender Offer form in Annexure A	Yes/No	
13	Duly filled Company Details in Annexure B	Yes/No	
14	Certificate/Undertaking stating that the Bidder has quoted for all the items prescribed in the price schedule in Annexure C	Yes/No	
15	Project wise details in last five years as per Form P1	Yes/No	
16	Particulars of Turnover in the last five financial years as per Form P2	Yes/No	
17	Litigation History certificate as per Form P3	Yes/No	
18	The Bid must be submitted along with the tender specific manufacturers authorization letters addressed to the Director, JSAC for Computer system, plotter-cum-scanner, NAS storage with server and furniture items only from the manufacturer with name, phone number, address and e-mail id of signatory	Yes/No	

### **19. Evaluation of Commercial Bids**

The commercial bids of only technically successful Bidders will be opened and ranking of the Bidders will be done according to the Quality cum Cost Based Selection (QCBS) Method.

### **20. Right to Accept Any Offer and to Reject Any or All Offers**

The JSAC reserves the right to accept or reject any tender offer, and to annul the tendering process and reject all tenders at any time prior to award of contract, without thereby incurring any liability towards the affected Bidder(s) or any obligation to inform the affected Bidder(s) of the grounds for the JSAC's action.

### **21. Corrupt or fraudulent Practices**

The JSAC requires that the Bidders under this tender observe the highest standards of ethics during the procurement and execution of such contracts. In pursuance of this policy, the JSAC defines the terms set forth as follows:

- a) "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of the public official in the procurement process or in contract execution.
- b) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or an execution of a contract to the

detriment of the JSAC, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the JSAC of the benefits of the free and open competition.

- c) The JSAC will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.
- d) The JSAC will declare a Bidder ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the Bidder has engaged in corrupt and fraudulent practices in competing for, or in executing, a contract.

## **22. Signing of Contract**

At the same time as the JSAC notifies the successful Bidder that its tender offer has been accepted the JSAC will send the Bidder the Contract Form **(Annexure D)** provided in the Tender Documents, incorporating all agreements between the parties. Within 10 days of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the JSAC.



## **CHAPTER 6**

### **GENERAL CONDITIONS OF CONTRACT**

#### **1. Confidentiality**

The SP must maintain absolute confidentiality of the documents/data received and any other data/information provided to him for the execution of the work.

#### **2. Use of Documents and Information**

- The vendor shall not, without prior written consent from JSAC, disclose/share/use the bid document, contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the JSAC in connection therewith, to any person other than a person employed by the vendor in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- The Vendor shall not, without prior written consent of JSAC, make use of any document or information made available for the project, except for purposes of performing the Contract.
- All project related documents (including this bid document) including Drawings, layouts etc. other than the contract itself, shall remain the property of the JSAC and shall be returned (in all copies) to the JSAC on completion of the Vendor's performance under the contract.

#### **3. Indemnification**

The SP shall, at its own expense, defend and indemnify the JSAC against all third-party claims of infringement of intellectual property rights, including patent, trademark, copyright, trade secret or industrial design rights arising from use of the products or any part thereof in the country.

The SP shall expeditiously extinguish any such claims and shall have full rights to defend itself there from. If the JSAC is required to pay compensation to a third party resulting from such infringement, the SP shall be fully responsible thereof, including all expenses and court and legal fees.

The JSAC will give notice to the SP of any such claim without delay and shall provide reasonable assistance to the SP in disposing of the claim.

The JSAC shall indemnify and defend the SP against all third-party claims of infringement of Intellectual Property Rights, including patent, trademark, copyright, trade secret or industrial design rights arising from the use of any information of Software provided to the SP by the Client under the contract.

#### **4. Performance Bank Guarantee**

The performance bank guarantee should be furnished for an amount of 10% of the contract value, valid up-to 180 days after the warranty obligations in the format specified in Performance Bank Guarantee **(Annexure E)** provided in the tender document or in other format acceptable to the JSAC. Such performance guarantee will be required to be given in the name of the Jharkhand Space Applications Center.

The proceeds of the performance bank guarantee shall be payable to the JSAC as compensation for any loss / penalties / liquidated damages resulting from the SP's failure to complete its obligations under the contract. The performance guarantee will be discharged by the JSAC and returned to the SP within 180 days after warranty period.

#### **5. Prices**

Prices charged for deliverables and Services performed under the Contract shall not be increased from the prices quoted by them in its bid.

#### **6. Taxes and Duties**

The SP shall be entirely responsible for all taxes, duties, license fees, and other such levies.

#### **7. Delay in the SP Performance**

The SP has to start as per the direction of the JSAC at the designated locations and Services shall be made in accordance with the time schedule prescribed by the JSAC in the Schedule of Requirements.

If at any time during performance of the Contract, the SP should encounter conditions impeding timely delivery or installation of the Systems or performance of the Services, the SP shall promptly notify the JSAC in writing of the fact of the delay, likely duration and its cause(s). As soon as practicable after receipt of the SP notice, the JSAC shall evaluate the situation and may at its discretion extend the time for performance, with or without liquidated damages, and revised implementation plan will be prepared by both parties.

Except, as provided under GCC Clause, if SP fails in the performance of its delivery or installation obligations shall render himself liable to the imposition of liquidated damages pursuant to GCC Clause, unless client without the application of liquidated damages agrees upon an extension of time.

#### **8. Liquidated Damages**

If the SP fails to deliver goods/Services or install any or all of the systems or if any of the goods/services fail to gain Acceptance within the period(s) specified in the Contract, the Client shall, without prejudice to its other remedies under the Contract, deduct from the performance security, as liquidated damages, a sum equivalent to the percentage of the Contract price specified in SCC. Once the maximum is reached, the Client may consider termination of the Contract.

If delivered or installed goods and/or Services cannot be put to use without the undelivered goods/Services, the damages will be calculated using the total price of the goods/services that cannot be put to use.

### **9. Application of LD**

Liquidated damages shall be assessed as per schedule, submission of deliverables and its acceptance”.

### **10. Termination for Default**

The JSAC, without prejudice to any other remedy for breach of Contract, may terminate this Contract in whole or in part by giving 30 days advance notice; if the SP fails to deliver any or all of goods/services within the period(s) specified in the Contract, or within any extension thereof granted by the Client or if he fails to perform any other significant obligations(s) under this contract.

In the event the JSAC terminates the Contract in whole or in part, the JSAC may procure, upon such terms and in such manner, as it seems appropriate, goods/services similar to those undelivered, and the SP shall be liable to the JSAC for any excess costs for those similar goods or Services. However, the SP shall continue performance of the contract to the extent not terminated.

### **11. Termination for Insolvency**

The JSAC may at any time terminate the Contract by giving written notice to the SP if he becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the SP, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Client.

### **12. Force Majeure**

The SP shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

For purposes of this Clause, “Force Majeure” means an event beyond the control of the and not involving SP’s fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Client in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

If a Force Majeure situation arises, the SP shall promptly notify the Client in writing of such condition and the cause thereof. Unless otherwise directed by the Client in writing, the SP shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

If an event of Force Majeure continues for a period of one hundred and eighty (180) days or more, the parties may, by mutual agreement, terminate the Contract without either party incurring any further liabilities towards the other with respect to the Contract, other than to effect payment for goods/services already delivered or performed.

### **13. Applicable law**

The contract shall be interpreted in accordance with appropriate Indian laws.

### **14. No interest for performance Guarantee**

No interest shall be paid on the earnest money, security deposit and the amount retained against performance guarantee.

### **15. Notices**

Any notice given by one party to the other pursuant to this contract shall be sent to the other party in writing or by telex, email, cable or facsimile and confirmed in writing to the other party's last known address. A notice shall be effective when delivered or tendered to other party whichever is earlier.

### **16. Warranty**

Three years warranty on all the equipment for smooth functioning of lab

### **17. SP's Obligations**

The SP will abide by the job safety, insurance, customs and immigration measures prevalent and laws in force and will indemnify the Client from all demands or responsibilities arising from accidents or loss of life. The SP will pay all indemnities arising from such incidents and will not hold the Client responsible or obliged.

The SP is responsible for, and obligated to conduct all contracted activities with due care and diligence, in accordance with the Contract and using state of the art methods and economic principles, and exercising all reasonable means to achieve the performance specified in the Contract.

The SP is obliged to work closely with the Client's Project Manager and staff, act within its own authority, and abide by directives issued by the Client that are consistent with the terms of the Contract. SP is responsible for managing the activities of its personnel, and will hold itself responsible for any misdemeanors.

The SP shall appoint an experienced Representative to manage its performance of the Contract within 15 days from Contract signature. The Representative shall be authorized to accept orders and notices on behalf of the SP, and to generate notices and commit the SP to specific courses of action within the scope of the Contract. The Representatives may be replaced only with the prior written consent of the Client.

### **18. Resolution of Disputes**

The JSAC and the Vendor shall make every effort to resolve amicably, by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the contract. If after thirty days from the commencement of such informal negotiations, the JSAC and the Vendor have been unable to resolve amicably a contract dispute; either party may require that the dispute be referred for resolution by formal arbitration.

All questions, disputes or differences arising under and out of, or in connection with the contract, shall be referred to an Arbitrator to be

nominated by the JSAC. In the case of the said Arbitrators not agreeing, then the matter will be referred to an umpire to be appointed by the Arbitrators in writing before proceeding with reference. The award of the Arbitrators, and in the event of their not agreeing, the award of the Umpire appointed by them shall be final and binding on the parties. The Arbitration and Conciliation Act, 1996, shall apply to the arbitration proceedings and the venue of the arbitration shall be Ranchi.

**19. Legal Jurisdiction**

All legal disputes are subject to the jurisdiction of Ranchi courts only.

## **CHAPTER 7**

### **SPECIAL CONDITIONS OF CONTRACT (SCC)**

- i. The following Special Conditions of Contract (SCC) shall supplement to the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions of the SCC shall prevail over those in the General Conditions of Contract.
- ii. As has been explained in the scope of the Work the work needs to be carried out on turnkey basis as integration and functioning of all components is of utmost importance. Therefore, SP will have to put special efforts to ensure for establishment of State of Art Remote Sensing and GIS lab on turnkey basis.
- iii. The SP shall develop the final Project Plan based on Contract requirements, to be submitted to the client for review and approval within seven days after entering into the Contract, with all reasonable and necessary input from the Client.
- iv. The work carried out by the SP will be evaluated by a committee constituted by the JSAC and the SP will have to ensure that all the work has been completed as per requirement before finalization.

#### **1. Roles of various parties to the contract**

Following is the summary of the roles of SP and JSAC, Dept. of Information Technology & e-Gov, Govt. of Jharkhand in the operation of this contract.

##### **Role of the SP**

- Entering into agreement with the department and submitting the performance guarantee.
- Developing final Project Plan based on requirements.
- Execution of work as per tender document and Quality assurance.
- Infrastructure establishment with necessary men, machinery etc.
- Insuring all men, machines and material against all risks.
- To implement the project with his own men and material. Subcontracting is not allowed.
- Handling over the deliverables and obtaining necessary certification and accountability for the same.
- Reporting progress of the work fortnightly.

##### **Role of the JSAC**

- Project Implementation and Coordination
- Entering into an agreement with SP and accepting the performance guarantee.
- Providing input for project execution

## **2. Terms of Payment**

It will be mandatory for the Bidders to indicate their bank account numbers and other relevant e-payment details so that payments could be made through NEFT/RTGS mechanism instead of payment through cheques, wherever feasible. A copy of the model mandate form prescribed by RBI to be submitted by Bidders for receiving payments through NEFT/RTGS. 100% Payment will be made after one month of successful completion of work. No advance payment will be made.

## **3. Penalty**

The bidder has to start the work within 15 days from the Date of entering into contract agreement. In case the bidder fails to start the work within this period, then the JSAC shall be entitled in his opinion to levy the penalty at his discretion not exceeding Rs.1000/- per day or part thereof.

If the bidder fails to complete the entire work within a period of three months from the date of entering into contract, for every day of the delay then, the JSAC at its discretion will levy a penalty of Rs.2000/- per day or part thereof.

## **4. Payment Authority**

The JSAC will make the payment as per payment terms and conditions.

## **5. Insurance to men, machine and material**

The SP has to insure against all risks on his men, machine and material and provide the evidence before commencing the work to the client.

## **6. Subcontract**

### **Subcontract is not allowed in any form**

During the execution, if found that SP has given subcontract, the contract will be cancelled and implementation cum performance security will be forfeited besides black listing the bidder to participate in any future tender of Government of Jharkhand.

## **7. Infrastructure arrangement by SP**

The SP shall make his own arrangements for required infrastructure which includes furniture, water, and transportation of personnel deployed by him, in addition to the men, machine and material.

**ANNEXURE A**

**TENDER OFFER FORM (TOF)**

Date: \_\_\_\_\_2023

Tender Reference No.: \_\_\_\_\_

To:  
Director,  
JharkhandSpaceApplicationsCenter  
Department of IT& e-Gov, Govt. of Jharkhand  
Engineer's Hostel-I, Dhurwa  
Ranchi-834004.

Dear Sir,

Having examined the tender documents including all Annexure, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide services in conformity with the said tender documents.

If our tender offer is accepted, we will obtain the guarantee of a bank for a sum of 10% of the Contract Price for the due performance of the Contract.

We agree to abide by this tender offer for 90 days and the same shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this tender offer, together with your written acceptance thereof and your notification of award, shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any offer you may receive.

Dated this \_\_\_\_ day of \_\_\_\_\_20.....

Signature: \_\_\_\_\_(In the Capacity of)  
\_\_\_\_\_ Duly authorized to sign the tender offer for and  
on behalf of



## **ANNEXURE B**

### ***Bidder's Details***

Details filled in this form must be accompanied by sufficient documentary evidence, in order to verify the correctness of the information.

<b>S.N.</b>	<b>Item</b>	<b>Details</b>
1	Name of the Company/Agency/ Organization	
2	Date of establishment	
3	Mailing Address	
4	Telephone	
5	E-mail	
6	GST registration number (attach certificate)	
7	Legal Status	
8	Turnover of the company	
9	Profit of the company	
10	EMD Details (DD Number and Validity)	

## ANNEXURE C

### **Commercial Bid Form (PRICE SCHEDULE)**

Tender Reference No. \_\_\_\_\_

#### Format for Commercial Proposal [Including all taxes]

S.N.	Description	QTY	Unit Price (Rs)	Total Price(Rs)
01	Computer System	40		
02	Plotter-cum-scanner	1		
03	Colour Printer (A3 Size)	1		
04	UPS 20 KVA	1		
05	Air Conditioner (2 Ton)	5		
06	NAS Storage with Server (30 TB)	1		
07	Network Switch, Rack, Cables, I/O box etc	1		
08	Providing and laying electrical wiring with all required conduit, cables and MCBs	1		
09	5 CCTV cameras with backup system	1		
10	Smartboard	1		
11	Computer Table and Chairs	40		
12	Digital wired audio conference system for training room	1		
13	Three partitioning with sliding door using desired material, Dismantling of existing false ceiling and new False ceiling work (Area approx. 1400 Sq feet), Lighting and ceiling fan installation, Dismantling of 34	1		
14	Earthing	1		
15	Replacement of existing wooden door windows with UPVC Windows with vertical blind	5		
16	Replacement of wooden door	1		
17	Demolition of existing attached washroom	1		
18	Water proofing treatment as per requirement	1		
19	Finishing wall with two coat putty, two coat primer and two coat of high gloss paint	1		
20	Fire Extinguisher CO2 type	4		

Note: For technical specifications Annexure F to be referred

**Total amount in Rupees for 3 years: (In figures) \_\_\_\_\_**

**(In Words)**

**Signature of Bidder  
Seal**

## ANNEXURE D

### CONTRACT FORM (CF)

AGGREEMENT MADE this \_\_\_\_\_ day of \_\_\_\_\_ Two thousand twenty three between \_\_\_\_\_ (hereinafter called "the Service Provider" of the one part and the JharkhandSpaceApplicationsCenter(hereinafter called JSAC) of the other part.

WHEREAS the Service Provider has tendered to the JSAC for **"ESTABLISHMENT OF STATE OF THE ART REMOTE SENSING AND GIS TRAINING LAB at T.A. DIVISION BUILDING, DHURWA, RANCHI, JHARKHAND"** as per the instructions given in the acceptance of tender at the respective prices or rate mentioned opposite to the said articles in the column provided for the purpose and whereas such tender has been accepted and the contractor has deposited with the Government the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) as security for the fulfilment of this Agreement.

NOW IT IS HEREBY AGREED between the parties hereto as follows:

1. The contractor has accepted the contract on the terms and conditions set out in section under the heading "Conditions of Contract" and other such conditions forming part of the tender notice no. \_\_\_\_\_ dated \_\_\_\_\_ which will hold well during period of this agreement. The following shall be the additional documents that will also form part of this contract:
  - i) The Instructions to Bidders included in the Tender Document as above.
  - ii) The Bid submitted by the Contractor.
2. Upon breach by the contractor of any of the conditions of the agreement, the Government may issue a notice in writing, determine and put an end to this agreement without prejudice to the right of the Government to claim damages for antecedent breaches thereof on the part of the Service Provider and also to reasonable compensation for the loss occasioned by the failure of the contractor to fulfill the agreement as certified in writing by the JSAC which certificate shall be conclusive evidence of the amount of such compensation payable by the contractor to the Government.
3. The Service Provider has placed with a Performance Security Deposit for Rs ----- as security for compliance with the Service Provider's performance obligations in accordance with the Contract. Upon the determination of this agreement whether by defluxion of time or otherwise, the Performance Security Deposit shall after the expiration of \_\_\_\_\_ months from the date of such determination be returned to

the Service Provider but without interest and after deducting there from any sum due by the Service Provider to the Government under the terms and conditions of this agreement.

4. This agreement shall remain in force until 3 months after the expiry of the warranty period.
5. Notwithstanding anything contained herein or in the tender and acceptance forms contained, the Government shall not be bound to take the whole or any part of the estimated quantity herein or therein mentioned and may cancel the contract at any time upon giving one months' notice in writing without compensating the Service Provider.
6. In consideration of the payments to be made by the JSAC to the Service Provider as hereinafter mentioned, the Service Provider hereby covenants with the JSAC to remedy defects therein conformity in all respects with the provisions of the Contract.
7. Notices in connection with the contract may be given by any officer of the Government authorized by the Government.
8. In witness whereof he said \_\_\_\_\_ has set his hand hereto and Director, JSAC or his authorized representative has on behalf of the Government of Jharkhand affixed his hand and seal thereto the day and year first above written.

Ranchi

Contractor

JSAC

Witness

Witness

**ANNEXURE E**

**PERFORMANCE BANK GUARANTEE (PBG)**

To:  
Director,  
JharkhandSpaceApplicationsCenter  
Department of IT& e-Gov, Govt. of Jharkhand  
Engineer's Hostel-I, Dhurwa  
Ranchi-834004.

WHEREAS \_\_\_\_\_ (Name of Service Provider) hereinafter called "the Service Provider" has undertaken, purchase of Contract No. \_\_\_\_\_ dated, \_\_\_\_\_ 2023 to supply \_\_\_\_\_ (Description of goods and Services) hereinafter called "the Contract". AND WHEREAS it has been stipulated by you in the said Contract that the Service Provider shall furnish you with a bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Service Provider's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Service Provider a guarantee: THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Service Provider, up to a total of \_\_\_\_\_ (Amount of the guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the Service Provider to be in default under the contract and without cavil or argument, any sum or sums within the limit of \_\_\_\_\_ as aforesaid, without your needing to prove or to show this grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the \_\_\_\_\_ 2023  
Signature and Seal of Guarantors

\_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_

Address: \_\_\_\_\_

1. Upon breach by the contractor of any of the conditions of the agreement, the Government may issue a notice in writing, determine and put an end to this agreement without prejudice to the right of the Government to claim damages for antecedent breaches thereof on the part of the SP and also to reasonable compensation for the loss occasioned by the failure of the contractor to fulfill the agreement as certified in writing by the Government which certificate shall be conclusive evidence of the amount of such compensation payable by the contractor to the Government.
2. The SP has placed with a Performance Security Deposit for Rs ----- as security for compliance with the SP's performance obligations in accordance with the Contract. Upon the determination of this agreement whether by effluxion of time or otherwise, the Performance Security Deposit shall after the expiration of \_\_\_\_\_ months from the date of such determination be returned to the SP but without interest and after deducting there from any sum due by the SP to the Government under the terms and conditions of this agreement.
3. This agreement shall remain in force until 3 months after the expiry of the warranty period.
4. Notwithstanding anything contained herein or in the tender and acceptance forms contained, the Government shall not be bound to take the whole or any part of the estimated quantity herein or therein mentioned and may cancel the contract at any time upon giving one months' notice in writing without compensating the SP.
5. In consideration of the payments to be made by the JSAC to the SP as hereinafter mentioned the SP hereby covenants with the JSAC to provide services and to remedy defects therein conformity in all respects with the provisions of the Contract.
6. The JSAC hereby covenants to pay the SP in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.
7. Notices in connection with the contract may be given by any Officer of the Government authorized by the Government.
8. In witness whereof he said \_\_\_\_\_ has set his hand hereto and Director, JSAC or his authorized representative has on behalf of the Government of Jharkhand affixed his hand and seal thereto the day and year first above written.

Ranchi

Contractor

JSAC

Witness

Witness

## Form – P1

### Project wise details

Details of works under taken during last five financial years 2018-19, 2019-20, 2020-21, 2021-2022, and 2022-23

S.No.	Name of the Client	Project Duration		Value of Project in RS.	Brief Description of the Project
		Start Date	Completion Date		
1.					
2.					
3.					
4.					
5.					
6.					
7.					

Place:  
Date:

Bidder's signature  
and seal.

**Note:** Provide sufficient evidence such as agreements, work completion certificates to support information provided in the above table.

**Form – P2**

**Particulars of Turnover in the last five financial years**

*(As per audited Accounts)*

Year	Turnover of the company (in Lakh)	Profit After Tax (in Lakh)
(1)	(2)	(3)
2018-2019		
2019-2020		
2020-2021		
2021-2022		
2022-2023		

**Place:**

**Date :**

**Bidder's signature  
and seal.**

**Note:**

- 1. Please attach audited Balance Sheets and IT return statements that clearly show and confirms the figures mentioned in columns (2) & (3).*
- 2. Provide sufficient evidence to support information provided in the above table otherwise the bid will be treated non-responsive.*



**Form – P3**

**Litigation History**

We certify that there is no litigation history against the Company. If it is found in future, the contract will be terminated.

**Place:**

**Date:**

**Bidder's signature  
and seal.**

## **ANNEXURE F**

### **Technical Specifications**

#### **1. Specification of Computer System**

<b>Parameter</b>	<b>Technical Specification</b>
Form Factor	Tower/Micro Tower/Mini Tower
Chassis	Tool-less Chassis (Tool-less Hard Drive, Memory & Optical drive Removal)
Chipset	Commercial Class Intel® Q670 Chipset
Processor	Intel® Core™ i7-12700 with Intel® UHD Graphics (2.1 GHz base frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 25 MB L3 cache, 12 cores, 20 threads), supports Intel® vPro® Technology;
Memory	16GB (1x16GB) DDR4-3200 UDIMM NECC memory expandability up to 32 GB with 2 DIMM Slots
Storage	1TB 7200RPM HDD, SMART IV ( (Self-Monitoring, Analysis and Reporting Technology) or equivalent & 512GB* PCIe NVMe Three Layer Cell SSD
Graphics	AMD Radeon RX 6300 4 GB GDDR6 FH DP+HDMI PCIe x16 Graphics
Audio	Integrated audio controller with internal speaker of atleast 2W
Operating System	Microsoft Windows 11 Professional with OEM Recovery DVD or option of Cloud Recovery
Networking	Integrated Intel Gigabit 10/100/1000 Ethernet Controller Intel® Wi-Fi 6E AX211 802.11ax 2x2 with Bluetooth
Ports	Video: 1 Display Port,1 HDMI, 1 VGA USB:2 USB 2.0, 3 USB 3.2 Gen 1, 3 USB 3.2 Gen 2, 1 USB Type C
Slots	1 PCI Express v4.0 x16,1 PCI Express v4.0 x1,1 PCI,2 M.2
Optical Drive	8X DVD Writer
Bays	2X 3.5" Internal , 1 External bay
Keyboard	USB Wired Keyboard
Mouse	USB Optical Wired Mouse
Power Supply	260 W with 92% efficiency or better
Volume	No More than 16 L
Security	Hardware based endpoint security controller TPM 2.0, Integrated Intrusion Sensor, Support for chassis cable lock devices & Support for chassis padlocks devices, Drive lock option for HDD to secure Data, Integrated protection from malware that lurks on malicious websites, Integrated real-time detection and prevention of zero-day threats and advanced persistent threat (APT) attacks for Windows applications
Manageability	out-of-band manageability allowing technician to execute full remote control of computing endpoint over an Ethernet or Wi-Fi 802.11 connection, regardless of OS state. Endpoint could be on premise behind corporate firewall or outside the corporate firewall. IT admin should be able to monitor full boot up / reset sequence, including BIOS access, to identify any issue with the PC
Certifications	Microsoft Windows 11 FCC,CE, RoHS, UL, EPEAT, Energy Star, TCO, MIL STD 810 ISO 9001,14001,20001,27001 for OEM
Display	21.5" with Minimum resolution of 1920X1080, with VGA , HDMI,, TCO 8.0 Certified(Same OEM as desktop)
Warranty	3 Years onsite
Microsoft Office License	Latest Version
Antivirus	Quick Heal Latest Version or equivalent for 3 years

Preferred Brand: HP/Dell/Samsung or equivalent brand

## 2. Specification for Plotter cum Scanner

Parameter	Technical Specification
Printing Technology	Inkjet
Type	Multifunction Wideformat Printer
Type of Printing	Colour
Size	A0-A4
Printing Speed (Prints Per Minute)	1A0
Printing Resolution (Dpi)	2400 x 1200
Print Applications	Line Drawings & GIS
Memory (MB)	2048
Scan Speed @minimum 200ppi (mm/sec)	330.2b/w: 76.2 color
Scanning Resolution (Dpi)	1200
Hard Disk (GB)	500
Interface	Ethernet 10/100/1000
USB Port	Yes
Wi-Fi Connectivity	Available
Wi-Fi Type	Wireless(802.11.b/g/n)
Media Type	Plain & Photo Paper
Media Weight Handling Range (GSM)	280
Ink colour (Minimum)	5
Roll Handling Capacity (No.)	2
Size of Rolls to be handled ( Width X OD of roll)	36 inch
Manual cut Sheet Feed	Yes
Embedded Post Script	Not-Available
Preloaded Softwares like Scan to file, Print to file etc.	Available
Power Consumption in Sleep Mode (Watt)	3.9
Power Consumption in Print Mode (Watt)	187.8
BIS Registration under CRS of Meity	Yes
If Yes ,BIS Registration number	R-41001449
TTC covering all the parameters from a Central Govt Lab/an ILAC accredited Lab/ NABL approved Lab	No
TTC number & Date	NA
If Yes, Name of the Lab	NA
If yes, address of the lab	NA
On site OEM Warranty (Year)	3

Preferred Brand: HP/Canon or equivalent brand

## 3. Specifications for Colour Printer (A3)

Parameter	Technical Specification
Cartridge Technology	Composite Cartridge
Printing Technology	Laser
Type of Printing	Colour
Paper Size	A3
Print Speed per minute as per ISO/IEC 24734 in (A4) Size – Mono	26
Print Speed per minute as per ISO/IEC 24734 in (A4) –Color	26
Resolution (Dpi)	1200x1200
Memory (MB)	512
Hard Disk Capacity (GB)	0
Processor Speed	600 MHz
Duplexing Feature	Yes

Duplex Print Speed ( IPM)	10
Network Connectivity	Yes
Network Interface, if available	Ethernet 10/100/1000
Wireless Connectivity	No
If Yes, Type of Wireless Connectivity	NA
USB Port	Yes
Number of Main Paper Trays	1
Each Main Paper Tray Capacity	250
Bypass Tray Facility	Yes
If Yes, Bypass Tray Capacity	100
Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19798/2007(E) for Cyan colour (Number of prints)	7400
Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19798/2007(E) for Yellow colour (Number of prints)	7400
Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19798/2007(E) for Magenta colour (Number of prints)	7400
Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19752/2004(E) for Black (Number of prints)	7000
Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology -Cyan	0
Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology – Yellow	0
Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology - Magenta	0
Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology – Black	0
Duty Cycle (No of Prints/month)	75000
Minimum Operating Temperature (Degree C)	10
Maximum Operating Temperature (Degree C)	30
Minimum Operating Humidity (%RH)	20
Maximum Operating Humidity (% RH)	80
BIS Registration under CRS of Meity	Yes
BIS Registration no	R-41001333
Other Certifications Available	RoHS
Dimensions(In mm x mm x mm)	545 x 591 x 361.2
Weight (In kg)	34
On site OEM warranty (Years)	1

Preferred Brand: HP/Canon or equivalent brand

#### 4. Specification of 20 KVA UPS

Parameter	Technical Specification
<b>Capacity</b>	20KVA –16000Watts(0.8pf)
Technology	TrueOnlineDoubleConversion
<b>Converter</b>	
InputVoltage	415V (3 Phase)
InputVoleragerange	380-470VACThreePhase
InputFrequency	50 Hz
InputFrequencyrange	45to55HzforworkonGenerator
<b>BatteryCharger</b>	

Type of Charger	Constant voltage – constant current
Battery Recharge Time to 80%	8 hours after 100% discharge
Rectifier	IGBT
<b>Inverter</b>	
Inverter Technology	IGBT power devices pulse width modulation technology
Crest Factor	3.1
Output Waveform	Sinusoidal
<b>AC Output</b>	
Output Voltage	415 VAC 4 wire
Regulation (Steady State)	+/- 1%
Dynamic Regulation	+/- 3% with 100% step load of 0.8 PF & 3.1 CF fan recovery
Transient Response	Less than 40 milliseconds
Total Harmonic Distortion	< 2% for 100% linear load & < 5% for 100% non-linear load
<b>Output Frequency</b>	
Inverter Mode	50 Hz +/- 0.1 Hz
Overall Efficiency	> 88%
Overload Capacity	110% for 15 minutes
<b>Bypass</b>	
Static Bypass	Static bypass to ensure seamless transfer to mains
Manual Bypass	Manual/Maintenance Bypass
<b>Protection and Controls</b>	Input and Output MCB, Safety features for rectifier and inverter, Battery current limiting protection, Built-in overload protection, Output Short circuit protection
<b>Isolation Transformer</b>	In-built isolation Transformer should be provided at the output
<b>Battery details</b>	
Battery type	Sealed Maintenance Free batteries
Backup time	1 hour backup
VAH required	32000 VAH
System DC Voltage	360V
Battery make	Exide Powersafe/Amar Raja/Gobal (Rocket brand)
<b>Indications</b>	Mains ON/OFF, Inverter normal/fail, Battery low, Load on Bypass
<b>LCD display</b>	LCD display for information, Input voltage, Output Voltage, Output current, Output frequency, Battery Voltage, Battery Charge/Discharge current
<b>Audible alarms with indication</b>	Mains failure, Battery low, Over temperature, Inverter trip, Load on Bypass

Preferred Brand: APC/Numeric or equivalent brand

## 5. Specification for Air Conditioner

Parameter	Technical Specification
Nominal Marketing capacity as per BEE Star Rating Label (hint: 1 Ton = 3000 Kcal/Hr, Tolerance +/- 10%) (in Ton)	2
Rated cooling capacity (in Watts) as per IS:1391 (Part 2)	$5201 \leq 7000$
Technology of air conditioner	Inverter AC - Variable Speed
ISEER (Wh/Wh) values for compliance of Green AC	Not applicable for Non Green AC
Rated voltage (in Volts)	230 V, 1 Phase, 50 Hz, AC
Split Air Conditioner	Conforming to IS:1391 (Part 2) latest
Unit Mounting Arrangement	Indoor Unit - Wall Mount type
Availability of BIS/ISI Mark certification	Yes

Air Conditioner Compliance	AC
BEE Star rating of the product (in Nos) (Central Ministries/ Departments while procuring shall ensure that the items carry 3 star or above (under normal conditions where annual usages is expected to be more than 1000 hrs),3 Star (where usage is Limited)	3 or above
BEE star rating plan	as per Gazette Notification No. S.O. 3897 (E) dated. 29th October 2019 and as per BEE Notification dated 19th April 2022
Eco-friendly Refrigerant	Yes
Refrigerant designation	R 32
Refrigerant Global warming potential (GWP)	675 (for R32)
Refrigerant Ozone Depletion Potential is Zero	No
Classification by function	Cooling only (Cooling and dehumidification during cooling mode)
Heating capacity (in Watts)	Not applicable for Cooling only (Cooling and dehumidification during cooling mode)
Unit type	Single split (Single Indoor and Single outdoor)
Compressor Type	Dual / twin Rotary Type
Additional requirement	Not applicable
Material of Evaporator	Copper
Material of Condenser	Copper
Material of Air Filter (on indoor unit)	Synthetic Fiber
Reusable air filter	Yes
AC Modes	Turbo Mode,DehumidificationMode,Power Saving Mode,Auto Clean Mode,Self DiagnosisMode,QuietMode,DryMode,Ecosaving,Convertible for energy consumption,Swing,Timer,Smart diagnosis
Remote Control Features	Timer,Fan speed control,On/OFF
Additional Features	Anti BacteriaFilter,Sleepmode,AutoOff,AutoRestart,Indoor Temperature Indicator,DustFilter,Auto Air Swing,Refrigerant Leakage Detector,Works Even at 52 degree C ambient,4-way Auto Air Swing,Automotive Grade Coating on outdoor unit,Refrigerant Low error (CH38)
Noise level	As per IS:1391 (Part 2) latest
Environmental Friendly Paint	Yes (Paint does not contain heavy metals or their compounds include mercury (Hg), lead (Pb), cadmium (Cd) and hexavalent chromium (Cr)
Recycled Plastic Components	>80% by weight of total plastic components in product
Marking on the Split AC	as per Cl.17.1.1 and as per Cl.17.1.2 of IS:1391 (part 2)
Mode of packing	Packed with Biodegradable Material
Supply cord and the interconnecting cord between the indoor and outdoor unit	3 m (PVC Insulated sheathed cables as per IS:694)
Accessories / Installation kit with each split air conditioner	3 m Cu connecting pipe (for Wall Mount type up to 2 Ton),Remote control,2 nos.of battery for each remote, OperatingManual,Installation Manual
AC Machine warranty (in Years)	3

Warranty on compressor (in Years)	10 (for Inverter AC) upto including 2 Ton capacity
Environmental Management Certification	ISO: 14000
Agreed to furnish all the test reports and certificates to buyer on demand	Yes

Preferred Brand: LG/Daikin/Voltas or equivalent brand

## 6. Technical Specification for NAS storage

Parameter	Technical Specification
Storage Quality Certification	The Storage OEM should be established in the Gartner Leader Quadrant
Storage Controller	The Storage system should a unified system supporting all Block and File protocols scaling to at least 8controllers in the same cluster in active-active configuration. The Storage system offered must be a true unified and scale-out system offering NAS (file) , SAN (block) and object workloads. The Storage supplied should be an appliance with a Single Microcode offering all protocols and should not be based on server based General Purpose Filesystems or Operating systems such as Linux, Windows etc.
Cache required	The unified system should have minimum 64 GB data cache post protection overheads across supplied controllers with an ability to protect data on cache if there is a controller failure or power outage. Cache should be protected for Writes either through a battery backup or by destaging to flash/disk.
Drive Support	The unified system must support intermixing of SSD, SAS and SATA drives to meet the capacity and performance requirements of the applications. The system must support a minimum of 140disks in a dual controller architecture and maximum of 570 disks in a scale-out-architecture.
Protocols	The storage should a true unified storage configured with iSCSI, FC, FCOE, NFS(NFSv3,NFSv4, NFSv4.1) SMB(,SMB2 & SMB3) and pNFS protocols for use with different applications and should support the maximum capacity offered by the storage system. Any hardware/software required for this functionality shall be supplied along with it in No Single Point Of Failure mode.
RAID configuration	Should support RAID 6 or equivalent
High Availability	The unified storage system must be configured to continuously serve data in event of any controller failure. In addition to this, it must also be possible to withstand failure of any 2 or 3 disks per RAID-Group of size not more than 28 disks. In Event, architecture uses a single pool instead of multiple RAID Groups, system should be resilient against failure of three drives for every 28 drives used in the pool
Storage Capacity	Storage must supplied with 30TB usable capacity on highest available NL- SAS Disk with appropriate RAID Group
Front-End and Backend connectivity	The proposed unified storage system should have minimum 4 x 10GigE Copper Ports for host connectivity per controller/node. Single controller/node of storage system should offer 40 Gbps of aggregate bandwidth for disk drive connectivity.
Rack Mountable	The unified storage should be supplied with rack mount kit. All the necessary patch cords (Ethernet and Fiber) shall be provided.
Storage Scalability and Upgradability	<ol style="list-style-type: none"> <li>1. The unified proposed system should be field upgradeable to a higher model through data-in-place upgrades.</li> <li>2. The unified Storage should be a true scale-out architecture allowing mixing of Controller/Nodes within same product line with higher configurations.</li> <li>3. Unified Storage system should allow re-usage of Disk Shelves with higher models of the same product line.</li> </ol>
Storage functionality	The unified storage shall have the ability to expand LUNS/Volumes on the storage online and instantly.

	<p>The unified storage shall have the ability to create logical volumes without physical capacity being available or in other words system should allow over-provisioning of the capacity. The license required for the same shall be supplied for the maximum supported capacity of the offered storage model.</p> <p>The unified storage should be configured with Quality of Service feature for IOPs/Throughput for both Block and File.</p> <p>The unified storage shall support logical partitioning of controllers in future such that each partition appears as a separate Virtual storage in itself for both block and file.</p> <p>The storage should support data tiering with real-time movement of hot data to high performing drives. It should offer the capability to move data between one tier of drives to another tier of drives.</p> <p>The proposed unified storage system should be configured to provide data protection against two simultaneous drive failures.</p> <p>The required number hard disks for parity &amp; spares, should be provided exclusively of the usable capacity mentioned.</p> <p>Unified System should have redundant hot swappable components like controllers, disks, power supplies, fans etc.</p>
Point-in-times images	<p>The unified storage should have the requisite licenses to create point-in-time snapshots. The storage should support minimum 250 snapshots per volume/LUN. The license proposed should be for the complete supported capacity of the unified system for both block and file.</p> <p>The unified system should support instant creation of clones of active data, with near zero performance impact for both block and file.</p>
Encryption for Data At Rest	<p>The proposed storage array must support data at rest encryption offering industry standard certification/compliance. The storage array may implement data at rest encryption using self encrypting drives or controller based functionality there by not impacting performance.</p>
Management	<p>Single management, easy to use GUI based and web enabled administration interface for configuration, storage management and performance analysis tools for both block and file.</p>
Remote Support & Diagnostics	<p>Storage management should support "Call home" facility with web based self service portal providing an integrated, efficient monitoring and reporting capability and supporting data collection. Management software should provide features like:</p> <ol style="list-style-type: none"> <li>1. Automated call home feature</li> <li>2. Nonintrusive alerting</li> <li>3. Performance and Capacity reports</li> <li>4. Ongoing health check analysis</li> </ol>
OS support	<p>Support for industry-leading Operating System platforms including: LINUX , Microsoft Windows, HP-UX, SUN Solaris, IBM-AIX, etc.</p> <p>Any Multipathing software required for the solution must be supplied for unlimited host connectivity</p>
De-Duplication, Compression and Compaction	<p>Proposed unified storage should support line as well As Post Process block level data de-duplication,compression and compaction for all kinds of data (structured &amp; unstructured) on both block and file.</p>
Investment Protection	<p>1.The system should offer capability of replicating to the same operating system in the cloud for replication or migration purposes. It should also allow seamless data movement to public cloud environments without the need for any backup-recovery software or third party software. 2.The proposed system should offer capability to tier the data to either On-Prem or Cloud Object Storage. System should be configured with any software capability or license for On-Prem tiering to Object Storage from day-one.</p>
Upgrade Protection	<p>The system proposed should be latest prevailing model,and the proposed model should be supported by OEM atleast for 3 years from the date of announcement of end of sale with NBD part replacement guarantee</p>
Warranty & SLA	<p>The Hardware and software quoted should have 3 years support along with upgrade and updates.</p>



## Technical Specification for Server (Rack Server 8 core dual socket)

Parameter	Technical Specification
Form Factor	Max. 1U Rack Mounted
Configured CPU	Up to two Intel® Xeon® Scalable Gold Icelake processors OR equivalent AMD processor (To be populated with single processor min 8 Core 2.8 GHz clock speed, 12 MB Cache)
Memory slots	32 DDR4 DIMM slots RDIMMS & LR DIMMS supporting speeds up to 3200MT/s. System should support Intel Optane DC Persistent memory and scalable up to 8TB of Memory
Memory configured	128 GB 3200 Mhz memory should be offered in each server node.
Capacity Drive	Server should support atleast 24 drive bays of 2.5" SAS/SATA/SSD Drive. System should be configured with 2* 1.2TB 10K SAS Drive
RAID/HBA Controller	12Gbps SAS RAID controller with 4GB Cache supporting RAID 0,1, 5, 6,10, 50, 60 supporting capacity drives configured in system.
I/O slots	Atleast 2 * PCIe Gen3 Slots.
FC HBA	Dual port 16G FC
Ethernet ports	Min 2 x 10G BaseT
Certification and Compliance	Microsoft Windows Server, Hyper-V, VMWare, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), Cent OS
Power Supply	Platinum rated redundant Power Supply
Management Integration	Support for integration with Microsoft System Center and PowerShell toolkit
Power & temperature	Integrated diagnostics and Power monitoring and reporting, Dynamic Power capping.
Configuration & Management	<ul style="list-style-type: none"> <li>* System should support multiple management interface like Web UI, CLI and XML API. Management solution should be able to manage different form factor hardware and providesingle console.</li> <li>*Real-time out-of-band hardware performance monitoring &amp; alerting.</li> <li>*Remote Power On, Off and reset from Web UI, XML API and KVM.</li> <li>*The management tool should be able to provide global resource pooling and policy management to enable policy based automation and capacity planning</li> <li>*Zero-touch repository manager and self-updating firmware system, Automated hardware configuration and Operating System deployment to multiple servers</li> <li>*Virtual IO management / stateless computing</li> <li>*The server should support industry standard management protocols like IPMI v2 and SNMP v3 and Redfish v1.01</li> <li>* Console record and play, Virtual Media, LDAP &amp; HTML5 remote control.</li> <li>*The management software should participate in server provisioning, device discovery, inventory, diagnostics, monitoring, fault detection, auditing, and statistics collection.</li> <li>*Server management system should provide an alert in case the system is not part of OEM Hardware Compatibility list &amp; should provide anti counterfeit.</li> <li>*The proposed management solution should provide proactive security &amp; software advisory alerts and should outline the fixes required to address the issues.</li> <li>*The proposed management solution should analyze current configurations &amp; identify potential issues due to driver &amp; firmware incompatibility</li> <li>*The proposed management solution should provide policy control to prevent drift of serverconfigurations.</li> </ul> <p>*The proposed solution should have customizable dashboard to show overall faults / health / inventory for all managed infrastructure. With option to create unique dashboards for individual users. The user should have flexibility to select names for dashboards and widgets (ex: health, utilization etc.)</p>

Server Node Security	Should have a cyber resilient architecture for a hardened server design for protection, detection & recovery from cyber-attacks Should protect against firmware which executes before the OS boots  <ul style="list-style-type: none"> <li>- Hardware based Root of Trust</li> <li>- Signed firmware updates</li> <li>- Secure default passwords</li> <li>- Secure alerting</li> <li>- Automatic BIOS recovery</li> <li>- Rapid OS recovery</li> <li>- Chassis Intrusion Detection</li> <li>- System Lockdown</li> <li>- System Drift Detection</li> <li>- Configuration upgrades should be only with cryptographically signed firmware and software</li> </ul>
IPV 6 compliance	The Hardware should be IPV 6 Compliant ready
Operating System	Windows Server latest Edition
Warranty	3 years On-site warranty

Preferred Brand: HP/DELL/CISCO or equivalent

## 7. Technical Specification for Network Switch, Rack, Cables and I/O BoxSwitch

Parameter	Technical Specification
1000Base-T Interface	24
Auto MDI/MDIX	Yes
Switching Capacity	48Gbps
Max. Packet Forwarding Rate	35.712 Mpps
Store & Forwarding Forwarding	Yes
Dimension	282.2 x 178 x 44.5 mm (11.11 in. x 7.01 in. x 1.75 in.)
Weight	1.14 kgs
Operation Temperature	0 ~ 40 °C
Storage Temperature	- 40 ~ 70 °C
Operation Humidity	10% ~ 90% RH
Maximum Power Consumption	13.5 watts
Standby Power Consumption	6.5 watts
Maximum Heat Dissipation	46.035 BTU/h
MTBF	247,291 hours
Power Input	AC : 100 ~ 240 V
Packet Buffer Size	512KBytes
FAN	Fanless
Comply with RoHS 6	Yes
Energy Efficiency Ethernet (EEE)	Yes
Power Saving By Link Status	Yes
Power Saving By Cable Length	Yes
MAC Address Table Size	16000
802.3x Flow Control	Yes
Head-of-line (HOL) Blocking Prevention	Yes

Jumbo Frame	9,216 Bytes
Switch intelligence	Unmanaged
Port count	1000Base-T Interface x 24,120G CXP Interface
120G CXP Interface	Yes
Storage Humidity	5% ~ 95% RH
Acoustic	0 dB
1000Base-T Interface	24
120G CXP Interface	Yes
Auto MDI/MDIX	Yes
Switching Capacity	48Gbps
Max. Packet Forwarding Rate	35.712 Mpps
Store & Forwarding Forwarding	Yes
Dimension	282.2 x 178 x 44.5 mm (11.11 in. x 7.01 in. x 1.75 in.)
Weight	1.14 kgs
Operation Temperature	0 ~ 40 °C
Storage Temperature	- 40 ~ 70 °C
Storage Humidity	5% ~ 95% RH
Operation Humidity	10% ~ 90% RH
Maximum Power Consumption	13.5 watts
Standby Power Consumption	6.5 watts
Maximum Heat Dissipation	46.035 BTU/h
Acoustic	0 dB
MTBF	247,291 hours
Power Input	AC 100V-240V
Packet Buffer Size	512KBytes
FAN	Fanless
Comply with RoHS 6	Yes
Energy Efficiency Ethernet (EEE)	Yes
Power Saving By Link Status	Yes
Power Saving By Cable Length	Yes
MAC Address Table Size	16000
802.3x Flow Control	Yes
Head-of-line (HOL) Blocking Prevention	Yes
Jumbo Frame	9,216 Bytes

Preferred brand: DLink or equivalent

## Server Rack

Specifications	Details
Type of Server Racks	Rack Enclosures
Size of Server Rack Enclosure	42U
Depth of the Rack (mm)	Upto 1000
Mount Type	Free-Standing
Front glass Door	Yes

Type of glass used in front door	Transparent Toughened Glass
Material used for rear door	SPCC Quality Cold Rolled Steel Metal
Both rear and front doors with Perforation	No
Side Panels With Key Locks and Slam Latch	Yes
Secure Locks	Available
Rear split door design	No
Keyboard Tray Sliding and Rotary	No
Shelf For CRT/TFT Display	No
Cable channel in rear side for cable management	Yes
Support cable entry from top or bottom	Yes
Vertical & Horizontal managers	Yes
Numbers of Rack trays	0
Number of Fan For Heat dissipation (nos)	8
Number of fan trays	2
Heavy Duty Caster Wheels	Yes
If yes, then Front Break Options	Available
Load Bearing Capacity (Kgs)	500 kilogram
If Wall mount racks then ,Swing-Out Racks	NA
Dust or water resistant	No
PDU Power Strips	Available
Weight (Kg)	85.3 kilogram
Warranty (Years)	3

Preferred brand: DLink or equivalent

### Cat Cables

Parameter	Technical Specification
Category	: 6 UTP Solid cable
Conductor Meta	: Conductor Meta : Bare Copper
OD	: 6.1mm ±0.2
Capacitance Unbalance	: 330pF/100m
Conductor	: Conductor : 23 AWG (Solid)
Insulation Material	: HD-PE
Resistance Unbalance	: 5% Max
Delay Skew	: <45nS

Preferred brand: DLink or equivalent

## 8. Specification for electrical wiring etc.

Parameter	Technical Specification
Scope	Supply, install, testing, commissioning and maintenance of electrical cabling for supplying power to run installed devices.
Skilled Manpower	Electrical Cabling shall be laid by skilled and experienced workmen using adequate equipments to minimize stretching of the cable.
Cable Terminations	All terminations should be carried out according to the manufacturer's instructions and guidelines and standards of generic cabling systems. When terminating outlets, care must be taken for safety.
Testing & Documentation	Testing of each node should be done as per manufacturer standards and the final report should be submitted.
Specifications	Point wiring using ISI approved PVC Conduit / Casing Capping, 1.1 KV grade 2.5 square meter FRLS Cu flexible wire including supply of wire, switch, socket and GI Box. Including all necessary hardware & accessories complete, material and labor as per requirement.
UPS & Generator Set Cabling	Electrical Cabling for all the electrical equipment from main input and Generator set to UPS Including change-over MCB and all other accessories as per requirement.

## 9. Specification for CCTV camera with backup system

Indoor network camera (2 MP), 1080P H.264 IP Camera, 25/30 fps @ 1080p (1920 x 1080) H.264 and MJPEG dual stream, True Day/Night capability with IR-cut filter, 2.8 -12 mm vari-focal lens, Supports Internet Explorer and Chrome, Supports central management software and mobile app. Approved Make: Sony, Honeywell, Samsung or equivalent. One 16 port gigabit switch with 2 port uplink with 1 SFP port. Network Video Recorder, Video Management Software.

## 10. Specification for Smartboard

Parameter	Technical Specification
Screen Size	65
Viewable Area (in.)	65
Light Source	LED
Resolution	3840 x 2160
Refresh Rate (Hz)	60
Aspect Ratio	16:09
Static Contrast Ratio	1,200:1
Backlight Life (Hours)	50,000
Brightness	350 cd/m2
Response Time (Typical GTG)	8ms
Viewing Angles	178° horizontal, 178° vertical
Panel Surface	9H
Ethernet LAN	10/100/1000 Mbps
OS	ViewBoard OS (embedded Android 7)
GPU	ARM Mali450 Quad Core

CPU	ARM Dual Core Cortex A73
CPU Processor Speed	1.2GHz
Memory	2GB
Storage	16GB
Built-in Software	myViewBoard, Chromium browser, Zoom, ViewBoard Cast
Internal Speakers	10W (x2)
Subwoofer	15W (x1)
HDMI 2.0 In	3
VGA	1
Composite RCA	1
3.5mm Audio In	1
3.5mm Audio Out	1
SPDIF Audio Out	1
USB 3.0	2
USB 2.0	4
Slot-in PC Slot	1
USB B Touch Port	2
RS 232	1
Ethernet LAN (RJ45)	1
WIFI Module Slot	1
Voltage	100-240 VAC
Consumption (max)	350W
Consumption (typical)	104W
Stand-by	<.5W
On Screen Display	Input, Volume, Backlight, Audio, Screen, Display, Adjust
Remote Control	Volume, Channel, Source, Mute, Back, Input, Menu
Temperature	32-104° F (0 - 40° C)
Humidity (non-condensing)	10-90%
Touch Technology	Infrared
Touch Points	20-Point Touch
Tip Detection	Dual tips, 3mm and 8mm
Net (lbs)	88.9
Gross (lbs)	102.6
Net (kg)	40
Gross (kg)	47
Packaging (in.)	65.7 x 39.8 x 8.8
Physical (in.)	58.6 x 35.3 x 3.5
Packaging (mm)	1669.0 x 1010.0 x 223.0
Physical (mm)	1488.0 x 897.0 x 90.0
VESA Compatible	600 x 400 mm
Camera Mounting Bracket	1
Warranty	3-year warranty on parts, labor and backlight, onsite warranty
Recycle/Disposal	Please dispose of in accordance with local, state or federal laws.
PACKAGE CONTENTS	IFP6550 display, stylus pen x 2, power cable, HDMI cable, USB cable, AV cable, remote control with batteries, Camera plate, M8 screw x 8, Quick Start Guide

Regulations	cTUVus, FCC, ENERGY STAR, Mexico Energy, CE, CB, RoHS, ErP, WEEE
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Preferred Brand: ViewSonic/EdTech or Equivalent

### 11. Computer Table and Chairs

Computer table of size – 700 mm (L) x 400 mm (W) x 750 mm (H) mm having one pull out keyboard tray on telescopic channel for smooth movement & one storage shelf below top for keeping accessories.

Ergonomic height adjustable revolving Computer Chair with Height adjustable armrest.  
Preferred brand Godrej/Durain/Methodex or equivalent

### 12. Specification for DIGITAL WIRED AUDIO CONFERENCE SYSTEM

Parameter	Specifications
Microphone Type	Electret capacitive
Microphone directionality	Cardioid directionality
Frequency response	80Hz~16kHz
Microphone input impedance	1k $\Omega$
Sensitivity	-36 $\pm$ 1.5dB(0dB=1V/Pa, at 1 KHz.
Maximum SPL	120Db (THD>3%) or better
SNR	>80Db(A) or better
Crosstalk	>70dB
Dynamic Range	>80dB
THD	<01%
Maximum power consumption	2 W
LED indicator for Mute/Unmute	Supported
Inter Connectivity	Digital Loop-in/Loop-out

### CENTRAL CONFERENCE SYSTEM CONTROLLER

Parameter	Specifications
Microphone Capacity	Minimum 60 unit
Number of Channels	16CH
Frequency response	20Hz~20KHz
SNR	>85Db(A)
Dynamic Range	>80dB
Total Harmonic Distortion	<0.05%
Audio input	LINE IN x 2
Audio Output	LINE OUTPUT x 2
Output Load	>1k $\Omega$
LAN interface	1x RJ45
Recording	USB x 1
Amplifier Output	2x25W/4 $\Omega$
Control Port	RS232, RJ45
PTZ Camera Control	Shall supported.
Interconnecting cables, Speaker Cables, Conference cable etc.	lot

Preferred Brand: Ahuja/Bosch/Televic or Equivalent

### 13. Aluminum Partitioning (03) with sliding door, dismantling of existing false ceiling and new False ceiling work (Area approx. 1400 Sq feet), Lighting and ceiling fan installation,

Dismantling of iron racks (34). All items of reputed brands need to be used for false ceiling and lighting. Ceiling fan needs to be with ISI mark and reputed brand.

#### 14. Specification for Earthing

G.I. Pipe of 60 mm diameter with a sole plate to be laid vertically down inside the ground to depth of 3.5 meter. To the G.I. Pipe four copper plates are fitted at the bottom inside the earth. The Copper plate is of One-meter Square. G.I. Pipe is fitted to copper plates by means of brass bolts & nuts of 9.4 mm X 50 mm and with spring Washers & Plate washer. The trench is fitted with fine ash to a height of One meter, then Salt to a height of One meter, followed by Saw Dust to a height of One meter. Thus the G.I. Pipe is buried inside, to a depth of three meters & only 0.5 meter is kept above ground level. From this portion connection is made to equipment Earth Strip as desired. Copper plate .5-meter square 3 mm thick, sole plate 60 Sq. mm, 6 mm thick GI wire-to-wire earthing system connection should be made with compression connectors or otherwise weld connection.

**Earth resistance measured must be less than 2 Ohm**

S.N.	Materials	QTY.
	<b>Copper Plate Earthing</b>	
1.	300mm x 300mm x 4mm Thick Copper Plate (Not less than 95% copper purity)	15 Kg (1 in Nos)
2.	25mm x 3mm Thick Copper Strip (Not less than 95% copper purity)	12 ft/ 6 Kg
3.	Charcoal	200 Kg
4.	Salt	40 Kg
5.	(150 x 100 x 6mm Thick Terminal Plate Copper	2 Nos (0.900 Kg) each
6.	Sundries such as Brass, Nut bolts, Porcelain, Insulator, Thimbles, I/Tape etc.	As per requirement
7.	40mm Dia B-Class GI Pipe for watering & Strip protection.	10 ft
8.	Supply of Soft Soil (Optional)	4 Cu.Mts.

#### 15. Replacement of existing windows with UPVC windows with vertical blind

Previously installed wooden door window with iron rod needs to be dismantled and good quality UPVC Frame needs to be installed with new grill of good quality steel and vertical blind. Preferred brand: Tata Pravesh or Equivalent

#### 16. Replacement of Wooden Doors

Entrance wooden door need to be dismantled and to be replaced with good quality flush door make greenply/century ply or equivalent. Wood paneling to be done along the frame of the door. Door closer to be installed of reputed brand.

#### 17. Bathroom

One attached washroom to be demolished

#### 18. Water Proofing treatment of roof surface

Water Proofing treatment as per actual requirement only

#### 19. Painting

Two coats of putty followed by two coat of primer and two coat High Gloss paint. Good quality material with good brand needs to be used.

Preferred brand: Asian Paint/Berger/Nerolac or equivalent



**20. Fire Extinguisher**

4.5 Kg capacity CO<sub>2</sub> Extinguisher